

# Product Specifications

## Air Handlers



HE-Z Series  
Pg. 2



HE-Z Zoning  
Pg. 3



HE-B Series  
Pg. 4



HE-P Series  
Pg. 5



Cube Series  
Pg. 6



LV-Z Series  
Pg. 7



LV-B Series  
Pg. 8



LV Series  
Pg. 9

## Heating Coils/Cooling Coils



RBM/RBM-I Series  
Pg. 10-11



RCM/RCM-I Series  
Pg. 12-13



WBM Series  
Pg. 14



WCM Series  
Pg. 15



HWC  
Pg. 16



ESH/VESH Series  
Pg. 17-18

## Other



HVS Series  
Pg. 19



Flexible Duct  
Pg. 20



HEPS Air Purification  
Pg. 21-22

Quick Sizing Guide - Page 23

Matching Coils  
Refrigerant Coils

RBM/RBM-I/

RCM/RCM-I-50, 70, 100

Chilled Water Coils

WBM/WCM-50, 70, 100

Hot Water Coils

HWC-50, 70, 100

Electrical Coils

ESH/VESH-650, 750, 1100



# HE-Z Series Specifications

Hi-Velocity Air Handler w/ VFD Motor

## HE-Z-50/51

## HE-Z-70/71

## HE-Z-100/101

Hot Water Heating <sup>(1)</sup>	2 Ton Airflow (7.0 kW)		3 Ton Airflow (10.6 kW)		5 Ton Airflow (17.6 kW)	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	59,400 (17.4 kW)		89,200 (26.1 kW)		134,000 (39.3 kW)	
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	54,500 (16.0 kW)		81,800 (24.0 kW)		122,900 (36.0 kW)	
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	49,600 (14.5 kW)		74,400 (21.8 kW)		111,800 (32.8 kW)	
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	44,600 (13.1 kW)		67,100 (19.7 kW)		100,700 (29.5 kW)	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)		59,700 (17.5 kW)		89,700 (26.3 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)		51,800 (15.2 kW)		78,400 (23.0 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)		44,700 (13.1 kW)		67,100 (19.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)		37,400 (11.0 kW)		56,200 (16.5 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)		30,300 (8.9 kW)		45,500 (13.3 kW)	
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.96 KPa)		6.5 (19.4 KPa)		6.8 (20.3 KPa)	
Chilled Water Cooling <sup>(1)</sup>	WBM/WCM-50		WBM/WCM-70		WBM/WCM-100	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
WBM/WCM Modules in <b>Cooling Mode</b>	Total	Sensible	Total	Sensible	Total	Sensible
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	19,300 (5.7 kW)	13,700 (4.0 kW)	27,000 (7.9 kW)	19,200 (5.6 kW)	42,100 (12.3 kW)	30,300 (8.9 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	20,900 (6.1 kW)	14,200 (4.2 kW)	29,400 (8.6 kW)	20,000 (5.9 kW)	45,800 (13.4 kW)	32,100 (9.4 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,600 (6.6 kW)	14,900 (4.4 kW)	31,800 (9.3 kW)	21,000 (6.2 kW)	49,500 (14.5 kW)	33,700 (9.9 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	24,200 (7.1 kW)	15,700 (4.6 kW)	34,000 (10.0 kW)	21,800 (6.4 kW)	53,200 (15.6 kW)	35,100 (10.3 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	25,800 (7.6 kW)	16,300 (4.8 kW)	36,400 (10.7 kW)	23,000 (6.7 kW)	56,800 (16.6 kW)	36,400 (10.7 kW)
WBM/WCM Modules in <b>Heating Mode</b>	Total		Total		Total	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)		59,700 (17.5 kW)		89,700 (26.3 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)		51,800 (15.2 kW)		78,400 (23.0 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)		44,700 (13.1 kW)		67,100 (19.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)		37,400 (11.0 kW)		56,200 (16.5 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)		30,300 (8.9 kW)		45,500 (13.3 kW)	
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.97 KPa)		6.5 (19.4 KPa)		6.8 (20.3 KPa)	
Refrigerant Cooling <sup>(1)</sup>	RBM/RCM-50		RBM/RCM-70		RBM/RCM-100	
RBM/RCM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (5.3-7.0 kWh)		2.5 - 3.0 Tons (8.8-10.6 kWh)		3.5 - 5.0 Tons (12.3-17.6 kWh)	
Electrical Heating	ESH/VESH-650		ESH/VESH-750		ESH/VESH-1100	
Kilowatt Range (240v)	5 - 15 kW / 10 - 15 kW		5 - 18 kW / 10 - 18 kW		10 - 23 kW	
Specifications	HE-Z-50/51		HE-Z-70/71		HE-Z-100/101	
Max Rated CFM @ 1.2" E.S.P. (L/s @ 298 Pa)	500 (236 L/s)		750 (354 L/s)		1250 (590 L/s)	
Voltage	115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp	
Nominal Operating Amperage	4 Amps		6 Amps		8 Amps	
Integral Surge and Fuse System	Yes		Yes		Yes	
Horse Power - Watts	3/4hp - 310W		3/4hp - 530W		3/4hp - 720W	
Motor RPM	Variable		Variable		Variable	
Supply Air Size	8" Round (203mm)		8" Round (203mm)		10" Round (254mm)	
Supply Maximum Length <sup>(2)</sup>	70' (21.3m)		80' (24.4m)		100' (30.5m)	
Return Size Needed	12" (120 in <sup>2</sup> ) (305mm/774cm <sup>2</sup> )		12" (120 in <sup>2</sup> ) (305mm/774cm <sup>2</sup> )		14" (168 in <sup>2</sup> )	
Minimum Outlets <sup>(3)</sup>	6 (HE) 12 (2")		10 (HE) 20 (2")		14 (HE) 28 (2")	
Maximum Outlets	13 (HE) 26 (2")		18 (HE) 36 (2")		30 (HE) 60 (2")	
Shipping Weight (no coil)	69 lbs (31.3 kg)		77 lbs (34.9 kg)		92 lbs (41.7 kg)	
Air Handler Dimensions (L x W x H) (Add 2 1/2 inches to height for collars)	14 1/2" x 18 1/4" x 32 5/16" (368mm x 464mm x 821mm)		19 1/2" x 18 1/4" x 32 5/16" (495mm x 464mm x 821mm)		25 1/2" x 18 1/4" x 32 5/16" (648mm x 464mm x 821mm)	

<sup>(1)</sup> **Heating** specs are rated at 68°F E.A.T., **Cooling** specs are rated at 80°F/67°F dB/wB

<sup>(2)</sup> Maximum length is from the unit to the supply run end cap. More than one run per unit is allowable.

