

83-AHU-2 SPECIFICATIONS

Performance Climate Changer	1
Quantity	1
Job Comments	

Unit level options		Module Position:	0
Actual airflow	12200 cfm	Inlet and casing - 500 Hz	78 dB
Unit elevation	0.00 ft	Inlet and casing - 1K Hz	75 dB
Unit size	25	Inlet and casing - 2K Hz	75 dB
Integral base frame	2.5in. integral base frame	Inlet and casing - 4K Hz	67 dB
UL listed unit	UL listed unit	Inlet and casing - 8K Hz	61 dB
High voltage location	Left	Ducted inlet - 63 Hz	95 dB
Length	70.500 in	Ducted inlet - 125 Hz	80 dB
Width	80.000 in	Ducted inlet - 250 Hz	86 dB
Installed weight	1981.3 lb	Ducted inlet - 500 Hz	77 dB
Rigging weight	1981.3 lb	Ducted inlet - 1K Hz	74 dB
Single or front discharge - 63 Hz	99 dB	Ducted inlet - 2K Hz	66 dB
Single or front discharge - 125 Hz	92 dB	Ducted inlet - 4K Hz	57 dB
Single or front discharge - 250 Hz	90 dB	Casing - 63 Hz	91 dB
Single or front discharge - 500 Hz	86 dB	Casing - 125 Hz	81 dB
Single or front discharge - 1K Hz	84 dB	Casing - 250 Hz	74 dB
Single or front discharge - 2K Hz	77 dB	Casing - 500 Hz	75 dB
Single or front discharge - 4K Hz	70 dB	Casing - 1K Hz	77 dB
Single or front discharge - 8K Hz	96 dB	Casing - 2K Hz	62 dB
Inlet and casing - 63 Hz	85 dB	Casing - 4K Hz	44 dB
Inlet and casing - 125 Hz	87 dB	Casing - 8K Hz	46 dB
Inlet and casing - 250 Hz			

Controls and VFD/starter		Module Position:	0
Factory controls package	No factory mount	LCD screen and keypad	No LCD
Automatic Selection	No auto selection	Design Sequence	A
Controller mounting	No mount	Prepackaged solution option used	MP common configuration not used
Controller type	No controller	Total number of control points	0 control points

Warranty		Module Position:	0
Warranty section	Std. warranty only		

Filter section		Module Position:	1
Section type	Filter	Filter area	50.00 sq ft
Unit size	25	Filter face velocity	244 ft/min
Filter type	Angled filter	Filter pressure drop	0.553 in H2O
Filter frame	2in. filter frame	Filter section pressure drop	0.553 in H2O
Access door location	Right	Section length	24.500 in
Primary filter type 1	Pleated media - MERV 8	Section width	80.000 in
Design sequence	B	Section height	61.500 in
Filter airflow	12200 cfm	Section weight	396.6 lb
Filter condition	Mid-life		

EQUIPMENT TO BE TRANE OR APPROVED EQUAL

Performance Climate Changer

Coil section		Module Position:	2
Coil sec [2]-1	Vertical coil	Fluid type	Water
Section type	25	Coil fluid percentage	100.00 %
Section size	Large	Target valve pressure drop	4.00 psig
Access door location	Right	Coil type	UW
Coil application	Chilled water	Rows	4 rows
Changeover coil	No	Fin type	Delta flo H (Hi efficient)
System type	Chilled water	Fin material	Aluminum fins
Coil supply/cabinet side	Right	Tube diameter	1/2in. tube diameter (12.7 mm)
Coil casing	Galvanized	Tube mat/wall thickness	.016" (0.406mm) copper tubes
Coil height	Unit coil height	Corrosion resistant coating	None
Drain pan	Galvanized	Coil face velocity	498 ft/min
Drain connection location	Right	Air pressure drop	0.477 in H2O
Design sequence	B	J trap dimension	2.200 in
Apply ARI ranges	Apply ARI ranges	H trap dimension	4.400 in
Coil performance airflow	12200 cfm	Leaving fluid temperature	55.00 F
Coil elevation	0.00 ft	Fluid pressure drop	5.23 ft H2O
Entering dry bulb	80.00 F	Fluid volume	11.89 gal
Entering wet bulb	67.00 F	Fluid velocity	3.22 ft/s
Leaving dry bulb	58.00 F	Coil face area	24.87 sq ft
Leaving wet bulb	57.01 F	Coil rigging weight	297.3 lb
Sensible capacity	295.86 MBh	Coil installed weight	366.7 lb
Total capacity	385.68 MBh	Coil section pressure drop	0.477 in H2O
Fin spacing	122 Per Foot	Section length	46.000 in
Entering fluid temperature	45.00 F	Section height	61.500 in
Fluid temperature rise	10.00 F	Section width	80.000 in
Standard fluid flow rate	40.000 gpm	Section weight	732.7 lb
Coil fouling factor	0.00000 hr-sq ft-deg F/Btu		

