

# **Powerlogics, Inc.**

**PROJECT**  
**Infrared Testing**  
**Job #13-320**

**Location**  
**Malcom Randall VA Medical Center**  
**1601 SW Archer Road**  
**Gainesville, FL 32608**

**Report Prepared by:**

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Customer Powerlogics, Inc.

User Malcom Randall VA Hospital

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# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 1  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION 1-B POSITION TX-MSGR-B

MANUFACTURER Square D SERIAL NUMBER 17607111  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 7/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @ 12.47 kV TO N/A kV = N/A mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Acceptable	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Acceptable	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
CUBICLE	<input checked="" type="checkbox"/>	Acceptable	
RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
SHUTTER	<input checked="" type="checkbox"/>	Acceptable	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Acceptable	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Acceptable	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Acceptable	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Acceptable	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Acceptable	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1  
MILLIWATT LOSS TEST VOLTAGE  kVAC HIGH POTENTIAL TEST VOLTAGE 25 kVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
POLE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LOAD TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO LOAD	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	24	24	25
	20°C	24.0000	24.0000	25.0000

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00073  
END 00074

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBTO, AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 2  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/14/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION ACA Electrical Room  
SUBSTATION ACA EMDP-1 Switchboard POSITION ATS-C1

MANUFACTURER Square D SN / SO NO. N/A FRAME SIZE(F) 800  
BREAKER TYPE DS-206H SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE DigiTrip RMS CATALOG NO. LSI ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 250 A = 250 A DELAY 24  
RATING PLUG(R) 250 SHORT TIME PU        =        A DELAY        I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 300 INST. PU 12 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU        =        A ☐ ON ☒ OFF DELAY        I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 250 A = 250 A DELAY 24  
RATING PLUG(R) 250 SHORT TIME PU        =        A DELAY        I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 300 INST. PU 12 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU        =        A ☐ ON ☒ OFF DELAY        I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u>      </u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				3,000	3,000	3,000	3,000	3,000	3,000
SHORT TIME										
	STPU									
LONG TIME	750	3	62	102	78.76	78.76	78.76	78.76	78.76	78.76
	LTPU				250	250	250	250	250	250
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	10,000	10,000.00	14,000	14,000.00	10,000	10,000.00
POLE TO FRAME	4,000	4,000.00	2,000	2,000.00	6,000	6,000.00
LINE TO LOAD	536,000	536,000.0	200,000	200,000.0	320,000	320,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
36	36	38

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





CUSTOMER	Powerlogics, Inc.			PAGE	3
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	12/14/2013	AMBIENT TEMPERATURE	70 °F	HUMIDITY	55 %
				EQPT. LOCATION	ACA Electrical Room
SUBSTATION	ACA EMDP-1 Switchboard			POSITION	ATS-EQ1

MANUFACTURER	Square D	SN / SO NO.	N/A	FRAME SIZE(F)	800
BREAKER TYPE	DS-206H	SENSOR TAPS	800	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input checked="" type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	DigiTrip RMS	CATALOG NO.	LSI	ZONE INTLK	<input type="checkbox"/> TARGETS <input checked="" type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	☑	Good	
CONTACT FINGERS	☑	Good	
LOADING AND ARCING CONTACTS	☑	Good	
OVERCURRENT DEV. BATTERY	☑	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY 15  
 RATING PLUG(R) 300 SHORT TIME PU          =          A DELAY          I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
 SENSOR TAP 400 INST. PU 12 = 3600 A ☒ ON ☐ OFF  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	300	LONG TIME PU	1	x	300	A =	300	A	DELAY	15				
SENSOR TAP	400	SHORT TIME PU		=		A			DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	12	=	3600	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU		=		A	<input type="radio"/> ON <input checked="" type="radio"/> OFF	DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A	

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3600	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				3,600	3,600	3,600	3,600	3,600	3,600
SHORT TIME										
	STPU									
LONG TIME	900	3	40.00	60.00	52.42	52.42	52.42	52.42	52.42	52.42
	LTPU				300	300	300	300	300	300
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	3,500	3,500.00	3,100	3,100.00	4,600	4,600.00
POLE TO FRAME	4,400	4,400.00	2,000	2,000.00	2,000	2,000.00
LINE TO LOAD	51,000	51,000.00	48,000	48,000.00	42,000	42,000.00

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
31	31	38

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



CUSTOMER	Powerlogics, Inc.			PAGE	4
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	12/14/2013	AMBIENT TEMPERATURE	70 °F	HUMIDITY	55 %
				EQPT. LOCATION	ACA Electrical Room
SUBSTATION	ACA EMDP-1 Switchboard			POSITION	Main Breaker

MANUFACTURER	Square D	SN / SO NO.	N/A	FRAME SIZE(F)	1200
BREAKER TYPE	DS-416	SENSOR TAPS	1200	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input checked="" type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	DigiTrip RMS	CATALOG NO.	LSI	ZONE INTLK	<input type="checkbox"/> TARGETS <input checked="" type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	☑	Good	
CONTACT FINGERS	☑	Good	
LOADING AND ARCING CONTACTS	☑	Good	
OVERCURRENT DEV. BATTERY	☑	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. 0	Size		CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	1200	A =	1200	A	DELAY	4	I <sup>2</sup> T	<input type="radio"/> IN	<input checked="" type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)	<input type="text" value="1200"/>	SHORT TIME PU	<input type="text" value="6"/>	=	<input type="text" value="7200"/>	A			DELAY	<input type="text" value="0.3"/>				
SENSOR TAP	<input type="text" value="1,200"/>	INST. PU	<input type="text" value="8"/>	=	<input type="text" value="9600"/>	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	<input type="text"/>	=	<input type="text"/>	A	<input type="radio"/> ON	<input checked="" type="radio"/> OFF	DELAY	<input type="text"/>	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	1	x	1200	A =	1200	A	DELAY	4	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)	1200	SHORT TIME PU	6	=	7200	A			DELAY	0.3				
SENSOR TAP	1,200	INST. PU	8	=	9600	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU		=		A	<input type="radio"/> ON	<input checked="" type="radio"/> OFF	DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	18000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,600	9,600	9,600	9,600	9,600	9,600
SHORT TIME	7200	1	0.20	0.36	0.305	0.305	0.305	0.305	0.305	0.305
	STPU				7,200	7,200	7,200	7,200	7,200	7,200
LONG TIME	3600	3	10.6	16.4	13.04	13.04	13.04	13.04	13.04	13.04
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	250,000	250,000.0	380,000	380,000.0	100,000	100,000.0
POLE TO FRAME	106,000	106,000.0	218,000	218,000.0	50,000	50,000.00
LINE TO LOAD	530,000	530,000.0	200,000	200,000.0	320,000	320,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
168	36	32

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 5  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/13/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower EM Electrical Room  
SUBSTATION Bed Tower EM Switchboard POSITION ATS-CR

MANUFACTURER Square D SN / SO NO. 17215780 FRAME SIZE(F) 800  
BREAKER TYPE NW08N SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 5.0 CATALOG NO. LSI ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 20  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 20  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	9000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,000	9,000	9,000	9,000	9,000	9,000
SHORT TIME	3600	1	.04	0.16	0.097	0.097	0.097	0.097	0.097	0.097
	STPU				3,600	3,600	3,600	3,600	3,600	3,600
LONG TIME	1800	3	23.10	45.28	38.41	38.41	38.41	38.41	38.41	38.41
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	477,000	477,000.0	455,000	455,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
11	12	14

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 6  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/13/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower EM Electrical Room  
SUBSTATION Bed Tower EM Switchboard POSITION ATS-EQ

MANUFACTURER Square D SN / SO NO. 17215750 FRAME SIZE(F) 800  
BREAKER TYPE NW08N SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 5.0 CATALOG NO. LSIG ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 12  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 12  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	9000	1			0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,000	9,000	9,000	9,000	9,000	9,000
SHORT TIME	3600	1			0.081	0.081	0.081	0.081	0.081	0.081
	STPU				3,600	3,600	3,600	3,600	3,600	3,600
LONG TIME	1800	3			38.45	38.45	37.56	37.56	37.25	37.25
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	950,000	950,000.0	950,000	950,000.0	950,000	950,000.0
POLE TO FRAME						
LINE TO LOAD	980,000	980,000.0	980,000	980,000.0	980,000	980,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
12	13	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 7  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/13/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower EM Electrical Room  
SUBSTATION Bed Tower EM Switchboard POSITION ATS-LS

MANUFACTURER Square D SN / SO NO. 17215770 FRAME SIZE(F) 800  
BREAKER TYPE NW08N SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 5.0 CATALOG NO. LSIG ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	9000	1			0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,000	9,000	9,000	9,000	9,000	9,000
SHORT TIME	3600	1			0.097	0.097	0.097	0.097	0.097	0.097
	STPU				3,600	3,600	3,600	3,600	3,600	3,600
LONG TIME	1800	3			87.80	87.80	87.80	87.80	87.80	87.80
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	477,000	477,000.0	455,000	455,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
10	10	10

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 8  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/14/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower EM Electrical Room  
SUBSTATION Bed Tower EM Switchboard POSITION Main Breaker

MANUFACTURER Square D SN / SO NO. 17215740 FRAME SIZE(F) 1200  
BREAKER TYPE NW08N SENSOR TAPS 1200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 5.0 CATALOG NO. LSI ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 1200 A = 1200 A DELAY 12  
RATING PLUG(R) 1200 SHORT TIME PU 6 = 7200 A DELAY 0.3 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 1200 A = 1200 A DELAY 12  
RATING PLUG(R) 1200 SHORT TIME PU 6 = 7200 A DELAY 0.3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	18000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				18,000	18,000	18,000	18,000	18,000	18,000
SHORT TIME	7200	1	0.20	0.36	0.285	0.285	0.285	0.285	0.285	0.285
	STPU				7,200	7,200	7,200	7,200	7,200	7,200
LONG TIME	3600	3	33.10	55.28	42.66	42.66	42.66	42.66	42.66	42.66
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	477,000	477,000.0	455,000	455,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
11	12	14

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 9  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/13/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower EM Electrical Room  
SUBSTATION Bed Tower EM Switchboard POSITION Spare

MANUFACTURER Square D SN / SO NO. 17215760 FRAME SIZE(F) 800  
BREAKER TYPE NW08N SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 5.0 CATALOG NO. LSIG ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☒ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	9000	1			0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,000	9,000	9,000	9,000	9,000	9,000
SHORT TIME	3600	1			0.097	0.097	0.097	0.097	0.097	0.097
	STPU				3,600	3,600	3,600	3,600	3,600	3,600
LONG TIME	1800	3			87.80	87.80	87.80	87.80	87.80	87.80
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	477,000	477,000.0	455,000	455,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
10	10	10

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 10  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION DP-2

MANUFACTURER Square D SN / SO NO. 085132952301 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 8  
RATING PLUG(R) 600 SHORT TIME PU 4 = 2400 A DELAY 0.1 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I²T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 8  
RATING PLUG(R) 600 SHORT TIME PU 4 = 2400 A DELAY 0.1 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I²T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	9000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,120	9,120	9,230	9,230	9,185	9,185
SHORT TIME	3600	1.5	1.15	1.23	1.102	1.102	1.112	1.112	1.107	1.107
	STPU				2,400	2,400	2,400	2,400	2,400	2,400
LONG TIME	1800	3	6.57	7.85	7.063	7.063	7.097	7.097	7.257	7.257
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	720	1.5	0.175	0.215	0.190	0.190	0.190	0.190	0.190	0.190
	GFPU				480	480	480	480	480	480

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
11	11	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 11  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION DP-3

MANUFACTURER Square D SN / SO NO. 085132952304 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 8  
RATING PLUG(R) 600 SHORT TIME PU 4 = 2400 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 8  
RATING PLUG(R) 600 SHORT TIME PU 4 = 2400 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	9000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				9,120	9,120	9,230	9,230	9,185	9,185
SHORT TIME	3600	1.5	1.15	1.23	1.102	1.102	1.112	1.112	1.107	1.107
	STPU				2,400	2,400	2,400	2,400	2,400	2,400
LONG TIME	1800	3	6.57	7.85	7.063	7.063	7.097	7.097	7.257	7.257
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	720	1.5	0.135	0.225	0.197	0.197	0.197	0.197	0.197	0.197
	GFPU				480	480	480	480	480	480

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
11	11	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 12  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION H11

MANUFACTURER Square D SN / SO NO. 085132952601 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 0.4 x 100 A = 40 A DELAY 1  
RATING PLUG(R) 100 SHORT TIME PU 10 = 400 A DELAY 0.4 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 10 = 1000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 80 A ☒ ON ☐ OFF DELAY 0.2 I²T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 0.4 x 100 A = 40 A DELAY 1  
RATING PLUG(R) 100 SHORT TIME PU 10 = 400 A DELAY 0.4 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 10 = 1000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 80 A ☒ ON ☐ OFF DELAY 0.2 I²T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	200	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				239	239	253	253	235	235
SHORT TIME	600	1.5	.04	0.16	0.355	0.355	0.355	0.355	0.355	0.355
	STPU				400	400	400	400	400	400
LONG TIME	120	3	23.10	45.28	2.78	2.78	3.163	3.163	3.440	3.440
	LTPU				40	40	40	40	40	40
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	1.5	0.025	0.075	0.054	0.054	0.055	0.055	0.053	0.053
	GFPU				80	80	80	80	80	80

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
11	11	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 13  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/5/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION Main

MANUFACTURER Square D SN / SO NO. 085132952502 FRAME SIZE(F) 3200  
BREAKER TYPE NW32H1 SENSOR TAPS 3200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 3000 A = 3000 A DELAY 2  
RATING PLUG(R) 3000 SHORT TIME PU 2.5 = 7500 A DELAY 0.3 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU 8 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU j = 1200 A ☒ ON ☐ OFF DELAY 0.4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 3000 A = 3000 A DELAY 2  
RATING PLUG(R) 3000 SHORT TIME PU 2.5 = 7500 A DELAY 0.3 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU 8 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU j = 1200 A ☒ ON ☐ OFF DELAY 0.4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	30000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				24,000	24,000	24,000	24,000	24,000	24,000
SHORT TIME	16500	1.5	0.18	0.280	0.265	0.265	0.265	0.265	0.265	0.265
	STPU				7,500	7,500	7,500	7,500	7,500	7,500
LONG TIME	7000	2.25	3.00	3.85	13.365	13.365	13.365	13.365	13.365	13.365
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1800	1.5	0.30	0.42	0.399	0.399	0.399	0.399	0.399	0.399
	GFPU				1,200	1,200	1,200	1,200	1,200	1,200

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
17	17	18

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Tested @ 0.5, LTD Tested @1, GFD Tested @ .2

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 14  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION Main Disconnect North Feeder

## FUSE DATA

MANUFACTURER Square D TYPE  HOLDER Clip MAX. AMPS 600  
REFILL ELEMENT TYPE  SIZE 100E CAT. NO. 1756XM5JD1005 TCC NO.  VOLTAGE  kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-25279545-413  
VOLTAGE 15,000 TYPE  AMPERES 600 INTERRUPTING RATING 18 kA  
TYPE OPERATING MECHANISM Mechanical AGE  B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 18 kA OTHER NAMEPLATE DATA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Excellent	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Excellent	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Excellent	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Excellent	
CUBICLE	<input checked="" type="checkbox"/>	Excellent	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Excellent	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Excellent	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
POLE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LOAD TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO LOAD	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

		POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS	RDG.	45	54	54
	20°C	45.00	54.00	54.00
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, DLRO

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 15  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION Main Disconnect South Feeder

## FUSE DATA

MANUFACTURER Square D TYPE          HOLDER Clip MAX. AMPS 600  
REFILL ELEMENT TYPE          SIZE 100E CAT. NO. 1756XM5JD1005 TCC NO.          VOLTAGE          kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-25279545-413  
VOLTAGE 15,000 TYPE          AMPERES 600 INTERRUPTING RATING 18 kA  
TYPE OPERATING MECHANISM Mechanical AGE          B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 18 kA OTHER NAMEPLATE DATA         

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Excellent	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Excellent	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Excellent	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Excellent	
CUBICLE	<input checked="" type="checkbox"/>	Excellent	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Excellent	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Excellent	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
POLE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LOAD TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO LOAD	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

		POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS	RDG.	57	55	56
	20°C	57.00	55.00	56.00
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, DLRO

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



CUSTOMER	Powerlogics, Inc.			PAGE	16
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/3/2014	AMBIENT TEMPERATURE	70 °F	HUMIDITY	55 %
				EQPT. LOCATION	Bed Tower Electrical Room
SUBSTATION	Bed Tower US-1 Switchboard			POSITION	Spare 1

MANUFACTURER	Square D	SN / SO NO.	085132952901	FRAME SIZE(F)	800
BREAKER TYPE	NW08H1	SENSOR TAPS	800	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input checked="" type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Micro-Logic 6.0A	CATALOG NO.	WA4AAR44A3CXXXXXXA	ZONE INTLK	<input type="checkbox"/> TARGETS <input checked="" type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	☑	Good	
CONTACT FINGERS	☑	Good	
LOADING AND ARCING CONTACTS	☑	Good	
OVERCURRENT DEV. BATTERY	☑	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	800	A =	800	A	DELAY	0.5				
RATING PLUG(R)	800	SHORT TIME PU	1.5	=	1200	A			DELAY	0.1	I <sup>2</sup> T	<input checked="" type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	800	INST. PU	2	=	1600	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	A	=	160	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	0.1	I <sup>2</sup> T	<input checked="" type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	1	x	800	A =	800	A	DELAY	0.5				
RATING PLUG(R)	800	SHORT TIME PU	1.5	=	1200	A			DELAY	0.1	I <sup>2</sup> T	<input checked="" type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	800	INST. PU	2	=	1600	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	A	=	160	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	0.1	I <sup>2</sup> T	<input checked="" type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				1,855	1,855	1,810	1,810	1,765	1,765
SHORT TIME	1800	1.5	.04	0.16	1.197	1.197	1.197	1.197	1.197	1.197
	STPU				1,200	1,200	1,200	1,200	1,200	1,200
LONG TIME	2400	3	23.10	45.28	1.750	1.750	1.947	1.947	1.956	1.956
	LTPU				800	800	800	800	800	800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	240	1.5	0.025	0.075	0.054	0.054	0.055	0.055	0.053	0.053
	GFPU				160	160	160	160	160	160

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
12	13	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 17  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION Spare 2

MANUFACTURER Square D SN / SO NO. 055132953001 FRAME SIZE(F) 1600  
BREAKER TYPE NW16H1 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 1600 A = 1600 A DELAY 0.5  
RATING PLUG(R) 1600 SHORT TIME PU 1.5 = 2400 A DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 2 = 3200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 500 A ☒ ON ☐ OFF DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 1600 A = 1600 A DELAY 0.5  
RATING PLUG(R) 1600 SHORT TIME PU 1.5 = 2400 A DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 2 = 3200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 500 A ☒ ON ☐ OFF DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	3200	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				3,439	3,439	3,439	3,439	3,371	3,371
SHORT TIME	3600	1.5	.04	0.16	1.197	1.197	1.197	1.197	1.197	1.197
	STPU				2,400	2,400	2,400	2,400	2,400	2,400
LONG TIME	4800	3	23.10	45.28	1.765	1.765	1.746	1.746	1.799	1.799
	LTPU				1,600	1,600	1,600	1,600	1,600	1,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	750	1.5	0.025	0.075	0.054	0.054	0.055	0.055	0.053	0.053
	GFPU				500	500	500	500	500	500

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
11	12	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 18  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 45 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION US-1

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 09 SERIAL NO. 25279545-414-01-1  
IMPEDANCE 5.78 % CAPACITY N/A GALLONS TYPE VPI CLASS AA / AA / FFA  
KVA 1,500 / 2,025 / WINDING MATERIAL COPPER TEMPERATURE RISE 80 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒  $\Delta$  ☐  $\nabla$  ☐  $\nabla$  DELTA  
SECONDARY KV 480 / 277 ☐  $\Delta$  ☒  $\nabla$  ☐  $\nabla$  WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 118,470 INSULATING MEDIUM Air  
TAP POSITION EF DF EG DG CG TANK TYPE Free Breathing  
TAP SETTING EG 12,470 VOLTS DRY TYPE ☒ CONSERVATOR ☐

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	101000	66000	348000
1.00	239000	76000	462000
10.00	676000	82000	932000
P. I.	2.82845	1.07895	2.01732

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS	
H1-H2	X0-X2
H2-H3	X0-X3
H3-H1	X0-X1

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
EG	45.018	45.094	45.098	45.083

WORKING TAP AF EG AL EG

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, MARK III TTR

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 19  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-1 Switchboard POSITION US-1 Feeder

## FUSE DATA

MANUFACTURER \_\_\_\_\_ TYPE \_\_\_\_\_ HOLDER \_\_\_\_\_ MAX. AMPS \_\_\_\_\_  
REFILL ELEMENT TYPE \_\_\_\_\_ SIZE \_\_\_\_\_ CAT. NO. \_\_\_\_\_ TCC NO. \_\_\_\_\_ VOLTAGE \_\_\_\_\_ kV

## NAMEPLATE DATA

MANUFACTURER \_\_\_\_\_ Square D SERIAL NO. \_\_\_\_\_ N/A  
VOLTAGE 15 TYPE HVL AMPERES 600 INTERRUPTING RATING 40 kA  
TYPE OPERATING MECHANISM MECH AGE 10/09 B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 40 kA OTHER NAMEPLATE DATA N/A

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Good	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE -CENTIMETERS				
MAIN CONTACT WIPE - CENTIMETERS				
MAIN CONTACT GAP - CENTIMETERS				
MAIN CONTACT TRAVEL CENTIMETERS				

		POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS	RDG.	55	61	65
	20°C	55.00	61.00	65.00
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, DLRO

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 20  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION ATS-CR

MANUFACTURER Square D SN / SO NO. 085132952302 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 20  
RATING PLUG(R) 600 SHORT TIME PU 8 = 4800 A DELAY 0.1 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 20  
RATING PLUG(R) 600 SHORT TIME PU 8 = 4800 A DELAY 0.1 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				1,335	1,335	1,357	1,357	1,335	1,335
SHORT TIME	1250	1.5	1.15	1.23	0.102	0.102	0.112	0.112	0.110	0.110
	STPU				900	900	900	900	900	900
LONG TIME	1800	3	1.15	2.00	3.681	3.681	3.681	3.681	3.649	3.649
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	720	1.5	0.025	0.075	0.055	0.055	0.053	0.053	0.068	0.068
	GFPU				480	480	480	480	480	480

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
14	12	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ 1

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 21  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION ATS-EQ

MANUFACTURER Square D SN / SO NO. 085132952902 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 12  
RATING PLUG(R) 800 SHORT TIME PU 6 = 4800 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 640 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 12  
RATING PLUG(R) 800 SHORT TIME PU 6 = 4800 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 640 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	12000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				12,165	12,165	1,212,165	12,165	12,095	12,095
SHORT TIME	1800	1.5	.04	0.16	0.120	0.120	0.114	0.114	0.120	0.120
	STPU				1,200	1,200	1,200	1,200	1,200	1,200
LONG TIME	2400	3	3.00	3.85	3.406	3.406	3.479	3.479	3.365	3.365
	LTPU				800	800	800	800	800	800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	240	1.5	0.025	0.075	0.054	0.054	0.055	0.055	0.053	0.053
	GFPU				160	160	160	160	160	160

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
15	12	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Tested @ 1

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 22  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION ATS-LS

MANUFACTURER Square D SN / SO NO. 085132952701 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 6 = 2400 A DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 320 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 6 = 2400 A DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 320 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	6000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				6,200	6,200	6,105	6,102	6,150	6,150
SHORT TIME	3600	1.5	.15	0.23	0.170	0.170	0.170	0.170	0.170	0.170
	STPU				2,400	2,400	2,400	2,400	2,400	2,400
LONG TIME	1200	3	1.15	2.00	1.714	1.714	1.704	1.704	1.838	1.838
	LTPU				400	400	400	400	400	400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	480	1.5	0.025	0.075	0.052	0.052	0.054	0.054	0.053	0.053
	GFPU				320	320	320	320	320	320

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
12	11	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay tested @ 0.5

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 23  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION DP-1

MANUFACTURER Square D SN / SO NO. 085132952401 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 0.75 x 600 A = 450 A DELAY 12  
RATING PLUG(R) 600 SHORT TIME PU 5 = 2250 A DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 0.75 x 600 A = 450 A DELAY 12  
RATING PLUG(R) 600 SHORT TIME PU 8 = 3000 A DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 480 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	9000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				13,570	13,570	13,200	13,200	13,120	13,120
SHORT TIME	3375	1.5	1.15	1.23	0.102	0.102	0.112	0.112	0.110	0.110
	STPU				2,250	2,250	2,250	2,250	2,250	2,250
LONG TIME	1800	3	1.15	2.00	3.645	3.645	3.646	3.646	3.700	3.700
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	720	1.5	0.025	0.075	0.055	0.055	0.053	0.053	0.068	0.068
	GFPU				480	480	480	480	480	480