<sup>(3)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb

Matching Coils

Refrigerant Coils

RBM/RBM-I/

RCM/RCM-I-50, 70, 100

Chilled Water Coils

WBM/WCM-50, 70, 100

Hot Water Coils

HWC-50, 70, 100

Electrical Coils

ESH/VESH-650, 750, 1100



# HE-Z Zoning Series

w/ Multi-Collar Zoning Package

## HE-Z-50 Z2, Z3, Z4

## HE-Z-70 Z2, Z3, Z4

## HE-Z-100 Z2, Z3, Z4

Hot Water Heating <sup>(1)</sup>	2 Ton Airflow (7.0 kW)		3 Ton Airflow (10.6 kW)		5 Ton Airflow (17.6 kW)	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	59,400 (17.4 kW)		89,200 (26.1 kW)		134,000 (39.3 kW)	
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	54,500 (16.0 kW)		81,800 (24.0 kW)		122,900 (36.0 kW)	
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	49,600 (14.5 kW)		74,400 (21.8 kW)		111,800 (32.8 kW)	
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	44,600 (13.1 kW)		67,100 (19.7 kW)		100,700 (29.5 kW)	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)		59,700 (17.5 kW)		89,700 (26.3 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)		51,800 (15.2 kW)		78,400 (23.0 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)		44,700 (13.1 kW)		67,100 (19.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)		37,400 (11.0 kW)		56,200 (16.5 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)		30,300 (8.9 kW)		45,500 (13.3 kW)	
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.96 KPa)		6.5 (19.4 KPa)		6.8 (20.3 KPa)	
Chilled Water Cooling <sup>(1)</sup>	WBM/WCM-50		WBM/WCM-70		WBM/WCM-100	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
WBM/WCM Modules in <b>Cooling Mode</b>	<b>Total</b>	<b>Sensible</b>	<b>Total</b>	<b>Sensible</b>	<b>Total</b>	<b>Sensible</b>
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	19,300 (5.7 kW)	13,700 (4.0 kW)	27,000 (7.9 kW)	19,200 (5.6 kW)	42,100 (12.3 kW)	30,300 (8.9 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	20,900 (6.1 kW)	14,200 (4.2 kW)	29,400 (8.6 kW)	20,000 (5.9 kW)	45,800 (13.4 kW)	32,100 (9.4 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,600 (6.6 kW)	14,900 (4.4 kW)	31,800 (9.3 kW)	21,000 (6.2 kW)	49,500 (14.5 kW)	33,700 (9.9 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	24,200 (7.1 kW)	15,700 (4.6 kW)	34,000 (10.0 kW)	21,800 (6.4 kW)	53,200 (15.6 kW)	35,100 (10.3 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	25,800 (7.6 kW)	16,300 (4.8 kW)	36,400 (10.7 kW)	23,000 (6.7 kW)	56,800 (16.6 kW)	36,400 (10.7 kW)
WBM/WCM Modules in <b>Heating Mode</b>	<b>Total</b>		<b>Total</b>		<b>Total</b>	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)		59,700 (17.5 kW)		89,700 (26.3 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)		51,800 (15.2 kW)		78,400 (23.0 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)		44,700 (13.1 kW)		67,100 (19.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)		37,400 (11.0 kW)		56,200 (16.5 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)		30,300 (8.9 kW)		45,500 (13.3 kW)	
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.97 KPa)		6.5 (19.4 KPa)		6.8 (20.3 KPa)	
Refrigerant Cooling <sup>(1)</sup>	RBM/RCM-50		RBM/RCM-70		RBM/RCM-100	
RBM/RCM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (5.3-7.0 kWh)		2.5 - 3.0 Tons (8.8-10.6 kWh)		3.5 - 5.0 Tons (12.3-17.6 kWh)	
Electrical Heating	ESH/VESH-650		ESH/VESH-750		ESH/VESH-1100	
Kilowatt Range (240v)	5 - 15 kW / 10 - 15 kW		5 - 18 kW / 10 - 18 kW		10 - 23 kW	
Specifications	HE-Z-50 Z2, Z3, Z4		HE-Z-70 Z2, Z3, Z4		HE-Z-100 Z2, Z3, Z4	
Max Rated CFM @ 1.2" E.S.P. (L/s @ 298 Pa)	500 (236 L/s)		750 (354 L/s)		1250 (590 L/s)	
Voltage	115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp	
Nominal Operating Amperage	4 Amps		6 Amps		8 Amps	
Integral Surge and Fuse System	Yes		Yes		Yes	
Horse Power - Watts	3/4hp - 310W		3/4hp - 530W		3/4hp - 720W	
Motor RPM	Variable		Variable		Variable	
Supply Air Size (2 Supply Collars)	2 x 8" round (203mm)		2 x 8" round (203mm)		2 x 10" round (254mm)	
Supply Air Size (3 Supply Collars)	2 x 8" round (203mm) 1 x 6" round (152mm)		3 x 8" round (203mm)		2 x 8" round (203mm) 1 x 10" round (254mm)	
Supply Air Size (4 Supply Collars)	4 x 6" round (152mm)		4 x 6" round (152mm)		4 x 8" round (203mm)	
Supply Maximum Length <sup>(2)</sup>	70' (21.3m)		80' (24.4m)		100' (30.5m)	
Return Size Needed	12" (120 in <sup>2</sup> ) (305mm/774cm <sup>2</sup> )		12" (120 in <sup>2</sup> ) (305mm/774cm <sup>2</sup> )		14" (168 in <sup>2</sup> )	
Minimum Outlets <sup>(3)</sup> (Total per Air Handler)	6 (HE) 12 (2")		10 (HE) 20 (2")		14 (HE) 28 (2")	
Maximum Outlets (Total per Air Handler)	13 (HE) 26 (2")		18 (HE) 36 (2")		30 (HE) 60 (2")	
Shipping Weight (no coil)	76/77/78 lbs (34.5/34.9/35.4 kg)		83/84/86 lbs (37.6/38.1/39.0 kg)		99/101/103 lbs (44.9/45.8/46.7 kg)	
Air Handler Dimensions (L x W x H) (Add 7 inches to height for collars)	14 1/2" x 18 1/4" x 32 5/16" (368mm x 464mm x 821mm)		19 1/2" x 18 1/4" x 32 5/16" (495mm x 464mm x 821mm)		25 1/2" x 18 1/4" x 32 5/16" (648mm x 464mm x 821mm)	

<sup>(1)</sup> Heating specs are rated at 68°F E.A.T., Cooling specs are rated at 80°F/67°F dB/wB

<sup>(2)</sup> Maximum length is from the unit to the supply run end cap. More than one run per unit is allowable.

<sup>(3)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb



2 Supply Collars



3 Supply Collars



4 Supply Collars

Matching Coils  
Refrigerant Coils  
RBM/RBM-I/  
RCM/RCM-I-50, 70, 100  
Chilled Water Coils  
WBM/WCM-50, 70, 100  
Hot Water Coils  
HWC-50, 70, 100  
Electrical Coils  
ESH-650, 750, 1100



# HE-B Series Specifications

Builders Series Air Handler w/ VFD

## HE-B-51

## HE-B-71

## HE-B-101

Hot Water Heating <sup>(1)</sup>	2 Ton Airflow (7.0 kW)		3 Ton Airflow (10.6 kW)		5 Ton Airflow (17.6 kW)	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	59,400 (17.4 kW)		89,200 (26.1 kW)		134,000 (39.3 kW)	
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	54,500 (16.0 kW)		81,800 (24.0 kW)		122,900 (36.0 kW)	
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	49,600 (14.5 kW)		74,400 (21.8 kW)		111,800 (32.8 kW)	
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	44,600 (13.1 kW)		67,100 (19.7 kW)		100,700 (29.5 kW)	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)		59,700 (17.5 kW)		89,700 (26.3 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)		51,800 (15.2 kW)		78,400 (23.0 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)		44,700 (13.1 kW)		67,100 (19.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)		37,400 (11.0 kW)		56,200 (16.5 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)		30,300 (8.9 kW)		45,500 (13.3 kW)	
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.96 KPa)		6.5 (19.4 KPa)		6.8 (20.3 KPa)	
Chilled Water Cooling <sup>(1)</sup>	WBM/WCM-50		WBM/WCM-70		WBM/WCM-100	
Coil Type	6 Row/10 FPI		6 Row/10 FPI		6 Row/10 FPI	
WBM/WCM Modules in <b>Cooling Mode</b>	Total	Sensible	Total	Sensible	Total	Sensible
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	19,300 (5.7 kW)	13,700 (4.0 kW)	27,000 (7.9 kW)	19,200 (5.6 kW)	42,100 (12.3 kW)	30,300 (8.9 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	20,900 (6.1 kW)	14,200 (4.2 kW)	29,400 (8.6 kW)	20,000 (5.9 kW)	45,800 (13.4 kW)	32,100 (9.4 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,600 (6.6 kW)	14,900 (4.4 kW)	31,800 (9.3 kW)	21,000 (6.2 kW)	49,500 (14.5 kW)	33,700 (9.9 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	24,200 (7.1 kW)	15,700 (4.6 kW)	34,000 (10.0 kW)	21,800 (6.4 kW)	53,200 (15.6 kW)	35,100 (10.3 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	25,800 (7.6 kW)	16,300 (4.8 kW)	36,400 (10.7 kW)	23,000 (6.7 kW)	56,800 (16.6 kW)	36,400 (10.7 kW)
WBM/WCM Modules in <b>Heating Mode</b>	Total		Total		Total	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	39,700 (11.6 kW)		59,700 (17.5 kW)		89,700 (26.3 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	34,700 (10.2 kW)		51,800 (15.2 kW)		78,400 (23.0 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	29,700 (8.7 kW)		44,700 (13.1 kW)		67,100 (19.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	24,800 (7.3 kW)		37,400 (11.0 kW)		56,200 (16.5 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	20,100 (5.9 kW)		30,300 (8.9 kW)		45,500 (13.3 kW)	
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)		7 (0.44 L/s)		10 (0.63 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.97 KPa)		6.5 (19.4 KPa)		6.8 (20.3 KPa)	
Refrigerant Cooling <sup>(1)</sup>	RBM/RCM-50		RBM/RCM-70		RBM/RCM-100	
RBM/RCM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (5.3-7.0 kWh)		2.5 - 3.0 Tons (8.8-10.6 kWh)		3.5 - 5.0 Tons (12.3-17.6 kWh)	
Electrical Heating	ESH/VESH-650		ESH/VESH-750		ESH/VESH-1100	
Kilowatt Range (240v)	5 - 15 kW / 10 - 15 kW		5 - 18 kW / 10 - 18 kW		10 - 23 kW	
Specifications	HE-B-51		HE-B-71		HE-B-101	
Max Rated CFM @ 1.2" E.S.P. (L/s @ 298 Pa)	500 (236 L/s)		750 (354 L/s)		1250 (590 L/s)	
Voltage	115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp	
Nominal Operating Amperage	4 Amps		6 Amps		8 Amps	
Integral Surge and Fuse System	Yes		Yes		Yes	
Horse Power - Watts	3/4hp - 310W		3/4hp - 530W		3/4hp - 720W	
Motor RPM	Variable		Variable		Variable	
Supply Air Size	8" Round (203mm)		8" Round (203mm)		10" Round (254mm)	
Supply Maximum Length <sup>(2)</sup>	70' (21.3m)		80' (24.4m)		100' (30.5m)	
Return Size Needed	12" (120 in <sup>2</sup> ) (305mm/774cm <sup>2</sup> )		12" (120 in <sup>2</sup> ) (305mm/774cm <sup>2</sup> )		14" (168 in <sup>2</sup> )	
Minimum Outlets <sup>(3)</sup>	6 (HE) 12 (2")		10 (HE) 20 (2")		14 (HE) 28 (2")	
Maximum Outlets	13 (HE) 26 (2")		18 (HE) 36 (2")		30 (HE) 60 (2")	
Shipping Weight (no coil)	69 lbs (31.3 kg)		77 lbs (34.9 kg)		92 lbs (41.7 kg)	
Air Handler Dimensions (L x W x H) (Add 2 1/2 inches to height for collars)	14 1/2" x 18 1/4" x 32 5/16" (368mm x 464mm x 821mm)		19 1/2" x 18 1/4" x 32 5/16" (495mm x 464mm x 821mm)		25 1/2" x 18 1/4" x 32 5/16" (648mm x 464mm x 821mm)	

<sup>(1)</sup> **Heating** specs are rated at 68°F E.A.T., **Cooling** specs are rated at 80°F/67°F dB/wB

<sup>(2)</sup> Maximum length is from the unit to the supply run end cap. More than one run per unit is allowable.

