

Product Specifications

 Upflow / Horizontal
 2-Pipe with Electric Heat

YVMBE

UP TO 67,500 BTUH COOLING



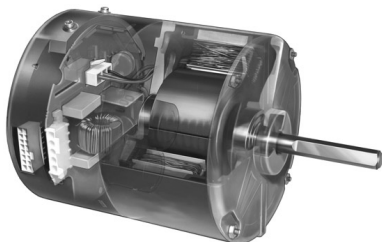
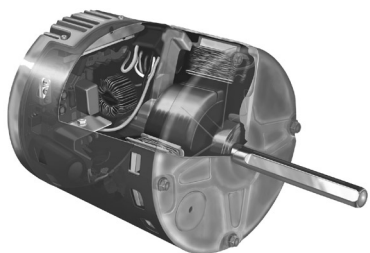
The **YVMBE** series includes a programmable, high efficiency motor that redefines comfort and energy savings. The VMBE motor automatically adjusts its torque and speed to maintain a preprogrammed level of constant airflow over a wide range of external static pressures. This variable speed technology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

High Efficiency – At full load conditions the **YVMBE** 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.

Quiet Operation – The versatile **YVMBE** 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 **YVMBE** 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 **YVMBE** 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 temperatures.



Variable Speed Motor

Additional Standard Features

- Factory installed electric heat (0-25kW)
- Upflow / horizontal drain pans
- Higher efficiency pleated filter
- Factory installed service switch (above 10kW)
- Primary and secondary drain connections on cooling coil
- Insulated cabinet with baked-on powder coat finish
- Compatible with most properly sized and installed zone control systems.
Contact the zone control manufacturer.
- 208/240V motor, 24V controls
- High capacity 4-row cooling coil
- Optional 277V model available. Contact factory.

Product Specifications

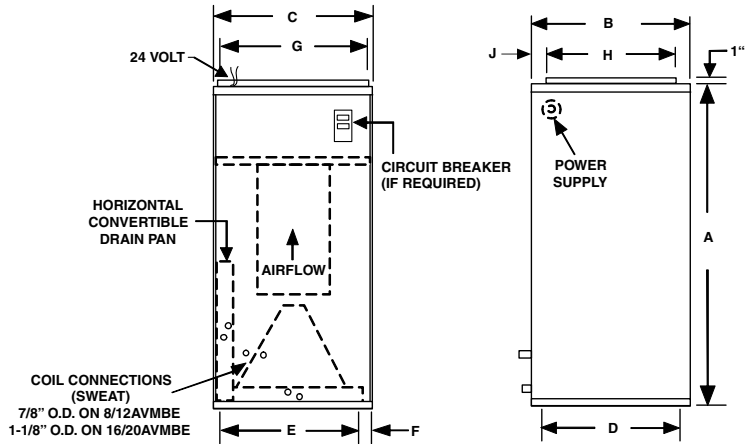
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PRODUCT INFO



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

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



PHYSICAL DIMENSIONS										
UNIT MODEL	A	B	C	D	E	F	G	H	J	FILTER SIZE
8YVMBE	40	20	20	18-1/2	16	2	18	16	3	18 X 20 X 1
12YVMBE	42	23	20	21-1/2	16	2	18	17	5	20 X 22 X 1
16/20YVMBE	48	28	21-1/4	26-1/4	17	2	19-1/4	18-1/4	8-7/8	20 X 25 X 1

AIR FLOW DATA (see "heating select taps" below each table for proper field set-up)												
MODEL	OPERATING MODE	THERMOSTAT TERMINALS			CONTROL BOARD SELECT TAPS							
		"X" ENERGIZED TERMINALS			COOL TAP				HEAT TAP			
		Y1	G	W1	A	B	C	D	A	B	C	D
8YVMBE	COOLING	X	X		800	720	600	525				
	CONTINUOUS BLOWER		X		400	360	300	265				
	ELECTRIC HEAT			X					790	730	660	600
Heating Select Taps A 800 CFM unit with 0 - 15kW electric heat B 800 CFM unit with 0 - 5kW max. electric heat C 600 CFM unit with 0 - 10kW electric heat D 600 CFM unit with 0 - 5kW max. electric heat												
12YVMBE	COOLING	X	X		1200	1050	950	850				
	CONTINUOUS BLOWER		X		600	525	475	425				
	ELECTRIC HEAT			X					1130	1000	875	790
Heating Select Taps A 1200 CFM unit with 0 - 15kW electric heat B 1200 CFM unit with 0 - 10kW max. electric heat C 950 CFM unit with 0 - 10kW electric heat D 950 CFM unit with 0 - 5kW max. electric heat												
16YVMBE	COOLING	X	X		1600	1400	1250	1100				
	CONTINUOUS BLOWER		X		800	700	625	550				
	ELECTRIC HEAT			X					1500	1360	1190	1060
Heating Select Taps A+10% 1600 CFM unit with 20 - 25kW electric heat A 1600 CFM unit with 10 - 20kW max. electric heat B 1600 CFM unit with 0 - 10kW max. electric heat C 1250 CFM unit with 10 - 15kW electric heat D 1250 CFM unit with 0 - 10kW max. electric heat												
20YVMBE	COOLING	X	X		2000	1800	1600	1400				
	CONTINUOUS BLOWER		X		1000	900	800	700				
	ELECTRIC HEAT			X					1875	1700	1500	1300
Heating Select Taps A 2000 CFM unit with 15 - 25kW electric heat B 2000 CFM unit with 0 - 15kW max. electric heat C 1600 CFM unit with 10 - 20kW electric heat D 1600 CFM unit with 0 - 10kW max. electric heat												