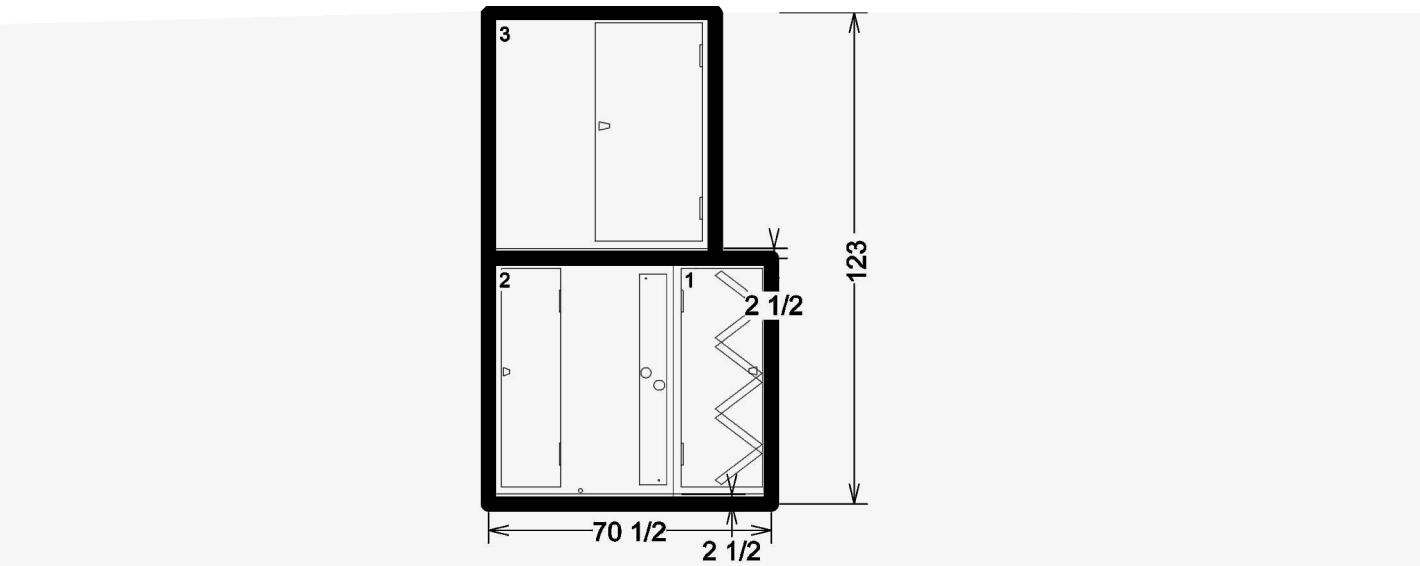
Fan section		Module Position:	3
Fan sec [3]-1	Fan	Section weight	852.0 lb
Section type	Supply fan	Static pressure origin	Program calculated
Fan application	25	Single or front discharge - 63 Hz	99 dB
Unit size	Bottom inlet	Single or front discharge - 125 Hz	92 dB
Inlet location	used	Single or front discharge - 250 Hz	92 dB
Fan orientation	Front-top discharge	Single or front discharge - 500 Hz	90 dB
Fan discharge	Front top	Single or front discharge - 1K Hz	88 dB
Access door location	Right	Single or front discharge - 2K Hz	84 dB
Bottom damper protective grate	No protective grate	Single or front discharge - 4K Hz	77 dB
Design sequence	D	Single or front discharge - 8K Hz	70 dB
Motor horsepower per fan	20 hp	Inlet and casing - 63 Hz	96 dB
Motor class	NEMA premium compliant ODP	Inlet and casing - 125 Hz	85 dB
Motor voltage	460V3	Inlet and casing - 250 Hz	87 dB
Cycle	60 cycles/sec	Inlet and casing - 500 Hz	78 dB
Drive service factor	1.5 fixed drive	Inlet and casing - 1K Hz	75 dB
Motor RPM	1800	Inlet and casing - 2K Hz	67 dB
Fan airflow	12200 cfm	Inlet and casing - 4K Hz	61 dB
Overall ESP	4.740 in H2O	Inlet and casing - 8K Hz	95 dB
Unit entering ESP	2.370 in H2O	Ducted inlet - 63 Hz	80 dB
Unit discharge ESP	2.370 in H2O	Ducted inlet - 125 Hz	86 dB
Elevation	0.00 ft	Ducted inlet - 250 Hz	77 dB
Minimum temperature	40.00 F	Ducted inlet - 500 Hz	74 dB
Design temperature	70.00 F	Ducted inlet - 1K Hz	74 dB
Total static pressure override	5.770 in H2O	Ducted inlet - 2K Hz	66 dB
Fan size and type	20in. diameter AF, class 2	Ducted inlet - 4K Hz	57 dB
Total brake horsepower	19.193 hp	Casing - 63 Hz	91 dB
Total brake horsepower at min temp	20.348 hp	Casing - 125 Hz	84 dB
Total static pressure	5.770 in H2O	Casing - 250 Hz	75 dB
Speed	2303 rpm	Casing - 500 Hz	81 dB
Outlet area	4.38 sq ft	Casing - 1K Hz	74 dB
Fan outlet velocity	2784 ft/min	Casing - 2K Hz	77 dB
Fan module pressure drop	5.770 in H2O	Casing - 4K Hz	44 dB
Fan discharge loss pressure drop	0.000 in H2O	Casing - 8K Hz	46 dB
Section height	61.500 in		
Section length	56.500 in		
Section width	80.000 in		