<sup>(3)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb

Matching Coils  
Refrigerant Coils  
RBM/RCM-100 (x2)  
Chilled Water Coils  
WM-1750  
Hot Water Coils  
HWC-1750  
Electrical Coils  
ESH/VESH-2500



# HE-P Series Specifications

Hi-Velocity Air Handler w/ EC Motor

## HE-P-240/241

Hot Water Heating	10 Ton Airflow (35.2 kW) <sup>(2)</sup>			
Coil Type	6 Row/12 FPI			
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	234,100 (68.6 kW)			
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	214,300 (62.8 kW)			
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	194,500 (57.0 kW)			
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	174,700 (51.2 kW)			
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	155,000 (45.4 kW)			
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	135,300 (39.7 kW)			
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	115,600 (33.9 kW)			
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	96,000 (28.1 kW)			
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	76,600 (22.4 kW)			
GPM Flow Ratings (L/s Flow Ratings)	11 (0.69 L/s)			
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	5.5 (16.4 KPa)			
Chilled Water Cooling	1 WM-1750 Coil <sup>(2)</sup>		2 WM-1750 Coils <sup>(2)</sup>	
Coil Type	6 Row/12 FPI			
WBM/WCM Modules in <b>Cooling Mode</b>	Total	Sensible	Total	Sensible
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	64,400 (18.9 kW)	54,000 (15.8 kW)	93,900 (27.5 kW)	67,600 (19.8 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	69,600 (20.4 kW)	56,300 (16.5 kW)	102,200 (30.0 kW)	71,100 (20.8 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	74,900 (22.0 kW)	58,500 (17.1 kW)	110,400 (32.4 kW)	74,600 (21.9 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	80,100 (23.5 kW)	60,700 (17.8 kW)	118,400 (34.7 kW)	78,100 (22.9 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	85,300 (25.0 kW)	62,900 (18.4 kW)	126,300 (37.0 kW)	81,600 (23.9 kW)
WBM/WCM Modules in <b>Heating Mode</b>	Total			
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	155,000 (45.4 kW)			
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	135,300 (39.7 kW)			
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	115,600 (33.9 kW)			
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	96,000 (28.1 kW)			
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	76,600 (22.4 kW)			
GPM Flow Ratings (L/s Flow Ratings)	10 (0.63 L/s)			
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	6.8 (20.3 KPa)			
Refrigerant Cooling	RBM/RCM <sup>(2)</sup>			
RBM/RCM Modules BTUH Refrigerant TX Cooling	5 Ton Coils (x2)			
Electrical Heating	ESH/VESH-2500			
Kilowatt Range (240v)	10 - 25 kW			
Specifications	HE-P-240/241			
Max Rated CFM @ 1.2" E.S.P. (L/s @ 298 Pa)	2500 CFM (1180 L/s)			
Voltage	230/1/50/60 F.L.A. 8 amp			
Nominal Operating Amperage	6 Amps			
Integral Surge and Fuse System	Yes			
Watts	1325W			
Motor RPM	Variable			
Supply Air Size	2 x 10" Round (254mm)			
Supply Maximum Length <sup>(3)</sup>	130' (39.6m)			
Return Size Needed	18" (270 in <sup>2</sup> ) (457mm/1742 cm <sup>2</sup> )			
Minimum Outlets <sup>(4)</sup>	28 (HE) 56 (2")			
Maximum Outlets	60 (HE) 120 (2")			
Shipping Weight (no coil)	107 lbs (48.5 kg)			
Air Handler Dimensions (L x W x H) (Add 2 1⁄2 inches to height for collars)	26 3⁄4" x 24 1⁄4" x 38 3⁄4" (679mm x 616mm x 984mm)			

<sup>(1)</sup> Heating specs are rated at 70°F E.A.T., Cooling specs are rated at 80°F/67°F dB/wB

<sup>(2)</sup> Maximum length is from the unit to the supply run end cap. More than one run per unit is allowable.

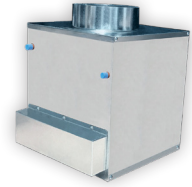
<sup>(3)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb



Matching Coils  
Refrigerant Coils  
RCM-30, RBM/RCM-50  
Chilled Water Coils  
WBM/WCM-50  
Hot Water Coils  
HWC-30, HWC-50  
Electric Coils  
ESH/VESH-400, 650



# Cube-EC Series Specifications

## Space Heating, Cooling and Fresh Air Make-Up

### CU-31-EC

### CU-51-EC

Hot Water Heating		Max Air Flow		Max Air Flow	
Coil Type		-		6 Row/10 FPI	
Max. BTUH @ 200°F E.W.T. (kW @ 93°C)		31,400 (9.2 kW)		64,300 (18.8 kW)	
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)		29,200 (8.6 kW)		59,400 (17.4 kW)	
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)		26,900 (7.9 kW)		54,500 (16.0 kW)	
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)		24,600 (7.2 kW)		49,600 (14.5 kW)	
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)		22,300 (6.5 kW)		44,600 (13.1 kW)	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)		21,100 (6.1 kW)		39,700 (11.6 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)		17,800 (5.2 kW)		34,700 (10.2 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)		15,600 (4.6 kW)		29,700 (8.7 kW)	
GPM Flow Ratings (L/s Flow Ratings)		2 (0.13 L/s)		5 (0.32 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)		6.3 (18.83 KPa)		3 (8.97 KPa)	
Chilled Water Cooling <sup>(1)</sup>		N/A		WBM/WCM-50	
Coil Type		-		6 Row/10 FPI	
WBM/WCM Modules in Cooling Mode		N/A		Total	Sensible
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)		-		19,300 (5.7 kW)	13,700 (4.0 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)		-		20,900 (6.1 kW)	14,200 (4.2 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)		-		22,600 (6.6 kW)	14,900 (4.4 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)		-		24,200 (7.1 kW)	15,700 (4.6 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)		-		25,800 (7.6 kW)	16,300 (4.8 kW)
WBM/WCM Modules in Heating Mode		N/A		Total	
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)		-		39,700 (11.6 kW)	
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)		-		34,700 (10.2 kW)	
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)		-		29,700 (8.7 kW)	
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)		-		24,800 (7.3 kW)	
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)		-		20,100 (5.9 kW)	
GPM Flow Ratings (L/s Flow Ratings)		-		5 (0.32 L/s)	
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)		-		3 (8.97 KPa)	
Refrigerant Cooling <sup>(1)</sup>		RCM-30		RBM/RCM-50	
RBM/RCM Modules BTUH Refrigerant TX Cooling		1.0 Ton (3.5 kWh)		1.5 - 2 Tons (5.3-7.0 kWh)	
Electrical Heating		ESH/VESH-400		ESH/VESH-650	
Kilowatt Range (240v)		5 - 10 kW		5 - 10 kW	
Specifications		CU-31-EC		CU-51-EC	
Nominal CFM (L/s)		400 (190 L/s)		500 (236 L/s)	
Max Rated CFM (L/s)		450 (212 L/s)		550 (260 L/s)	
Voltage		115/1/50/60 F.L.A. 2 amp		115/1/50/60 F.L.A. 2 amp	
Nominal Operating Amperage		1.5		1.5	
Horse Power - Watts		1/4 - 215		1/4 - 215	
Motor RPM		Variable / 3340 (max)		Variable / 3340 (max)	
Hydronic Connections	Supply	Ø3/8" (9.5mm)		Ø3/4" (19mm)	
	Return	Ø3/8" (9.5mm)		Ø3/4" (19mm)	
Supply Air Size		Round Duct	Rectangular Duct	Round Duct	Rectangular Duct
		Ø8" round (203mm)	12.5" x 13" (318mm x 330mm)	Ø8" round (203mm)	17.5" x 13" (445mm x 330mm)
Supply Maximum Length <sup>(2)</sup>		50' (15.24m)		50' (15.24m)	
Return Size Needed		Ø10" or 100 in <sup>2</sup>		Ø12" or 120 in <sup>2</sup>	
Nominal Outlets <sup>(3)</sup>		6 (HE) 12 (2")		10 (HE) 20 (2")	
Maximum Outlets <sup>(3)</sup>		10 (HE) 20 (2")		12 (HE) 24 (2")	
Shipping Weight (w/ Heating Coil)		25 lbs (11.3 kg)		32 lbs (14.5 kg)	
Air Handler Dimensions (L x W x H) (Add 2 1/2 inches to height for collars)		14" x 13 1/2" x 14 1/2" (356mm x 343mm x 368mm)		14 x 18 1/4" x 16 1/4" (356mm x 464mm x 413mm)	

<sup>(1)</sup> Heating specs are rated at 68°F E.A.T., Cooling specs are rated at 80°F/67°F dB/wB

<sup>(2)</sup> Maximum length is from the unit to the supply run end cap. More than one run per unit is allowable.

<sup>(3)</sup> Refer to page 5 of **Cube Installation Manual** for details on flex allowances.