Airflow shown are at standard air conditions, dry coil at 240 volts.
Max. ext. static pressure is 0.50" wtr

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.
If humidistat function is activated the cooling CFM will be reduced by 20%.
Adjust profile (+) will increase airflow by 10%, while tap (-) will decrease airflow by 10%.

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PRODUCT DATA

PERFORMANCE DATA - 240V

UNIT MODEL	kW (@ 240V)	MOTOR AMPS	MOTOR HP	L1 - L2	L1 - L2	L1 - L2	L3 - L4	L3 - L4	L3 - L4	L5 - L6	L5 - L6	L5 - L6
				TOTAL AMPS	MIN. CIR. AMPACITY	MAX. CIR. PROTECTION	TOTAL AMPS	MIN. CIR. AMPACITY	MAX. CIR. PROTECTION	TOTAL AMPS	MIN. CIR. AMPACITY	MAX. CIR. PROTECTION
8YVMBE0	0	1.9	1/3	1.9	3/3	15/15	---	---	---	---	---	---
8YVMBE3	3	1.9	1/3	15/13	18/16	20/20	---	---	---	---	---	---
8YVMBE4	4	1.9	1/3	17/15	24/20	25/20	---	---	---	---	---	---
8YVMBE5	5	1.9	1/3	21/18	29/25	30/25	---	---	---	---	---	---
8YVMBE6	6	1.9	1/3	25/22	36/30	40/30	---	---	---	---	---	---
8YVMBE8	8	1.9	1/3	33/29	46/39	50/40	---	---	---	---	---	---
8YVMBE10	10	1.9	1/3	42/36	55/48	60/50	---	---	---	---	---	---
12YVMBE0	0	2.8	1/2	2.8	4/4	15/15	---	---	---	---	---	---
12YVMBE5	5	2.8	1/2	24/21	30/26	30/30	---	---	---	---	---	---
12YVMBE8	8	2.8	1/2	36/32	46/40	50/40	---	---	---	---	---	---
12YVMBE10	10	2.8	1/2	45/39	56/49	60/50	---	---	---	---	---	---
12YVMBE15	15	2.8	1/2	45/39	56/49	60/50	21/18	27/23	30/25	---	---	---
16YVMBE0	0	4.7	3/4	4.7	6/6	15/15	---	---	---	---	---	---
16YVMBE5	5	4.7	3/4	26/23	32/29	35/30	---	---	---	---	---	---
16YVMBE8	8	4.7	3/4	33/29	48/42	50/45	---	---	---	---	---	---
16YVMBE10	10	4.7	3/4	46/41	58/50	60/50	---	---	---	---	---	---
16YVMBE15	15	4.7	3/4	46/41	58/50	60/50	42/36	53/46	60/50	---	---	---
16YVMBE20	20	4.7	3/4	46/41	58/50	60/50	42/36	53/46	60/50	---	---	---
16YVMBE25	25	4.7	3/4	46/41	58/50	60/50	42/36	53/46	60/50	21/18	27/23	30/25
20YVMBE0	0	7.1	1	7.1	9/9	15/15	---	---	---	---	---	---
20YVMBE5	5	7.1	1	28/26	36/32	40/35	---	---	---	---	---	---
20YVMBE8	8	7.1	1	41/36	52/46	60/50	---	---	---	---	---	---
20YVMBE10	10	7.1	1	47/42	59/53	60/50	---	---	---	---	---	---
20YVMBE15	15	7.1	1	47/42	59/53	60/50	42/36	53/46	60/50	---	---	---
20YVMBE20	20	7.1	1	47/42	59/53	60/50	42/36	53/46	60/50	---	---	---
20YVMBE25	25	7.1	1	47/42	59/53	60/50	42/36	53/46	60/50	21/18	27/23	30/25

NOTES:

- 15kW and 20kW models require 2 supply circuits. 25kW models require 3 supply circuits.
- Units suitable for installation with 0" clearance to combustible material.

