

# 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)



## EVB-HW Series

**Extra High Efficiency  
Variable Speed**

1.5 - 4.0 Tons **Cooling or Heat Pump**  
Up to 102,800 BTUH **Hot Water Heating**  
(without pump)



The **EVB-HW** series includes a programmable, high efficiency motor that redefines comfort and energy savings. The **EVB-HW** 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 **EVB-HW** 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 **EVB-HW** 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](http://www.firstco.com) or contact the factory.**

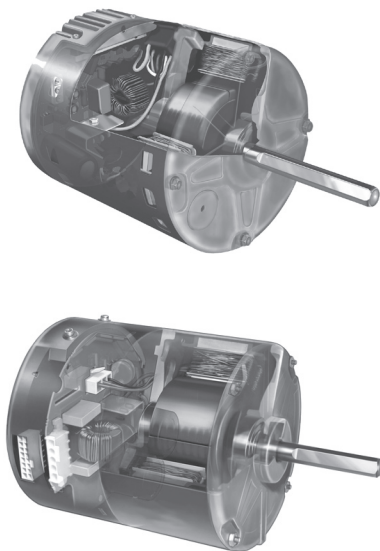
**Quiet Operation** - The versatile **EVB-HW** motor quietly "ramps up" when the unit is turned on and "ramps down" when the thermostat is satisfied, eliminating the annoying sounds of changing airflow.

**Self-Regulating Constant Airflow** - The **EVB-HW** 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 **EVB-HW** 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
- 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.



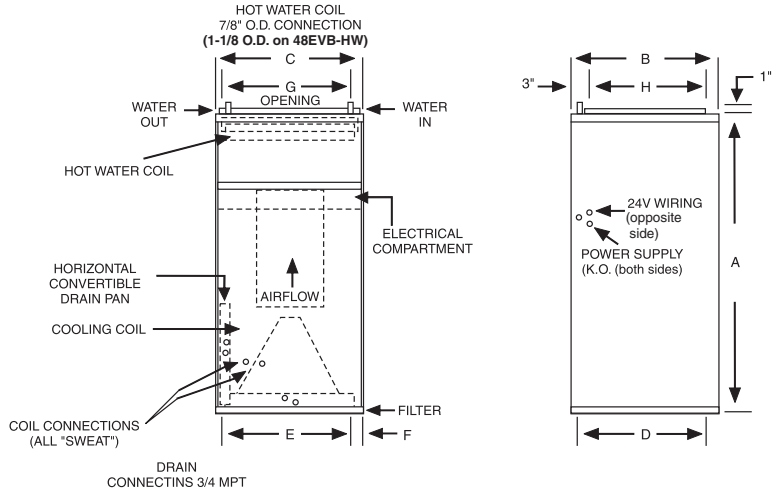
Variable Speed ECM Motor

# EVB-HW 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
24EVB-HW	42	23	20	21-1/2	16	2	18	19	20 X 22 X 1
36EVB-HW	48	28	21-1/4	26-1/4	17-1/4	2	18	24	20 X 25 X 1
48EVB-HW	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 HP (120V)	MOTOR AMPS	MIN. CIR. AMPACITY	MAX. HACR BREAKER
24EVB-HW	1/2	4.5	6.0	15
36EVB-HW	1	7.0	9.0	15
48EVB-HW	1	11.0	14.0	15

HEATING PERFORMANCE DATA									
UNIT MODEL	NOMINAL COOLING BTUH	HEAT CFM	GPM HTG	PRESS. DROP (FT. WTR.)	BTUH (1000) AT ENTERING WATER TEMPERATURE				
					140°F	160°F	180°F		
24EVB-HW	18,000 / 24,000	800	3	2.17	28.0	36.0	44.0		
			2	1.10	25.5	32.8	40.1		
		700	3	2.17	26.0	33.4	40.8		
			2	1.10	23.9	30.7	37.5		
		600	3	2.17	23.7	30.5	37.3		
			2	1.10	22.0	28.2	34.5		
		500	3	2.17	21.2	27.2	33.3		
			2	1.10	19.7	25.4	31.0		
		36EVB-HW	30,000 / 36,000	1200	6	3.70	42.6	54.8	67.0
					4	1.80	39.6	50.9	62.2
1050	6			3.70	39.5	50.7	62.0		
	4			1.80	36.7	47.1	57.6		
900	6			3.70	36.0	46.3	56.6		
	4			1.80	33.7	43.3	52.9		
750	6			3.70	32.1	41.3	50.5		
	4			1.80	30.2	38.9	47.5		
48EVB-HW	42,000 / 48,000			1600	6	2.60	65.4	84.1	102.8
					4	1.30	60.0	77.2	94.3
		1400	6	2.60	60.4	77.6	94.9		
			4	1.30	55.7	71.7	87.6		
		1200	6	2.60	54.7	70.3	85.9		
			4	1.30	50.6	65.0	79.5		
		1000	6	2.60	48.7	62.7	76.6		
			4	1.30	45.5	58.4	71.4		

**NOTES:**

(1) Heat BTU is at 70° entering air temperature.

For additional sales and technical information on variable speed motors, visit [www.thedealertoolbox.com](http://www.thedealertoolbox.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
24EVB-HW (1.5 / 2 TON)	<b>COOLING</b>								
	SINGLE STAGE	900	775	650	525				
	TWO STAGE	630 / 900	545 / 775	455 / 650	370 / 525				
	<b>COOL &amp; DEHUMIDIFY</b>								
	SINGLE STAGE	720	620	520	420				
	TWO STAGE	505 / 720	435 / 620	365 / 520	295 / 420				
	<b>CONTINUOUS BLOWER</b>	450	390	325	265				
	<b>HEATING</b>					850	735	620	500
36EVB-HW (2.5 / 3 TON)	<b>COOLING</b>								
	SINGLE STAGE	1300	1150	1000	850				
	TWO STAGE	910 / 1300	805 / 1150	700 / 1000	595 / 850				
	<b>COOL &amp; DEHUMIDIFY</b>								
	SINGLE STAGE	1040	920	800	680				
	TWO STAGE	730 / 1040	645 / 920	560 / 800	475 / 680				
	<b>CONTINUOUS BLOWER</b>	650	575	500	425				
	<b>HEATING</b>					1250	1100	950	800
48EVB-HW (3.5 / 4 TON)	<b>COOLING</b>								
	SINGLE STAGE	1700	1550	1400	1250				
	TWO STAGE	1190 / 1700	1085 / 1550	980 / 1400	875 / 1250				
	<b>COOL &amp; DEHUMIDIFY</b>								
	SINGLE STAGE	1360	1240	1120	1000				
	TWO STAGE	950 / 1360	870 / 1240	785 / 1120	700 / 1000				
	<b>CONTINUOUS BLOWER</b>	850	775	700	625				
	<b>HEATING</b>					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](http://www.firstco.com).

