

NOW COMPATIBLE WITH 1 or 2-STAGE A/C AND HEAT PUMPS* (DUAL FUEL)!!

(* ONLY COMPATIBLE WITH UNITS THAT ENERGIZE THE REVERSING VALVE IN THE COOLING MODE)



EVBQ Series

Extra High Efficiency

Variable Speed

1.5 - 4.0 Tons Cooling or Heat Pump
Up to 102,800 BTUH Hot Water Heating
(with pump)



The **EVBQ** series includes a programmable, high efficiency motor that redefines comfort and energy savings. The **EVBQ** motor automatically adjusts its torque and speed to maintain a preprogrammed level of constant airflow over a wide range of external static pressures. This variable speed technology offers better indoor air quality, more precise humidity control, quieter operation, consistent indoor air temperature, and lower utility bills.

Extra High Efficiency - At full load conditions the **EVBQ** motor is 20% more efficient than an induction motor and at constant fan speed it consumes only 60-80 watts of power compared to 400 watts for a standard induction motor. In addition, the **EVBQ** includes a high efficiency "A" coil with factory installed TXV for precise refrigerant control.

(1) First Co's customer is ultimately responsible for confirming which fan coil models are compatible with selected outdoor unit(s) and which expansion valves (if any) are required. to determine approved indoor/outdoor matches, go to: www.firstco.com or contact the factory.

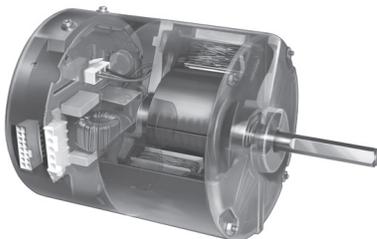
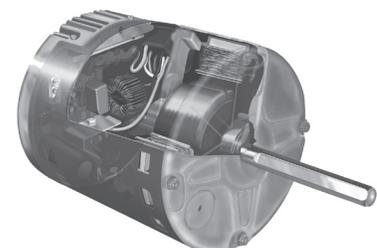
Quiet Operation - The versatile **EVBQ** motor quietly "ramps up" when the unit is turned on and "ramps down" when the thermostat is satisfied, eliminating the annoying sounds of changing airflow.

Self-Regulating Constant Airflow - The **EVBQ** motor is factory programmed to maintain a predetermined level of airflow over a wide range of external static pressures, ensuring optimum system performance and whole-house comfort. The benefits of constant fan operation are:

- **Consistent air distribution** (and temperature) throughout the home
- **Better indoor air quality** (further improved with the addition of a high efficiency filter) - This allows the air to be filtered without excessive drafts and without sacrificing efficiency.
- **Better humidity control** - The **EVBQ** is designed to extract much more moisture from the air than a conventional system by slowing the airflow over the cooling coil. The result is an improved summer comfort level at higher indoor temperature.

Additional Standard Features:

- Factory installed R-410A TXV
- Automatic pump timer that automatically energizes 4 times a day (60 sec. each cycle) to purge the hot water coil. (cycle is skipped while compressor is operating)
- Hot water coil with circulating pump, air purge valve, and easy access check valve (all required with water heater applications)
- Convenient connections for boiler or switching relay
- Attractive baked-on powder coat finish
- Fully insulated cabinet
- Primary and secondary drain connections on cooling coil
- Upflow / Horizontal drain pans
- Compatible with most properly sized and installed zone control systems. Contact the zone control manufacturer.
- Optional hot water coil freeze protector



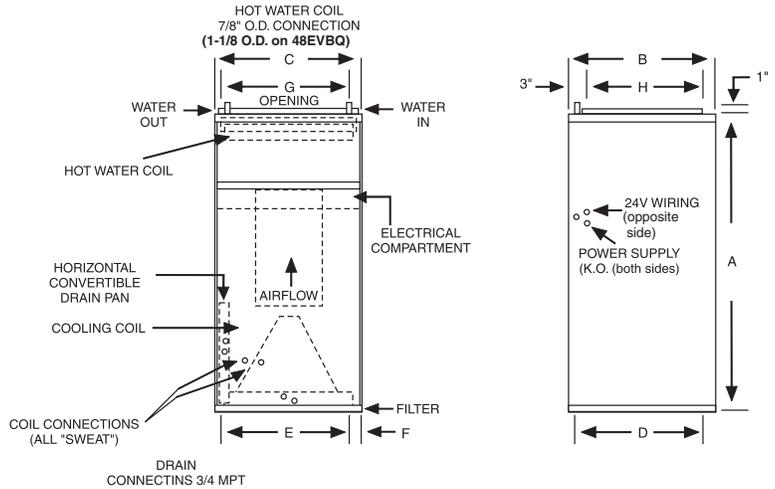
Variable Speed ECM Motor

EVBQ Series

COOLING OR HEAT PUMP



(See P.4 for Model Numbers)



PHYSICAL DIMENSIONS									
UNIT MODEL	A	B	C	D	E	F	G	H	FILTER SIZE
24EVBQ	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
36EVBQ	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
48EVBQ	52	28	25-1/4	26-1/4	21-1/4	2	22	24	14 X 24 X 1 (2 required)