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
12	14	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ 1

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 24  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION DP-P

MANUFACTURER Square D SN / SO NO. 085132953002 FRAME SIZE(F) 1600  
BREAKER TYPE NW16H1 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU 2.5 = 4000 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 10 = 16000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 880 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU 2.5 = 4000 A DELAY 0.1 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 10 = 16000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU G = 880 A ☒ ON ☐ OFF DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	16000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				16,570	16,570	16,200	16,200	16,120	16,120
SHORT TIME	6000	1.5	1.15	1.23	0.102	0.102	0.112	0.112	0.110	0.110
	STPU				4,000	4,000	4,000	4,000	4,000	4,000
LONG TIME	4800	3	5.95	7.00	6.496	6.496	6.715	6.715	7.173	7.173
	LTPU				1,600	1,600	1,600	1,600	1,600	1,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1320	1.5	0.025	0.075	0.122	0.122	0.122	0.122	0.122	0.122
	GFPU				880	880	880	880	880	880

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
12	12	14

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ 1

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 25  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION Main

MANUFACTURER Square D SN / SO NO. 085132952501 FRAME SIZE(F) 3200  
BREAKER TYPE NW32H1 SENSOR TAPS 3200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 3000 A = 3000 A DELAY 2  
RATING PLUG(R) 3000 SHORT TIME PU 2.5 = 7500 A DELAY 0.2 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU 8 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU j = 1200 A ☒ ON ☐ OFF DELAY 0.4 I²T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 3000 A = 3000 A DELAY 2  
RATING PLUG(R) 3000 SHORT TIME PU 2.5 = 7500 A DELAY 0.2 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU 8 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU j = 1200 A ☒ ON ☐ OFF DELAY 0.4 I²T ☐ IN ☒ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	12000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				12,165	12,165	1,212,165	12,165	12,095	12,095
SHORT TIME	1800	1.5	0.18	0.280	0.231	0.231	0.231	0.231	0.231	0.231
	STPU				7,500	7,500	7,500	7,500	7,500	7,500
LONG TIME	9000	3	3.00	3.85	6.799	6.799	7.514	7.514	7.240	7.240
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1800	1.5	0.30	0.42	0.364	0.364	0.364	0.364	0.364	0.364
	GFPU				1,200	1,200	1,200	1,200	1,200	1,200

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
17	17	18

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Tested @ 0.5, LTD Tested @1, GFD Tested @ .2

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 26  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION Main Disconnect North Feeder

## FUSE DATA

MANUFACTURER Square D TYPE          HOLDER Clip MAX. AMPS 600  
REFILL ELEMENT TYPE          SIZE 100E CAT. NO. 1756XM5JD1005 TCC NO.          VOLTAGE          kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-25279545-414  
VOLTAGE 15,000 TYPE          AMPERES 600 INTERRUPTING RATING 18 kA  
TYPE OPERATING MECHANISM Mechanical AGE          B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 18 kA OTHER NAMEPLATE DATA         

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Excellent	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Excellent	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Excellent	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Excellent	
CUBICLE	<input checked="" type="checkbox"/>	Excellent	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Excellent	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Excellent	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
POLE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LOAD TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO LOAD	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

CONTACT RESISTANCE MICRO-OHMS	RDG.	POLE 1	POLE 2	POLE 3
	20°C	72	69	71
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, DLRO

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 27  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION Main Disconnect South Feeder

## FUSE DATA

MANUFACTURER Square D TYPE          HOLDER Clip MAX. AMPS 600  
REFILL ELEMENT TYPE          SIZE 100E CAT. NO. 1756XM5JD1005 TCC NO.          VOLTAGE          kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-25279545-414  
VOLTAGE 15,000 TYPE          AMPERES 600 INTERRUPTING RATING 18 kA  
TYPE OPERATING MECHANISM Mechanical AGE          B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 18 kA OTHER NAMEPLATE DATA         

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Excellent	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Excellent	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Excellent	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Excellent	
CUBICLE	<input checked="" type="checkbox"/>	Excellent	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Excellent	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Excellent	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
POLE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LOAD TO FRAME	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0
LINE TO LOAD	1.000	1.000	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0	120,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

CONTACT RESISTANCE MICRO-OHMS	RDG.	POLE 1	POLE 2	POLE 3
	20°C	65	66	72
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, DLRO

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 28  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION Spare 3

MANUFACTURER Square D SN / SO NO. 085132952902 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 0.5  
RATING PLUG(R) 800 SHORT TIME PU 1.5 = 1200 A DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 2 = 1600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 160 A ☒ ON ☐ OFF DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 0.5  
RATING PLUG(R) 800 SHORT TIME PU 1.5 = 1200 A DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 2 = 1600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 160 A ☒ ON ☐ OFF DELAY 0.1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				1.765	1.765	1.742	1.742	1.900	1.900
SHORT TIME	1800	1.5	.15	0.23	1.197	1.197	1.197	1.197	1.197	1.197
	STPU				1.200	1.200	1.200	1.200	1.200	1.200
LONG TIME	2400	3	1.15	2.00	1.381	1.381	1.905	1.905	1.839	1.839
	LTPU				800	800	800	800	800	800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	240	1.5	0.025	0.075	0.052	0.052	0.054	0.054	0.053	0.053
	GFPU				160	160	160	160	160	160

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
11	11	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 29  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION Spare 4

MANUFACTURER Square D SN / SO NO. 085132952303 FRAME SIZE(F) 800  
BREAKER TYPE NW08H1 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 1.5 = 1200 A DELAY 0.1 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 2 = 1600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 160 A ☒ ON ☐ OFF DELAY 0.1 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 1.5 = 1200 A DELAY 0.1 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 2 = 1600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 160 A ☒ ON ☐ OFF DELAY 0.1 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				1,380	1,380	1,357	1,357	1,357	1,357
SHORT TIME	1250	1.5	1.15	1.23	1.202	1.202	1.212	1.212	1.207	1.207
	STPU				900	900	900	900	900	900
LONG TIME	1800	3	1.15	2.00	1.756	1.756	1.738	1.738	1.921	1.921
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	180	1.5	0.025	0.075	0.070	0.070	0.070	0.070	0.070	0.070
	GFPU				120	120	120	120	120	120

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
11	11	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 30  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION Tie

MANUFACTURER Square D SN / SO NO. 085132952801 FRAME SIZE(F) 3200  
BREAKER TYPE NW32H1 SENSOR TAPS 3200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☒ ON ☐ OFF  
TRIP UNIT TYPE Micro-Logic 6.0A CATALOG NO. WA4AAR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☒

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Good	
OVERCURRENT DEV. BATTERY	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 3000 A = 3000 A DELAY 4  
RATING PLUG(R) 3000 SHORT TIME PU 2.5 = 7500 A DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU 8 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU j = 1200 A ☒ ON ☐ OFF DELAY 0.4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 3000 A = 300 A DELAY 4  
RATING PLUG(R) 3000 SHORT TIME PU 2.5 = 7500 A DELAY 0.2 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU 8 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU j = 1200 A ☒ ON ☐ OFF DELAY 0.4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	12000	1	0.040	0.080	0.064	0.064	0.064	0.064	0.064	0.064
	IPU				12,165	12,165	1,212,165	12,165	12,095	12,095
SHORT TIME	1800	1.5	.04	0.16	0.231	0.231	0.231	0.231	0.231	0.231
	STPU				7,500	7,500	7,500	7,500	7,500	7,500
LONG TIME	9000	3	3.00	3.85	7.40	7.40	7.282	7.282	7.440	7.440
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1800	1.5	0.025	0.075	0.364	0.364	0.364	0.364	0.364	0.364
	GFPU				1,200	1,200	1,200	1,200	1,200	1,200

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	560,000	560,000.0	575,000	575,000.0	575,000	575,000.0
POLE TO FRAME						
LINE TO LOAD	990,000	990,000.0	980,000	980,000.0	980,000	980,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
18	20	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Tested @ 0.5, LTD Tested @1, GFD Tested @ .2

DEFICIENCIES:

EQPT. INVENTORY NO. Multi-Amp, DLRO, AEMC-5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 31  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 45 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION Bed Tower US-2 Switchboard POSITION US-2

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 09 SERIAL NO. 25279545-415-01-1  
IMPEDANCE 5.75 % CAPACITY N/A GALLONS TYPE VPI CLASS AA / AA / FFA  
KVA 1,500 / 2,025 / WINDING MATERIAL COPPER TEMPERATURE RISE 80 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒  $\Delta$  ☐  $\nabla$  ☐  $\nabla$  DELTA  
SECONDARY KV 480 / 277 ☐  $\Delta$  ☒  $\nabla$  ☐  $\nabla$  WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 118,470 INSULATING MEDIUM Air  
TAP POSITION EF DF EG DG CG TANK TYPE Free Breathing  
TAP SETTING EG 12,470 VOLTS DRY TYPE ☒ CONSERVATOR ☐

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	110000	47000	221000
1.00	143000	55000	311000
10.00	355000	72000	926000
P. I.	2.48252	1.30909	2.97749

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS	
H1-H2	X0-X2
H2-H3	X0-X3
H3-H1	X0-X1

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
EG	45.018	45.094	45.098	45.083

WORKING TAP AF EG AL EG

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, MARK III TTR

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



CUSTOMER	Powerlogics, Inc.			PAGE	32
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	EMDP-1			POSITION	ATS-C2

MANUFACTURER	Sqyare D	SN / SO NO.	6616C28G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206H	SENSOR TAPS	400	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY 24  
 RATING PLUG(R) 300 SHORT TIME PU = A  
 SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF I²T ☐ IN ☐ OUT ☐ N/A  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☐ ON ☐ OFF DELAY I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	300	LONG TIME PU	1	x	300	A =	300	A	DELAY	24	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	400	SHORT TIME PU		=		A			DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	M2=12	=	3600	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU		=		A	<input type="radio"/> ON <input type="radio"/> OFF		DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			655	655	673	673	567	567
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3			7.328	7.328	6.635	6.635	7.329	7.329
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
1,120	1,410	960

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	33
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	EMDP-1			POSITION	ATS-EQ2

MANUFACTURER	Sqyare D	SN / SO NO.	6616C28G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206H	SENSOR TAPS	400	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY 24  
 RATING PLUG(R) 300 SHORT TIME PU = A  
 SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF I²T ☐ IN ☐ OUT ☐ N/A  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☐ ON ☐ OFF DELAY I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	300	LONG TIME PU	1	x	300	A =	300	A	DELAY	24	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	400	SHORT TIME PU		=		A			DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	M2=12	=	3600	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU		=		A	<input type="radio"/> ON <input type="radio"/> OFF		DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			647	647	610	610	651	651
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3			6.979	6.979	7.327	7.327	7.327	7.327
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
920	596	900

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 34  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION EMDP-1 POSITION ATS-EQ3B

MANUFACTURER Square D SN / SO NO. 6616C28G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 300 A = 210 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU  =  A ☐ ON ☐ OFF DELAY  I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 300 A = 210 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU  =  A ☐ ON ☐ OFF DELAY  I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			810	810	624	624	685	685
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	630	3	5.2	8	7.362	7.362	7.333	7.333	7.679	7.679
	LTPU				630	630	630	630	630	630
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
399	560	610

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 35  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION EMDP-1 POSITION ATS-L51

MANUFACTURER Sqyare D SN / SO NO. 6616C28G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 100 A = 100 A DELAY 24  
RATING PLUG(R) 100 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU M2=12 = 1200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU  =  A ☐ ON ☐ OFF DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 100 A = 100 A DELAY 24  
RATING PLUG(R) 100 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU M2=12 = 1200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU  =  A ☐ ON ☐ OFF DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	200	2			289	289	243	243	271	271
	IPU				200	200	200	200	200	200
SHORT TIME										
	STPU									
LONG TIME	300	3	5.2	8	6.288	6.288	6.631	6.631	7.321	7.321
	LTPU				300	300	300	300	300	300
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
596	763	710

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	36
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	EMDP-1			POSITION	ATS-L52

MANUFACTURER	Sqyare D	SN / SO NO.	6616C28G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206H	SENSOR TAPS	200	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 100 A = 100 A DELAY 24  
 RATING PLUG(R) 100 SHORT TIME PU = A  
 SENSOR TAP 200 INST. PU M2=12 = 1200 A ☒ ON ☐ OFF I²T ☐ IN ☐ OUT ☐ N/A  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☐ ON ☐ OFF DELAY I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 100 A = 100 A DELAY 24  
 RATING PLUG(R) 100 SHORT TIME PU = A  
 SENSOR TAP 200 INST. PU M2=12 = 1200 A ☒ ON ☐ OFF  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☐ ON ☐ OFF DELAY I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	200	2			247	247	228	228	208	208
	IPU				200	200	200	200	200	200
SHORT TIME										
	STPU									
LONG TIME	300	3			7.695	7.695	5.246	5.246	6.633	6.633
	LTPU				300	300	300	300	300	300
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
1,090	12,250	1,200

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 37  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION EMDP-2 POSITION ATS-EQ3A

MANUFACTURER Square D SN / SO NO. 6616C32G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 2  
RATING PLUG(R) 1600 SHORT TIME PU 6 = 9600 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☐ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 2  
RATING PLUG(R) 1600 SHORT TIME PU 6 = 9600 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☐ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u>        </u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2400	2			3,100	3,100	2,783	2,783	3,072	3,072
	IPU				2,400	2,400	2,400	2,400	2,400	2,400
SHORT TIME	4200	3.5	.2	.340	0.304	0.304	0.304	0.304	0.304	0.304
	STPU				4,200	4,200	4,200	4,200	4,200	4,200
LONG TIME	3600	3	5.2	8	6.311	6.311	6.633	6.633	6.452	6.452
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
304	222	193

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	38
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	EMDP-2			POSITION	ATS-EQ3C

MANUFACTURER	Square D	SN / SO NO.	6616C28G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206H	SENSOR TAPS	200	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 200 A = 200 A DELAY 24  
 RATING PLUG(R) 200 SHORT TIME PU = A  
 SENSOR TAP 200 INST. PU M2=12 = 2400 A ☒ ON ☐ OFF I²T ☐ IN ☐ OUT ☐ N/A  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☐ ON ☐ OFF DELAY I²T ☐ IN ☐ OUT ☐ N/A

<b>SETTINGS AS LEFT</b>		LONG TIME PU	1	x	200	A =	200	A	DELAY	24				
RATING PLUG(R)	200	SHORT TIME PU		=		A			DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	200	INST. PU	M2=12	=	2400	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU		=		A	<input type="radio"/> ON	<input type="radio"/> OFF	DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	400	2			534	534	556	556	496	496
	IPU				400	400	400	400	400	400
SHORT TIME										
	STPU									
LONG TIME	600	3	5.2	8	7.324	7.324	7.116	7.116	6.981	6.981
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
561	402	500

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	39
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	EMDP-2			POSITION	Main

MANUFACTURER	Sqyare D	SN / SO NO.	6616C32G04	FRAME SIZE(F)	1600
BREAKER TYPE	DS416	SENSOR TAPS	1600	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	1600	A =	1600	A	DELAY	2	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)	1600	SHORT TIME PU	6	=	9600	A			DELAY	.3				
SENSOR TAP	1,600	INST. PU	6	=	9600	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU		=		A	<input type="radio"/> ON	<input type="radio"/> OFF	DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	1600	LONG TIME PU	1	x	1600	A =	1600	A	DELAY	2	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	1,600	SHORT TIME PU	6	=	9600	A			DELAY	.3				
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	6	=	9600	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU		=		A	<input type="radio"/> ON <input type="radio"/> OFF		DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3,470	3,470	3,530	3,530	3,360	3,360
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME	5600	3.5	.2	.34	0.301	0.301	0.31	0.301	0.301	0.301
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3	5.2	8	6.844	6.844	6.987	6.987	6.988	6.988
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
220	230	115

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 40  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION EMDP-2 POSITION New ATS

MANUFACTURER Square D SN / SO NO. 6616C28G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 100 A = 100 A DELAY 24  
RATING PLUG(R) 100 SHORT TIME PU          =          A DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU M2=12 = 1200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☐ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 100 A = 100 A DELAY 24  
RATING PLUG(R) 100 SHORT TIME PU          =          A DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU M2=12 = 1200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☐ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	400	2			361	361	412	412	352	352
	IPU				400	400	400	400	400	400
SHORT TIME										
	STPU									
LONG TIME	300	3	5.2	8	6.913	6.913	7.325	7.325	6.280	6.280
	LTPU				300	300	300	300	300	300
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
477	530	722

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 41  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Emergency Panel POSITION Critical Life Safety Auto Transformer

MANUFACTURER GE SN / SO NO. V37214 FRAME SIZE(F) 300  
BREAKER TYPE N/A SENSOR TAPS 300 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THJ536035G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY INT  
RATING PLUG(R) 300 SHORT TIME PU 6 = 1800 A DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 300 INST. PU 8 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .4 = 120 A ☒ ON ☐ OFF DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 300 A = 300 A DELAY INT  
RATING PLUG(R) 300 SHORT TIME PU 6 = 1800 A DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 300 INST. PU 8 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .4 = 120 A ☒ ON ☐ OFF DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	900	3			801	801	814	814	820	820
	IPU				900	900	900	900	900	900
SHORT TIME	1050	5.5			0.130	0.130	0.130	0.130	0.130	0.130
	STPU				1,050	1,050	1,050	1,050	1,050	1,050
LONG TIME	900	3			0.455	0.455	0.458	0.458	0.456	0.456
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	.4			0.109	0.109	0.109	0.109	0.109	0.109
	GFPU				120	120	120	120	120	120

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
159	163	168

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: \_\_\_\_\_  
DEFICIENCIES: \_\_\_\_\_

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	42
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/3/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	Nursing Home
SUBSTATION	Emergency Panel			POSITION	Essential Life Safety Auto Transformer

MANUFACTURER	GE	SN / SO NO.	V37209	FRAME SIZE(F)	300
BREAKER TYPE	N/A	SENSOR TAPS	200	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Versa Trip	CATALOG NO.	THJ536025G	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	200	A =	200	A	DELAY	MIN	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)		SHORT TIME PU	8	=	1600	A			DELAY	INT				
SENSOR TAP	200	INST. PU	10	=	2000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.6	=	120	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	MIN	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	1	x	200	A =	200	A	DELAY	MIN	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)		SHORT TIME PU	8	=	1600	A			DELAY	INT				
SENSOR TAP	200	INST. PU	10	=	2000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.6	=	120	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	MIN	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	400	2			507	507	490	490	473	473
	IPU				400	400	400	400	400	400
SHORT TIME	400	2			0.137	0.137	0.138	0.138	0.138	0.138
	STPU				400	400	400	400	400	400
LONG TIME	600	3			3.972	3.972	4.417	4.417	4.316	4.316
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	.6			0.105	0.105	0.105	0.105	0.105	0.105
	GFPU				120	120	120	120	120	120

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
145	176	196

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis





CUSTOMER	Powerlogics, Inc.			PAGE	43
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/3/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	Nursing Home
SUBSTATION	Emergency Panel			POSITION	Main

MANUFACTURER	GE	SN / SO NO.	V37215	FRAME SIZE(F)	300
BREAKER TYPE	N/A	SENSOR TAPS	300	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Versa Trip	CATALOG NO.	THJ536035G	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	300	A =	300	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)		SHORT TIME PU	6	=	1800	A			DELAY	MAX				
SENSOR TAP	300	INST. PU	10	=	3000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.7	=	210	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	1	x	300	A =	300	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)		SHORT TIME PU	6	=	1800	A			DELAY	MAX				
SENSOR TAP	300	INST. PU	10	=	3000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.7	=	210	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			659	659	583	583	610	610
	IPU				600	600	600	600	600	600
SHORT TIME	1050				0.137	0.137	0.129	0.129	0.130	0.130
	STPU				1.050	1.050	1.050	1.050	1.050	1.050
LONG TIME	900	3			0.427	0.427	0.425	0.425	0.420	0.420
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	210	.7								
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
166	145	197

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 44  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION EB-66  
SUBSTATION E-Wing POSITION CAT Scan

MANUFACTURER Westinghouse SN / SO NO. N/A FRAME SIZE(F) 600  
BREAKER TYPE HLD 6JK SENSOR TAPS 600 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 310 CATALOG NO. HLD3600F ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU          =          A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU 3 = 360 A ☐ ON ☐ OFF DELAY .15 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU          =          A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU 3 = 360 A ☐ ON ☐ OFF DELAY .15 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	6000	10			5.971	5.971	6.016	6.016	6.014	6.014
	IPU				5.971	5.971	6.016	6.016	6.014	6.014
SHORT TIME					0.265	0.265	0.265	0.265	0.265	0.265
	STPU				3.600	3.600	3.600	3.600	3.600	3.600
LONG TIME	1800	3			37.48	37.48	37.48	37.48	38.29	38.29
	LTPU				3.600	3.600	3.600	3.600	3.600	3.600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	540	1.5			0.121	0.121	0.121	0.121	0.121	0.121
	GFPU				360	360	360	360	360	360

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	121,000	121,000.0	175,000	175,000.0	147,000	147,000.0
POLE TO FRAME						
LINE TO LOAD	98,000	98,000.00	90,000	90,000.00	81,000	81,000.00

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
98	97	99

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 45  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION EB-66  
SUBSTATION E-Wing POSITION FPC-4

MANUFACTURER Westinghouse SN / SO NO. 63E3085 FRAME SIZE(F) 600  
BREAKER TYPE SPCB-600 SENSOR TAPS 600 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE 2607D84G10 CATALOG NO. 5667D15G04 ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 400 A = 400 A DELAY 20  
RATING PLUG(R) 400 SHORT TIME PU 4 = 1600 A DELAY 2 I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A  
SENSOR TAP 400 INST. PU 9 = 3600 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .4 = 160 A ☐ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 400 A = 400 A DELAY 20  
RATING PLUG(R) 400 SHORT TIME PU 4 = 1600 A DELAY 2 I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A  
SENSOR TAP 400 INST. PU 9 = 3600 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .4 = 160 A ☐ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3600	9			3,841	3,841	3,768	3,768	3,788	3,788
	IPU				3,841	3,841	3,768	3,768	3,788	3,788
SHORT TIME	2400	5.5			0.250	0.250	0.250	0.250	0.250	0.250
	STPU				1,600	1,600	1,600	1,600	1,600	1,600
LONG TIME	1200	3			143.5	143.5	143.5	143.5	143.5	143.5
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.015	0.015	0.015	0.015	0.015	0.015
	GFPU				160	160	160	160	160	160

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME						
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
98	89	112

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



CUSTOMER	Powerlogics, Inc.			PAGE	46
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	2/15/2014	AMBIENT TEMPERATURE	70 °F	HUMIDITY	98 %
				EQPT. LOCATION	EB-66
SUBSTATION	E-Wing			POSITION	FPE-4

MANUFACTURER	Cutler-Hammer	SN / SO NO.	N/A	FRAME SIZE(F)	600
BREAKER TYPE	Power Break	SENSOR TAPS	600	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	255P326H04B	CATALOG NO.	LCGA3600F	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 600 x 600 A = 600 A DELAY 2 I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A  
 RATING PLUG(R) 600 SHORT TIME PU 6 = 3600 A DELAY I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A  
 SENSOR TAP 600 INST. PU 6000 = 6000 A ☒ ON ☐ OFF  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU 600 = 600 A ☒ ON ☐ OFF DELAY .2 I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A

SETTINGS AS LEFT		LONG TIME PU		600		x	600		A =	600		A	DELAY	2		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input checked="" type="radio"/> N/A
RATING PLUG(R)	600	SHORT TIME PU		6		=	3600		A				DELAY						
SENSOR TAP	600	INST. PU		6000		=	6000		A	<input checked="" type="radio"/> ON <input type="radio"/> OFF									
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU		600		=	600		A	<input checked="" type="radio"/> ON <input type="radio"/> OFF		DELAY	.2			I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input checked="" type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	6000	10			5.923	5.923	6.141	6.141	5.873	5.873
	IPU				5.923	5.923	6.141	6.141	5.873	5.873
SHORT TIME	2700	4.5			0.897	0.897	0.897	0.897	0.897	0.897
	STPU				3.600	3.600	3.600	3.600	3.600	3.600
LONG TIME	1800	3			31.17	31.17	31.17	31.17	30.96	30.96
	LTPU				6.000	6.000	6.000	6.000	6.000	6.000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	900	1.5			0.240	0.240	0.240	0.240	0.240	0.240
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
122	138	156