83-AHU-3 COIL SPECIFICATIONS

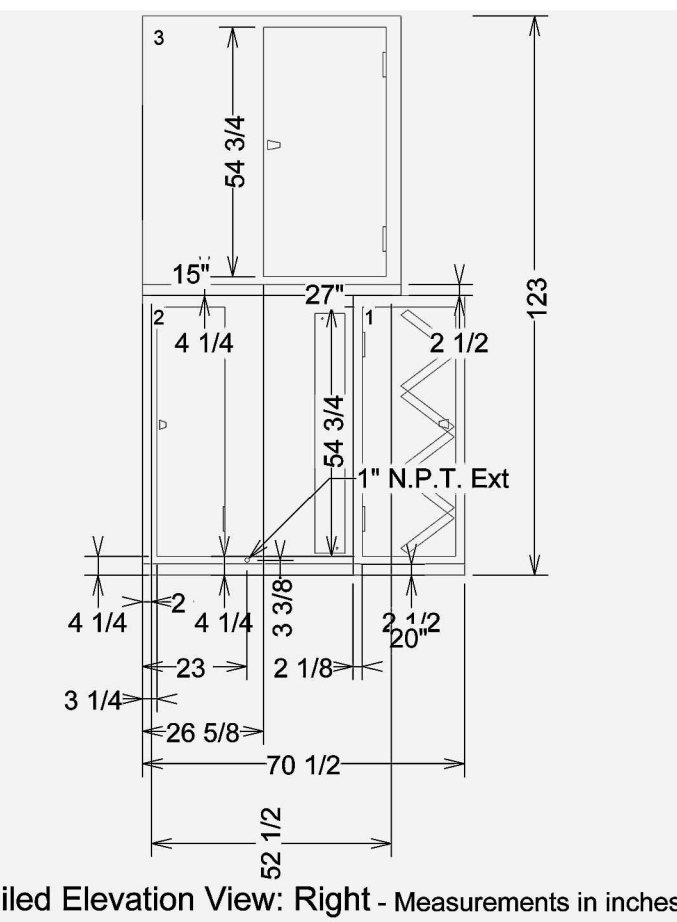
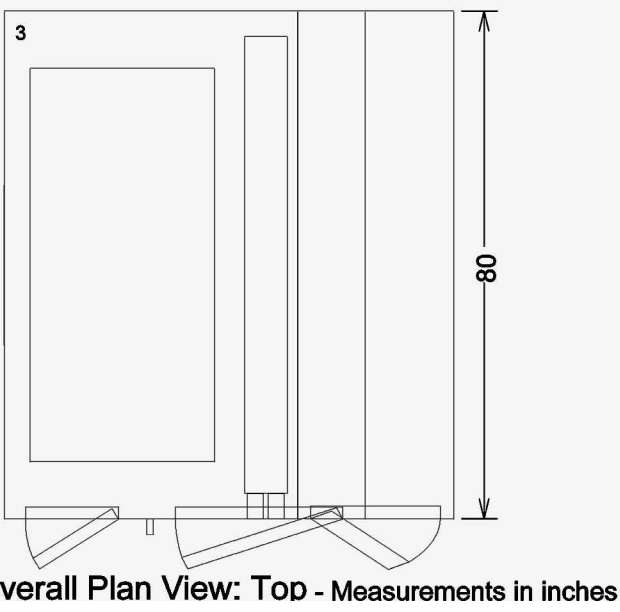
Coil section		Module Position:	2
Coil sec [2]-1	Horizontal coil	Target valve pressure drop	4.00 psig
Section type	14	Coil type	UA
Unit size	Medium	Rows	2 rows
Section size	Heating coil	Delta flo E (energy efficient)	Aluminum fins
Coil application	No	Fin type	Delta flo H (Hi efficient)
Changeover coil	No	Fin material	Aluminum fins
System type	Hot water	Tube diameter	1/2in. tube diameter (12.7 mm)
Coil supply/cabinet side	Left	Tube mat/wall thickness	.016" (0.406mm) copper tubes
Coil casing	Galvanized	Corrosion resistant coating	None
Coil height	Unit coil height	Coil face velocity	535 ft/min
Drain pan	Galvanized	Air pressure drop	0.215 in H2O
Drain connection location	Left	J trap dimension	1.702 in
Design sequence	B	H trap dimension	3.404 in
Apply ARI ranges	Apply ARI ranges	Leaving fluid temperature	160.00 F
Coil performance airflow	7300 cfm	Fluid pressure drop	6.90 ft H2O
Coil elevation	0.00 ft	Fluid volume	2.37 gal
Entering dry bulb	18.00 F	Fluid velocity	5.42 ft/s
Leaving dry bulb	70.00 F	Total cap coil #1	411.68 MBh
Total capacity	411.68 MBh	Coil face area	13.65 sq ft
Fin spacing	121 Per Foot	Coil rigging weight	84.4 lb
Entering fluid temperature	180.00 F	Coil installed weight	104.1 lb
Fluid temperature drop	20.00 F	Coil section pressure drop	0.215 in H2O
Standard fluid flow rate	41.1 gpm	Section length	14.000 in
Coil fouling factor	0.00050 hr-sq ft-deg F/Btu	Section height	41.500 in
Fluid type	Water	Section width	72.000 in