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second

CFM - Cubic Feet per Minute  
F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
EAT - Entering Air Temperature

## Matching Coils

### Refrigerant Coils

RBM/RBM-I/RCM

RCM-I-50/750, 70/1050

### Chilled Water Coils

WBM/WCM-50/750, 70/1050,  
WM-1750

### Hot Water Coils

HWC-50/750, 70/1050, 1750

### Electrical Coils

ESH/VESH-650, 750, 2500



# LV-Z Series Specifications

Low Velocity Air Handler w/ VFD

## LV-Z-750

## LV-Z-1050

## LV-Z-1750

Hot Water Heating <sup>(1)</sup>	1.5 Ton Airflow (5.3 kW)	2 Ton Airflow (7.0 kW)	2.5 Ton Airflow (8.8 kW)	3 Ton Airflow (10.6 kW)	4 Ton Airflow (14.1 kW)	5 Ton Airflow (17.6 kW)
Coil	HWC-50	HWC-50	HWC-70 <sup>(2)</sup>	HWC-70	HWC-1750	HWC-1750
Coil Type	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/12 FPI	6 Row/12 FPI
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	62,100 (18.2 kW)	76,000 (22.3 kW)	92,200 (27.0 kW)	112,700 (33.0 kW)	172,200 (50.5 kW)	201,500 (59.0 kW)
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	57,000 (16.7 kW)	69,700 (20.4 kW)	84,600 (24.8 kW)	103,300 (30.3 kW)	157,900 (46.3 kW)	184,800 (54.1 kW)
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	51,800 (15.2 kW)	63,300 (18.5 kW)	76,900 (22.5 kW)	93,900 (27.5 kW)	143,600 (42.1 kW)	168,100 (49.3 kW)
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	46,600 (13.7 kW)	57,000 (16.7 kW)	69,300 (20.3 kW)	84,600 (24.8 kW)	129,400 (37.9 kW)	151,300 (44.3 kW)
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	41,500 (12.2 kW)	50,700 (14.9 kW)	61,700 (18.1 kW)	75,200 (22.0 kW)	115,200 (33.8 kW)	134,600 (39.4 kW)
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	36,300 (10.6 kW)	44,400 (13.0 kW)	54,000 (15.8 kW)	65,900 (19.3 kW)	100,900 (29.6 kW)	118,000 (34.6 kW)
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	31,200 (9.1 kW)	38,100 (11.2 kW)	46,400 (13.6 kW)	56,600 (16.6 kW)	86,800 (25.4 kW)	101,300 (29.7 kW)
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	26,100 (7.6 kW)	31,800 (9.3 kW)	38,900 (11.4 kW)	47,300 (13.9 kW)	72,600 (21.3 kW)	84,800 (24.8 kW)
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	21,000 (6.2 kW)	25,600 (7.5 kW)	31,300 (9.2 kW)	38,100 (11.2 kW)	58,500 (17.1 kW)	68,200 (20.0 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	5 (0.32 L/s)	7 (0.44 L/s)	7 (0.44 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	2.4 (7.17KPa)	2.4 (7.17KPa)	4.6 (13.75 KPa)	4.6 (13.75 KPa)	4.5 (13.45 KPa)	4.5 (13.45 KPa)
Chilled Water Cooling <sup>(1)</sup>	WBM/WCM-50	WBM/WCM-70 <sup>(3)</sup>	WBM/WCM-70	WBM/WCM-100 <sup>(3)</sup>	WM-1750	WM-1750
Coil Type	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/12 FPI	6 Row/12 FPI
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	18,700 (5.5 kW)	24,000 (7.0 kW)	28,300 (8.3 kW)	36,500 (10.7 kW)	51,600 (15.1 kW)	56,900 (16.7 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	20,400 (6.0 kW)	26,100 (7.6 kW)	30,800 (9.0 kW)	39,700 (11.6 kW)	56,000 (16.4 kW)	61,600 (18.0 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,000 (6.4 kW)	28,100 (8.2 kW)	33,300 (9.8 kW)	42,800 (12.5 kW)	60,400 (17.7 kW)	66,300 (19.4 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	23,600 (6.9 kW)	30,100 (8.8 kW)	35,800 (10.5 kW)	46,000 (13.5 kW)	64,800 (19.0 kW)	71,000 (20.8 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	25,100 (7.4 kW)	32,000 (9.4 kW)	38,200 (11.2 kW)	49,000 (14.4 kW)	69,000 (20.2 kW)	75,600 (22.2 kW)
S.H.R.						
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	77%	78%	76%	77%	77%	81%
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	74%	75%	73%	74%	74%	78%
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	71%	73%	71%	72%	72%	75%
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	69%	70%	69%	70%	69%	73%
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	68%	69%	67%	68%	68%	71%
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	5 (0.32 L/s)	7 (0.44 L/s)	7 (0.44 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in FT. H <sub>2</sub> O (Drop in KPa)	2.71 (8.1 KPa)	3.05 (9.1 KPa)	5.44 (16.5 KPa)	6.42 (19.2 KPa)	5.33 (15.9 KPa)	5.33 (15.9 KPa)
Refrigerant Cooling <sup>(1)</sup>	RBM/RCM-50/ 3rd Party		RBM/RCM-70/ 3rd Party		N/A (3rd Party Only)	
RBM/RCM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (5.3-7.0 kW) 18,000 - 24,000 BTUH		2.5 - 3.0 Tons (8.8-10.6 kWh) 30,000 - 36,000 BTUH		3.5 - 5.0 Tons (12.3-17.6 kWh) 42,000 - 60,000 BTUH	
Electrical Heating	ESH/VESH-650		ESH/VESH-750		ESH/VESH-2500	
Kilowatt Range	5 - 15 kW		5 - 18 kW / 10 - 18 kW		10 - 25 kW	
Specifications	LV-Z-750		LV-Z-1050		LV-Z-1750	
Rated CFM @ 0.6" E.S.P. (L/s @ 149 Pa)	800 (378 L/s)		1200 (566 L/s)		2000 (944 L/s)	
Voltage	115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp	
Nominal Operating Amperage	4 Amps		6 Amps		8 Amps	
Integral Surge and Fuse System	Yes		Yes		Yes	
Horse Power - Nominal Watts	3/4hp - 420W		1/3hp - 515W		3/4hp - 695W	
Motor RPM	Variable		Variable		Variable	
Supply Air Size	13" x 17 1/4" (330mm X 438mm)		18" x 17 1/4" (457mm X 438mm)		22 1/2" x 22 1/2" (572mm X 572mm)	
Return Size Needed	152 in <sup>2</sup> (0.1m <sup>2</sup> )		182 in <sup>2</sup> (0.12m <sup>2</sup> )		240 in <sup>2</sup> (0.15m <sup>2</sup> )	
Shipping Weight (no coil)	63 lbs (28.6 kg)		71 lbs (32.2 kg)		107 lbs (48.5 kg)	
Air Handler Dimensions (L x W x H)	14 1/2" x 18 1/4" x 32 5/16" (368mm x 464mm x 821mm)		19 1/2" x 18 1/4" x 32 5/16" (495mm x 464mm x 821mm)		26 3/4" x 24 1/4" x 38 3/4" (679mm x 616mm x 984mm)	

<sup>(1)</sup> Heating specs are rated at 68°F E.A.T., Cooling specs are rated at 80/67°F dB/wB.

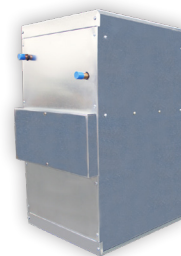
<sup>(2)</sup> WCM-100 will provide approximately the same heating capacities.

<sup>(3)</sup> Use a full transition when using mismatched coil to ensure even airflow across the coil.

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
S.H.R. - Sensible Heat Ratio  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb

Matching Coils  
Refrigerant Coils  
RBM/RBM-I/RCM  
RCM-I-50/750, 70/1050  
Chilled Water Coils  
WBM/WCM-50/750, 70/1050,  
WM-1750  
Hot Water Coils  
HWC-50/750, 70/1050, 1750  
Electrical Coils  
ESH/VESH-650, 750, 2500