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas





CUSTOMER	Powerlogics, Inc.			PAGE	48
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	2/15/2014	AMBIENT TEMPERATURE	70 °F	HUMIDITY	98 %
				EQPT. LOCATION	EB-66
SUBSTATION	E-Wing			POSITION	MCC-N

MANUFACTURER	Westinghouse	SN / SO NO.	N/A	FRAME SIZE(F)	600
BREAKER TYPE	SPCB-600	SENSOR TAPS	N/A	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input checked="" type="radio"/> OFF
TRIP UNIT TYPE	2607D84G30	CATALOG NO.	5667D51G04	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	400	A	=	400	A	DELAY	20				
RATING PLUG(R)	400	SHORT TIME PU	5	=		A				DELAY	4	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	400	INST. PU	N/A	=		A							<input type="radio"/> ON	<input checked="" type="radio"/> OFF	
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.5	=		A							<input checked="" type="radio"/> ON	<input type="radio"/> OFF	
										DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	1	x	400	A =	400	A	DELAY	20				
RATING PLUG(R)	400	SHORT TIME PU	5	=		A			DELAY	4	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	400	INST. PU	N/A	=		A								
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.5	=		A								
						A	<input type="radio"/> ON <input checked="" type="radio"/> OFF		DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
						A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME										
	STPU									
LONG TIME	1200	3			7.617	7.617	7.617	7.167	7.214	7.214
	LTPU				400	400	400	400	400	400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE						
POLE TO FRAME						
LINE TO LOAD						

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
210	188	173

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: I tested LT function. Had trouble reclosing breaker so I didnt test other functions.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 49  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION EB-66  
SUBSTATION E-Wing POSITION NF 2

MANUFACTURER GE SN / SO NO. N/A FRAME SIZE(F) 1200  
BREAKER TYPE Power Break SENSOR TAPS 1200 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE MicroVersa Trip CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 1200 A = 1200 A DELAY 3  
RATING PLUG(R) 1200 SHORT TIME PU 2 = 2400 A DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 3 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .3 = 366 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 1200 A = 1200 A DELAY 3  
RATING PLUG(R) 1200 SHORT TIME PU 2 = 2400 A DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 3 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .3 = 366 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1800	1.5			1,730	1,730	1,744	1,744	1,740	1,740
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME	1800	3			0.179	0.179	0.179	0.179	0.179	0.179
	STPU				2,400	2,400	2,400	2,400	2,400	2,400
LONG TIME	1800	3			10.86	10.86	10.86	10.86	10.77	10.77
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	540	1.5			0.161	0.161	0.162	0.162	0.161	0.161
	GFPU				366	366	366	366	366	366

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
47	50	41

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

LTPU was tested @ 0.5  
LTPU Delay was tested @ MIN

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 50  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION EB-66  
SUBSTATION E-Wing POSITION NF 3

MANUFACTURER GE SN / SO NO. V56954 FRAME SIZE(F) 2000  
BREAKER TYPE Power Break SENSOR TAPS 2000 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE MicroVersa Trip CATALOG NO. TPVVF620E1 ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 2000 A = 1400 A DELAY 2  
RATING PLUG(R) 2000 SHORT TIME PU 2 = 2800 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 10 = 14000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☐ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 2000 A = 1400 A DELAY 2  
RATING PLUG(R) 2000 SHORT TIME PU 2 = 2800 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 10 = 14000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU          =          A ☐ ON ☐ OFF DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2000	2			2,025	2,025	1,961	1,961	1,990	1,990
	IPU				2,000	2,000	2,000	2,000	2,000	2,000
SHORT TIME	2000	2			0.156	0.156	0.156	0.156	0.156	0.156
	STPU				2,800	2,800	2,800	2,800	2,800	2,800
LONG TIME	3000	3			11.30	11.30	11.30	11.30	11.30	11.30
	LTPU				14,000	14,000	14,000	14,000	14,000	14,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
49	53	59

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas





CUSTOMER	Powerlogics, Inc.			PAGE	51
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	2/15/2014	AMBIENT TEMPERATURE	70 °F	HUMIDITY	98 %
				EQPT. LOCATION	EB-66
SUBSTATION	E-Wing			POSITION	TS-Q Normal Power Feed

MANUFACTURER	Westinghouse	SN / SO NO.	N/A	FRAME SIZE(F)	1200
BREAKER TYPE	Power Break	SENSOR TAPS	1200	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input checked="" type="radio"/> OFF
TRIP UNIT TYPE	MicroVersa Trip	CATALOG NO.	NCG31200	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = \_\_\_\_\_ A DELAY \_\_\_\_\_ I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A

RATING PLUG(R) 1200 SHORT TIME PU \_\_\_\_\_ A \_\_\_\_\_ A DELAY \_\_\_\_\_ I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A

SENSOR TAP 1,200 INST. PU 6 = 7200 A ☐ ON ☐ OFF

GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .6 = 720 A ☒ ON ☐ OFF DELAY .2 I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	1200	LONG TIME PU	1	x	1200	A =		A	DELAY		I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input checked="" type="radio"/> N/A
SENSOR TAP	1,200	SHORT TIME PU		=		A		A	DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	6	=	7200	A	<input type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	.6	=	720	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF		DELAY	.2	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input checked="" type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	10			7,210	7,210	7,221	7,221	7,207	7,207
	IPU				7,210	7,210	7,221	7,221	7,207	7,207
SHORT TIME										
	STPU									
LONG TIME	3600				121.1	121.1	121.1	121.1	123.4	123.4
	LTPU				7,200	7,200	7,200	7,200	7,200	7,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	15,000	15,000.00	200,000	200,000.0	167,000	167,000.0
POLE TO FRAME						
LINE TO LOAD	175,000	175,000.0	200,000	200,000.0	181,000	181,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
161	171	143

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 52  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION EB-66  
SUBSTATION E-Wing POSITION Wet Scrubber Control Panel

MANUFACTURER Cutler-Hammer SN / SO NO. N/A FRAME SIZE(F) 400  
BREAKER TYPE KD 35K SENSOR TAPS N/A MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 310 CATALOG NO. KDF3400F ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU B x 250 A = 250 A DELAY N/A  
RATING PLUG(R) 250 SHORT TIME PU 2 = 500 A DELAY N/A I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A  
SENSOR TAP 400 INST. PU 10 = 2500 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU  =  A ☐ ON ☐ OFF DELAY N/A I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU B x 250 A = 250 A DELAY N/A  
RATING PLUG(R) 250 SHORT TIME PU 2 = 500 A DELAY N/A I<sup>2</sup>T ☐ IN ☐ OUT ☒ N/A  
SENSOR TAP 400 INST. PU 10 = 2500 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU  =  A ☐ ON ☐ OFF DELAY N/A I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2500				2,494	2,494	2,520	2,520	2,514	2,514
	IPU				2,494	2,494	2,520	2,520	2,514	2,514
SHORT TIME	750	3.5			0.150	0.150	0.150	0.150	0.150	0.150
	STPU				500	500	500	500	500	500
LONG TIME	750	3			21.93	21.93	24.40	24.40	21.93	21.93
	LTPU				2,500	2,500	2,500	2,500	2,500	2,500
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	121,000	121,000.0	134,000	134,000.0	117,000	117,000.0
POLE TO FRAME						
LINE TO LOAD	114,000	114,000.0	110,000	110,000.0	109,000	109,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
112	110	109

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 53  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/25/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 86 % EQPT. LOCATION E-Wing Transfer Switch Room  
SUBSTATION Gen Panel POSITION D398 Gen. Main Breaker

MANUFACTURER GE SN / SO NO. V07166 FRAME SIZE(F) 1200  
BREAKER TYPE Molded Case SENSOR TAPS 12000 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. TKS4612SG ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU .8 x 1200 A = 960 A DELAY MIN  
RATING PLUG(R) 1,200 SHORT TIME PU 4 = 3840 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 10 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .7 = 840 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU .8 x 1200 A = 960 A DELAY MIN  
RATING PLUG(R) 1,200 SHORT TIME PU 4 = 3840 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 10 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .7 = 840 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS					2,181	2,181	2,210	2,210	2,124	2,124
	IPU									
SHORT TIME					0.120	0.120	0.120	0.120	0.120	0.120
	STPU									
LONG TIME					17.49	17.49	17.16	17.16	17.20	17.20
	LTPU									
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.190	0.190	0.190	0.190	0.190	0.190
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
55	83	53

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	54
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/25/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	86 %
				EQPT. LOCATION	E-Wing Transfer Switch Room
SUBSTATION	Gen Panel			POSITION	EPE6-TS-E2 & Q2

MANUFACTURER	GE	SN / SO NO.	V55273	FRAME SIZE(F)	500
BREAKER TYPE	Molded Case	SENSOR TAPS	500	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Versa Trip	CATALOG NO.	THJS605GA3	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	.8	x	500	A	=	400	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)	<input type="text" value=""/>	SHORT TIME PU	<input type="text" value=""/>	=	<input type="text" value=""/>	A				DELAY	<input type="text" value=""/>				
SENSOR TAP	<input type="text" value="400"/>	INST. PU	6	=	2400	A		<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.7	=	300	A		<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	LONG TIME PU	.8	x	500	A	=	400	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	SHORT TIME PU		=		A				DELAY					
GRD. FLT.	INST. PU	6	=	2400	A		<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
	GRD. FLT. PU	.7	=	300	A		<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	800	2			831	831	810	810	842	842
	IPU				800	800	800	800	800	800
SHORT TIME										
	STPU									
LONG TIME	1200	3			17.85	17.85	17.92	17.92	16.93	16.93
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	300	.75			0.711	0.711	0.711	0.711	0.711	0.711
	GFPU				300	300	300	300	300	300

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
88	112	92

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 55  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/25/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 86 % EQPT. LOCATION E-Wing Transfer Switch Room  
SUBSTATION Gen Panel POSITION TS-C

MANUFACTURER GE SN / SO NO.  FRAME SIZE(F) 400  
BREAKER TYPE HI IC SENSOR TAPS 400 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE RMS-9 CATALOG NO. TJL45 ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 400 A = 400 A DELAY 4  
RATING PLUG(R) 400 SHORT TIME PU 9 = 3600 A DELAY MAX I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU 7 = 2800 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .8 = 240 A ☐ ON ☐ OFF DELAY MAX I²T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 400 A = 400 A DELAY 4  
RATING PLUG(R) 400 SHORT TIME PU 9 = 3600 A DELAY MAX I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU 7 = 2800 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .8 = 240 A ☐ ON ☐ OFF DELAY MAX I²T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	800	2			826	826	809	809	814	814
	IPU				800	800	800	800	800	800
SHORT TIME	800	2			1.390	1.390	1.395	1.395	1.390	1.390
	STPU				800	800	800	800	800	800
LONG TIME	1200	3			8.535	8.535	8.732	8.732	8.511	8.511
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	240	.6			0.581	0.581	0.581	0.581	0.581	0.581
	GFPU				240	240	240	240	240	240

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
82	86	108

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	56
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/25/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	86 %
				EQPT. LOCATION	E-Wing Transfer Switch Room
SUBSTATION	Gen Panel			POSITION	TS-C2

MANUFACTURER	GE	SN / SO NO.	V55268	FRAME SIZE(F)	400
BREAKER TYPE	Molded Case	SENSOR TAPS	400	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Versa Trip	CATALOG NO.	THJS604GA3	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND**

RATING PLUG(R)	<input type="text" value=""/>	LONG TIME PU	<input type="text" value="1"/>	x	<input type="text" value="400"/>	A =	<input type="text" value="400"/>	A	DELAY	<input type="text" value="MAX"/>	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	<input type="text" value="400"/>	SHORT TIME PU	<input type="text" value=""/>	=	<input type="text" value=""/>	A			DELAY	<input type="text" value=""/>				
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	<input type="text" value="10"/>	=	<input type="text" value="4000"/>	A	<input type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	<input type="text" value=".75"/>	=	<input type="text" value="300"/>	A	<input type="radio"/> ON <input type="radio"/> OFF		DELAY	<input type="text" value="MAX"/>	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	LONG TIME PU	1	x	400	A	=	400	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	SHORT TIME PU		=		A				DELAY					
GRD. FLT.	INST. PU	10	=	4000	A		<input type="radio"/> ON	<input type="radio"/> OFF						
	GRD. FLT. PU	.75	=	300	A		<input type="radio"/> ON	<input type="radio"/> OFF	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	800	2			763	763	742	742	811	811
	IPU				800	800	800	800	800	800
SHORT TIME										
	STPU									
LONG TIME	1200	3			18.69	18.69	18.21	18.21	19.11	19.11
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	300	.75			0.711	0.711	0.711	0.711	0.711	0.711
	GFPU				300	300	300	300	300	300

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
85	102	91

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 57  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/25/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 86 % EQPT. LOCATION E-Wing Transfer Switch Room  
SUBSTATION Gen Panel POSITION TS-E

MANUFACTURER GE SN / SO NO. V07207 FRAME SIZE(F) \_\_\_\_\_  
BREAKER TYPE Molded Case SENSOR TAPS 150 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. TJS3601G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .9 x 150 A = 150 A DELAY INST \_\_\_\_\_  
RATING PLUG(R) \_\_\_\_\_ SHORT TIME PU \_\_\_\_\_ = \_\_\_\_\_ A DELAY \_\_\_\_\_ I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 150 INST. PU 8 = \_\_\_\_\_ A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .7 = \_\_\_\_\_ A ☒ ON ☐ OFF DELAY MAX I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .9 x 150 A = 150 A DELAY INST \_\_\_\_\_  
RATING PLUG(R) \_\_\_\_\_ SHORT TIME PU \_\_\_\_\_ = \_\_\_\_\_ A DELAY \_\_\_\_\_ I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 150 INST. PU 8 = \_\_\_\_\_ A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .7 = \_\_\_\_\_ A ☒ ON ☐ OFF DELAY MAX I²T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	300	2			296	296	330	330	318	318
	IPU				300	300	300	300	300	300
SHORT TIME										
	STPU									
LONG TIME	480	3			28.41	28.41	29.16	29.16	28.44	28.44
	LTPU				480	480	480	480	480	480
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
104	85	95

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: \_\_\_\_\_  
DEFICIENCIES: \_\_\_\_\_

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	58
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/25/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	86 %
				EQPT. LOCATION	E-Wing Transfer Switch Room
SUBSTATION	Gen Panel			POSITION	TS-Q

MANUFACTURER	GE	SN / SO NO.	V07162	FRAME SIZE(F)	800
BREAKER TYPE	Molded Case	SENSOR TAPS	800	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Versa Trip	CATALOG NO.	TKS4608G	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU .8 x 800 A = 640 A DELAY INST  
 RATING PLUG(R) SHORT TIME PU = A DELAY I<sup>2</sup>T IN OUT N/A  
 SENSOR TAP 800 INST. PU 4 = 3200 A ON OFF  
 GRD. FLT. 3W 4W GRD. FLT. PU .7 = 560 A ON OFF DELAY MAX I<sup>2</sup>T IN OUT N/A

**SETTINGS AS LEFT** LONG TIME PU .8 x 800 A = 640 A DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

RATING PLUG(R) SHORT TIME PU = A DELAY I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

SENSOR TAP 800 INST. PU 4 = 3200 A ☐ ON ☐ OFF

GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .7 = 560 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,593	1,593	1,459	1,459	1,610	1,610
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME										
	STPU									
LONG TIME	1920	3			18.48	18.48	17.43	17.43	19.11	19.11
	LTPU				1,920	1,920	1,920	1,920	1,920	1,920
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	560	.7			0.69	0.69	0.69	0.69	0.69	0.69
	GFPU				560	560	560	560	560	560

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
42	50	61

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:	LTD was tested @ 2
DEFICIENCIES:	

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 59  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION EMDP-1

MANUFACTURER Cutler-Hammer SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 10  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 14400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 900 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 10  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 14400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 900 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2400	2			2,510	2,510	2,463	2,463	2,579	2,579
	IPU				2,400	2,400	2,400	2,400	2,400	2,400
SHORT TIME										
	STPU									
LONG TIME	3600	3	5.2	8	6.981	6.981	7.316	7.316	7.411	7.411
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	900	H	.2	.34	0.302	0.302	0.302	0.302	0.302	0.302
	GFPU				900	900	900	900	900	900

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
44	35	47

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 60  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION EMDP-2

MANUFACTURER \_\_\_\_\_ SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 4  
RATING PLUG(R) 1200 SHORT TIME PU \_\_\_\_\_ = \_\_\_\_\_ A DELAY \_\_\_\_\_ I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 3 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H= = 900 A ☒ ON ☐ OFF DELAY .3 I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 4  
RATING PLUG(R) 1200 SHORT TIME PU \_\_\_\_\_ = \_\_\_\_\_ A DELAY \_\_\_\_\_ I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 3 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H= = 900 A ☒ ON ☐ OFF DELAY .3 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2400	2			2,599	2,599	2,738	2,738	2,610	2,610
	IPU				2,400	2,400	2,400	2,400	2,400	2,400
SHORT TIME										
	STPU									
LONG TIME	3600	3	5.2	8	6.980	6.980	7.522	7.522	7.163	7.163
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	900	H	.2	.34	0.301	0.301	0.301	0.301	0.301	0.301
	GFPU				900	900	900	900	900	900

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
42	35	36

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: \_\_\_\_\_  
DEFICIENCIES: \_\_\_\_\_

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 61  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION EMDP-3

MANUFACTURER Cutler-Hammer SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 19200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D= = 640 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 19200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D= = 640 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3,412	3,412	3,462	3,462	3,480	3,480
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME										
	STPU									
LONG TIME	4800	3	5.2	8	6.631	6.631	7.520	7.520	7.211	7.211
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	640	D	.2	.34	0.300	0.300	0.300	0.300	0.300	0.300
	GFPU				640	640	640	640	640	640

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
37	42	36

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 62  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION EMDP-4

MANUFACTURER Cutler-Hammer SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .85 x 1000 A = 850 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 10200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .85 x 1000 A = 850 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 10200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2000	2			2.283	2.283	2.434	2.434	2.610	2.610
	IPU				2,000	2,000	2,000	2,000	2,000	2,000
SHORT TIME										
	STPU									
LONG TIME	2550	3	5.2	8	7.330	7.330	6.946	6.946	7.184	7.184
	LTPU				2,550	2,550	2,550	2,550	2,550	2,550
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	F	.2	.34	0.301	0.301	0.301	0.301	0.301	0.301
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
32	30	46

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 63  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION Fire Pump Controller

MANUFACTURER Cutler-Hammer SN / SO NO. 695C184G01 FRAME SIZE(F) 800  
BREAKER TYPE DSII-608 SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 250 A = 250 A DELAY 24  
RATING PLUG(R) 250 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 188 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 250 A = 250 A DELAY 24  
RATING PLUG(R) 250 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 8000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 188 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	800	2			822	822	746	746	804	804
	IPU				800	800	800	800	800	800
SHORT TIME										
	STPU									
LONG TIME	750	3	5.2	8	6.630	6.630	7.416	7.416	7.041	7.041
	LTPU				750	750	750	750	750	750
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	188	H	.2	.34	0.299	0.299	0.299	0.299	0.299	0.299
	GFPU				188	188	188	188	188	188

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
35	46	40

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 64  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION Generator #1

MANUFACTURER Cutler-Hammer SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .8 x 1600 A = 1200 A DELAY 20  
RATING PLUG(R) 1600 SHORT TIME PU S2=10 = 12000 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☒ ON ☐ OFF DELAY I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .8 x 1600 A = 1200 A DELAY 20  
RATING PLUG(R) 1600 SHORT TIME PU S2=10 = 12000 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☒ ON ☐ OFF DELAY I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME	4200	3.5	.2	.31	0.475	0.475	0.475	0.475	0.475	0.475
	STPU				4,200	4,200	4,200	4,200	4,200	4,200
LONG TIME	3600	3	5.2	8	7.422	7.422	7.611	7.611	7.842	7.842
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
71	17	24

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 65  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION Generator #2

MANUFACTURER Cutler-Hammer SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .8 x 1600 A = 1280 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU S1=8 = 10240 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 15360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU K = 1200 A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .8 x 1600 A = 1280 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU S1=8 = 10240 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU M2=12 = 15360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU K = 1200 A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3,410	3,410	3,360	3,360	3,507	3,507
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME	4480	3.5	.39	.5	0.475	0.475	0.475	0.475	0.475	0.475
	STPU				4,480	4,480	4,480	4,480	4,480	4,480
LONG TIME	3840	3	5.2	8	6.982	6.982	7.411	7.411	7.163	7.163
	LTPU				3,840	3,840	3,840	3,840	3,840	3,840
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	K	.39	.5						
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
21	20	32

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: Ground Fault was not wired in.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 66  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION Generator #3

MANUFACTURER Cutler-Hammer SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .6 x 1600 A = 960 A DELAY 20  
RATING PLUG(R) 1600 SHORT TIME PU 3 = 2880 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☒ ON ☐ OFF DELAY I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .6 x 1600 A = 960 A DELAY 20  
RATING PLUG(R) 1600 SHORT TIME PU 3 = 2880 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU = A ☒ ON ☐ OFF DELAY I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME	3360	3.5	.39	.5	0.475	0.475	0.475	0.475	0.475	0.475
	STPU				3,360	3,360	3,360	3,360	3,360	3,360
LONG TIME	2880	3	5.2	8	12.90	12.90	13.78	13.78	12.41	12.41
	LTPU				2,880	2,880	2,880	2,880	2,880	2,880
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
24	20	21

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: Trip unit has override function that makes time run longer.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 67  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION Generator Load Bank Breaker

MANUFACTURER Square D SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU 4 = 6400 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU C = 560 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU 4 = 6400 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU C = 560 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3.360	3.360	3.510	3.510	3.439	3.439
	IPU				3.200	3.200	3.200	3.200	3.200	3.200
SHORT TIME	5600	3.5	.2	.31	0.473	0.473	0.473	0.473	0.473	0.473
	STPU				5.600	5.600	5.600	5.600	5.600	5.600
LONG TIME	4800	3	5.2	8	6.632	6.632	7.366	7.366	6.916	6.916
	LTPU				4.800	4.800	4.800	4.800	4.800	4.800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	560	C	.2	.34	0.300	0.300	0.300	0.300	0.300	0.300
	GFPU				560	560	560	560	560	560

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
21	19	19

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 68  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION Generator Gear POSITION N/E Switch Tie Breaker

MANUFACTURER \_\_\_\_\_ SN / SO NO. 695C170G01 FRAME SIZE(F) 1600  
BREAKER TYPE DSII-616 SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU 4 = 6400 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 4 = 6400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 400 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 4  
RATING PLUG(R) 1600 SHORT TIME PU 4 = 6400 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 4 = 6400 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 400 A ☐ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3.399	3.399	3.463	3.463	3.507	3.507
	IPU				3.200	3.200	3.200	3.200	3.200	3.200
SHORT TIME	5600	3.5	.2	.31	0.296	0.296	0.296	0.296	0.296	0.296
	STPU				5.600	5.600	5.600	5.600	5.600	5.600
LONG TIME	4800	3	5.2	8	6.987	6.987	7.483	7.483	7.116	7.116
	LTPU				4.800	4.800	4.800	4.800	4.800	4.800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	400	A	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU				400	400	400	400	400	400

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
48	99	32

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: \_\_\_\_\_  
DEFICIENCIES: \_\_\_\_\_

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 69  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 80 °F HUMIDITY 98 % EQPT. LOCATION MEP  
SUBSTATION MEP POSITION Spare #2

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS 206E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 4800 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 150 A ☒ ON ☐ OFF DELAY .5 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 4800 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 150 A ☒ ON ☐ OFF DELAY .5 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	2			1,212	1,212	1,289	1,289	1,164	1,164
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME										
	STPU									
LONG TIME	1800	3	5.2	8	6.987	6.987	7.463	7.463	7.101	7.101
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	150	A	.39	.50	0.470	0.470	0.470	0.470	0.470	0.470
	GFPU				150	150	150	150	150	150

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
58	34	26

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 70  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION AC-2-VFD

MANUFACTURER Square D SN / SO NO. 085132352201 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 10 = 4000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 400 A ☒ ON ☐ OFF DELAY  I²T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 10 = 4000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 400 A ☒ ON ☐ OFF DELAY  I²T ☒ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1600	2			1.357	1.357	1.265	1.265	1.357	1.357
	IPU				1.600	1.600	1.600	1.600	1.600	1.600
SHORT TIME	1000	2.5			0.421	0.421	0.421	0.421	0.421	0.421
	STPU				1.000	1.000	1.000	1.000	1.000	1.000
LONG TIME	1200	3			6.830	6.830	6.921	6.921	6.830	6.830
	LTPU				1.200	1.200	1.200	1.200	1.200	1.200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	1.5			0.240	0.240	0.240	0.240	0.240	0.240
	GFPU				400	400	400	400	400	400