Coil fluid percentage	100.00 %	Section weight	280.1 lb

Coil section		Module Position:	3
Coil sec [3]-1	Vertical coil	Fluid type	Water
Section type	14	Coil fluid percentage	100.00 %
Section size	Large	Target valve pressure drop	4.00 psig
Access door location	Left	Coil type	UW
Coil application	Cooling coil	Rows	4 rows
Changeover coil	No	Fin type	Delta flo H (Hi efficient)
System type	Chilled water	Fin material	Aluminum fins
Coil supply/cabinet side	Left	Tube diameter	1/2in. tube diameter (12.7 mm)
Coil casing	Galvanized	Tube mat/wall thickness	.016" (0.406mm) copper tubes
Coil height	Unit coil height	Corrosion resistant coating	None
Drain pan	Galvanized	Coil face velocity	498 ft/min
Drain connection location	Left	Air pressure drop	0.510 in H2O
Design sequence	B	J trap dimension	1.957 in
Apply ARI ranges	Apply ARI ranges	H trap dimension	3.914 in
Coil performance airflow	6800 cfm	Leaving fluid temperature	55.00 F
Coil elevation	0.00 ft	Fluid pressure drop	3.90 ft H2O
Entering dry bulb	80.00 F	Fluid volume	6.19 gal
Entering wet bulb	67.00 F	Fluid velocity	2.90 ft/s
Leaving dry bulb	58.00 F	Coil face area	13.65 sq ft
Leaving wet bulb	57.16 F	Coil rigging weight	158.0 lb
Sensible capacity	164.91 MBh	Coil installed weight	209.8 lb
Total capacity	212.05 MBh	Coil section pressure drop	0.510 in H2O
Fin spacing	131 Per Foot	Section length	36.000 in
Entering fluid temperature	45.00 F	Section height	41.500 in
Fluid temperature rise	10.00 F	Section width	72.000 in
Standard fluid flow rate	42.26 gpm	Section weight	493.8 lb
Coil fouling factor	0.00000 hr-sq ft-deg F/Btu		