# LV-B Series Specifications

Low Velocity Builders Series w/ VFD

## LV-B-751

## LV-B-1051

## LV-B-1751

Hot Water Heating <sup>(1)</sup>	1.5 Ton Airflow (5.3 kW)	2 Ton Airflow (7.0 kW)	2.5 Ton Airflow (8.8 kW)	3 Ton Airflow (10.6 kW)	4 Ton Airflow (14.1 kW)	5 Ton Airflow (17.6 kW)
Coil	HWC-50	HWC-50	HWC-70 <sup>(2)</sup>	HWC-70	HWC-1750	HWC-1750
Coil Type	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/12 FPI	6 Row/12 FPI
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	62,100 (18.2 kW)	76,000 (22.3 kW)	92,200 (27.0 kW)	112,700 (33.0 kW)	172,200 (50.5 kW)	201,500 (59.0 kW)
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	57,000 (16.7 kW)	69,700 (20.4 kW)	84,600 (24.8 kW)	103,300 (30.3 kW)	157,900 (46.3 kW)	184,800 (54.1 kW)
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	51,800 (15.2 kW)	63,300 (18.5 kW)	76,900 (22.5 kW)	93,900 (27.5 kW)	143,600 (42.1 kW)	168,100 (49.3 kW)
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	46,600 (13.7 kW)	57,000 (16.7 kW)	69,300 (20.3 kW)	84,600 (24.8 kW)	129,400 (37.9 kW)	151,300 (44.3 kW)
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	41,500 (12.2 kW)	50,700 (14.9 kW)	61,700 (18.1 kW)	75,200 (22.0 kW)	115,200 (33.8 kW)	134,600 (39.4 kW)
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	36,300 (10.6 kW)	44,400 (13.0 kW)	54,000 (15.8 kW)	65,900 (19.3 kW)	100,900 (29.6 kW)	118,000 (34.6 kW)
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	31,200 (9.1 kW)	38,100 (11.2 kW)	46,400 (13.6 kW)	56,600 (16.6 kW)	86,800 (25.4 kW)	101,300 (29.7 kW)
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	26,100 (7.6 kW)	31,800 (9.3 kW)	38,900 (11.4 kW)	47,300 (13.9 kW)	72,600 (21.3 kW)	84,800 (24.8 kW)
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	21,000 (6.2 kW)	25,600 (7.5 kW)	31,300 (9.2 kW)	38,100 (11.2 kW)	58,500 (17.1 kW)	68,200 (20.0 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	5 (0.32 L/s)	7 (0.44 L/s)	7 (0.44 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	2.4 (7.17KPa)	2.4 (7.17KPa)	4.6 (13.75 KPa)	4.6 (13.75 KPa)	4.5 (13.45 KPa)	4.5 (13.45 KPa)
Chilled Water Cooling <sup>(1)</sup>	WBM/WCM-50	WBM/WCM-70 <sup>(3)</sup>	WBM/WCM-70	WBM/WCM-100 <sup>(3)</sup>	WM-1750	WM-1750
Coil Type	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/10 FPI	6 Row/12 FPI	6 Row/12 FPI
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	18,700 (5.5 kW)	24,000 (7.0 kW)	28,300 (8.3 kW)	36,500 (10.7 kW)	51,600 (15.1 kW)	56,900 (16.7 kW)
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	20,400 (6.0 kW)	26,100 (7.6 kW)	30,800 (9.0 kW)	39,700 (11.6 kW)	56,000 (16.4 kW)	61,600 (18.0 kW)
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,000 (6.4 kW)	28,100 (8.2 kW)	33,300 (9.8 kW)	42,800 (12.5 kW)	60,400 (17.7 kW)	66,300 (19.4 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	23,600 (6.9 kW)	30,100 (8.8 kW)	35,800 (10.5 kW)	46,000 (13.5 kW)	64,800 (19.0 kW)	71,000 (20.8 kW)
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	25,100 (7.4 kW)	32,000 (9.4 kW)	38,200 (11.2 kW)	49,000 (14.4 kW)	69,000 (20.2 kW)	75,600 (22.2 kW)
S.H.R.						
Max. BTUH @ 48°F E.W.T. (kW @ 8.9°C)	77%	78%	76%	77%	77%	81%
Max. BTUH @ 46°F E.W.T. (kW @ 7.8°C)	74%	75%	73%	74%	74%	78%
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	71%	73%	71%	72%	72%	75%
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	69%	70%	69%	70%	69%	73%
Max. BTUH @ 40°F E.W.T. (kW @ 4.4°C)	68%	69%	67%	68%	68%	71%
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	5 (0.32 L/s)	7 (0.44 L/s)	7 (0.44 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in FT. H <sub>2</sub> O (Drop in KPa)	2.71 (8.1 KPa)	3.05 (9.1 KPa)	5.44 (16.5 KPa)	6.42 (19.2 KPa)	5.33 (15.9 KPa)	5.33 (15.9 KPa)
Refrigerant Cooling <sup>(1)</sup>	RBM/RCM-50/ 3rd Party		RBM/RCM-70/ 3rd Party		N/A (3rd Party Only)	
RBM/RCM Modules BTUH Refrigerant TX Cooling	1.5 - 2.0 Tons (5.3-7.0 kW) 18,000 - 24,000 BTUH		2.5 - 3.0 Tons (8.8-10.6 kWh) 30,000 - 36,000 BTUH		3.5 - 5.0 Tons (12.3-17.6 kWh) 42,000 - 60,000 BTUH	
Electrical Heating	ESH/VESH-650		ESH/VESH-750		ESH/VESH-2500	
Kilowatt Range	5 - 15 kW		5 - 18 kW / 10 - 18 kW		10 - 25 kW	
Specifications	LV-B-751		LV-B-1051		LV-B-1751	
Rated CFM @ 0.6" E.S.P. (L/s @ 149 Pa)	800 (378 L/s)		1200 (566 L/s)		2000 (944 L/s)	
Voltage	115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp		115/230/1/50/60 F.L.A. 8 amp	
Nominal Operating Amperage	4 Amps		6 Amps		8 Amps	
Integral Surge and Fuse System	Yes		Yes		Yes	
Horse Power - Nominal Watts	3/4hp - 420W		1/3hp - 515W		3/4hp - 695W	
Motor RPM	Variable		Variable		Variable	
Supply Air Size	13" x 17 1/4" (330mm X 438mm)		18" x 17 1/4" (457mm X 438mm)		22 1/2" x 22 1/2" (572mm X 572mm)	
Return Size Needed	152 in <sup>2</sup> (0.1m <sup>2</sup> )		182 in <sup>2</sup> (0.12m <sup>2</sup> )		240 in <sup>2</sup> (0.15m <sup>2</sup> )	
Shipping Weight (no coil)	63 lbs (28.6 kg)		71 lbs (32.2 kg)		107 lbs (48.5 kg)	
Air Handler Dimensions (L x W x H)	14 1/2" x 18 1/4" x 32 5/16" (368mm x 464mm x 821mm)		19 1/2" x 18 1/4" x 32 5/16" (495mm x 464mm x 821mm)		26 3/4" x 24 1/4" x 38 3/4" (679mm x 616mm x 984mm)	

<sup>(1)</sup> Heating specs are rated at 68°F E.A.T., Cooling specs are rated at 80/67°F dB/wB.

<sup>(2)</sup> WCM-100 will provide approximately the same heating capacities.

<sup>(3)</sup> Use a full transition when using mismatched coil to ensure even airflow across the coil.

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
S.H.R. - Sensible Heat Ratio  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb



Matching Coils  
Refrigerant Coils  
RBM/RBM-I/RCM/  
RCM-I-50, 70

Chilled Water Coils  
WBM/WCM-50, 70, 100

Hot Water Coils  
HWC-50, 70, 100

Electrical Coils  
ESH/VESH-650, 750, 1100



# LV Series Specifications

Low Velocity Air Handler w/ PSC Motor

	LV-50	LV-70	LV-120	LV-140
<b>Hot Water Heating<sup>(1)</sup></b>	<b>2 Ton Airflow (7.0 kW)</b>	<b>3 Ton Airflow (10.6 kW)</b>	<b>4 Ton Airflow (14.1 kW)</b>	<b>5 Ton Airflow (17.6 kW)</b>
Coil Type	6 row/10 FPI	6 row/10 FPI	6 row/10 FPI	6 row/10 FPI
Max. BTUH @ 190°F E.W.T. (kW @ 88°C)	74,300 (21.8 kW)	98,900 (29.0 kW)	148,700 (43.6 kW)	177,000 (51.9 kW)
Max. BTUH @ 180°F E.W.T. (kW @ 82°C)	68,000 (19.9 kW)	90,500 (26.1 kW)	136,100 (39.9 kW)	162,000 (47.5 kW)
Max. BTUH @ 170°F E.W.T. (kW @ 77°C)	61,600 (18.0 kW)	82,100 (24.0 kW)	123,500 (36.2 kW)	147,000 (43.1 kW)
Max. BTUH @ 160°F E.W.T. (kW @ 71°C)	55,400 (16.2 kW)	73,800 (21.6 kW)	110,900 (32.5 kW)	132,000 (38.7 kW)
Max. BTUH @ 150°F E.W.T. (kW @ 66°C)	49,100 (14.4 kW)	65,400 (19.2 kW)	98,400 (28.8 kW)	117,000 (34.3 kW)
Max. BTUH @ 140°F E.W.T. (kW @ 60°C)	42,800 (12.5 kW)	57,100 (16.7 kW)	85,900 (25.2 kW)	102,100 (30.0 kW)
Max. BTUH @ 130°F E.W.T. (kW @ 54°C)	36,600 (10.7 kW)	48,800 (14.3 kW)	76,400 (22.4 kW)	87,300 (25.6 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	6 (0.38 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.97 KPa)	5 (14.94 KPa)	7 (20.92 KPa)	7 (20.92 KPa)
<b>Chilled Water Cooling<sup>(1)</sup></b>	<b>WBM/WCM-50</b>	<b>WBM/WCM-70</b>	<b>WBM/WCM-100</b>	<b>WBM/WCM-100</b>
Coil Type	6 row/10 FPI	6 row/10 FPI	6 row/10 FPI	6 row/10 FPI
<b>WBM/WCM Modules in Cooling Mode</b>				
Max. BTUH @ 44°F E.W.T. (kW @ 6.7°C)	22,547 (6.6 kW)	34,486 (10.1 kW)	50,968 (14.9 kW)	56,100 (16.4 kW)
Max. BTUH @ 42°F E.W.T. (kW @ 5.6°C)	24,149 (7.1 kW)	37,046 (10.9 kW)	54,761 (16.0 kW)	60,237 (17.7 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	6 (0.38 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.97 KPa)	5 (14.94 KPa)	7 (20.92 KPa)	7 (20.92 KPa)
<b>WBM/WCM Modules in Heating Mode</b>				
Max. BTUH @ 110°F E.W.T. (kW @ 43°C)	23,400 (6.9 kW)	31,200 (9.1 kW)	46,900 (13.7 kW)	56,200 (16.5 kW)
Max. BTUH @ 120°F E.W.T. (kW @ 49°C)	29,000 (8.5 kW)	38,800 (11.4 kW)	58,300 (17.1 kW)	70,000 (20.5 kW)
GPM Flow Ratings (L/s Flow Ratings)	5 (0.32 L/s)	6 (0.38 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Pressure Drop in Ft. H <sub>2</sub> O (Drop in KPa)	3 (8.97 KPa)	5 (14.94 KPa)	7 (20.92 KPa)	7 (20.92 KPa)
<b>Refrigerant Cooling<sup>(1)</sup></b>	<b>RBM/RCM-50</b>	<b>RBM/RCM-70</b>	<b>N/A</b>	<b>N/A</b>
RBM/RCM Modules BTUH Refrigerant TX Cooling	1.5-2.0 Tons (5.3-7.0 kW)	2.5-3.0 Tons (8.8-10.6 kW)	-	-
<b>Electrical Heating</b>	<b>ESH/VESH-650</b>	<b>ESH/VESH-750</b>	<b>ESH/VESH-1100</b>	<b>ESH/VESH-1100</b>
Kilowatt Range	10 - 15 kW / 5 - 15 kW	10 - 18 kW / 5 - 18 kW	10 - 23 kW	10 - 23 kW
<b>Specifications</b>	<b>LV-50</b>	<b>LV-70</b>	<b>LV-120</b>	<b>LV-140</b>
Max Rated CFM @ 0.5" E.S.P. (L/s @ 125 Pa)	750 (354 L/s)	1000 (472 L/s)	1500 (708 L/s)	2000 (944 L/s)
Voltage	115/1/50/60 F.L.A. 8 amp	115/1/50/60 F.L.A. 8 amp	115/1/50/60 F.L.A. 8 amp	115/1/50/60 F.L.A. 8 amp
Nominal Operating Amperage	4.2	4.2	4.2	7.5
Integral Surge and Fuse System	Yes	Yes	Yes	Yes
Horse Power	1/3	1/3	1/3	1/2
Motor RPM	1075	1075	1075	1625
Slo-Blo Fuse AMPs	2	2	2	2
Supply Air Size	13" x 17 <sup>1</sup> / <sub>4</sub> " (330mm x 438mm)	18" x 17 <sup>1</sup> / <sub>4</sub> " (457mm x 438mm)	24" x 17 <sup>1</sup> / <sub>4</sub> " (610mm x 438mm)	24" x 17 <sup>1</sup> / <sub>4</sub> " (610mm x 438mm)
Return Size Needed	140 in <sup>2</sup> (0.09m <sup>2</sup> )	170 in <sup>2</sup> (0.10m <sup>2</sup> )	220 in <sup>2</sup> (0.14m <sup>2</sup> )	220 in <sup>2</sup> (0.14m <sup>2</sup> )
Shipping Weight (no coil)	57 lbs (25.9 kg)	63 lbs (28.6 kg)	77 lbs (34.9 kg)	83 lbs (37.6 kg)
Air Handler Dimensions (L x W x H)	14 1/2" x 18 1/4" x 32 5/16" (368mm x 464mm x 821mm)	19 1/2" x 18 1/4" x 32 5/16" (495mm x 464mm x 821mm)	25 1/2" x 18 1/4" x 32 5/16" (648mm x 464mm x 821mm)	25 1/2" x 18 1/4" x 32 5/16" (648mm x 464mm x 821mm)