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
20	17	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 71  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION ATS Standby 1 Breaker

MANUFACTURER Square D SN / SO NO. 085132352308 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 840 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 840 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,833	1,833	1,833	1,833	1,833	1,833
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	1200	1.5			0.345	0.345	0.345	0.345	0.345	0.345
	STPU				1,200	1,200	1,200	1,200	1,200	1,200
LONG TIME	2400	3			7.220	7.220	7.111	7.111	7.220	7.220
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	1.5			0.272	0.272	0.301	0.301	0.272	0.272
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 800 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	0.00	200,000	0.00	200,000	0.00
POLE TO FRAME	200,000	0.00	200,000	0.00	200,000	0.00
LINE TO LOAD	200,000	0.00	200,000	0.00	200,000	0.00

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
28	20	18

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 72  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION ATS-EC3 Breaker

MANUFACTURER Square D SN / SO NO. 085132352303 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1.674	1.674	1.710	1.710	1.674	1.674
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	1200	1.5			0.420	0.420	0.420	0.420	0.420	0.420
	STPU				1,200	1,200	1,200	1,200	1,200	1,200
LONG TIME	2400	3			8.270	8.270	8.021	8.021	8.270	8.270
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	1.5			0.321	0.321	0.321	0.321	0.321	0.321
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
30	35	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 73  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION ATS-EQ Breaker

MANUFACTURER Square D SN / SO NO. 085132352301 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1.833	1.833	1.828	1.828	1.833	1.833
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	1200	1.5			0.422	0.422	0.422	0.422	0.422	0.422
	STPU				1,200	1,200	1,200	1,200	1,200	1,200
LONG TIME	2400	3			7.237	7.237	2.189	7.189	7.231	7.231
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	1.5			0.304	0.304	0.304	0.304	0.304	0.304
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
19	18	16

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 74  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION ATS-EQ2 Breaker

MANUFACTURER Square D SN / SO NO. 085132352311 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,765	1,765	1,744	1,744	1,765	1,765
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	1200	1.5			0.421	0.421	0.421	0.421	0.421	0.421
	STPU				1,200	1,200	1,200	1,200	1,200	1,200
LONG TIME	2400	3			7.037	7.037	7.103	7.103	7.037	7.037
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	1.5			0.304	0.304	0.342	0.342	0.342	0.342
	GFPU				1,200	1,200	1,200	1,200	1,200	1,200

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
18	22	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 75  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION Future #1

MANUFACTURER Square D SN / SO NO. 085132352102 FRAME SIZE(F) 1600  
BREAKER TYPE MasterPact SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 840 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 840 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.				POLE 1		POLE 2		POLE 3		
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			2.693	2,693	2,651	2,651	2,693	2,693
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME	900	1.5			0.414	0,414	0,414	0,414	0,414	0,414
	STPU				900	900	900	900	900	900
LONG TIME	1800	3			6.936	6,936	7,080	7,080	6,936	6,936
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1260	1.5			0.195	0,195	0,195	0,195	0,195	0,195
	GFPU				840	840	840	840	840	840

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
30	28	23

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT PU was Tested @ .5 LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 76  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION Main

MANUFACTURER Square D SN / SO NO. 085132352001 FRAME SIZE(F) 4000  
BREAKER TYPE NW 40 H3 SENSOR TAPS 40000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YA6KKR74A3DFFWSCA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 4000 A = 4000 A DELAY 24  
RATING PLUG(R) 4000 SHORT TIME PU 10 = 40000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 15 = 60000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 4000 A = 4000 A DELAY 24  
RATING PLUG(R) 4000 SHORT TIME PU 10 = 40000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 15 = 60000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	8000	2			8,106	8,106	8,340	8,340	8,110	8,110
	IPU				8,000	8,000	8,000	8,000	8,000	8,000
SHORT TIME	5600	3.5			0.056	0.056	0.056	0.056	0.056	0.056
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3			7.180	7.180	7.244	7.244	7.068	7.068
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.053	0.053	0.053	0.053	0.053	0.053
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
25	26	22

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 1 LT was Tested @ .4  
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 77  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION MCC-PH-3

MANUFACTURER Square D SN / SO NO. 085132352501 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 10 = 4000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 400 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 10 = 4000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 400 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____				POLE 1		POLE 2		POLE 3		
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,194	1,194	1,188	1,188	1,194	1,194
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	1000	2.5			0.420	0.420	0.420	0.420	0.420	0.420
	STPU				1,000	1,000	1,000	1,000	1,000	1,000
LONG TIME	1200	3			6.895	6.895	6.921	6.921	6.895	6.895
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	1.5			0.278	0.278	0.278	0.278	0.278	0.278
	GFPU				400	400	400	400	400	400

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
24	16	20

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT PU was Tested @ .5 LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 78  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION PBCNA

MANUFACTURER Square D SN / SO NO. 085132352306 FRAME SIZE(F) 800  
BREAKER TYPE MasterPact SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 800 A ☒ ON ☐ OFF DELAY .3 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,765	1,765	1,781	1,781	1,765	1,765
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	2400	3			0.420	0.420	0.420	0.420	0.420	0.420
	STPU				2,400	2,400	2,400	2,400	2,400	2,400
LONG TIME	2400	3			7.271	7.271	7.142	7.142	7.271	7.271
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200				0.300	0.300	0.245	0.245	0.245	0.245
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
19	13	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 79  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION Trane Chiller #2

MANUFACTURER Square D SN / SO NO. 085132352101 FRAME SIZE(F) 1600  
BREAKER TYPE MasterPact SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 840 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 840 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			2,670	2,670	2,710	2,710	2,670	2,670
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME	3000	2.5			0.420	0.420	0.420	0.420	0.420	0.420
	STPU				3,000	3,000	3,000	3,000	3,000	3,000
LONG TIME	3600	3			6.763	6.763	6.931	6.931	6.763	6.763
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1260	1.5			0.253	0.253	0.246	0.246	0.271	0.271
	GFPU				840	840	840	840	840	840

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
26	14	16

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 80  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION Trans Chiller #1

MANUFACTURER Square D SN / SO NO. 085132352401 FRAME SIZE(F) 1600  
BREAKER TYPE MasterPact SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 1200 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU 10 = 12000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 15 = 18000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			2,919	2,919	2,980	2,980	2,919	2,919
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME	3000	2.5			0.421	0.421	0.421	0.421	0.421	0.421
	STPU				3,000	3,000	3,000	3,000	3,000	3,000
LONG TIME	3600	3			7.110	7.110	7.112	7.112	7.110	7.110
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1260	1.5			0.279	0.279	0.279	0.279	0.280	0.280
	GFPU				840	840	840	840	840	840

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
22	21	23

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2  
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 81  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-A POSITION TX-MSGR-A

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 6/19/09 SERIAL NO. 25913311-004-01-01  
IMPEDANCE 6.03 % CAPACITY \_\_\_\_\_ TYPE Dry CLASS AA / AA /  
KVA 2,500 / 3,375 / WINDING MATERIAL COPPER TEMPERATURE RISE 150 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒  $\Delta$  ☐  $\nabla$  ☐  $\nabla$  DELTA  
SECONDARY KV 480 / 277 ☐  $\Delta$  ☒  $\nabla$  ☐  $\nabla$  WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 11,847 INSULATING MEDIUM Air  
TAP POSITION E-F D-F E-G D-G C-G TANK TYPE Free Breathing  
TAP SETTING E-G 12,470 VOLTS DRY TYPE ☒ CONSERVATOR ☐

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	N/A
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	144000	96000	165000
1.00	270000	228000	276000
10.00	863000	596000	782000
P. I.	3.1963	2.61404	2.83333

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
E-G	45.018	45.098	45.096	45.082

WORKING TAP AF E-G AL E-G

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 3 ph TTR, AEMC Megger

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 82  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION ATS-EC2

MANUFACTURER Square D SN / SO NO. 085132352304 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YAGKKR74A3DFFFWSCA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,650	1,650	1,683	1,683	1,617	1,617
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	2800	3.5			0.061	0.061	0.061	0.061	0.061	0.061
	STPU				2,800	2,800	2,800	2,800	2,800	2,800
LONG TIME	2400	3			3.904	3.904	3.522	3.522	3.781	3.781
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	J			0.051	0.051	0.051	0.051	0.051	0.051
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
17	18	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 83  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION ATS-ECI

MANUFACTURER Square D SN / SO NO. 085132352312 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YAGKKR74A3DFFFWSCA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,696	1,696	1,733	1,733	1,641	1,641
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	2800	3.5			0.054	0.054	0.054	0.054	0.054	0.054
	STPU				2,800	2,800	2,800	2,800	2,800	2,800
LONG TIME	2400	3			3.518	3.518	4.163	4.163	3.422	3.422
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	J			0.052	0.052	0.052	0.052	0.052	0.052
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
18	16	21

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 84  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION ATS-LS

MANUFACTURER Square D SN / SO NO. 085132352307 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YAGKKR74A3DFFFWSCA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,742	1,742	1,606	1,606	1,692	1,692
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	2800	3.5			0.054	0.054	0.054	0.054	0.054	0.054
	STPU				2,800	2,800	2,800	2,800	2,800	2,800
LONG TIME	2400	3			3.085	3.085	4.124	4.124	3.966	3.966
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	J			0.062	0.062	0.062	0.062	0.062	0.062
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
14	15	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 85  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION BC.N. DPA

MANUFACTURER Square D SN / SO NO. 085132352310 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6AAR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

## SETTINGS AS FOUND

LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1600	2			1.643	1.643	1.626	1.626	1.602	1.602
	IPU				1.600	1.600	1.600	1.600	1.600	1.600
SHORT TIME	2800	3.5			0.053	0.053	0.053	0.053	0.053	0.053
	STPU				2.800	2.800	2.800	2.800	2.800	2.800
LONG TIME	2400	3			3.592	3.592	4.261	4.261	3.911	3.911
	LTPU				2.400	2.400	2.400	2.400	2.400	2.400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	J			0.051	0.051	0.051	0.051	0.051	0.051
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
15	17	15

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 86  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION BC-N-DPB

MANUFACTURER Square D SN / SO NO. 085132352305 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6AAR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1200	2			1.242	1.242	1.211	1.211	1.280	1.280
	IPU				1.200	1.200	1.200	1.200	1.200	1.200
SHORT TIME	2100	3.5			0.055	0.055	0.055	0.055	0.055	0.055
	STPU				2.100	2.100	2.100	2.100	2.100	2.100
LONG TIME	1800	3			3.662	3.662	4.081	4.081	3.920	3.920
	LTPU				1.800	1.800	1.800	1.800	1.800	1.800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	J			0.043	0.043	0.043	0.043	0.043	0.043
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
11	13	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 87  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION BNDP

MANUFACTURER Square D SN / SO NO. 085132351901 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6ATR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 10 = 4000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU 15 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 400 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 400 A = 400 A DELAY 24  
RATING PLUG(R) 400 SHORT TIME PU 10 = 4000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU 15 = 8000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 400 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	800	2			826	826	814	814	882	882
	IPU				800	800	800	800	800	800
SHORT TIME	1400	3.5			0.061	0.061	0.061	0.061	0.061	0.061
	STPU				1,400	1,400	1,400	1,400	1,400	1,400
LONG TIME	1200	3			4.117	4.117	3.984	3.984	4.019	4.019
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	400	J			0.056	0.056	0.056	0.056	0.056	0.056
	GFPU				400	400	400	400	400	400

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
12	12	20

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 88  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION DH-2-BA

MANUFACTURER Square D SN / SO NO. 085132352302 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6AAR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1200	2			1,211	1,211	1,282	1,282	1,227	1,227
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME	2100	3.5			0.061	0.061	0.061	0.061	0.061	0.061
	STPU				2,100	2,100	2,100	2,100	2,100	2,100
LONG TIME	1800	3			3.693	3.693	4.181	4.181	3.726	3.726
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	J			0.059	0.059	0.059	0.059	0.059	0.059
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
13	13	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 89  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION DH3BD

MANUFACTURER Square D SN / SO NO. 085132351903 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6ATR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	2			1,281	1,281	1,256	1,256	1,277	1,277
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME	2100	3.5			0.061	0.061	0.061	0.061	0.061	0.061
	STPU				2,100	2,100	2,100	2,100	2,100	2,100
LONG TIME	1800	3			3.569	3.569	4.400	4.400	3.788	3.788
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	J			0.050	0.050	0.050	0.050	0.050	0.050
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
14	15	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 90  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION DH-3-BP

MANUFACTURER Square D SN / SO NO. 085132351801 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6AAR74B3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1600	2			1.673	1.673	1.621	1.621	1.685	1.685
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	2800	3.5			0.055	0.055	0.055	0.055	0.055	0.055
	STPU				2,800	2,800	2,800	2,800	2,800	2,800
LONG TIME	2400	3			3.895	3.895	4.062	4.062	3.921	3.921
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.050	0.050	0.050	0.050	0.050	0.050
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
12	14	14

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 91  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION Future #2

MANUFACTURER Square D SN / SO NO. 085132351902 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6ATR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J =  A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J =  A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1200	2			1.202	1.202	1.239	1.239	1.280	1.280
	IPU				1.200	1.200	1.200	1.200	1.200	1.200
SHORT TIME	2100	3.5			0.056	0.056	0.056	0.056	0.056	0.056
	STPU				2.100	2.100	2.100	2.100	2.100	2.100
LONG TIME	1800	3			3.719	3.719	4.061	4.061	3.922	3.922
	LTPU				1.800	1.800	1.800	1.800	1.800	1.800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		J			0.041	0.041	0.041	0.041	0.041	0.041
	GFPD									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
21	20	16

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 92  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION Future #3

MANUFACTURER Square D SN / SO NO. 085132351904 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6ATR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 600 A = 600 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU 10 = 6000 A DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 15 = 9000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 600 A ☒ ON ☐ OFF DELAY .4 I²T ☒ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	1200	2			1,311	1,311	1,292	1,292	1,380	1,380
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME	2100				0.070	0.070	0.070	0.070	0.070	0.070
	STPU				2,100	2,100	2,100	2,100	2,100	2,100
LONG TIME	1800	3			3.852	3.852	4.066	4.066	3.917	3.917
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	J			0.070	0.070	0.070	0.070	0.070	0.070
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
20	19	23

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 93  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION Main Breaker

MANUFACTURER Square D SN / SO NO. 085132352003 FRAME SIZE(F) 4000  
BREAKER TYPE NW 40 H3 SENSOR TAPS 4000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YAGKKR74A3DFFFWSCA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 4000 A = 4000 A DELAY 24  
RATING PLUG(R) 4000 SHORT TIME PU 10 = 40000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 15 = 60000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J =  A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 4000 A = 4000 A DELAY 24  
RATING PLUG(R) 4000 SHORT TIME PU 10 = 40000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 15 = 60000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J =  A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	8000	2			8,210	8,210	8,172	8,172	8,280	8,280
	IPU				8,000	8,000	8,000	8,000	8,000	8,000
SHORT TIME	5600	3.5			0.063	0.063	0.063	0.063	0.063	0.063
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3			4.166	4.166	3.971	3.971	4.120	4.120
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		J			0.053	0.053	0.053	0.053	0.053	0.053
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
1,820	1,720	1,717

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .4 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 94  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION PB PN A

MANUFACTURER Square D SN / SO NO. 085132352309 FRAME SIZE(F) 800  
BREAKER TYPE NW 08 H3 SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA6AAR74A3CFFWSXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 800 A = 800 A DELAY 24  
RATING PLUG(R) 800 SHORT TIME PU 10 = 8000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 15 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.				POLE 1		POLE 2		POLE 3		
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1600	2			1,620	1,620	1,681	1,681	1,662	1,662
	IPU				1,600	1,600	1,600	1,600	1,600	1,600
SHORT TIME	2800	3.5			0.060	0.060	0.060	0.060	0.060	0.060
	STPU				2,800	2,800	2,800	2,800	2,800	2,800
LONG TIME	2400	3			3.720	3.720	3.961	3.961	4.128	4.128
	LTPU				2,400	2,400	2,400	2,400	2,400	2,400
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	J			0.052	0.052	0.052	0.052	0.052	0.052
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
19	18	15

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LT Delay Tested @ .1 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 95  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B POSITION TX-MSGR-B

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 6/19/09 SERIAL NO. 25913311-004-01-02  
IMPEDANCE 6.01 % CAPACITY            GALLONS TYPE Dry CLASS AA / AA /  
KVA 2,500 / 3,375 / WINDING MATERIAL COPPER TEMPERATURE RISE 150 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒  $\Delta$  ☐  $\nabla$  ☐  $\nabla$  DELTA  
SECONDARY KV 480 / 277 ☐  $\Delta$  ☒  $\nabla$  ☐  $\nabla$  WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 11,847 INSULATING MEDIUM Air  
TAP POSITION E-F D-F E-G D-G C-G TANK TYPE Free Breathing  
TAP SETTING D-F 12,782 VOLTS DRY TYPE ☒ CONSERVATOR ☐

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	N/A
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	178000	91000	147000
1.00	322400	163000	223000
10.00	952000	857000	700000
P. I.	2.95285	5.25767	3.13901

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
D-F	46.144	46.261	46.201	46.197

WORKING TAP AF D-F AL D-F

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 3 ph TTR, AEMC Megger

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 96  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MSGR-B, MSGR-A POSITION TIE

MANUFACTURER Square D SN / SO NO. 085132352002 FRAME SIZE(F) 4000  
BREAKER TYPE NW 40 H3 SENSOR TAPS 4000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YAGKKR74A3DFFFWSCA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 4000 A = 4000 A DELAY 24  
RATING PLUG(R) 4,000 SHORT TIME PU 10 = 40000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 15 = 60000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 1200 A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 4000 A = 4000 A DELAY 24  
RATING PLUG(R) 4,000 SHORT TIME PU 10 = 40000 A DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 15 = 60000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 1200 A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	8000	2			8,059	8,059	8,160	8,160	8,010	8,010
	IPU				8,000	8,000	8,000	8,000	8,000	8,000
SHORT TIME	5600	3.5			0.410	0.410	0.410	0.410	0.410	0.410
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3			7.167	7.167	7.266	7.266	7.042	7.042
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	J			0.360	0.360	0.360	0.360	0.360	0.360
	GFPU				1,200	1,200	1,200	1,200	1,200	1,200

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
13	13	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: Tested @ .4 Setting

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 97  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/16/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION E-Wing Feeder #1

MANUFACTURER Square D SERIAL NUMBER 1780715  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
POLE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LOAD TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO LOAD	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	25	25	24
	20°C	24.8051	24.8051	23.8129

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 000128  
END 000131

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 98  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 65 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION E-WING Feeder #1

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE Sepam 20 / MODEL / STYLE NO. MES114E /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / IT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED E-WING Feeder #1 CT RATIO 600 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.25 A/ 0.1	2.5 A/ 0.1	2.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	0 A	5 A	5 A
NEUTRAL RELAYS	0.5 A/ 0.1	0.5 A/ 0.1	0.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	1.25 A	1.25 A	1.25 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	2.500	A	2.500	A	N/A	ADC	N/A	ADC	5	A	5	A
B	2.500	A	2.500	A	N/A	ADC	N/A	ADC	5	A	5	A
C	2.500	A	2.500	A	N/A	ADC	N/A	ADC	5	A	5	A
N	0.500	A	0.500	A	N/A	ADC	N/A	ADC	1.25	A	1.25	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	2.5	0.9119	5	0.9100	5	0.9119	3.75	0.4739	7.5	0.4700	7.5	0.4739	6.25	0.2369	12.5	0.2390	12.5	0.2369
B	2.5	0.9118	5	0.9100	5	0.9118	3.75	0.4740	7.5	0.4700	7.5	0.4740	6.25	0.2360	12.5	0.2390	12.5	0.2360
C	2.5	0.9120	5	0.9100	5	0.9120	3.75	0.4738	7.5	0.4700	7.5	0.4738	6.25	0.2365	12.5	0.2390	12.5	0.2365
N	1	0.3643	1	0.3590	1	0.3643	1.5	0.2330	1.5	0.2300	1.5	0.2330	2.5	0.1578	2.5	0.1600	2.5	0.1578

COMMENTS: Reprogrammed relay to trip breaker on instantaneous.

DEFICIENCIES: Relay would not trip breaker on instantaneous.

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 99  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 54 °F HUMIDITY 61 % EQPT. LOCATION DO 80-A  
SUBSTATION MV-SWGR-A POSITION Main 1-A

MANUFACTURER Square D SERIAL NUMBER 17-60714  
TYPE VR MODEL NO. V507133Y000 DATE MANUFACTURED 7/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @ 12.47 kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
RACKING DEVICES	<input checked="" type="checkbox"/>	Good	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Good	
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Good	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1  
MILLIWATT LOSS TEST VOLTAGE  KVAC HIGH POTENTIAL TEST VOLTAGE 25 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
POLE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LOAD TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO LOAD	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	27	29	26
	20°C	27.0000	29.0000	26.0000

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00126  
END 00127

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Vacuum Bottle Test Set

TESTED BY: Andrew Thomas



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 100  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/16/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION Main Breaker

MANUFACTURER Square D SERIAL NUMBER 1780714  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
POLE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LOAD TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO LOAD	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	25	25	24
	20°C	24.8051	24.8051	23.8129

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 000128  
END 000131

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 101  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 65 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION Main Breaker

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE Sepam 40 / MODEL / STYLE NO. MES114E /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / IT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED Main A CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.5 A/ 0.1	1.5 A/ 0.1	1.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	10 A	10 A	10 A
NEUTRAL RELAYS	0.5 A/ 0.1	0.5 A/ 0.1	0.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	1.5 A	1.5 A	1.5 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	N/A	ADC	N/A	ADC	10	A	10	A
B	1.500	A	1.500	A	N/A	ADC	N/A	ADC	10	A	10	A
C	1.500	A	1.500	A	N/A	ADC	N/A	ADC	10	A	10	A
N	0.500	A	0.500	A	N/A	ADC	N/A	ADC	1.5	A	1.5	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3	0.9146	3	0.9100	3	0.9146	4.5	0.4739	4.5	0.4700	4.5	0.4739	7.5	0.2369	7.5	0.2390	7.5	0.2369
B	3	0.9145	3	0.9100	3	0.9145	4.5	0.4740	4.5	0.4700	4.5	0.4740	7.5	0.2360	7.5	0.2390	7.5	0.2360
C	3	0.9140	3	0.9100	3	0.9140	4.5	0.4738	4.5	0.4700	4.5	0.4738	7.5	0.2365	7.5	0.2390	7.5	0.2365
N	1	0.3591	1	0.3590	1	0.3591	1.5	0.2354	1.5	0.2300	1.5	0.2354	2.5	0.1595	2.5	0.1600	2.5	0.1595

COMMENTS: Reprogrammed relay to trip breaker.

DEFICIENCIES: Relay would not trip breaker.

EQPT. INVENTORY NO. Manta MTS-5000 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 102  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 3/7/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION Tie Breaker

MANUFACTURER Square D SERIAL NUMBER 1760715  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
POLE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LOAD TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO LOAD	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	27	29
	20°C	25.7973	26.7895	28.7739

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 000134  
END 000136

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 103  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 65 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION Tie Breaker

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE Sepam 40 / MODEL / STYLE NO. MES114E /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / IT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED Tie CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.5 A/ 0.1	1.5 A/ 0.1	1.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	10 A	10 A	10 A
NEUTRAL RELAYS	0.5 A/ 0.1	0.5 A/ 0.1	0.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	1.5 A	1.5 A	1.5 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	N/A	ADC	N/A	ADC	10	A	10	A
B	1.500	A	1.500	A	N/A	ADC	N/A	ADC	10	A	10	A
C	1.500	A	1.500	A	N/A	ADC	N/A	ADC	10	A	10	A
N	0.500	A	0.500	A	N/A	ADC	N/A	ADC	1.5	A	1.5	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3	0.9047	3	0.9100	3	0.9047	4.5	0.4739	4.5	0.4700	4.5	0.4739	7.5	0.2369	7.5	0.2390	7.5	0.2369
B	3	0.9025	3	0.9100	3	0.9025	4.5	0.4740	4.5	0.4700	4.5	0.4740	7.5	0.2360	7.5	0.2390	7.5	0.2360
C	3	0.9020	3	0.9100	3	0.9020	4.5	0.4738	4.5	0.4700	4.5	0.4738	7.5	0.2365	7.5	0.2390	7.5	0.2365
N	1	0.3625	1	0.3590	1	0.3625	1.5	0.2108	1.5	0.2300	1.5	0.2108	2.5	0.1086	2.5	0.1600	2.5	0.1086

COMMENTS: Reprogrammed relay to trip breaker.