CHILLED WATER COOLING CAPACITY - 4 ROW

UNIT MODEL	CFM	GPM	P.D. (FT. WTR.)	45°F ENTERING WATER						42°F ENTERING WATER					
				80°F DB/67°F WB ENT. AIR			75°F DB/63°F WB ENT. AIR			80°F DB/67°F WB ENT. AIR			75°F DB/63°F WB ENT. AIR		
				TOTAL MBH	SENS. MBH	TEMP. RISE	TOTAL MBH	SENS. MBH	TEMP. RISE	TOTAL MBH	SENS. MBH	TEMP. RISE	TOTAL MBH	SENS. MBH	TEMP. RISE
8YVMBE	600	3.0	2.5	19.0	13.8	12.7	14.5	12.1	9.7	20.7	14.4	13.8	15.8	12.6	10.5
		4.5	5.5	22.4	15.1	9.9	17.1	13.1	7.6	24.4	15.9	10.8	18.6	13.7	8.3
		6.0	9.5	24.4	15.9	8.2	18.7	13.7	6.2	26.6	16.8	8.9	20.3	14.4	6.8
12YVMBE	800	3.5	3.4	23.1	17.3	13.2	17.6	15.2	10.1	25.2	18.1	14.4	19.2	15.8	11.0
		5.0	6.7	26.9	18.7	10.7	20.5	16.3	8.2	29.3	19.6	11.7	22.4	17.1	8.9
		6.5	11.0	29.2	19.6	9.0	22.3	17.0	6.9	31.8	20.6	9.8	24.3	17.8	7.5
16YVMBE	1000	4.0	2.4	28.3	21.6	14.1	21.6	19.0	10.8	30.8	22.5	15.4	23.6	19.7	11.8
		6.0	4.8	33.9	23.7	11.3	25.9	20.6	8.6	36.9	24.8	12.3	28.2	21.6	9.4
		8.0	7.9	37.3	25.0	9.3	28.5	21.7	7.1	40.6	26.3	10.2	31.0	22.7	7.8
20YVMBE	1200	5.0	3.5	33.7	25.5	13.5	25.8	22.4	10.3	36.8	26.6	14.7	28.1	23.3	11.3
		6.5	5.5	38.0	27.1	11.7	29.1	23.7	8.9	41.5	28.4	12.8	21.7	24.7	9.7
		8.0	7.9	41.0	28.2	10.3	31.3	24.6	7.8	44.7	29.6	11.2	34.1	25.7	8.5
8YVMBE	1400	4.5	2.0	36.2	29.2	16.1	27.7	25.8	12.3	39.5	30.3	17.5	30.1	26.7	13.4
		6.0	3.3	42.4	31.4	14.1	32.4	27.6	10.8	46.2	32.8	15.4	35.3	28.7	11.8
		7.5	4.8	46.9	33.1	12.5	35.8	28.9	9.6	51.1	34.7	13.6	39.0	30.2	10.4
12YVMBE	1600	6.0	3.3	44.2	34.1	14.7	33.8	30.0	11.3	48.2	35.5	16.1	36.8	31.2	12.3
		8.0	5.4	51.0	36.6	12.7	38.9	32.0	9.7	55.5	38.3	13.9	42.4	33.4	10.6
		10.0	7.9	55.7	38.4	11.1	42.5	33.4	8.5	60.7	40.3	12.1	46.3	34.9	9.3
16YVMBE	1600	6.5	3.8	46.1	34.8	14.2	35.2	30.6	10.8	50.3	36.3	15.5	38.4	31.8	11.8
		8.5	6.0	52.3	37.1	12.3	39.9	32.4	9.4	57.0	38.8	13.4	43.5	33.8	10.2
		10.5	8.6	46.6	38.7	10.8	43.2	33.7	8.2	61.7	40.7	11.8	47.1	35.2	9.0
20YVMBE	2000	7.0	4.3	52.4	40.9	15.0	40.0	36.1	11.4	57.1	42.6	16.3	43.6	37.4	12.5
		10.0	7.9	61.7	44.3	12.3	47.1	38.8	9.4	67.3	46.4	13.5	51.4	40.5	10.3
		13.0	12.5	67.5	46.5	10.4	51.6	40.5	7.9	73.6	48.8	11.3	56.2	42.4	8.6

NOTE:

- All cooling coils have four rows.
- Contact factory for capacities at other conditions.

Product Specifications

Upflow / Horizontal
2-Pipe with Electric Heat

ACCESSORIES

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



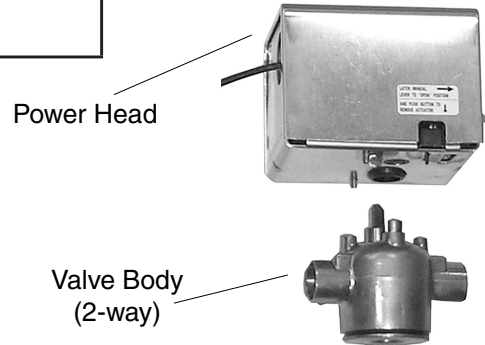
T832

NOTE: Contact factory for brochure

ACCESSORIES: (for chilled water coil)	
Power Heads:	
E50131180	24V
Separate Valve Bodies: (order power heads separately) (mount outside cabinet)	
E421317	3/4" 2-way - For 8-12YVMBE
E431317	3/4" 3-way - For 8-12YVMBE
E421417	1" 2-way - For 16-20YVMBE
E431417	1" 3-way - For 16-20YVMBE
Hand Valves: (Combination balance / shut-off) (2 usually req'd per coil)	
CP90	For 8-12YVMBE
CP905	For 16-20YVMBE

NOTE:

1. Power head leads are 18".



Power Head

Valve Body
(2-way)



CP905

3-WAY AIRFLOW