<sup>(1)</sup> **Heating** specs are rated at 65°F E.A.T., **Cooling** specs are rated at 80/67°F dB/wB

- Ratings based on water ONLY and will be reduced with glycol
- All dimensions may vary +/- by up to 0.5 of an inch.
- Smaller condensers may be matched to the air handler when needed, TXV to be matched with condenser size.
- Models LV-50 and LV-70 are factory wired for medium motor operating speed.

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second  
CFM - Cubic Feet per Minute

F.L.A. - Full-Load Amperage  
RPM - Revolutions per Minute  
E.S.P. - External Static Pressure  
E.A.T. - Entering Air Temperature  
dB/wB - Dry Bulb/Wet Bulb



## RBM Specifications

### Refrigerant Base Module

Specifications		RBM-50	RBM-70	RBM-100
Part Number		41090300050	41090300070	41090300100
Matching Air Handler		HE-Z/HE-B/HE/HV-50/51 CU-51 LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE/HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-P/HE-B/HE/ HV-100/101 HE-P-240/241 (x2 Coils)
Tons <sup>(1)</sup>		1.5 - 2.0 (5.3 - 7.0 kW)	2.5 - 3.0 (8.8 - 10.6 kW)	3.5 - 5.0 (12.3 - 17.6 kW)
Refrigerant Type		R-410A	R-410A	R-410A
TX Cooling MBH <sup>(2)</sup>		18-24 (5.3-7.0 kW)	30-36 (8.8-10.6 kW)	42-60 (12.3-17.6 kW)
Latent Cooling MBH		6.8-8.9 (2.0-2.6 kW)	11.7-13.7 (3.4-4.0 kW)	16.0-22.2 (4.7-6.5 kW)
Fin Material		Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
Connection Sizes	Liquid Line (Lq)	3/8" (9.5mm)	3/8" (9.5mm)	3/8" (9.5mm)
	Suction Line (S)	7/8" (22.3mm)	7/8" (22.3mm)	7/8" (22.3mm)
	Drain Connection	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)
TXV with Built in Check Valve & Bypass		Pre-Installed	Pre-Installed	Pre-Installed
Freeze Stat		Yes	Yes	Yes
Access Port(s)		Yes	Yes	Yes
Shipping Weight		35 lbs (15.9 kg)	45 lbs (20.4 kg)	55 lbs (24.9 kg)
Coil Module Dimensions (L x W x H)		14 1/2" x 18 1/4" x 18 1/4" (368mm x 464mm x 464mm)	19 1/2" x 18 1/4" x 18 1/4" (495mm x 464mm x 464mm)	25 1/2" x 18 1/4" x 18 1/4" (648mm x 464mm x 464mm)

<sup>(1)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

<sup>(2)</sup> Smaller condensers may be matched to the air handler when needed (match TXV to condenser size)

MBH - Thousand British Thermal Units per Hour

TX - Thermal Expansion

TXV - Thermal Expansion Valve

### RBM Refrigerant Base Module comes with:

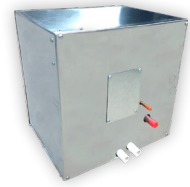
- Pre-Piped Heat Pump Ready Thermal Expansion Valve (TXV) with Built-In Check Valve
- Freeze Stat
- Service/Access Port(s)
- T-Mounting Brackets
- Mounting Tape
- Hole Plugs (2)
- Drain Pan

### Multi-Positional Coils:

Can be used in vertical and horizontal orientations.

### Comes Pre-Piped:

The TXV (Thermal Expansion Valve) comes already installed to save time in the field. The liquid and suction lines have male solder connections at a standard width making connections to the condenser lines quick and easy.



# RBM-I Specifications

## Refrigerant Base Module

For use with HVS-24, HVS-36 & HVS-60 Heat Pumps

Specifications		RBM-I-50	RBM-I-70	RBM-I-100
Part Number		41090303050	41090303070	41090303100
Matching Air Handler		HE-Z/HE-B/HE/HV-50/51 CU-51 LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE/HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-P/HE-B/HE/ HV-100/101 HE-P-240/241 (x2 Coils)
Matching Inverter Heat Pump		HVS-24	HVS-24, HVS-36	HVS-24, HVS-36, HVS-60
Tons <sup>(1)</sup>		1.5 - 2.0 (5.3 - 7.0 kW)	2.5 - 3.0 (8.8 - 10.6 kW)	3.5 - 5.0 (12.3 - 17.6 kW)
Refrigerant Type		R-410A	R-410A	R-410A
TX Cooling MBH <sup>(2)</sup>		18-24 (5.3-7.0 kW)	30-36 (8.8-10.6 kW)	42-60 (12.3-17.6 kW)
Latent Cooling MBH		6.8-8.9 (2.0-2.6 kW)	11.7-13.7 (3.4-4.0 kW)	16.0-22.2 (4.7-6.5 kW)
Fin Material		Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
Connection Sizes	Liquid Line (Lq)	1/2" (13mm)	1/2" (13mm)	1/2" (13mm)
	Suction Line (S)	7/8" (22.3mm)	7/8" (22.3mm)	7/8" (22.3mm)
	Drain Connection	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)
Freeze Stat		Yes	Yes	Yes
Access Port(s)		Yes	Yes	Yes
Shipping Weight		35 lbs (15.9 kg)	45 lbs (20.4 kg)	55 lbs (24.9 kg)
Coil Module Dimensions (L x W x H)		14 1/2" x 18 1/4" x 18 1/4" (368mm x 464mm x 464mm)	19 1/2" x 18 1/4" x 18 1/4" (495mm x 464mm x 464mm)	25 1/2" x 18 1/4" x 18 1/4" (648mm x 464mm x 464mm)

<sup>(1)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

<sup>(2)</sup> Smaller condensers may be matched to the air handler when needed (match TXV to condenser size)

MBH - Thousand British Thermal Units per Hour

TX - Thermal Expansion

TXV - Thermal Expansion Valve

### RBM-I Refrigerant Base Module comes with:

- Freeze Stat
- Service/Access Port(s)
- Two T-Mounting Brackets
- Mounting Tape
- Hole Plugs (2)
- Drain Pan

### Multi-Positional Coils:

Can be used in vertical and horizontal orientations.