DEFICIENCIES: Relay would not trip breaker.

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 104  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/16/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION TX MSGR-A Feeder

MANUFACTURER Square D SERIAL NUMBER 1780719  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A kVAC HIGH POTENTIAL TEST VOLTAGE 30 kVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
POLE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LOAD TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO LOAD	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	24	28
	20°C	25.7973	23.8129	27.7817

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 000124  
END 000125

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 105  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-A POSITION TX MSGR-A Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE 80DRLXS01 / MODEL / STYLE NO. 80DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED TX MSGR-B Feeder CT RATIO 600 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.5 A/ 0.1	1.5 A/ 0.1	1.5 A/ 0.1	ADC	ADC	ADC	15 A	15 A	15 A
NEUTRAL RELAYS	0.5 A/ 0.05	0.5 A/ 0.05	0.5 A/ 0.05	ADC	ADC	ADC	2.55 A	2.55 A	2.55 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	ADC		ADC		15	A	15	A
B	1.500	A	1.500	A	ADC		ADC		15	A	15	A
C	1.500	A	1.500	A	ADC		ADC		15	A	15	A
N	0.500	A	0.500	A	ADC		ADC		2.55	A	2.55	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3	0.6933	3	0.7000	3	0.6933	4.5	0.4371	4.5	0.5000	4.5	0.4371	7.5	0.3080	7.5	0.2500	7.5	0.3080
B	3	0.6933	3	0.7000	3	0.6933	4.5	0.4371	4.5	0.5000	4.5	0.4371	7.5	0.3080	7.5	0.2500	7.5	0.3080
C	3	0.6933	3	0.7000	3	0.6933	4.5	0.4371	4.5	0.5000	4.5	0.4371	7.5	0.3080	7.5	0.2500	7.5	0.3080
N	1	0.3597	1	0.3590	1	0.3597	1.5	0.2333	1.5	0.2300	1.5	0.2333	2.5	0.1570	2.5	0.1600	2.5	0.1570

COMMENTS: Reprogrammed relay to trip breaker.

DEFICIENCIES: Relay would not trip breaker.

EQPT. INVENTORY NO. Manta MTS-5000 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 106  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MV-SWGR-A POSITION TX-MSGR-A

MANUFACTURER Square D SERIAL NUMBER 17607116  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 7/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @ 12.47 kV TO N/A kV = N/A mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Acceptable	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Acceptable	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
CUBICLE	<input checked="" type="checkbox"/>	Acceptable	
RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
SHUTTER	<input checked="" type="checkbox"/>	Acceptable	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Acceptable	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Acceptable	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Acceptable	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Acceptable	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Acceptable	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1  
MILLIWATT LOSS TEST VOLTAGE  KVAC HIGH POTENTIAL TEST VOLTAGE 25 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
POLE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LOAD TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO LOAD	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	26	27
	20°C	26.0000	26.0000	27.0000

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: \_\_\_\_\_  
BEG. 00097  
END \_\_\_\_\_

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBTO, AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas





# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 107  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MV-SWGR-B POSITION 1200A Feeder 1-B2 to Nursing Home

MANUFACTURER Square D SERIAL NUMBER 17-2591311-002  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 7/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @ 12.47 kV TO N/A kV = N/A mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Acceptable	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Acceptable	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
CUBICLE	<input checked="" type="checkbox"/>	Acceptable	
RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
SHUTTER	<input checked="" type="checkbox"/>	Acceptable	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Acceptable	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Acceptable	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Acceptable	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Acceptable	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Acceptable	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1  
MILLIWATT LOSS TEST VOLTAGE  KVAC HIGH POTENTIAL TEST VOLTAGE 25 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
POLE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LOAD TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO LOAD	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	25	27	25
	20°C	25.0000	27.0000	25.0000

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00063  
END 00064

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBTO, AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 108  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/16/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-B POSITION E-WING Feeder #2

MANUFACTURER Square D SERIAL NUMBER 1780719  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
POLE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LOAD TO FRAME	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000
LINE TO LOAD	1.000	1.120	900000	1,008,000	900000	1,008,000	900000	1,008,000

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	23	25	25
	20°C	22.8207	24.8051	24.8051

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 000120  
END 000122

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 109  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 65 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-B POSITION E-WING Feeder #2

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE Sepam 20 / MODEL / STYLE NO. MES114E /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / IT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED E-WING Feeder #2 CT RATIO 600 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	2.5 A/ 0.1	2.5 A/ 0.1	2.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	5 A	5 A	5 A
NEUTRAL RELAYS	0.5 A/ 0.1	0.5 A/ 0.1	0.5 A/ 0.1	N/A ADC	N/A ADC	N/A ADC	1.25 A	1.25 A	1.25 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	N/A	ADC	N/A	ADC	5	A	5	A
B	1.500	A	1.500	A	N/A	ADC	N/A	ADC	5	A	5	A
C	1.500	A	1.500	A	N/A	ADC	N/A	ADC	5	A	5	A
N	0.500	A	0.500	A	N/A	ADC	N/A	ADC	1.25	A	1.25	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	5	0.9119	5	0.9100	5	0.9119	7.5	0.4739	7.5	0.4700	7.5	0.4739	12.5	0.2369	12.5	0.2390	12.5	0.2369
B	5	0.9118	5	0.9100	5	0.9118	7.5	0.4740	7.5	0.4700	7.5	0.4740	12.5	0.2360	12.5	0.2390	12.5	0.2360
C	5	0.9120	5	0.9100	5	0.9120	7.5	0.4738	7.5	0.4700	7.5	0.4738	12.5	0.2365	12.5	0.2390	12.5	0.2365
N	1	0.3643	1	0.3590	1	0.3643	1.5	0.2330	1.5	0.2300	1.5	0.2330	2.5	0.1578	2.5	0.1600	2.5	0.1578

COMMENTS: Reprogrammed relay to trip breaker on instantaneous.

DEFICIENCIES: Relay would not trip breaker on instantaneous.

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 110  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION DO 80-A  
SUBSTATION MV-SWGR-B POSITION Main 1-B

MANUFACTURER Square D SERIAL NUMBER 17607110  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 7/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @ 12.47 kV TO N/A kV = N/A mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Acceptable	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Acceptable	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Acceptable	
CUBICLE	<input checked="" type="checkbox"/>	Acceptable	
RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
SHUTTER	<input checked="" type="checkbox"/>	Acceptable	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Acceptable	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Acceptable	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Acceptable	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Acceptable	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Acceptable	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1  
MILLIWATT LOSS TEST VOLTAGE  KVAC HIGH POTENTIAL TEST VOLTAGE 25 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
POLE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LOAD TO FRAME	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0
LINE TO LOAD	1.000	1.000	200000	200,000.0	200000	200,000.0	200000	200,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	32	25	27
	20°C	32.0000	25.0000	27.0000

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00112  
END 00113

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBTO, AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 111  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-B POSITION Main Breaker

## NAMEPLATE DATA

MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED Main Breaker CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.5 A/ 0.1	1.5 A/ 0.1	1.5 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	0.5 A/ 0.05	0.5 A/ 0.05	0.5 A/ 0.05	ADC	ADC	ADC	2 A	2 A	2 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	ADC		ADC		10	A	10	A
B	1.500	A	1.500	A	ADC		ADC		10	A	10	A
C	1.500	A	1.500	A	ADC		ADC		10	A	10	A
N	0.500	A	0.500	A	ADC		ADC		2	A	2	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3	0.9133	3	0.9500	3	0.9133	4.5	0.4684	4.5	0.4600	4.5	0.4684	7.5	0.2233	7.5	0.2330	7.5	0.2233
B	3	0.9133	3	0.9500	3	0.9133	4.5	0.4684	4.5	0.4600	4.5	0.4684	7.5	0.2333	7.5	0.2330	7.5	0.2333
C	3	0.9133	3	0.9500	3	0.9133	4.5	0.4684	4.5	0.4600	4.5	0.4684	7.5	0.2333	7.5	0.2330	7.5	0.2333
N	1	0.3615	1	0.3610	1	0.3615	1.5	0.2302	1.5	0.2300	1.5	0.2302	2.5	0.1553	2.5	0.1550	2.5	0.1553

COMMENTS: Reprogrammed relay to trip breaker.

DEFICIENCIES: Relay does not trip Main Breaker.

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 112  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-B POSITION Nursing HomeFeeder

## NAMEPLATE DATA

MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED Nursing GomeFeeder CT RATIO 600 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.5 A/ 0.1	1.5 A/ 0.1	1.5 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	0.5 A/ 0.05	0.5 A/ 0.05	0.5 A/ 0.05	ADC	ADC	ADC	2 A	2 A	2 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	ADC		ADC		10	A	10	A
B	1.500	A	1.500	A	ADC		ADC		10	A	10	A
C	1.500	A	1.500	A	ADC		ADC		10	A	10	A
N	0.500	A	0.500	A	ADC		ADC		2	A	2	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3	0.8345	3	0.9500	3	0.8345	4.5	0.3472	4.5	0.5000	4.5	0.3472	7.5	0.2050	7.5	0.2500	7.5	0.2050
B	3	0.8345	3	0.9500	3	0.8345	4.5	0.3472	4.5	0.5000	4.5	0.3472	7.5	0.2050	7.5	0.2500	7.5	0.2050
C	3	0.8345	3	0.9500	3	0.8345	4.5	0.3472	4.5	0.5000	4.5	0.3472	7.5	0.2050	7.5	0.2500	7.5	0.2050
N	1	0.2273	1	0.2270	1	0.2273	1.5	0.2302	1.5	0.2300	1.5	0.2302	2.5	0.1559	2.5	0.1600	2.5	0.1559

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 113  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/18/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Existing Hospital Electrical Room  
SUBSTATION MV-SWGR-B POSITION TX MSGR-B Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE 80DRLXS01 / MODEL / STYLE NO. 80DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED TX MSGR-B Feeder CT RATIO 600 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.5 A/ 0.1	1.5 A/ 0.1	1.5 A/ 0.1	ADC	ADC	ADC	15 A	15 A	15 A
NEUTRAL RELAYS	0.5 A/ 0.05	0.5 A/ 0.05	0.5 A/ 0.05	ADC	ADC	ADC	2.55 A	2.55 A	2.55 A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.500	A	1.500	A	ADC		ADC		15	A	15	A
B	1.500	A	1.500	A	ADC		ADC		15	A	15	A
C	1.500	A	1.500	A	ADC		ADC		15	A	15	A
N	0.500	A	0.500	A	ADC		ADC		2.55	A	2.55	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3	0.7001	3	0.7000	3	0.7001	4.5	0.4344	4.5	0.5000	4.5	0.4344	7.5	0.3076	7.5	0.2500	7.5	0.3076
B	3	0.7001	3	0.7000	3	0.7001	4.5	0.4344	4.5	0.5000	4.5	0.4344	7.5	0.3076	7.5	0.2500	7.5	0.3076
C	3	0.7001	3	0.7000	3	0.7001	4.5	0.4344	4.5	0.5000	4.5	0.4344	7.5	0.3076	7.5	0.2500	7.5	0.3076
N	1	0.3597	1	0.3590	1	0.3597	1.5	0.2309	1.5	0.2300	1.5	0.2309	2.5	0.1559	2.5	0.1600	2.5	0.1559

COMMENTS: Reprogrammed relay to trip breaker.

DEFICIENCIES: Relay would not trip breaker.

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 114  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Critical Life Safety Auto Transfer

MANUFACTURER GE SN / SO NO. V37393 FRAME SIZE(F) 600  
BREAKER TYPE Molded Case SENSOR TAPS 600 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THKS46065G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY INST  
RATING PLUG(R) 600 SHORT TIME PU 3 = 1800 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 6 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 300 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY INST  
RATING PLUG(R) 600 SHORT TIME PU 3 = 1800 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 600 INST. PU 6 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 300 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____				POLE 1		POLE 2		POLE 3		
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	2			1,310	1,310	1,246	1,246	1,281	1,281
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME	2100	3.5			0.142	0.142	0.142	0.142	0.142	0.142
	STPU				2,100	2,100	2,100	2,100	2,100	2,100
LONG TIME	1800	3			17.52	17.52	19.60	19.60	17.11	17.11
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	300	.5								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
237	209	192

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 115  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Essential Life Safety Auto Transfer

MANUFACTURER GE SN / SO NO. V37211 FRAME SIZE(F) 200  
BREAKER TYPE Molded Case SENSOR TAPS 200 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THJS36025G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY MAX  
RATING PLUG(R) 200 SHORT TIME PU 6 = 1800 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU 10 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 150 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 300 A = 300 A DELAY MAX  
RATING PLUG(R) 200 SHORT TIME PU 6 = 1800 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU 10 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 150 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			622	622	609	609	640	640
	IPU				600	600	600	600	600	600
SHORT TIME	1000	3.5			0.135	0.135	0.135	0.135	0.135	0.135
	STPU				1,000	1,000	1,000	1,000	1,000	1,000
LONG TIME	900	3			16.39	16.39	18.26	18.26	17.44	17.44
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
156	169	181

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 116  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Kitchen Equipment

MANUFACTURER GE SN / SO NO. V37212 FRAME SIZE(F) 200  
BREAKER TYPE Molded Case SENSOR TAPS 200 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THJS536025G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 200 A = 200 A DELAY MAX  
RATING PLUG(R) 200 SHORT TIME PU 6 = 1200 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU 10 = 2000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 100 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 200 A = 200 A DELAY MAX  
RATING PLUG(R) 200 SHORT TIME PU 6 = 1200 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 200 INST. PU 10 = 2000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 100 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	400	2			446	446	402	402	461	461
	IPU				400	400	400	400	400	400
SHORT TIME	700	3.5			0.135	0.135	0.135	0.135	0.135	0.135
	STPU				700	700	700	700	700	700
LONG TIME	600	3			20.13	20.13	17.96	17.96	19.41	19.41
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	100	.5								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
217	228	184

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 117  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Main

MANUFACTURER GE SN / SO NO. V37394 FRAME SIZE(F) 1000  
BREAKER TYPE Molded Case SENSOR TAPS 1000 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THKS46105G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 1000 A = 1000 A DELAY MIN  
RATING PLUG(R)                      SHORT TIME PU 3 = 3000 A DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 10 = 10000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .6 = 600 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 1000 A = 1000 A DELAY MIN  
RATING PLUG(R)                      SHORT TIME PU 3 = 3000 A DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 10 = 10000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .6 = 600 A ☒ ON ☐ OFF DELAY MAX I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.                     

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	2000	2								
	IPU									
SHORT TIME	3500	3.5								
	STPU									
LONG TIME	3000	3								
	LTPU									
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	.6								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
178	179	212

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Devective Trip Unit.

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	118
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/17/2014	AMBIENT TEMPERATURE	72 °F	HUMIDITY	60 %
				EQPT. LOCATION	Nursing Home
SUBSTATION	Normal Sub			POSITION	MCC 1

MANUFACTURER	GE	SN / SO NO.	V37210	FRAME SIZE(F)	200
BREAKER TYPE	Molded Case	SENSOR TAPS	200	MOUNTING	<input checked="" type="radio"/> B.I. <input type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Versa Trip	CATALOG NO.	THJS36025G	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	1	x	200	A =	200	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)		SHORT TIME PU	6	=	1200	A			DELAY	MIN				
SENSOR TAP	200	INST. PU	10	=	2000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.5	=	100	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	INST	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	1	x	200	A =	200	A	DELAY	MAX	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)		SHORT TIME PU	6	=	1200	A			DELAY	MIN				
SENSOR TAP	200	INST. PU	10	=	2000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	.5	=	100	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	INST	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	400	2			426	426	448	448	410	410
	IPU				400	400	400	400	400	400
SHORT TIME	700	3.5			0.225	0.225	0.225	0.225	0.225	0.225
	STPU				700	700	700	700	700	700
LONG TIME	600	3			20.99	20.99	17.76	17.76	18.93	18.93
	LTPU				600	600	600	600	600	600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	100	.5								
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
-----------------------	----	----	--	---

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
199	173	203

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 119  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Riser Panel 2L & 3L

MANUFACTURER GE SN / SO NO. V37213 FRAME SIZE(F) 300  
BREAKER TYPE Molded Case SENSOR TAPS 300 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THJS526035G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY MAX  
RATING PLUG(R) 300 SHORT TIME PU 4 = 1200 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 300 INST. PU 10 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 150 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 300 A = 300 A DELAY MAX  
RATING PLUG(R) 300 SHORT TIME PU 4 = 1200 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 300 INST. PU 10 = 3000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 150 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2								
	IPU									
SHORT TIME	1050	3.5			0.135	0.135	0.135	0.135	0.135	0.135
	STPU				1,050	1,050	1,050	1,050	1,050	1,050
LONG TIME	900	3			18.45	18.45	20.11	20.11	17.63	17.63
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	150	.5								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
172	219	164

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 120  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Riser Panel L1N, 1L, L2N, L3N

MANUFACTURER GE SN / SO NO. V37224 FRAME SIZE(F) 400  
BREAKER TYPE Molded Case SENSOR TAPS 400 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THJS36045G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 400 A = 400 A DELAY INST  
RATING PLUG(R) 400 SHORT TIME PU 3 = 1200 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU 6 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 200 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 400 A = 400 A DELAY INST  
RATING PLUG(R) 400 SHORT TIME PU 3 = 1200 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU 6 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 200 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	800	2								
	IPU									
SHORT TIME	1400	3.5								
	STPU									
LONG TIME	1200	3								
	LTPU									
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	200	.6								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
174	209	196

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Breaker will not trip due to defective actuator.

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 121  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/17/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION Nursing Home  
SUBSTATION Normal Sub POSITION Transformer K

MANUFACTURER GE SN / SO NO. V37199 FRAME SIZE(F) 150  
BREAKER TYPE Molded Case SENSOR TAPS 150 MOUNTING ☒ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Versa Trip CATALOG NO. THJS36015G ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 150 A = 105 A DELAY MIN  
RATING PLUG(R) 150 SHORT TIME PU 3 = 315 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 150 INST. PU 5 = 750 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 52.5 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 150 A = 105 A DELAY MIN  
RATING PLUG(R) 150 SHORT TIME PU 3 = 315 A DELAY MIN I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 150 INST. PU 5 = 750 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .5 = 52.5 A ☒ ON ☐ OFF DELAY INST I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	300	2			426	426	471	471	401	401
	IPU				300	300	300	300	300	300
SHORT TIME	370	3.5			0.220	0.220	0.220	0.220	0.220	0.220
	STPU				370	370	370	370	370	370
LONG TIME	315	3			37.42	37.42	40.46	40.46	41.47	41.47
	LTPU				315	315	315	315	315	315
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	52.5	.5								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
241	228	262

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 122  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION ACA Feeder

MANUFACTURER Square D SERIAL NUMBER 34772  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A kVAC HIGH POTENTIAL TEST VOLTAGE 30 kVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	73,580	82,409.60	215,500	241,360.0	160,600	179,872.0
POLE TO FRAME	1.000	1.120	506,000	566,720.0	518,000	580,160.0	333,700	373,744.0
LINE TO FRAME	1.000	1.120	73,580	82,409.60	215,500	241,360.0	160,600	179,872.0
LOAD TO FRAME	1.000	1.120	506,000	566,720.0	518,000	580,160.0	333,700	373,744.0
LINE TO LOAD	1.000	1.120	246,500	276,080.0	122,200	136,864.0	222,000	248,640.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	24	28	29
	20°C	23.8129	27.7817	28.7739

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00073  
END 00074

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 123  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION ACA Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED US-1/US-2 Feeder CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.75 A/ 0.1	1.75 A/ 0.1	1.75 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	1.5 A/ 0.05	1.5 A/ 0.05	1.5 A/ 0.05	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.750	A	1.750	A	ADC		ADC		10	A	10	A
B	1.750	A	1.750	A	ADC		ADC		10	A	10	A
C	1.750	A	1.750	A	ADC		ADC		10	A	10	A
N	1.500	A	1.500	A	ADC		ADC		A		A	

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3.5	0.8973	3.5	0.9500	3.5	0.8973	5.25	0.4951	5.25	0.5000	5.25	0.4951	8.75	0.2611	8.75	0.2600	8.75	0.2611
B	3.5	0.9973	3.5	0.9500	3.5	0.9973	5.25	0.4769	5.25	0.5000	5.25	0.4769	8.75	0.2756	8.75	0.2600	8.75	0.2756
C	3.5	0.8973	3.5	0.9500	3.5	0.8973	5.25	0.4836	5.25	0.5000	5.25	0.4836	8.75	0.2763	8.75	0.2600	8.75	0.2763
N	3	0.3245	3	0.3200	3	0.3245	4.5	0.2318	4.5	0.2300	4.5	0.2318	7.5	0.1730	7.5	0.1700	7.5	0.1730

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 124  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Existing Hospital Feeder

MANUFACTURER Square D SERIAL NUMBER 34768  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	412	461.440	571	639.520	970	1,086.400
POLE TO FRAME	1.000	1.120	939	1,051.680	1406	1,574.720	1232	1,379.840
LINE TO FRAME	1.000	1.120	412	461.440	571	639.520	1760	1,971.200
LOAD TO FRAME	1.000	1.120	939	1,051.680	1406	1,574.720	1232	1,379.840
LINE TO LOAD	1.000	1.120	1051	1,177.120	1480	1,657.600	1996	2,235.520

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	38	33	30
	20°C	37.7037	32.7427	29.7661

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00131  
END 00132

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 125  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Existing Hospital Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED MEP Feeder CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.75 A/ 0.1	1.75 A/ 0.1	1.75 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	1.5 A/ 0.05	1.5 A/ 0.05	1.5 A/ 0.05	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.750	A	1.750	A	ADC		ADC		10	A	10	A
B	1.750	A	1.750	A	ADC		ADC		10	A	10	A
C	1.750	A	1.750	A	ADC		ADC		10	A	10	A
N	1.500	A	1.500	A	ADC		ADC		A		A	

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3.5	0.7999	3.5	0.9500	3.5	0.7999	5.25	0.4747	5.25	0.5000	5.25	0.4747	8.75	0.2543	8.75	0.2600	8.75	0.2543
B	3.5	0.7999	3.5	0.9500	3.5	0.7999	5.25	0.4747	5.25	0.5000	5.25	0.4747	8.75	0.2543	8.75	0.2600	8.75	0.2543
C	3.5	0.7999	3.5	0.9500	3.5	0.7999	5.25	0.4747	5.25	0.5000	5.25	0.4747	8.75	0.2543	8.75	0.2600	8.75	0.2543
N	3	0.3020	3	0.3200	3	0.3020	4.5	0.2266	4.5	0.2300	4.5	0.2266	7.5	0.1727	7.5	0.1700	7.5	0.1727

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 126  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Full Power Backup Tie Breaker

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Beckwith TYPE M-3520 / MODEL / STYLE NO. M-3520 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / INV (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED Full Power Backup Tie Breaker CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	2.25 A/ 0.5	2.25 A/ 0.5	2.25 A/ 0.5	ADC	ADC	ADC	A	A	A
NEUTRAL RELAYS	1.75 A/ 0.5	1.75 A/ 0.5	1.75 A/ 0.5	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	2.250	A	2.250	A	ADC		ADC		A		A	
B	2.250	A	2.250	A	ADC		ADC		A		A	
C	2.250	A	2.250	A	ADC		ADC		A		A	
N	1.750	A	1.750	A	ADC		ADC		A		A	

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	4.5	1.1160	4.5	1.1200	4.5	1.1160	6.75	0.9808	6.75	0.9800	6.75	0.9808	11.25	0.4027	11.25	0.4000	11.25	0.4027
B	4.5	1.1160	4.5	1.1200	4.5	1.1160	6.75	0.9808	6.75	0.9800	6.75	0.9808	11.25	0.4027	11.25	0.4000	11.25	0.4027
C	4.5	1.1160	4.5	1.1200	4.5	1.1160	6.75	0.9808	6.75	0.9800	6.75	0.9808	11.25	0.4027	11.25	0.4000	11.25	0.4027
N	3.5	2.0866	3.5	2.0000	3.5	2.0866	5.25	0.7870	5.25	0.7800	5.25	0.7870	8.75	0.3255	8.75	0.3200	8.75	0.3255

COMMENTS:

DEFICIENCIES: Found Shorting Screws in shorting Blocks, Disabling Breaker.