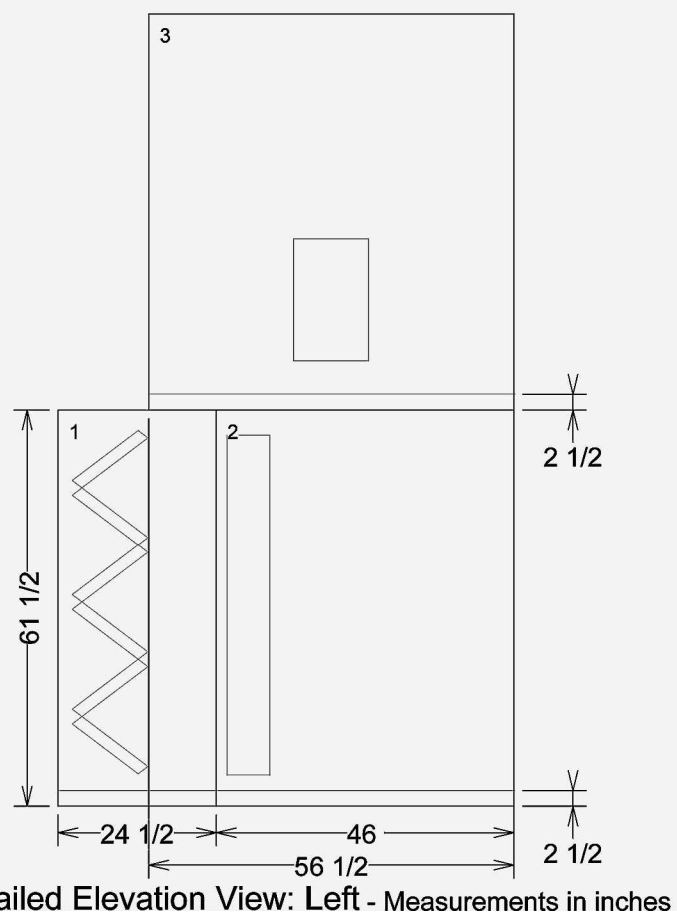
83-AHU-2 DETAILS



Pos #	Module	Length	Weight
1	Filter section	24 1/2	396.60
2	Coil section	46	732.70
3	Fan section	56 1/2	852.00
		Installed Unit Weight 1981.30 lbs	



Detailed Elevation View: Right - Measurements in inches



Detailed Elevation View: Left - Measurements in inches

83-AHU-2 & 83-AHU-3 - HVAC DETAILS AND SPECIFICATIONS - BUILDING 83

N.T.S.

WHORTON ENGINEERING, INC.
HVAC - PLUMBING - PROCESS CONTROL
RANDALL WHORTON, P.E.
PH 256/820-9897 FAX 256/820-9896
25 SUMMERALL GATE ROAD
ANNISTON, ALABAMA 36205
WHORTON ENGINEERING PROJECT NO. 10159

ALABAMA
REGISTERED PROFESSIONAL ENGINEER
No. 14192
RANDALL WHORTON

Revisions	Date



MCE MILLS-CONOLY ENGINEERING, P.C.
8218 Old Federal Road
TELEPHONE: (334) 270-0010
Montgomery, AL 36117
FAX: (334) 270-0040



Approved:	Approved:	Drawing Title	Project Title	Date
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Approved:	Approved:	Safety Officer	Building Number 83	Project No. 619-10-445
Approved:	Approved:	Clinical Representative	Checked RDW	Drawing No. 83M3.2
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