# RCM Specifications

## Refrigerant Cooling Module

Specifications		RCM-30	RCM-50	RCM-70	RCM-100
Part Number		4090200030	10090200050	10090200070	40090200100
Matching Air Handler		CU-31 JH-15/30	HE-Z/HE-B/HE-50/51 HV-50/51/52 CU-51 LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE/HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-P/HE-B/HE/ HV-100/101 HE-P-240/241 (x2 Coils)
Tons <sup>(1)</sup>		1.0 Ton (3.5 kWh)	1.5 - 2.0 (5.3 - 7.0 Kw)	2.5 - 3.0 (8.8 - 10.6 Kw)	3.5 - 5.0 (12.3 - 17.6 Kw)
Refrigerant Type		R-410A	R-410A	R-410A	R-410A
TX Cooling MBH <sup>(2)</sup>		6-12 (1.8-3.5 kW)	18-24 (5.3-7.0 kW)	30-36 (8.8-10.6 kW)	42-60 (12.3-17.6 kW)
Fin Material		Aluminum	Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
Hydronic Connection Sizes	Liquid Line (Lq)	3/8" (9.5mm)	1/2" (13mm)	1/2" (13mm)	1/2" (13mm)
	Suction Line (S)	5/8" (15.9mm)	7/8" (22.3mm)	7/8" (22.3mm)	7/8" (22.3mm)
	Drain Connection	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)
TXV with Built in Check Valve & Bypass		No	Yes	Yes	Yes
Site Glass		Yes	Yes	Yes	Yes
Freeze Stat		Yes	Yes	Yes	Yes
Access Port(s)		Yes	Yes	Yes	Yes
Shipping Weight		17 lbs (7.7 kg)	27 lbs (12.2 kg)	34 lbs (15.4 kg)	45 lbs (20.4 kg)
Coil Module Dimensions (L x W x H)		14 3/8" x 12 1/4" x 12 3/8" (365mm x 311mm x 314mm)	14 3/8" x 10 1/8" x 18 1/2" (365mm x 257mm x 470mm)	19 3/8" x 10 1/8" x 18 1/2" (492mm x 257mm x 470mm)	25 3/8" x 10 1/8" x 18 1/2" (645mm x 257mm x 470mm)

<sup>(1)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

<sup>(2)</sup> Smaller condensers may be matched to the air handler when needed (match TXV to condenser size)

MBH - Thousand British Thermal Units per Hour

TX - Thermal Expansion

TXV - Thermal Expansion Valve

### RCM Refrigerant Module comes with:

- Heat Pump Ready Thermal Expansion Valve with Built-In Check Valve
- Integrated Access Port(s)
- Site Glass
- Freeze Stat
- Two L-Mounting Brackets
- Carry-over Screen
- Drain Pan



# RCM-I Specifications

## Refrigerant Cooling Module

For use with HVS-24, HVS-36 & HVS-60 Heat Pumps

Specifications		RCM-I-50	RCM-I-70	RCM-I-100
Part Number		10090203050	10090203070	10090203100
Matching Air Handler		HE-Z/HE-B/HE/HV-50/51 LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE/HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-P/HE-B/HE/ HV-100/101 HE-P-240/241 (x2 Coils)
Matching Inverter Heat Pump		HVS-24	HVS-24, HVS-36	HVS-24, HVS-36, HVS-60
Tons <sup>(1)</sup>		1.5 - 2.0 (5.3 - 7 Kw)	2.5 - 3.0 (8.8 - 10.6 Kw)	3.5 - 5.0 (12.3 - 17.6 Kw)
Refrigerant Type		R-410A	R-410A	R-410A
TX Cooling MBH <sup>(2)</sup>		18-24 (5.3-7.0 kW)	30-36 (8.8-10.6 kW)	42-60 (12.3-17.6 kW)
Latent Cooling MBH		6.8 - 8.9 (2.0 - 2.6 kW)	11.7 - 13.7 (3.4 - 4.0 kW)	16.0 - 22.2 (4.7 - 6.5 kW)
Fin Material		Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
Hydronic Connection Sizes	Liquid Line (Lq)	1/2" (13mm)	1/2" (13mm)	1/2" (13mm)
	Suction Line (S)	7/8" (22.3mm)	7/8" (22.3mm)	7/8" (22.3mm)
	Drain Connection	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)
Freeze Stat		Yes	Yes	Yes
Access Port(s)		Yes	Yes	Yes
Shipping Weight		27 lbs (12.2 kg)	34 lbs (15.4 kg)	45 lbs (20.4 kg)
Coil Module Dimensions (L x W x H)		14 3/8" x 10 1/8" x 18 1/2" (365mm x 257mm x 470mm)	19 3/8" x 10 1/8" x 18 1/2" (492mm x 257mm x 470mm)	25 3/8" x 10 1/8" x 18 1/2" (645mm x 257mm x 470mm)

<sup>(1)</sup> Minimum of **four HE outlets per ton** of cooling needed. (2" Duct = Minimum **eight 2" outlets per ton**)

<sup>(2)</sup> Smaller condensers may be matched to the air handler when needed (match TXV to condenser size)

MBH - Thousand British Thermal Units per Hour

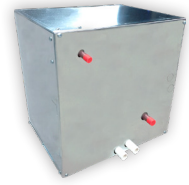
TX - Thermal Expansion

TXV - Thermal Expansion Valve

### RCM-I Refrigerant Coil comes with:

- Service/Access Port(s)
- Freeze Stat
- Two L-Mounting Brackets
- Mounting Tape
- Carry-Over Screen
- Drain Pan





# WBM Specifications

## Chilled Water Base Module

Specifications		WBM-50	WBM-70	WBM-100
Part Number		40090400050	40090400070	40090400100
Matching Air Handler		HE-Z/HE-B/HE/HV-50/51 CU-51 LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE/HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-P/HE-B/HE-100/101 HV-100/101 LV-Z/LV-B-1050/1051 LV-120/140
BTUH 80°/67° @ 42°F E.W.T. (27°/19° @ 5.5°C E.W.T.)		18,000-24,000 (5.3-7.0 kW)	30,000-36,000 (8.8-10.6 kW)	42,000-60,000 (12.3-17.6 kW)
Fin Material		Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
GPM Flow Ratings (L/s Flow Ratings)		5 (0.32 L/s)	7 (0.44 L/s)	10 (0.63 L/s)
Hydronic Connection Sizes	Supply Line	3/4" (19mm)	3/4" (19mm)	3/4" (19mm)
	Return Line	3/4" (19mm)	3/4" (19mm)	3/4" (19mm)
	Drain Connection	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)
Shipping Weight		35 lbs (15.9 kg)	45 lbs (20.4 kg)	55 lbs (24.9 kg)
Coil Module Dimensions (L x W x H)		14 1/2" x 18 1/4" x 18 1/4" (368mm x 464mm x 464mm)	19 1/2" x 18 1/4" x 18 1/4" (495mm x 464mm x 464mm)	25 1/2" x 18 1/4" x 18 1/4" (648mm x 464mm x 464mm)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second

### WBM Water Base Module comes with:

- Two T-Mounting Brackets
- Mounting Tape
- Hole Plugs (2)
- Drain Pan



# WCM/WM Specifications

## Chilled Water Module

Specifications		WCM-50	WCM-70/1050	WCM-100	WM-1750
Part Number		10010201050	10010201070	40090100100	20090101750
Matching Air Handler		HE-Z/HE-B/HE-50/51 HV-50/51/52 CU-51 LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE/HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-B/HE-100/101 HV-100/101 LV-Z/LV-B-1050/1051 LV-120/140	HE-P-240/241 LV-Z/LV-B-1750/1751
BTUH 80°/67° @ 42°F E.W.T. (27°/19 @ 5.5°C E.W.T.)		18,000-24,000 (5.3-7.0 kW)	30,000-36,000 (8.8-10.6 kW)	42,000-60,000 (12.3-17.6 kW)	42,000-70,000 (12.3-20.5 kW)
Fin Material		Aluminum	Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
GPM Flow Ratings (L/s Flow Ratings)		5 (0.32 L/s)	7 (0.44 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Hydronic Connection Sizes	Supply Line	3/4" (19mm)	3/4" (19mm)	3/4" (19mm)	1" (25mm)
	Return Line	3/4" (19mm)	3/4" (19mm)	3/4" (19mm)	1" (25mm)
	Drain Connection	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)	3/4" M CPVC (19mm)
Shipping Weight		26 lbs (11.8 kg)	33 lbs (15.0 kg)	44 lbs (20.0 kg)	55 lbs (24.9 kg)
Coil Module Dimensions (L x W x H)		14 3/8" x 10 1/8" x 18 1/2" (365mm x 257mm x 470mm)	19 3/8" x 10 1/8" x 18 1/2" (492mm x 257mm x 470mm)	25 3/8" x 10 1/8" x 18 1/2" (645mm x 257mm x 470mm)	26 1/4" x 8 1/4" x 22 5/8" (656mm x 209mm x 575mm)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second

### WCM/WM Coil comes with:

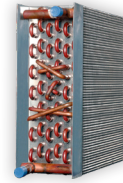
- Two L-Mounting Brackets
- Mounting Tape
- Drain Pan

### High Capacity Coils:

Why let your water just sit around when it's not in use, using the hot or cold water you already have stored can save you money.

### Primary and Secondary Drain Connections:

Connections are built into our modules which ensures the water always has an outlet to flow from.