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 127  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Full Power Backup Tie Breaker

MANUFACTURER Square D SERIAL NUMBER 1757489  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A kVAC HIGH POTENTIAL TEST VOLTAGE 30 kVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	24,7400	277,088.0	158,700	177,744.0	254,400	284,928.0
POLE TO FRAME	1.000	1.120	192,000	215,040.0	341,900	382,928.0	354,000	396,480.0
LINE TO FRAME	1.000	1.120	24,7400	277,088.0	158,700	177,744.0	254,400	284,928.0
LOAD TO FRAME	1.000	1.120	192,000	215,040.0	341,900	382,928.0	354,000	396,480.0
LINE TO LOAD	1.000	1.120	287,900	322,448.0	377,000	422,240.0	169,700	190,064.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	29	27	26
	20°C	28.7739	26.7895	25.7973

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00047  
END 00048

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 128  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Main Breaker

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Beckwith TYPE M-3520 / MODEL / STYLE NO. M-3520 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED Main Breaker CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	2.25 A/ 0.1	2.25 A/ 0.1	2.25 A/ 0.1	ADC	ADC	ADC	20 A	20 A	20 A
NEUTRAL RELAYS	1.75 A/ 0.05	1.75 A/ 0.05	1.75 A/ 0.05	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	2.250	A	2.250	A	ADC		ADC		20	A	20	A
B	2.250	A	2.250	A	ADC		ADC		20	A	20	A
C	2.250	A	2.250	A	ADC		ADC		20	A	20	A
N	1.750	A	1.750	A	ADC		ADC		A		A	

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	4.5	1.1142	4.5	1.1200	4.5	1.1142	6.75	0.4581	6.75	0.4600	6.75	0.4581	11.25	0.2338	11.25	0.2600	11.25	0.2338
B	4.5	1.1142	4.5	1.1200	4.5	1.1142	6.75	0.4581	6.75	0.4600	6.75	0.4581	11.25	0.2338	11.25	0.2600	11.25	0.2338
C	4.5	1.1142	4.5	1.1200	4.5	1.1142	6.75	0.4581	6.75	0.4600	6.75	0.4581	11.25	0.2338	11.25	0.2600	11.25	0.2338
N	3.5	1.9680	3.5	2.0000	3.5	1.9680	5.25	0.9808	5.25	0.9800	5.25	0.9808	8.75	0.4027	8.75	0.4000	8.75	0.4027

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 129  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Main Breaker

MANUFACTURER Square D SERIAL NUMBER 34778  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	91,208	102,152.9	39,291	44,005.92	43,904	49,172.48
POLE TO FRAME	1.000	1.120	96,100	107,632.0	112,500	126,000.0	180,700	202,384.0
LINE TO FRAME	1.000	1.120	91,208	102,152.9	39,291	44,005.92	43,904	49,172.48
LOAD TO FRAME	1.000	1.120	96,100	107,632.0	112,500	126,000.0	180,700	202,384.0
LINE TO LOAD	1.000	1.120	205,700	230,384.0	395,300	442,736.0	462,000	517,440.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	27	150	27
	20°C	26.7895	148.8304	26.7895

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00191  
END 00192

COMMENTS: Replaced with Spare #1  
DEFICIENCIES: Contact resistance more than 50% higher than each adjacent phase

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 130  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION MEP Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED MEP Feeder CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.75 A/ 0.1	1.75 A/ 0.1	1.75 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	1.5 A/ 0.05	1.5 A/ 0.05	1.5 A/ 0.05	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.750	A	1.750	A	ADC		ADC		10	A	10	A
B	1.750	A	1.750	A	ADC		ADC		10	A	10	A
C	1.750	A	1.750	A	ADC		ADC		10	A	10	A
N	1.500	A	1.500	A	ADC		ADC		A		A	

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3.5	0.8992	3.5	0.9500	3.5	0.8992	5.25	0.4029	5.25	0.5000	5.25	0.4029	8.75	0.2357	8.75	0.2600	8.75	0.2357
B	3.5	0.8992	3.5	0.9500	3.5	0.8992	5.25	0.4029	5.25	0.5000	5.25	0.4029	8.75	0.2357	8.75	0.2600	8.75	0.2357
C	3.5	0.8992	3.5	0.9500	3.5	0.8992	5.25	0.4029	5.25	0.5000	5.25	0.4029	8.75	0.2357	8.75	0.2600	8.75	0.2357
N	3	0.3224	3	0.3200	3	0.3224	4.5	0.2345	4.5	0.2300	4.5	0.2345	7.5	0.1744	7.5	0.1700	7.5	0.1744

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 131  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION MEP Feeder

MANUFACTURER Square D SERIAL NUMBER 34769  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/97  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 17 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 0.85  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	0.850	1500	1,275.000	1600	1,360.000	1760	1,496.000
POLE TO FRAME	1.000	0.850	5929	5,039.650	6200	5,270.000	6500	5,525.000
LINE TO FRAME	1.000	0.850	1500	1,275.000	1600	1,360.000	1760	1,496.000
LOAD TO FRAME	1.000	0.850	5929	5,039.650	6200	5,270.000	6500	5,525.000
LINE TO LOAD	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	28	28	32
	20°C	28.3340	28.3340	32.3817

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00102  
END 00103

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 132  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Spare #1 Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED US-1/US-2 Feeder CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.75 A/ 0.1	1.75 A/ 0.1	1.75 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	1.5 A/ 0.05	1.5 A/ 0.05	1.5 A/ 0.05	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	1.750	A	1.750	A	ADC		ADC		10	A	10	A
B	1.750	A	1.750	A	ADC		ADC		10	A	10	A
C	1.750	A	1.750	A	ADC		ADC		10	A	10	A
N	1.500	A	1.500	A	ADC		ADC		A		A	

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3.5	0.7700	3.5	0.9500	3.5	0.7700	5.25	0.4951	5.25	0.5000	5.25	0.4951	8.75	0.2611	8.75	0.2600	8.75	0.2611
B	3.5	0.7700	3.5	0.9500	3.5	0.7700	5.25	0.4769	5.25	0.5000	5.25	0.4769	8.75	0.2756	8.75	0.2600	8.75	0.2756
C	3.5	0.7700	3.5	0.9500	3.5	0.7700	5.25	0.4836	5.25	0.5000	5.25	0.4836	8.75	0.2763	8.75	0.2600	8.75	0.2763
N	3	0.3128	3	0.3200	3	0.3128	4.5	0.2275	4.5	0.2300	4.5	0.2275	7.5	0.1387	7.5	0.1700	7.5	0.1387

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 133  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION Spare #1 Feeder

MANUFACTURER Square D SERIAL NUMBER 34770  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	7,010	7,851.200	7,650	8,568.000	4,180	4,681.600
POLE TO FRAME	1.000	1.120	41,800	46,816.00	45,400	50,848.00	46,000	51,520.00
LINE TO FRAME	1.000	1.120	7,010	7,851.200	7,650	8,568.000	4,180	4,681.600
LOAD TO FRAME	1.000	1.120	41,800	46,816.00	45,400	50,848.00	46,000	51,520.00
LINE TO LOAD	1.000	1.120	97,300	108,976.0	141,700	158,704.0	86,500	96,880.00

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	30	30	26
	20°C	29.7661	29.7661	25.7973

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00092  
END 00093

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# OVERCURRENT RELAY



CUSTOMER Powerlogics, Inc. PAGE 134  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION US-1/US-2 Feeder

## NAMEPLATE DATA

INIT instrument  
MANUFACTURER Square D TYPE DRLXS01 / MODEL / STYLE NO. DRLXS01 /  
LONG TIME RANGE 0.5-12 / 0.1-1 SEAL-IN RANGE N/A INSTANTANEOUS RANGE 1-50 / 1-20  
INSTRUCTION BOOKLET / TCC. NO. VIT / VIT (PHASE RELAYS / NEUTRAL RELAY)  
DEVICES OPERATED US-1/US-2 Feeder CT RATIO 1,200 :5

## VISUAL INSPECTION

	A	B	C	N
COVER GASKET OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GLASS CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO FOREIGN MATERIAL	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO MOISTURE PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
SPIRAL SPRING OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING ENDPLAY OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BEARING CONDITION OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DISC CLEARANCE OK	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NO RUST PRESENT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## ROUTINE MAINTENANCE

	A	B	C	N
GLASS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CASE CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RELAY CLEANED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONNECTION TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TAPS TIGHTENED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CONTACTS CLEANED	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TRIP CIRCUIT TESTED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
INSULATION RESISTANCE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CT SHORTING BAR REMOVED	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## RELAY SETTINGS

	TAP / TIME DIAL			SEAL - IN			INSTANTANEOUS		
	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT	AS FOUND	SPECIFIED	AS LEFT
PHASE RELAYS	1.75 A/ 0.1	1.75 A/ 0.1	1.75 A/ 0.1	ADC	ADC	ADC	10 A	10 A	10 A
NEUTRAL RELAYS	A/	A/	A/	ADC	ADC	ADC	A	A	A

## PICKUP TESTS

PHASE	TIMING UNIT				SEAL - IN UNIT				INSTANTANEOUS UNIT			
	AS FOUND		AS LEFT		AS FOUND		AS LEFT		AS FOUND		AS LEFT	
A	0.361	A	1.750	A	ADC	ADC	ADC	ADC	10	A	10	A
B	0.361	A	1.750	A	ADC	ADC	ADC	ADC	10	A	10	A
C	0.361	A	1.750	A	ADC	ADC	ADC	ADC	10	A	10	A
N		A		A	ADC	ADC	ADC	ADC	A	A	A	A

## TIMING TESTS

PHASE	AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT		AS FOUND		SPECIFIED		AS LEFT	
	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.	AMPS	SEC.
A	3.5	0.9402	3.5	0.9500	3.5	0.9402	5.25	0.4951	5.25	0.5000	5.25	0.4951	8.75	0.2611	8.75	0.2600	8.75	0.2611
B	3.5	0.9312	3.5	0.9500	3.5	0.9312	5.25	0.4769	5.25	0.5000	5.25	0.4769	8.75	0.2756	8.75	0.2600	8.75	0.2756
C	3.5	0.9288	3.5	0.9500	3.5	0.9288	5.25	0.4836	5.25	0.5000	5.25	0.4836	8.75	0.2763	8.75	0.2600	8.75	0.2763
N																		

COMMENTS: Reset Secondary to 5 amps.

DEFICIENCIES: Relay was set to 1 Amp Secondary Current

EQPT. INVENTORY NO. Manta MTS-5000

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 135  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION North 15kv Switchgear POSITION US-1/US-2 Feeder

MANUFACTURER Square D SERIAL NUMBER 1761822  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 17 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 0.85  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
POLE TO FRAME	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
LINE TO FRAME	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
LOAD TO FRAME	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
LINE TO LOAD	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	24	25	25
	20°C	24.2863	25.2982	25.2982

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00049  
END 00050

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 136  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 36 °F HUMIDITY 70 % EQPT. LOCATION Nursnig Home  
SUBSTATION Nursing Home SWBD POSITION Switch

## FUSE DATA

MANUFACTURER Little Fuse TYPE E HOLDER Clip MAX. AMPS 50  
REFILL ELEMENT TYPE  SIZE 50E CAT. NO. 50E-1C-15.5 TCC NO.  VOLTAGE 15.5 kV

## NAMEPLATE DATA

MANUFACTURER Federal Pacific SERIAL NO. 2658D2430  
VOLTAGE 13.8 kV TYPE LI AMPERES 600 INTERRUPTING RATING 40 kA  
TYPE OPERATING MECHANISM Mechanical AGE N/A B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS  kA OTHER NAMEPLATE DATA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input type="checkbox"/>		
INSULATING MEMBERS	<input type="checkbox"/>		
MECHANICAL CONNECTION	<input type="checkbox"/>		
STRUCTURAL MEMBERS	<input type="checkbox"/>		
CUBICLE	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input type="checkbox"/>		
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input type="checkbox"/>		
GROUND CONNECTION	<input type="checkbox"/>		

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

	POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS	RDG. 95	83	94
	20°C 95.00	83.00	94.00
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger

TESTED BY: Andrew Thomas



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 137  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 36 °F HUMIDITY 70 % EQPT. LOCATION Nursing Home  
SUBSTATION Nursing H0me SWBD POSITION Transformer

## NAMEPLATE DATA

MANUFACTURER Westinghouse YR MFR N/A SERIAL NO. 81jc413258  
IMPEDANCE 6.14 % CAPACITY 325 GALLONS TYPE N/A CLASS OA / /  
KVA 750 / / WINDING MATERIAL COPPER TEMPERATURE RISE 65 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒ ☐ ☐ ☐ DELTA  
SECONDARY KV 480 / 277 ☐ ☐ ☒ ☐ WYE  
TAP VOLTAGES 13,095 12,785 12,470 12,160 11,850 INSULATING MEDIUM Mineral Oil  
TAP POSITION 1 2 3 4 5 TANK TYPE Free Breathing  
TAP SETTING 1 13,095 VOLTS DRY TYPE ☐ CONSERVATOR ☒

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	19490	22400	14000
1.00	25270	36800	26240
10.00	40000	72100	44600
P. I.	1.5829	1.95924	1.6997

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
1	47.274	47.299	47.310	47.308

WORKING TAP AF 1 AL 1

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC Megger, TTR, Winding Resistance Test Set

TESTED BY: Andrew Thomas



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 138  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/19/2014 AMBIENT TEMPERATURE 75 °F HUMIDITY 85 % EQPT. LOCATION Full Power Backup Building  
SUBSTATION Paralleling 15kv Switchgear POSITION Feeder North Feeder

MANUFACTURER Square D SERIAL NUMBER 1754366  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
POLE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LOAD TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO LOAD	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	25	25	26
	20°C	24.8051	24.8051	25.7973

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00023  
END 00024

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 139  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/10/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Full Power Backup Building  
SUBSTATION Paralleling 15kv Switchgear POSITION Generator 1

MANUFACTURER Square D SERIAL NUMBER 1754363  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 18 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
POLE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LOAD TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO LOAD	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	26	24
	20°C	25.7973	25.7973	23.8129

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00332  
END 00334

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 140  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/10/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Full Power Backup Building  
SUBSTATION Paralleling 15kv Switchgear POSITION Generator 2

MANUFACTURER Square D SERIAL NUMBER 1754365  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 18 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
POLE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LOAD TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO LOAD	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	26	26
	20°C	25.7973	25.7973	25.7973

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00330  
END 00332

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 141  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/10/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Full Power Backup Building  
SUBSTATION Paralleling 15kv Switchgear POSITION Generator 3

MANUFACTURER Square D SERIAL NUMBER 1754364  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 18 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
POLE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LOAD TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO LOAD	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	26	29
	20°C	25.7973	25.7973	28.7739

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00320  
END 00321

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 142  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 12/10/2013 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Full Power Backup Building  
SUBSTATION Paralleling 15kv Switchgear POSITION Generator 4

MANUFACTURER Square D SERIAL NUMBER 1754362  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 9/08  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 18 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	C/L
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 22 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1.12  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
POLE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LOAD TO FRAME	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0
LINE TO LOAD	1.000	1.120	200000	224,000.0	200000	224,000.0	200000	224,000.0

CONTROL WIRING - MEGOHMS			
READING		20°C	

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	26	25	23
	20°C	25.7973	24.8051	22.8207

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00303  
END 00305

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 143  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION Plumbing Shop  
SUBSTATION Siemens Emergency Board POSITION Spare #1

MANUFACTURER Siemens SN / SO NO. N/A FRAME SIZE(F) 1000  
BREAKER TYPE SBS 1000 SENSOR TAPS 1000 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE SBS CATALOG NO. LSIG ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .2 x 200 A = 200 A DELAY 22  
RATING PLUG(R) 1000 SHORT TIME PU 10 = 2000 A DELAY .18 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 4 = 4000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .55 = 550 A ☒ ON ☐ OFF DELAY .6 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .2 x 200 A = 200 A DELAY 22  
RATING PLUG(R) 1000 SHORT TIME PU 10 = 2000 A DELAY .18 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 4 = 4000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .55 = 550 A ☒ ON ☐ OFF DELAY .6 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	4000	1								
	IPU				4,000	4,000	4,000	4,000	4,000	4,000
SHORT TIME	3000	1.5			0.1812	0.1812	0.1812	0.1812	0.1812	0.1812
	STPU				3,000	3,000	3,000	3,000	3,000	3,000
LONG TIME	600	3			80.32	80.32	80.32	80.32	80.32	80.32
	LTPU				200	200	200	200	200	200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	875	1.5			0.6012	0.6012	0.6012	0.6012	0.6012	0.6012
	GFPU				550	550	550	550	550	550

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
28	31	33

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 144  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °C HUMIDITY 98 % EQPT. LOCATION Maintenance Shop  
SUBSTATION Siemens Emergency Board POSITION Spare #2

MANUFACTURER Siemens SN / SO NO. N/A FRAME SIZE(F) 1000  
BREAKER TYPE SBS 1000 SENSOR TAPS 1000 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE SBS CATALOG NO. LSIG ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1000 A = 1000 A DELAY 2  
RATING PLUG(R) 1000 SHORT TIME PU 2 = 2000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 2 = 2000 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .1 = 100 A ☐ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1000 A = 1000 A DELAY 2  
RATING PLUG(R) 1000 SHORT TIME PU 2 = 2000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 2 = 2000 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .1 = 100 A ☐ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2000	1								
	IPU				2,000	2,000	2,000	2,000	2,000	2,000
SHORT TIME	3000	1.5			0.1012	0.1012	0.1012	0.1012	0.1012	0.1012
	STPU				2,000	2,000	2,000	2,000	2,000	2,000
LONG TIME	3000	3			10.121	10.121	10.121	10.121	10.121	10.121
	LTPU				1,000	1,000	1,000	1,000	1,000	1,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	150	1.5			0.101	0.101	0.101	0.101	0.101	0.101
	GFPU				100	100	100	100	100	100

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
35	33	33

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# VACUUM CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 145  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 55 °F HUMIDITY 45 % EQPT. LOCATION Building 25  
SUBSTATION South 15kv Switchgear POSITION US-1/US-2 Feeder

MANUFACTURER Square D SERIAL NUMBER 1761821  
TYPE VR MODEL NO. V5D7133Y000 DATE MANUFACTURED 10/09  
MAXIMUM VOLTAGE 15 kV AMPACITY 1200 OPERATING VOLTAGE 12.47 kV  
INTERRUPTING CAPACITY 40 kA @  kV TO  kV =  mVA

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Dirty	C
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Dirty	C
MECHANICAL CONNECTIONS	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Dirty	
RACKING DEVICES	<input checked="" type="checkbox"/>	N/A	
SHUTTER	<input checked="" type="checkbox"/>	Good	

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CONTACT FINGERS	<input checked="" type="checkbox"/>	Excellent	C/L
VACUUM BOTTLE	<input checked="" type="checkbox"/>	Excellent	
CONTACT EROSION INDICATOR	<input checked="" type="checkbox"/>	Good	
OPERATING MECHANISM	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 17 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 0.85  
MILLIWATT LOSS TEST VOLTAGE N/A KVAC HIGH POTENTIAL TEST VOLTAGE 30 KVDC

INSULATION RESISTANCE	RANGE MULTIPLIER	K2	POLE 1 MEGOHMS (P1-P2)		POLE 2 MEGOHMS (P2-P3)		POLE 3 MEGOHMS (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
POLE TO FRAME	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
LINE TO FRAME	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
LOAD TO FRAME	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1
LINE TO LOAD	1.000	0.850	999999	849,999.1	999999	849,999.1	999999	849,999.1

CONTROL WIRING - MEGOHMS			
READING		20°C	

CONTACT MEASUREMENTS		POLE 1	POLE 2	POLE 3
CONTACT TRAVEL - INCHES				
POLE RESISTANCE MICRO-OHMS	RDG.			
	20°C			
CONTACT RESISTANCE MICRO-OHMS	RDG.	24	24	24
	20°C	24.2863	24.2863	24.2863

	POLE 1	POLE 2	POLE 3
HIGH POTENTIAL TEST	PASS	PASS	PASS
MILLIWATT LOSS TEST			

	POLE 1	POLE 2	POLE 3
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COUNTER READING: BEG. 00050  
END 00051

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. VBT-60, DLRO, AEMC-5050 TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 146  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 55 % EQPT. LOCATION Bed Tower Electrical Room  
SUBSTATION South 15kv Switchgear POSITION US-1/US-2 Feeder

## FUSE DATA

MANUFACTURER Square D TYPE 100E HOLDER N/A MAX. AMPS 100  
REFILL ELEMENT TYPE N/A SIZE 100 CAT. NO. 175GXMSJD100 TCC NO. N/A VOLTAGE 15 kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. N/A  
VOLTAGE 15 TYPE HVL AMPERES 600 INTERRUPTING RATING 40 kA  
TYPE OPERATING MECHANISM MECH AGE 10/09 B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 40 kA OTHER NAMEPLATE DATA N/A

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Good	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE -CENTIMETERS			
MAIN CONTACT WIPE - CENTIMETERS			
MAIN CONTACT GAP - CENTIMETERS			
MAIN CONTACT TRAVEL CENTIMETERS			

	POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS			
RDG.	52	50	46
20°C	52.00	50.00	46.00
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC-5050, DLRO

TESTED BY: Troy Buffington, NETA Cert #90-3-5392





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 147  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/16/2014 AMBIENT TEMPERATURE 54 °F HUMIDITY 65 % EQPT. LOCATION Plumbing Shop  
SUBSTATION Switchboard EMSBD STBY POSITION Spare #1

MANUFACTURER Siemens SN / SO NO. 33433 FRAME SIZE(F) 1000  
BREAKER TYPE N/A SENSOR TAPS 1000 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE N/A CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input type="checkbox"/>		
CONTACT FINGERS	<input type="checkbox"/>		
LOADING AND ARCING CONTACTS	<input type="checkbox"/>		
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input type="checkbox"/>		
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .20 x          A =          A DELAY 22  
RATING PLUG(R) 1000 SHORT TIME PU 10 =          A DELAY .18 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 4 =          A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .55 =          A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .20 x          A =          A DELAY 22  
RATING PLUG(R) 1000 SHORT TIME PU 10 =          A DELAY .18 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU 4 =          A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .55 =          A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME										
	STPU									
LONG TIME										
	LTPU									
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.424	0.424	0.424	0.424	0.424	0.424
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 148  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 2/15/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION Plumbing Shop  
SUBSTATION Switchboard EMSBD STBY POSITION Tie Breaker #4

MANUFACTURER Siemens SN / SO NO. N/A FRAME SIZE(F) 1000  
BREAKER TYPE SND 6 SENSOR TAPS 1000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE SND 6 CATALOG NO. SND69100ANGJ ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 1000 A = 1000 A DELAY 27  
RATING PLUG(R) 1000 SHORT TIME PU 10 = 10000 A DELAY .18 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU MAX = 12000 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .55 = 550 A ☐ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 1000 A = 1000 A DELAY 27  
RATING PLUG(R) 1000 SHORT TIME PU 10 = 10000 A DELAY .18 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 1,000 INST. PU MAX = 12000 A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .55 = 550 A ☐ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	12000	1			0.010	0.010	0.010	0.010	0.010	0.010
	IPU				12,000	12,000	12,000	12,000	12,000	12,000
SHORT TIME	15000	1.5			0.1825	0.1825	0.1825	0.1825	0.1825	0.1825
	STPU				10,000	10,000	10,000	10,000	10,000	10,000
LONG TIME	3000	3			10.32	10.32	10.32	10.32	10.32	10.32
	LTPU				1,000	1,000	1,000	1,000	1,000	1,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.4212	0.4212	0.4212	0.4212	0.4212	0.4212
	GFPU				550	550	550	550	550	550

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
25	28	31

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 149  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/16/2014 AMBIENT TEMPERATURE 54 °F HUMIDITY 65 % EQPT. LOCATION Plumbing Shop  
SUBSTATION Switchboard EMSBD STBY POSITION Tie Breaker 1250KW Gen

MANUFACTURER Siemens SN / SO NO. 33433 FRAME SIZE(F) 2000  
BREAKER TYPE SBS 2020 SENSOR TAPS 2000 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE SB207LSIG CATALOG NO. SBS2020 ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1000 A = 1000 A DELAY 30  
RATING PLUG(R) 1000 SHORT TIME PU 9 = 9000 A DELAY .3 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 12 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .60 = 1200 A ☒ ON ☐ OFF DELAY .4 I²T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1000 A = 1000 A DELAY 30  
RATING PLUG(R) 1000 SHORT TIME PU 9 = 9000 A DELAY .3 I²T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 12 = 12000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .60 = 1200 A ☒ ON ☐ OFF DELAY .4 I²T ☐ IN ☒ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	12000	1			0.010	0.010	0.010	0.010	0.010	0.010
	IPU				12,200	12,200	12,200	12,200	12,200	12,200
SHORT TIME	13500	1.5			0.3102	0.3102	0.3102	0.3102	0.3102	3.102
	STPU				13,500	13,500	13,500	13,500	13,500	13,500
LONG TIME	3000	3	88.230	83.210	95.421	95.421	95.421	95.421	95.421	95.421
	LTPU				1,000	1,000	1,000	1,000	1,000	1,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	900	1.5			0.421	0.421	0.421	0.421	0.421	0.421
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Andrew Thomas