COIL CONNECTIONS		
UNIT SIZE	LIQUID	SUCTION
24	3/8	3/4
36/48	1/2	7/8

ELECTRICAL DATA						
UNIT MODEL	MOTOR		PUMP		MIN. CIR. AMPACITY	MAX. OVERCURRENT PROTECTION
	AMP	HP	AMP	HP		
24EVBQ	4.5	1/2	0.57	1/40	7	15
36EVBQ	7	1	0.57	1/40	10	15
48EVBQ	11	1	0.57	1/40	14	15

HEATING PERFORMANCE DATA							
UNIT MODEL	NOMINAL COOLING BTUH	HEAT CFM	GPM HTG	BTUH (1000) AT ENTERING WATER TEMPERATURE			
				120°F	130°F	140°F	180°F
24EVBQ	18,000 / 24,000	800	3.5	26.1	31.2	36.5	57.3
		700		24.0	28.8	33.6	52.8
		600		21.8	26.2	30.5	48.0
		500		19.4	23.2	27.1	42.6
36EVBQ	30,000 / 36,000	1200	3.5	34.0	40.7	47.5	74.7
		1050		31.2	37.4	43.7	68.6
		900		28.5	34.2	39.9	62.7
		750		25.5	30.6	35.7	56.1
48EVBQ	42,000 / 48,000	1600	3.5	48.3	57.9	67.6	106.2
		1400		44.6	53.5	62.4	98.1
		1200		40.2	48.2	56.3	88.4
		1000		35.9	43.0	50.2	78.9

NOTES:

1. Heating output of fan coil will not exceed net output of water heater.
2. Approved for installation with 0" clearance to combustible materials.
3. Heat BTUH is at 70°F entering air temperature.
4. 180° EWT and these capacities are not available with standard water heaters.

For additional sales and technical information on variable speed motors, visit www.thedealertools.com

Digital thermostats for these units must have a "C" terminal.

AIRFLOW DATA									
MODEL	OPERATING MODE	CONTROL BOARD SELECT TAPS							
		COOL TAP				HEAT TAP			
		A	B	C	D	A	B	C	D
24EV BQ (1.5 / 2 TON)	COOLING								
	SINGLE STAGE	900	775	650	525				
	TWO STAGE	630 / 900	545 / 775	455 / 650	370 / 525				
	COOL & DEHUMIDIFY								
	SINGLE STAGE	720	620	520	420				
	TWO STAGE	505 / 720	435 / 620	365 / 520	295 / 420				
	CONTINUOUS BLOWER	450	390	325	265				
	HEATING					850	735	620	500
36EV BQ (2.5 / 3 TON)	COOLING								
	SINGLE STAGE	1300	1150	1000	850				
	TWO STAGE	910 / 1300	805 / 1150	700 / 1000	595 / 850				
	COOL & DEHUMIDIFY								
	SINGLE STAGE	1040	920	800	680				
	TWO STAGE	730 / 1040	645 / 920	560 / 800	475 / 680				
	CONTINUOUS BLOWER	650	575	500	425				
	HEATING					1250	1100	950	800
48EV BQ (3.5 / 4 TON)	COOLING								
	SINGLE STAGE	1700	1550	1400	1250				
	TWO STAGE	1190 / 1700	1085 / 1550	980 / 1400	875 / 1250				
	COOL & DEHUMIDIFY								
	SINGLE STAGE	1360	1240	1120	1000				
	TWO STAGE	950 / 1360	870 / 1240	785 / 1120	700 / 1000				
	CONTINUOUS BLOWER	850	775	700	625				
	HEATING					1600	1450	1300	1150

Airflow shown are at standard air conditions, dry coil at 120 volts.

NOTES:

- The cooling and heating speed taps are factory set on "A".
- The delay profile is factory set on "A" (Arid setting).
- The adjust profile is factory set on "Normal:"
- Adjust profile (+) will increase airflow by 10%, while tap (-) will decrease airflow by 10%

In keeping with its policy of continuous progress and product improvement, First Co. reserves the right to make changes without notice. Maintenance for all First Co. products is available under "Product Maintenance" at www.firstco.com.

Model Numbers:

FACTORY INSTALLED TXV	
MODEL SIZE (BTU)	MODEL (R410 TXV)
18,000 / 24,000	24EVBQ R410 TXV
30,000 / 36,000	36EVBQ R410 TXV
42,000 / 48,000	48EVBQ R410 TXV

FREEZE PROTECTOR	
KIT NUMBER	FOR
941-1	ALL

ACCESSORIES (field installed)

ACCESSORIES:		
Programmable Thermostat		
Part Number	Description	For
T832	Touchscreen, 7-day programmable, with humidity control	All Models



T832

NOTE:

1. This thermostat is compatible with single or 2-stage A/C or Heat Pumps.
2. Contact factory for brochure

3-WAY AIRFLOW