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 150  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/16/2014 AMBIENT TEMPERATURE 54 °F HUMIDITY 65 % EQPT. LOCATION Plumbing Shop  
SUBSTATION Switchboard EMSBD STBY POSITION Tie Breaker ACA #2

MANUFACTURER Siemens SN / SO NO. 33433 FRAME SIZE(F) 2000  
BREAKER TYPE SBS 2020 SENSOR TAPS 2000 MOUNTING ☐ B.I. ☐ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE SB207LSIG CATALOG NO. SBS2020 ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input type="checkbox"/>		
CONTACT FINGERS	<input type="checkbox"/>		
LOADING AND ARCING CONTACTS	<input type="checkbox"/>		
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input type="checkbox"/>		
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input type="checkbox"/>		
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 2000 A = 2000 A DELAY 25  
RATING PLUG(R) 2000 SHORT TIME PU 8 = 16000 A DELAY .3 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 10 = 20000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .60 = 1200 A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 2000 A = 2000 A DELAY 25  
RATING PLUG(R) 2000 SHORT TIME PU 8 = 16000 A DELAY .3 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 10 = 20000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU .60 = 1200 A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☒ OUT ☐ N/A

TCC NO.				POLE 1		POLE 2		POLE 3		
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	20000	1								
	IPU				20,150	20,150	20,150	20,150	20,150	20,150
SHORT TIME	24000	1.5			0.31	0.31	0.31	0.31	0.31	0.31
	STPU				24,000	24,000	24,000	24,000	24,000	24,000
LONG TIME	6000	3			106.21	106.21	106.21	106.21	106.21	106.21
	LTPU				2,000	2,000	2,000	2,000	2,000	2,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT					0.424	0.424	0.424	0.424	0.424	0.424
	GFPU				1,200	1,200	1,200	1,200	1,200	1,200

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
18	21	26

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Andrew Thomas



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 151  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-1 POSITION US-1 Switch

## FUSE DATA

MANUFACTURER Square D TYPE MV155FIDC580 HOLDER N/A MAX. AMPS 50E  
REFILL ELEMENT TYPE N/A SIZE N/A CAT. NO. N/A TCC NO. N/A VOLTAGE 15 kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-06691775C  
VOLTAGE 15 TYPE HVL AMPERES 600 INTERRUPTING RATING N/A kA  
TYPE OPERATING MECHANISM Mechanical AGE 2/98 B.I.L. RATING N/A kV  
MOMENTARY FAULT CLOSING AMPS N/A kA OTHER NAMEPLATE DATA N/A

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Good	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

CONTACT RESISTANCE MICRO-OHMS	RDG.	POLE 1	POLE 2	POLE 3
	20°C	47	45	49
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 152  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/12/2014 AMBIENT TEMPERATURE 50 °F HUMIDITY 82 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION Chiller #3

MANUFACTURER Square D SN / SO NO. 085132247103 FRAME SIZE(F) 2000  
BREAKER TYPE NW 20 H2 SENSOR TAPS 2000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA5FFR64A3CXXXXXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

## SETTINGS AS FOUND

LONG TIME PU 1 x 2000 A = 2000 A DELAY 2  
RATING PLUG(R) 2,000 SHORT TIME PU 4 = 8000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 8 = 16000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 880 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 2000 A = 2000 A DELAY 2  
RATING PLUG(R) 2,000 SHORT TIME PU 4 = 8000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 8 = 16000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 880 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.                     

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	4000	2			4.210	4.210	4.160	4.160	3.950	3.950
	IPU				4.000	4.000	4.000	4.000	4.000	4.000
SHORT TIME	7000	3.5			0.107	0.107	0.107	0.107	0.107	0.107
	STPU				7.000	7.000	7.000	7.000	7.000	7.000
LONG TIME	6000	3			6.365	6.365	5.992	5.992	6.116	6.116
	LTPU				6.000	6.000	6.000	6.000	6.000	6.000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	880	E			0.253	0.253	0.253	0.253	0.253	0.253
	GFPU				880	880	880	880	880	880

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
11	13	12

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD tested @ 2.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 153  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/12/2014 AMBIENT TEMPERATURE 50 °F HUMIDITY 82 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION Chiller #4

MANUFACTURER Square D SN / SO NO. 085132247201 FRAME SIZE(F) 2000  
BREAKER TYPE NW 20 H2 SENSOR TAPS 2000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA5FFR64A3CXXXXXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 2000 A = 2000 A DELAY 2  
RATING PLUG(R) 2,000 SHORT TIME PU 4 = 8000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 8 = 16000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 880 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 2000 A = 2000 A DELAY 2  
RATING PLUG(R) 2,000 SHORT TIME PU 4 = 8000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 8 = 16000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 880 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	4000	2			3.970	3,970	3,845	3,845	4,018	4,018
	IPU				4,000	4,000	4,000	4,000	4,000	4,000
SHORT TIME	7000	3.5			0.105	0.105	0.105	0.105	0.105	0.105
	STPU				7,000	7,000	7,000	7,000	7,000	7,000
LONG TIME	6000	3			5.641	5,641	6.118	6,118	5.863	5,863
	LTPU				6,000	6,000	6,000	6,000	6,000	6,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	880	E			0.271	0.271	0.271	0.271	0.271	0.271
	GFPU				880	880	880	880	880	880

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
13	26	14

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD tested @ 2.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 154  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/12/2014 AMBIENT TEMPERATURE 50 °F HUMIDITY 82 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION DP-1CH

MANUFACTURER Square D SN / SO NO. 085132247101 FRAME SIZE(F) 2000  
BREAKER TYPE NW 20 H2 SENSOR TAPS 2000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA5FFR64A3CXXXXXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .5 x 2000 A = 1000 A DELAY 8  
RATING PLUG(R) 2,000 SHORT TIME PU 4 = 4000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 8 = 8000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .5 x 2000 A = 1000 A DELAY 8  
RATING PLUG(R) 2,000 SHORT TIME PU 4 = 4000 A DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 8 = 8000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 800 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	4000	2			4,120	4,120	3,610	3,610	3,980	3,980
	IPU				4,000	4,000	4,000	4,000	4,000	4,000
SHORT TIME	4000	3.5			0.046	0.046	0.046	0.046	0.046	0.046
	STPU				4,000	4,000	4,000	4,000	4,000	4,000
LONG TIME	3000	3			3.455	3.455	4.599	4.599	5.006	5.006
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	D			0.045	0.045	0.045	0.045	0.045	0.045
	GFPU				800	800	800	800	800	800

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
13	20	17

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD tested @ 2.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis





CUSTOMER	Powerlogics, Inc.			PAGE	155
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/12/2014	AMBIENT TEMPERATURE	50 °F	HUMIDITY	82 %
				EQPT. LOCATION	MEP
SUBSTATION	US-10			POSITION	DPZCH

MANUFACTURER	Square D	SN / SO NO.	085137247102	FRAME SIZE(F)	2000
BREAKER TYPE	NW 20 H2	SENSOR TAPS	2000	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Micrologic 6.0A	CATALOG NO.	WA5FFR44A3CXXXXXXA	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	.5	x	2000	A =	1000	A	DELAY	8				
RATING PLUG(R)		SHORT TIME PU	4	=	4000	A			DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	2,000	INST. PU	8	=	8000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	D	=	800	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	.3	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

SETTINGS AS LEFT		LONG TIME PU	.5	x	2000	A =	1000	A	DELAY	8				
RATING PLUG(R)		SHORT TIME PU	4	=	4000	A			DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	2,000	INST. PU	8	=	8000	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	D	=	800	A	<input checked="" type="radio"/> ON	<input type="radio"/> OFF	DELAY	.3	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2000	2			1,983	1,983	2,210	2,210	2,340	2,340
	IPU				2,000	2,000	2,000	2,000	2,000	2,000
SHORT TIME	4000	3.5			0.045	0.045	0.045	0.045	0.045	0.045
	STPU				4,000	4,000	4,000	4,000	4,000	4,000
LONG TIME	3000	3			1.212	1.212	1.426	1.426	1.322	1.322
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	800	D			0.206	0.206	0.206	0.206	0.206	0.206
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
11	16	11

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:	LTD tested @ 2.
DEFICIENCIES:	

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 156  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION Main

MANUFACTURER Square D SN / SO NO. 085132247001 FRAME SIZE(F) 4000  
BREAKER TYPE NW 40 H2 SENSOR TAPS 4000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. YA5KKR44A3CXXXXXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 4000 A = 4000 A DELAY 1  
RATING PLUG(R)                      SHORT TIME PU 3 = 12000 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 6 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 1200 A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 4000 A = 4000 A DELAY 1  
RATING PLUG(R)                      SHORT TIME PU 3 = 12000 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 4,000 INST. PU 6 = 24000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU J = 1200 A ☒ ON ☐ OFF DELAY .4 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.                     

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	8000	2			8.260	8.260	8.210	8.210	7.983	7.983
	IPU				8.000	8.000	8.000	8.000	8.000	8.000
SHORT TIME	14000	3.5			0.275	0.275	0.275	0.275	0.275	0.275
	STPU				14.000	14.000	14.000	14.000	14.000	14.000
LONG TIME	12000	3			15.93	15.93	16.23	16.23	15.48	15.48
	LTPU				12.000	12.000	12.000	12.000	12.000	12.000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	1200	J			0.413	0.413	0.413	0.413	0.413	0.413
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
13	18	14

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD tested @ 2.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 157  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION Spare

MANUFACTURER Square D SN / SO NO. 085132247202 FRAME SIZE(F) 2000  
BREAKER TYPE NW-20-H2 SENSOR TAPS 2000 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Micrologic 6.0A CATALOG NO. WA5FFR64A3CXXXXXA ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 2000 A = 2000 A DELAY .5  
RATING PLUG(R) 2000 SHORT TIME PU 1.5 = 3000 A DELAY .1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 2 = 4000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 640 A ☐ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 2000 A = 2000 A DELAY .5  
RATING PLUG(R) 2000 SHORT TIME PU 1.5 = 30000 A DELAY .1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A  
SENSOR TAP 2,000 INST. PU 2 = 40000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU A = 640 A ☐ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☒ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	4000	2			4.055	4.055	4.098	4.098	4.055	4.055
	IPU				4.000	4.000	4.000	4.000	4.000	4.000
SHORT TIME	7000	1.5			0.248	0.248	0.248	0.248	0.248	0.248
	STPU				7.000	7.000	7.000	7.000	7.000	7.000
LONG TIME	6000	3			9.360	9.360	9.120	9.120	9.360	9.360
	LTPU				6.000	6.000	6.000	6.000	6.000	6.000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	960	1.5			0.080	0.080	0.080	0.080	0.080	0.080
	GFPU				640	640	640	640	640	640

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
24	29	26

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2

DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger

TESTED BY: Billy Davis



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 158  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/12/2014 AMBIENT TEMPERATURE 50 °F HUMIDITY 82 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION US-10

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 6/16/09 SERIAL NO. 25279545-411-01-1  
IMPEDANCE 5.61 % CAPACITY            GALLONS TYPE VPI CLASS AA / AA / FFA  
KVA 2,000 / 2,700 / WINDING MATERIAL COPPER TEMPERATURE RISE 50 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒ ☐ ☐ ☐ ☐ DELTA  
SECONDARY KV 480 / 277 ☐ ☐ ☒ ☐ ☐ WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 11,847 INSULATING MEDIUM Air  
TAP POSITION E-F D-F E-G D-G C-G TANK TYPE Free Breathing  
TAP SETTING E-G 12,470 VOLTS DRY TYPE ☒ CONSERVATOR ☐

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	4.5G	2G	4.0G
1.00	5.2G	2.5G	4.2G
10.00	7.5G	3.1G	5.0G
P. I.			

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
E-G	45.018	45.079	45.088	45.084

WORKING TAP AF E-G AL E-G

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 5kV Megger, 3 PH TTR

TESTED BY: Billy Davis



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 159  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/12/2014 AMBIENT TEMPERATURE 50 °F HUMIDITY 82 % EQPT. LOCATION MEP  
SUBSTATION US-10 POSITION US-10

## FUSE DATA

MANUFACTURER Square D TYPE Power Limiting HOLDER N/A MAX. AMPS 125  
REFILL ELEMENT TYPE N/A SIZE N/A CAT. NO. 175GXQSD125 TCC NO. N/A VOLTAGE 17.5 kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 44036-325-50  
VOLTAGE 15kV TYPE HVL AMPERES 600 INTERRUPTING RATING 65 kA  
TYPE OPERATING MECHANISM N/A AGE 5/09 B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 65 kA OTHER NAMEPLATE DATA N/A

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Good	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5,000 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

		POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS	RDG.	34	28	33
	20°C	34.00	28.00	33.00
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 5kV Megger, AEMC DLRO

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 160  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION ATS-C2

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 130 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 130 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	600	2			612	612	638	638	652	652
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3	5.2	8	7.322	7.322	6.163	6.163	6.631	6.631
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	130	H			0.120	0.120	0.120	0.120	0.120	0.120
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
121	97	91

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 161  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION ATS-EQ2

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU K = 300 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU K = 300 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	600	2			733	733	691	691	653	653
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3	5.2	8	6.583	6.583	6.913	6.913	7.142	7.142
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	300	K	.04	.16	0.120	0.120	0.120	0.120	0.120	0.120
	GFPU				300	300	300	300	300	300

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
180	293	196

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 162  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION ATS-LS2

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .5 x 200 A = 100 A DELAY 24  
RATING PLUG(R) 200 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .5 x 200 A = 100 A DELAY 24  
RATING PLUG(R) 200 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	200	2			254	254	318	318	273	273
	IPU				200	200	200	200	200	200
SHORT TIME										
	STPU									
LONG TIME	300	3	5.2	8	6.974	6.974	6.721	6.721	6.844	6.844
	LTPU				300	300	300	300	300	300
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	D	.04	.16	0.120	0.120	0.120	0.120	0.120	0.120
	GFPU				120	120	120	120	120	120

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
753	460	542

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES: Charged indicator was defective.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 163  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION E/C G 163-1 X-Ray Equipment

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 200 A = 140 A DELAY 24  
RATING PLUG(R) 200 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 1680 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 200 A = 140 A DELAY 24  
RATING PLUG(R) 200 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 1680 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	280	2			394	394	302	302	365	365
	IPU				280	280	280	280	280	280
SHORT TIME										
	STPU									
LONG TIME	420	3	5.2	8	7.327	7.327	6.969	6.969	7.719	7.719
	LTPU				420	420	420	420	420	420
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		F	.04	.16	0.115	0.115	0.115	0.115	0.115	0.115
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
94	78	56

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 164  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION Main 52-1

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU 2 = 3200 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU 2 = 3200 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME	5600	3.5	.39	.50	0.449	0.449	0.449	0.449	0.449	0.449
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3	5.2	8	17.03	17.03	19.46	19.46	18.43	18.43
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
69	90	70

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: The ground fault is not hooked up.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 165  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION New ATS

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 400 A = 280 A DELAY 4  
RATING PLUG(R) 400 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 2240 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU P =  A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 400 A = 280 A DELAY 4  
RATING PLUG(R) 400 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 2240 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU P =  A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	560	2			673	673	710	710	604	604
	IPU				560	560	560	560	560	560
SHORT TIME										
	STPU									
LONG TIME	840	3	5.2	8	7.324	7.324	7.114	7.114	6.981	6.981
	LTPU				840	840	840	840	840	840
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	180	D	.39	.5	0.475	0.475	0.475	0.475	0.475	0.475
	GFPU				180	180	180	180	180	180

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
271	286	392

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 166  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION Panel ALGB

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 600 A = 420 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 3360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 600 A = 420 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 3360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	840	2			1,129	1,129	1,040	1,040	989	989
	IPU				840	840	840	840	840	840
SHORT TIME										
	STPU									
LONG TIME	1260	3	5.2	8	7,309	7,309	7,116	7,116	7,283	7,283
	LTPU				1,260	1,260	1,260	1,260	1,260	1,260
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		F	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
30	29	59

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 167  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION US-4 POSITION Panel ALIB

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

## SETTINGS AS FOUND

LONG TIME PU .7 x 600 A = 420 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 3360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 220 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU .7 x 600 A = 420 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 3360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = 220 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	840	2			879	879	973	973	900	900
	IPU				840	840	840	840	840	840
SHORT TIME										
	STPU									
LONG TIME	1260	3	5.2	8	7.329	7.329	7.119	7.119	7.304	7.304
	LTPU				1,260	1,260	1,260	1,260	1,260	1,260
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	200	E	.04	.16	0.150	0.150	0.150	0.150	0.150	0.150
	GFPU				200	200	200	200	200	200

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
258	158	105

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Charged indicator is defective.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 168  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION US-4 POSITION Tie 52-TI

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 1600 A = 1120 A DELAY 15  
RATING PLUG(R) 1600 SHORT TIME PU 5 = 5600 A DELAY .2 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 1600 A = 1120 A DELAY 15  
RATING PLUG(R) 1600 SHORT TIME PU 5 = 5600 A DELAY .2 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU E = A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME	3920	3.5	.13	.23	0.20	0.20	0.20	0.20	0.20	0.20
	STPU				3,920	3,920	3,920	3,920	3,920	3,920
LONG TIME	3360	3			16.21	16.21	18.91	18.91	16.42	16.42
	LTPU				3,360	3,360	3,360	3,360	3,360	3,360
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		E								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
400	410	429

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Charged indicator is defective. Ground Fault is not hooked up.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 169  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-4 POSITION US-4 Transformer

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 12/97 SERIAL NO. 960316-B1  
IMPEDANCE 5.76 % CAPACITY                      GALLONS TYPE N/A CLASS OA / /  
KVA 1,500 / / WINDING MATERIAL ALUMINUM TEMPERATURE RISE 65 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒ ☐ ☐ ☐ ☐ DELTA  
SECONDARY KV 480 / 277 ☐ ☐ ☒ ☐ ☐ WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 11,847 INSULATING MEDIUM Oil  
TAP POSITION A B C D E TANK TYPE Free Breathing  
TAP SETTING B 12,782 VOLTS DRY TYPE ☐ CONSERVATOR ☒

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	N/A
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	13900	1100	15900
1.00	16600	1490	19400
10.00	23900	3660	25100
P. I.	1.43976	2.45638	1.29381

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
B	46.144	46.147	46.148	46.141

WORKING TAP AF B AL B

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 3 ph TTR

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 170  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION ATS-C1

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 300 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 300 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			614	614	633	633	680	680
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3	5.2	8	7.670	7.670	7.163	7.163	7.421	7.421
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		H	.04	.16	0.124	0.124	0.124	0.124	0.124	0.124
	GFPU				300	300	300	300	300	300

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
40	20	35

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis





CUSTOMER	Powerlogics, Inc.			PAGE	171
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	US-5			POSITION	ATS-EQ1

MANUFACTURER	Square D	SN / SO NO.	6616C26G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206H	SENSOR TAPS	400	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND**

RATING PLUG(R)	300	LONG TIME PU	1	x	300	A	=	300	A	DELAY	24	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	400	SHORT TIME PU		=		A				DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	M2=12	=	3600	A		<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	F	=	120	A		<input checked="" type="radio"/> ON <input type="radio"/> OFF		DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 300 A = 300 A DELAY 24 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
 RATING PLUG(R) 300 SHORT TIME PU = A  
 SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
 GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 120 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			778	778	720	720	749	749
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3	5.2	8	6.979	6.979	7.463	7.463	6.994	6.994
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	F	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
129	171	134

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 172  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION US-5 POSITION ATS-EQ3A

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1200 A = 120 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 5 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 120 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1200 A = 120 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 5 = 6000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 120 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2400	2			2,540	2,540	2,647	2,647	2,510	2,510
	IPU				2,400	2,400	2,400	2,400	2,400	2,400
SHORT TIME										
	STPU									
LONG TIME	3600	3			6.986	6.986	6.711	6.711	6.841	6.841
	LTPU				3,600	3,600	3,600	3,600	3,600	3,600
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	F			0.132	0.132	0.132	0.132	0.132	0.132
	GFPU				120	120	120	120	120	120

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
44	28	39

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES: Charged indicator is defective.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 173  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION ATS-LS1

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 300 A = 100 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU          =          A DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D =          A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 300 A = 100 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU          =          A DELAY          I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D =          A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	200	2			370	370	350	350	363	363
	IPU				200	200	200	200	200	200
SHORT TIME										
	STPU									
LONG TIME	300	3	5.2	.8	7.332	7.332	7.184	7.184	6.872	6.872
	LTPU				300	300	300	300	300	300
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	100	D	.04	.16	0.129	0.129	0.129	0.129	0.129	0.129
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
34	35	31

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 174  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION Main 52-5

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU 1 x 1600 A = 1600 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU 6 = 9600 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = A ☐ ON ☒ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 1600 A = 1600 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU 6 = 9600 A DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU = A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = A ☐ ON ☒ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. \_\_\_\_\_

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS										
	IPU									
SHORT TIME	5600	3.5	.39	.50	0.477	0.477	0.477	0.477	0.477	0.477
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3	5.2	8	18.43	18.43	17.52	17.52	18.20	18.20
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: The ground fault is not hooked up.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 175  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION MCC-GA

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 400 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 120 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 300 A = 300 A DELAY 24  
RATING PLUG(R) 300 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 120 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			693	693	783	783	726	726
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3	5.2	8	6.632	6.632	6.977	6.977	7.421	7.421
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	H	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
41	28	78

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	176
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/4/2014	AMBIENT TEMPERATURE	40 °F	HUMIDITY	60 %
				EQPT. LOCATION	ACA Switchgear Room
SUBSTATION	US-5			POSITION	MCC-GB

MANUFACTURER	Square D	SN / SO NO.	6616C26G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206E	SENSOR TAPS	400	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU 1 x 300 A = 300 A DELAY 24 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

RATING PLUG(R) 300 SHORT TIME PU          =          A DELAY         

SENSOR TAP 400 INST. PU M2=12 = 3600 A ☒ ON ☐ OFF

GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H =          A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	300	LONG TIME PU	1	x	300	A =	300	A	DELAY	24	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	400	SHORT TIME PU		=		A		A	DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	M2=12	=	3600	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	H	=		A	<input checked="" type="radio"/> ON <input type="radio"/> OFF		DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	600	2			696	696	783	783	711	711
	IPU				600	600	600	600	600	600
SHORT TIME										
	STPU									
LONG TIME	900	3			7.670	7.670	7.524	7.524	7.361	7.361
	LTPU				900	900	900	900	900	900
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT		H			0.125	0.125	0.125	0.125	0.125	0.125
	GFPU									

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
-----------------------	----	----	--	---

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
106	149	123

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 177  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION US-5 POSITION Panel ALGA

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND** LONG TIME PU .5 x 600 A = 300 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .5 x 600 A = 300 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 2400 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =  A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	<u>600</u>	<u>2</u>			<u>812</u>	<u>812</u>	<u>796</u>	<u>796</u>	<u>753</u>	<u>753</u>
	IPU				<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>	<u>600</u>
SHORT TIME										
	STPU									
LONG TIME	<u>900</u>	<u>3</u>	<u>5.2</u>	<u>8</u>	<u>6.980</u>	<u>6.980</u>	<u>6.783</u>	<u>6.783</u>	<u>7.216</u>	<u>7.216</u>
	LTPU				<u>900</u>	<u>900</u>	<u>900</u>	<u>900</u>	<u>900</u>	<u>900</u>
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	<u>200</u>	<u>F</u>	<u>.04</u>	<u>.16</u>	<u>0.126</u>	<u>0.126</u>	<u>0.126</u>	<u>0.126</u>	<u>0.126</u>	<u>0.126</u>
	GFPU				<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>	<u>200</u>

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	<u>200,000</u>	<u>200,000.0</u>	<u>200,000</u>	<u>200,000.0</u>	<u>200,000</u>	<u>200,000.0</u>
POLE TO FRAME	<u>200,000</u>	<u>200,000.0</u>	<u>200,000</u>	<u>200,000.0</u>	<u>200,000</u>	<u>200,000.0</u>
LINE TO LOAD	<u>200,000</u>	<u>200,000.0</u>	<u>200,000</u>	<u>200,000.0</u>	<u>200,000</u>	<u>200,000.0</u>

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
<u>67</u>	<u>42</u>	<u>47</u>

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES: Charged indicator is defective.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 178  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/4/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION Panel ALIA

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206H SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU .7 x 600 A = 420 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 3360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 260 A ☐ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU .7 x 600 A = 420 A DELAY 24  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M1=8 = 3360 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 260 A ☐ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	840	2			973	973	899	899	940	940
	IPU				840	840	840	840	840	840
SHORT TIME										
	STPU									
LONG TIME	1260	3	5.2	8	6.980	6.980	6.963	6.963	7.241	7.241
	LTPU				1,260	1,260	1,260	1,260	1,260	1,260
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	260	F	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
57	55	63

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis





# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 179  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION US-5 POSITION Tie 52-T2

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU .7 x 1600 A = 1120 A DELAY 15  
RATING PLUG(R) 1600 SHORT TIME PU 5 = 5600 A DELAY .2 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU N/A =          A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =          A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU .7 x 1600 A = 1120 A DELAY 15  
RATING PLUG(R) 1600 SHORT TIME PU 5 = 5600 A DELAY .2 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU N/A =          A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F =          A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS	IPU									
SHORT TIME	STPU	3.5	.23	.33	0.30	0.30	0.30	0.30	0.30	0.30
LONG TIME	3360	3	5.2	8	18.14	18.14	16.99	16.99	17.33	17.33
	LTPU				3,360	3,360	3,360	3,360	3,360	3,360
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	120	F								
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3
366	145	333

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Ground Fault was not hooked up

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 180  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION US-5 Transformer

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 12/97 SERIAL NO. 960316-AZ  
IMPEDANCE 5.72 % CAPACITY            GALLONS TYPE N/A CLASS OA / /  
KVA 1,500 / / WINDING MATERIAL ALUMINUM TEMPERATURE RISE 65 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒ ☐ ☐ ☐ ☐ DELTA  
SECONDARY KV 480 / 277 ☐ ☐ ☒ ☐ ☐ WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 11,847 INSULATING MEDIUM Oil  
TAP POSITION A B C D E TANK TYPE Free Breathing  
TAP SETTING B 12,782 VOLTS DRY TYPE ☐ CONSERVATOR ☒

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input type="checkbox"/> PASS <input type="checkbox"/> FAIL	N/A
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	10680	1360	9780
1.00	12672	1720	11660
10.00	20840	4240	19990
P. I.	1.64457	2.46512	1.71441

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
B	46.144	46.165	46.152	46.140

WORKING TAP AF B AL B

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 3 ph TTR

TESTED BY: Troy Buffington



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 181  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/3/2014 AMBIENT TEMPERATURE 40 °F HUMIDITY 60 % EQPT. LOCATION ACA Switchgear Room  
SUBSTATION US-5 POSITION US-5 Transformer

## FUSE DATA

MANUFACTURER Square D TYPE N/A HOLDER Clip MAX. AMPS 80  
REFILL ELEMENT TYPE N/A SIZE 80E CAT. NO. N/A TCC NO. N/A VOLTAGE 15 kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-06691775E  
VOLTAGE 15 TYPE HUL AMPERES 600 INTERRUPTING RATING 40 kA  
TYPE OPERATING MECHANISM N/A AGE 2/98 B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 61 kA OTHER NAMEPLATE DATA N/A

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Good	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input checked="" type="checkbox"/>	Good	
CONTACT SEQUENCE	<input checked="" type="checkbox"/>	Good	
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5 kVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE -CENTIMETERS			
MAIN CONTACT WIPE - CENTIMETERS			
MAIN CONTACT GAP - CENTIMETERS			
MAIN CONTACT TRAVEL CENTIMETERS			

	POLE 1	POLE 2	POLE 3
CONTACT RESISTANCE MICRO-OHMS	RDG. 47	53	50
	20°C 47.00	53.00	50.00
OPENING SPEED (ft/sec)			
CLOSING SPEED (ft/sec)			

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC 5050

TESTED BY: Troy Buffington, NETA Cert #90-3-5392



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 182  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION Chiller #1 (MEP)(Spare)

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS 416H SENSOR TAPS 1200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 1000 A = 1000 A DELAY 4  
RATING PLUG(R) 1000 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 4 = 4000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 600 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1000 A = 1000 A DELAY 4  
RATING PLUG(R) 1000 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU 4 = 4000 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU F = 600 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2000	2			2,160	2,160	2,353	2,353	2,283	2,283
	IPU				2,000	2,000	2,000	2,000	2,000	2,000
SHORT TIME										
	STPU									
LONG TIME	3000	3	5.2	8	6.981	6.981	7.216	7.216	6.799	6.799
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	600	F	.04	.16	0.127	0.127	0.127	0.127	0.127	0.127
	GFPU				600	600	600	600	600	600

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
36	36	20

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD was tested @ 2  
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 183  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION Generator Backup #2

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 640 A ☒ ON ☐ OFF DELAY .3 I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 24  
RATING PLUG(R) 1600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 640 A ☒ ON ☐ OFF DELAY .3 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME										
	STPU									
LONG TIME										
	LTPU									
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES: Defective trip unit

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 184  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION Main Breaker

MANUFACTURER Square D SN / SO NO. 6616C36G04 FRAME SIZE(F) 3200  
BREAKER TYPE DS632 SENSOR TAPS 3200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	<u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>

## SETTINGS AS FOUND

LONG TIME PU 1 x 2000 A = 2000 A DELAY 7  
RATING PLUG(R) 2000 SHORT TIME PU 6 = 12000 A DELAY .4 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU =          A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 800 A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU 1 x 2000 A = 2000 A DELAY 7  
RATING PLUG(R) 2000 SHORT TIME PU 6 = 12000 A DELAY .4 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 3,200 INST. PU =          A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 800 A ☒ ON ☐ OFF DELAY .5 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO.         

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS										
	IPU									
SHORT TIME	7000	3.5	.25	.36	0.313	0.313	0.313	0.313	0.313	0.313
	STPU				7,000	7,000	7,000	7,000	7,000	7,000
LONG TIME	6000	3			17.72	17.72	17.41	17.41	18.23	18.23
	LTPU				6,000	6,000	6,000	6,000	6,000	6,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: Trip unit has override function that runs time longer. Ground fault was not wired in.

DEFICIENCIES: Actuator hanging up, will not close every time.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 185  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 72 °F HUMIDITY 60 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION MCC-M1 (Spare)

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS06E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO.  ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 12  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M2=12 = 7200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 450 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 12  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU M2=12 = 7200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 450 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	2			1.296	1.296	1.312	1.312	1.341	1.341
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME										
	STPU									
LONG TIME	1800	3	5.2	8	6.979	6.979	7.366	7.366	7.218	7.218
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	450	H	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU				450	450	450	450	450	450

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
19	22	20

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. BTS-50, AEMC DLRO, AEMC Megger TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 186  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION MCC-M2

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 1600 A = 1600 A DELAY 2  
RATING PLUG(R) 1600 SHORT TIME PU 4 = 6400 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 640 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1600 A = 1600 A DELAY 2  
RATING PLUG(R) 1600 SHORT TIME PU 4 = 6400 A DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 9600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU D = 640 A ☒ ON ☐ OFF DELAY .3 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3,510	3,510	3,460	3,460	3,550	3,550
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME	5600	3.5	.2	.34	0.303	0.303	0.303	0.303	0.303	0.303
	STPU				5,600	5,600	5,600	5,600	5,600	5,600
LONG TIME	4800	3	5.2	8	6,635	6,635	7,422	7,422	7,063	7,063
	LTPU				4,800	4,800	4,800	4,800	4,800	4,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	640	D	.2	.34	0.302	0.302	0.302	0.302	0.302	0.302
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
76	60	84

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:   
DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis





CUSTOMER	Powerlogics, Inc.			PAGE	187
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/11/2014	AMBIENT TEMPERATURE	70 °F	HUMIDITY	98 %
				EQPT. LOCATION	MEP
SUBSTATION	US-8			POSITION	MEP-EQ3

MANUFACTURER	Square D	SN / SO NO.	6616C26G04	FRAME SIZE(F)	800
BREAKER TYPE	DS206E	SENSOR TAPS	800	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

**SETTINGS AS FOUND**

RATING PLUG(R)	400	LONG TIME PU	1	x	400	A =	400	A	DELAY	24	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	800	SHORT TIME PU		=		A			DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	M2=12	=	4800	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	H	=	300	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF		DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	400	LONG TIME PU	1	x	400	A =	400	A	DELAY	24	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	800	SHORT TIME PU		=		A			DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	M2=12	=	4800	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	H	=	300	A	<input checked="" type="radio"/> ON <input type="radio"/> OFF		DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	800	2			809	809	859	859	793	793
	IPU				800	800	800	800	800	800
SHORT TIME										
	STPU									
LONG TIME	1200	3	5.2	8	6.984	6.984	7.116	7.116	6.918	6.918
	LTPU				1,200	1,200	1,200	1,200	1,200	1,200
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	300	H	.04	.16	0.128	0.128	0.128	0.128	0.128	0.128
	GFPU				300	300	300	300	300	300

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
24	24	22

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:	LTD tested @ 2.
DEFICIENCIES:	

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 188  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 98 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION Old #2 Chiller Feeder (Spare)

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size <u>CU</u> <input type="radio"/> <u>AL</u> <input type="radio"/>		

**SETTINGS AS FOUND** LONG TIME PU 1 x 1000 A = 1000 A DELAY 12  
RATING PLUG(R) 1000 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU M2 = 1200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 750 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 1000 A = 1000 A DELAY 12  
RATING PLUG(R) 1000 SHORT TIME PU  =  A DELAY  I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,200 INST. PU M2 = 1200 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 750 A ☒ ON ☐ OFF DELAY .1 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	2000	2			2,160	2,160	2,240	2,240	2,206	2,206
	IPU				2,000	2,000	2,000	2,000	2,000	2,000
SHORT TIME										
	STPU									
LONG TIME	3000	3	5.2	8	6.980	6.980	7.416	7.416	7.113	7.113
	LTPU				3,000	3,000	3,000	3,000	3,000	3,000
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	750	H			0.115	0.115	0.115	0.115	0.115	0.115
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
20	20	21

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: LTD tested @ 2.

DEFICIENCIES:

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 189  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION Generator Room  
SUBSTATION US-8 POSITION Panel MLGA

MANUFACTURER Square D SN / SO NO. 6616C26G04 FRAME SIZE(F) 800  
BREAKER TYPE DS206E SENSOR TAPS 800 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 600 A = 600 A DELAY 4  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 6 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 450 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 600 A = 600 A DELAY 4  
RATING PLUG(R) 600 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 800 INST. PU 6 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 450 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO. <u></u>					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	1200	2			1,310	1,310	1,461	1,461	1,283	1,283
	IPU				1,200	1,200	1,200	1,200	1,200	1,200
SHORT TIME										
	STPU									
LONG TIME	1800	3	5.2	8	7.330	7.330	7.186	7.186	7.411	7.411
	LTPU				1,800	1,800	1,800	1,800	1,800	1,800
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	450	H	.04	.16	0.128	0.128	0.128	0.128	0.128	0.128
	GFPU				450	450	450	450	450	450

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
26	24	23

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Charged Flag is out of adjustment.

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 190  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION Spare #1

MANUFACTURER Square D SN / SO NO. 6616C27G04 FRAME SIZE(F) 1600  
BREAKER TYPE DS416H SENSOR TAPS 1600 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

## SETTINGS AS FOUND

LONG TIME PU .5 x 1200 A = 600 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 450 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

## SETTINGS AS LEFT

LONG TIME PU .5 x 1200 A = 600 A DELAY 24  
RATING PLUG(R) 1200 SHORT TIME PU  =  A DELAY  I²T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP 1,600 INST. PU 6 = 3600 A ☒ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU H = 450 A ☒ ON ☐ OFF DELAY .1 I²T ☐ IN ☐ OUT ☐ N/A

TCC NO.

FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		POLE 1		POLE 2		POLE 3	
			MINIMUM	MAXIMUM	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
INSTANTANEOUS										
	IPU									
SHORT TIME										
	STPU									
LONG TIME										
	LTPU									
GROUND FAULT	VOLTAGE DROP @ LONG TIME TEST CURRENT									
	GFPU									

EQUIPMENT TEMPERATURE 20 °C

TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION RESISTANCE

	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

## POLE RESISTANCE - MICRO-OHMS

READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:

DEFICIENCIES: Defective trip unit

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# LOW VOLTAGE POWER CIRCUIT BREAKER TEST



CUSTOMER Powerlogics, Inc. PAGE 191  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 70 °F HUMIDITY 86 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION Tie (Spare)

MANUFACTURER Square D SN / SO NO. N/A FRAME SIZE(F) 3200  
BREAKER TYPE DS-632 SENSOR TAPS 3200 MOUNTING ☐ B.I. ☒ D.O.  
FUSE CAT. NO. N/A CUBICLE CODE N/A THERMAL MEMORY ☐ ON ☐ OFF  
TRIP UNIT TYPE Digitrip RMS 510 CATALOG NO. N/A ZONE INTLK ☐ TARGETS ☐

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Dirty	C
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO. <u>0</u>	Size	CU <input type="radio"/> AL <input type="radio"/>	

**SETTINGS AS FOUND** LONG TIME PU 1 x 3200 A = 3200 A DELAY 4  
RATING PLUG(R)  SHORT TIME PU 6 = 19200 A DELAY .35 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP  INST. PU  =  A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU C =  A ☐ ON ☐ OFF DELAY .50 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

**SETTINGS AS LEFT** LONG TIME PU 1 x 3200 A = 3200 A DELAY 4  
RATING PLUG(R)  SHORT TIME PU 6 = 19200 A DELAY .35 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A  
SENSOR TAP  INST. PU  =  A ☐ ON ☐ OFF  
GRD. FLT. ☐ 3W ☐ 4W GRD. FLT. PU C =  A ☐ ON ☐ OFF DELAY .50 I<sup>2</sup>T ☐ IN ☐ OUT ☐ N/A

TCC NO. _____					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS										
	IPU									
SHORT TIME										
	STPU									
LONG TIME										
	LTPU									
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT										
	GFPU									

EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS: Breaker will not trip.

DEFICIENCIES: Defective trip unit

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, MAC-20

TESTED BY: Billy Davis



# TRANSFORMER MAINTENANCE TEST



CUSTOMER Powerlogics, Inc. PAGE 192  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/12/2014 AMBIENT TEMPERATURE 50 °F HUMIDITY 82 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION US-8

## NAMEPLATE DATA

MANUFACTURER Square D YR MFR 12/97 SERIAL NO. 960316-B2  
IMPEDANCE 5.71 % CAPACITY            GALLONS TYPE N/A CLASS OA / /  
KVA 1,500 / / WINDING MATERIAL ALUMINUM TEMPERATURE RISE 65 °C B.I.L. RATING 95  
PRIMARY KV 12,470 ☒ ☐ ☐ ☐ ☐ DELTA  
SECONDARY KV 480 / 277 ☐ ☐ ☒ ☐ ☐ WYE  
TAP VOLTAGES 13,094 12,782 12,470 12,158 11,847 INSULATING MEDIUM Mineral Oil  
TAP POSITION A B C D E TANK TYPE Free Breathing  
TAP SETTING C 12,470 VOLTS DRY TYPE ☐ CONSERVATOR ☐

## VISUAL AND MECHANICAL INSPECTION

INSPECTION REPORT		INSPECTION REMARKS
INSPECT PHYSICAL AND MECHANICAL CONDITION	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
VERIFY FANS OPERATE	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	
INSPECT ANCHORAGE, ALIGNMENT AND GROUNDING	<input checked="" type="checkbox"/> PASS <input type="checkbox"/> FAIL	

## ELECTRICAL TESTS (OPTIONAL FOR L.V. TRANSFORMERS OR BELOW 500 KVA)

### MAINTENANCE

INSULATION RESISTANCE IN MEGOHMS			
MINUTES	PRIMARY TO GROUND	SECONDARY TO GROUND	PRIMARY TO SECONDARY
Test kV	5	1	5
0.50	14G	8G	14G
1.00	15G	11G	16.5G
10.00	17G	14G	18G
P. I.			

P.I. = 10 min/1 min

### ACCEPTANCE

WINDING RESISTANCE TEST IN OHMS			
H1-H2	<u>N/A</u>	X0-X2	<u>N/A</u>
H2-H3	<u>N/A</u>	X0-X3	<u>N/A</u>
H3-H1	<u>N/A</u>	X0-X1	<u>N/A</u>

TRANSFORMER TURN RATIO TEST				
TAP	CALC	PHASE A	PHASE B	PHASE C
C	45.018	45.055	45.075	45.055

WORKING TAP AF C AL C

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 5kV Megger, 3 PH TTR

TESTED BY: Billy Davis



# LOADBREAK DISCONNECT TEST



CUSTOMER Powerlogics, Inc. PAGE 193  
ADDRESS 5942 Frond Way; Apollo Beach FL 33572 JOB # 13-320  
USER Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608  
OWNER REPRESENTATIVE Barbara Smith TELEPHONE 813-645-2971  
DATE 1/11/2014 AMBIENT TEMPERATURE 80 °F HUMIDITY 98 % EQPT. LOCATION MEP  
SUBSTATION US-8 POSITION US-8

## FUSE DATA

MANUFACTURER Square D TYPE HUI HOLDER N/A MAX. AMPS 600  
REFILL ELEMENT TYPE N/A SIZE 125 CAT. NO. N/A TCC NO. N/A VOLTAGE 12.47 kV

## NAMEPLATE DATA

MANUFACTURER Square D SERIAL NO. 17-066917751  
VOLTAGE 15kV TYPE Knife Switch AMPERES 600 INTERRUPTING RATING 600 kA  
TYPE OPERATING MECHANISM N/A AGE 10/97 B.I.L. RATING 95 kV  
MOMENTARY FAULT CLOSING AMPS 61 kA OTHER NAMEPLATE DATA N/A

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
OVERALL CLEANLINESS	<input checked="" type="checkbox"/>	Good	
INSULATING MEMBERS	<input checked="" type="checkbox"/>	Good	
MECHANICAL CONNECTION	<input checked="" type="checkbox"/>	Good	
STRUCTURAL MEMBERS	<input checked="" type="checkbox"/>	Good	
CUBICLE	<input checked="" type="checkbox"/>	Good	
AUXILIARY DEVICES	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
MAIN CONTACTS	<input checked="" type="checkbox"/>	Good	
HEATERS	<input type="checkbox"/>		
BEARINGS	<input type="checkbox"/>		
CONTACT SEQUENCE	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Good	

INSULATION TEST VOLTAGE 5,000 KVDC TEST VOLTAGE MULTIPLIER, K1 = 1 K2 = (K1) (TCF)  
EQUIPMENT TEMPERATURE 20 °C TEMPERATURE CORRECTION FACTOR TO 20°C, TCF 1

## INSULATION TESTS

	RANGE MULTIPLIER	K2	POLE 1 (P1-P2)		POLE 2 (P2-P3)		POLE 3 (P1-P3)	
			READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
POLE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LOAD TO FRAME	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0
LINE TO LOAD	1.000	1.000	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0	200,000.0

## CONTACT MEASUREMENTS

	POLE 1	POLE 2	POLE 3
ARCING CONTACT WIPE - INCHES			
MAIN CONTACT WIPE - INCHES			
MAIN CONTACT GAP - INCHES			
MAIN CONTACT TRAVEL INCHES			

CONTACT RESISTANCE MICRO-OHMS	RDG.	POLE 1	POLE 2	POLE 3
	20°C	29	33	25
OPENING SPEED (ft/sec)				
CLOSING SPEED (ft/sec)				

COMMENTS:

DEFICIENCIES:

EQPT. INVENTORY NO. 5kV Megger, AEMC DLRO

TESTED BY: Billy Davis



CUSTOMER	Powerlogics, Inc.			PAGE	194
ADDRESS	5942 Frond Way; Apollo Beach FL 33572			JOB #	13-320
USER	Malcom Randall VA Hospital; 1601 SW Archer Road; Gainesville FL 32608				
OWNER REPRESENTATIVE	Barbara Smith			TELEPHONE	813-645-2971
DATE	1/11/2014	AMBIENT TEMPERATURE	70 °F	HUMIDITY	98 %
				EQPT. LOCATION	MEP
SUBSTATION	US-9			POSITION	Chiller #5

MANUFACTURER	Square D	SN / SO NO.	6616C27G04	FRAME SIZE(F)	1600
BREAKER TYPE	DS416H	SENSOR TAPS	1600	MOUNTING	<input type="radio"/> B.I. <input checked="" type="radio"/> D.O.
FUSE CAT. NO.	N/A	CUBICLE CODE	N/A	THERMAL MEMORY	<input type="radio"/> ON <input type="radio"/> OFF
TRIP UNIT TYPE	Digitrip RMS	CATALOG NO.	N/A	ZONE INTLK	<input type="checkbox"/> TARGETS <input type="checkbox"/>

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
CUBICLE AND RACKING DEVICES	<input checked="" type="checkbox"/>	Acceptable	
CONTACT FINGERS	<input checked="" type="checkbox"/>	Acceptable	C
LOADING AND ARCING CONTACTS	<input checked="" type="checkbox"/>	Acceptable	C
OVERCURRENT DEV. BATTERY	<input type="checkbox"/>		

DESCRIPTION	INSPECTED	CONDITION	CLEAN/LUBE
ARC CHUTES	<input checked="" type="checkbox"/>	Acceptable	
AUXILIARY DEVICES	<input type="checkbox"/>		
GROUND CONNECTION	<input checked="" type="checkbox"/>	Acceptable	
LOAD CONDUCTOR NO.	0	Size	CU <input type="radio"/> AL <input type="radio"/>

SETTINGS AS FOUND		LONG TIME PU	.6	x	1600	A	=	960	A	DELAY	7	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
RATING PLUG(R)	1600	SHORT TIME PU		=		A				DELAY					
SENSOR TAP	1,600	INST. PU	5	=	4800	A		<input type="radio"/> ON	<input type="radio"/> OFF						
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	GRD. FLT. PU	A	=	400	A		<input type="radio"/> ON	<input type="radio"/> OFF	DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

**SETTINGS AS LEFT**

RATING PLUG(R)	1600	LONG TIME PU	.6	x	1600	A =	960	A	DELAY	7	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A
SENSOR TAP	1,600	SHORT TIME PU		=		A			DELAY					
GRD. FLT.	<input type="radio"/> 3W <input type="radio"/> 4W	INST. PU	5	=	4800	A	<input type="radio"/> ON <input type="radio"/> OFF							
		GRD. FLT. PU	A	=	400	A	<input type="radio"/> ON <input type="radio"/> OFF		DELAY	.1	I <sup>2</sup> T	<input type="radio"/> IN	<input type="radio"/> OUT	<input type="radio"/> N/A

TCC NO.					POLE 1		POLE 2		POLE 3	
FUNCTION	TEST AMPERES	CURRENT MULTIPLE	TIME BAND		AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)	AS FOUND (seconds)	AS LEFT (seconds)
			MINIMUM	MAXIMUM						
INSTANTANEOUS	3200	2			3,140	3,140	3,213	3,213	3,461	3,461
	IPU				3,200	3,200	3,200	3,200	3,200	3,200
SHORT TIME										
	STPU									
LONG TIME	2880	3	5.2	8	7.327	7.327	6.983	6.983	7.111	7.111
	LTPU				2,880	2,880	2,880	2,880	2,880	2,880
	VOLTAGE DROP @ LONG TIME TEST CURRENT									
GROUND FAULT	400	A	.04	.16	0.126	0.126	0.126	0.126	0.126	0.126
	GFPU				400	400	400	400	400	400

EQUIPMENT TEMPERATURE	20	°C	TEMPERATURE CORRECTION FACTOR TO 20°C, TCF	1
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INSULATION RESISTANCE	POLE 1 MΩ (P1-P2)		POLE 2 MΩ (P2-P3)		POLE 3 MΩ (P3-P4)	
	READING	20°C	READING	20°C	READING	20°C
POLE TO POLE	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
POLE TO FRAME	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0
LINE TO LOAD	200,000	200,000.0	200,000	200,000.0	200,000	200,000.0

POLE RESISTANCE - MICRO-OHMS		
READING		
POLE 1	POLE 2	POLE 3
38	52	54

CONTROL WIRING				COUNTER READING BEG/END	
READING		20°C			

COMMENTS:	LTD tested @ 2.
DEFICIENCIES:	

EQPT. INVENTORY NO. AEMC DLRO, AEMC Megger, Breaker Test Set

TESTED BY: Billy Davis