# HWC Specifications

## Hot Water Coil Add-On

Specifications		HWC-30 Coil	HWC-50 Coil	HWC-70 Coil	HWC-100 Coil	HWC-1750 Coil
Part Number		10050500030	20100100050	20100100070	20100100100	20100101750
Matching Air Handler		CU-31 JH-15/30	HE-Z/HE-B/HE/ HV-50/51 CU-51, LV-Z/LV-B-750/751 LV-50	HE-Z/HE-B/HE-70/71 HV-70/71 LV-Z/LV-B-1050/1051 LV-70	HE-Z/HE-P-100/101 HE-B-100/101 HE/HV-100/101 LV-120/140	HE-P-240/241 LV-Z/LV-B-1750/1751
Max. BTUH 180°F E.W.T. (kW @ 82°C)		26,900 (7.9 kW)	54,500 (16.0 kW)	81,800 (24.0 kW)	122,900 (36.0 kW)	137,000 (40.0 kW)
Fin Material		Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Tubing Material		Copper	Copper	Copper	Copper	Copper
Type of Fins		.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)	.006 Al (0.1524mm)
GPM Flow Ratings (L/s Flow Ratings)		3 (0.18 L/s)	5 (0.32 L/s)	7 (0.44 L/s)	10 (0.63 L/s)	10 (0.63 L/s)
Hydronic Connection Sizes	Supply Line	3/8" (9mm)	3/4" (19mm)	3/4" (19mm)	3/4" (19mm)	1" (25mm)
	Return Line	3/8" (9mm)	3/4" (19mm)	3/4" (19mm)	3/4" (19mm)	1" (25mm)
Shipping Weight		5 lbs (2.3 kg)	17 lbs (7.7 kg)	22 lbs (10.0 kg)	29 lbs (13.2 kg)	45 lbs (20.4 kg)
Coil Dimensions (L x W x H)		13 1/2" x 3 1/3" x 12 1/2" (343mm x 85mm x 317mm)	13 1/2" x 5 1/2" x 16" (343mm x 140mm x 406mm)	19" x 5 1/2" x 16" (483mm x 140mm x 406mm)	25" x 5 1/2" x 16" (635mm x 140mm x 406mm)	26" x 6" x 22" (660mm x 152mm x 559mm)

BTUH - British Thermal Units per Hour  
E.W.T. - Entering Water Temperature  
GPM - US Gallons per Minute  
L/s - Litres per Second

### HWC Hot Water Coil:

The HWC is easily installed in our Air Handlers. With heating, condensate is not a consideration and the coil can be mounted on the supply side of the blower.

### Potable Water:

HWC Hot Water Coils are approved for use with potable water systems.

### 6 Row Coil:

This standard 6 row hot water coil comes in every H (Heating) model of Air Handler. If you would like to upgrade a BU (Blower Unit) Air Handler to heating, simply remove the front coil access panel and slide coil into place on the supply side of the blower.



# ESH Coil Specifications

## Electric Strip Heater Add-On

Specifications	ESH-400	ESH - 650	ESH - 750	ESH - 1100	ESH-2500
Part Number	5 kW - 10025400005	5 kW - 10025650005	5 kW - 10025750005	10 kW - 10025110010	10 kW - 10025250010
	10 kW - 10025400010	10 kW - 10025650010	10 kW - 10025750010	15 kW - 10025110015	15 kW - 10025250015
		15 kW - 10025650015	15 kW - 10025750015	18 kW - 10025110018	20 kW - 10025250020
			18 kW - 10025750018	20 kW - 10025110020	25 kW - 10025250025
				23 kW - 10025110023	
Matching Air Handler	CU-31 BU	HE-Z/HE-B/HE/ HV-50/51 BU, CU-51 BU, LV-Z/LV-B-750/751 BU, LV-50 BU	HE-Z/HE-B/HE/ HV-70/71 BU LV-Z/LV-B-1050/1051 BU LV-70 BU	HE-Z/HE-B/HE/ HV-100/101 BU LV-120/140 BU	HE-P-240 BU, LV-Z-1750 BU
Volts	240	240	240	240	240
Phase	1	1	1	1	1
Shipping Weight	20 lbs (9.1 kg)	21 lbs (9.5 kg)	27 lbs (12.2 kg)	28 lbs (12.7 kg)	30 lbs (13.6 kg)
Coil Dimensions <sup>(1)</sup> (L x W x H)	13 3/4" x 5 5/8" x 12 1/8" (349mm x 143mm x 308mm)	13 3/4" x 5 5/8" x 17" (349mm x 143mm x 432mm)	18 3/4" x 5 5/8" x 17" (476mm x 143mm x 432mm)	24 3/4" x 5 5/8" x 17" (629mm x 143mm x 432mm)	25 3/4" x 6" x 21 7/8" (654mm x 152mm x 556mm)

<sup>(1)</sup> Module dimensions above do not include the electrical access panel, add 4" to L for total length (5" for VESH-2500)

### Electric Resistance Heaters:

ESH Electric Strip Coils can be used with Hi-Velocity and Lo-Velocity Systems and are easily installed in the system.

### Easily installed :

With the design of the Hi-Velocity System, these electric heaters can be easily retrofit in the Air Handler by simply removing the coil access panel and sliding it in place.

### TH-34 Electronic Sequencer:

On a demand for heat, the TH-34 electronic sequencer will energize the heating elements in sequence. When the thermostat is satisfied, all of the elements will be de-energized.

Kilowatts	Number of Feeders	Circuit Breakers
5	1 x 20.8	1 x 30A
10	1 x 41.6	1 x 60A
15	1 x 20.8 1 x 41.6	1 x 30A 1 x 60A
18	1 x 41.6 1 x 41.6	1 x 60A 1 x 60A
20	2 x 41.6	2 x 60A
23	2 x 47.0	2 x 60A
25	2 x 41.6, 1 x 20.8	2 x 60A, 1 x 40A



# VESH Coil Specifications

Modulating Electric Strip Coil for use with Zoned Units

Specifications	VESH - 400	VESH - 650	VESH - 750	VESH - 1100	VESH - 2500
Part Number	10 kW - 10025404010	10 kW - 10025650010	10 kW - 10025750010	10 kW - 10025110010	10 kW - 10025254010
		15 kW - 10025650015	18 kW - 10025750018	18 kW - 10025110018	15 kW - 10025254015
				23 kW - 10025110023	20 kW - 10025254020
					25 kW - 10025254025
Matching Air Handler	CU-31 BU	HE-Z/HE-B/HE/ HV-50/51 BU, CU-51 BU, LV-Z/LV-B-750/751 BU, LV-50 BU	HE-Z/HE-B/HE/ HV-70/71 BU LV-Z/LV-B-1050/1051 BU LV-70 BU	HE-Z/HE-B/HE/ HV-100/101 BU LV-120/140 BU	HE-P-240 BU, LV-Z-1750 BU
Volts	240	240	240	240	240
Phase	1	1	1	1	1
Shipping Weight	20 lbs (9.1 kg)	21 lbs (9.5 kg)	27 lbs (12.2 kg)	28 lbs (12.7 kg)	30 lbs (13.6 kg)
Coil Dimensions <sup>(1)</sup> (L x W x H)	13 3/4" x 5 5/8" x 12 1/8" (349mm x 143mm x 308mm)	13 3/4" x 5 5/8" x 17" (349mm x 143mm x 432mm)	18 3/4" x 5 5/8" x 17" (476mm x 143mm x 432mm)	24 3/4" x 5 5/8" x 17" (629mm x 143mm x 432mm)	25 3/4" x 6" x 21 7/8" (654mm x 152mm x 556mm)

<sup>(1)</sup> Module dimensions above do not include the electrical access panel, add 4" to L for total length (5" for VESH-2500)

## Electric Resistance Heaters:

ESH Electric Strip Coils can be used with Hi-Velocity and Lo-Velocity Systems and are easily installed in the system.

## Easily installed :

With the design of the Hi-Velocity System, these electric heaters can be easily retrofit in the Air Handler by simply removing the coil access panel and sliding it in place.

## TH-34 Electronic Sequencer:

On a demand for heat, the TH-34 electronic sequencer will energize the heating elements in sequence. When the thermostat is satisfied, all of the elements will be de-energized.

Kilowatts	Number of Feeders	Circuit Breakers
10	1 x 41.6	1 x 60A
15	1 x 20.8 1 x 41.6	1 x 30A 1 x 60A
18	1 x 41.6 1 x 41.6	1 x 60A 1 x 60A
20	2 x 41.6	2 x 60A
23	2 x 47.0	2 x 60A
25	2 x 41.6, 1 x 20.8	2 x 60A, 1 x 40A



# Variable Speed Heat Pump

w/ Inverter Drive Compressor



Specifications	HVS-24	HVS-36	HVS-60
Part Number	40180400002	40180400003	40180400005
Outdoor Unit Tonnage	2 Ton (7 kW)	3 Ton (10.5 kW)	5 Ton (17 kW)
Capacity Data			
Nominal Cooling Capacity <sup>(1) (2)</sup>	23,500 BTU (6.9 kW)	35,500 BTU (10.4 kW)	57,300 BTU (16.8 kW)
Operational Range (Cooling)	6,000-24,000 BTU (1.8 - 7 kW)	9,000-36,000 BTU (2.6 - 10.5 kW)	15,000-60,000 BTU (4.4 - 17.6 kW)
Nominal Heating Capacity <sup>(1) (2)</sup>	26,200 BTU (7.7 kW)	38,200 BTU (11.2 kW)	60,400 BTU (17.7 kW)
Operational Range (Heating)	6,950-27,800 BTU (2.0 - 8.1 kW)	10,325-41,300 BTU (3.0 - 12.1 kW)	15,375-61,500 BTU (4.5 - 18.0 kW)
Highest Variable Airflow	2,350 CFM (1,109 L/s)	2,500 CFM (1,180 L/s)	4,400 CFM (2,077 L/s)
Lowest Variable Airflow	400 CFM (190 L/s)	400 CFM (190 L/s)	400 CFM (190 L/s)
Electrical Data			
Power Supply	208 - 240 Volts 1 Phase - 50/60 Hz	208 - 240 Volts 1 Phase - 50/60 Hz	208 - 240 Volts 1 Phase - 50/60 Hz
Nom. Full Load Amps	12.6	23	26
Min. Circuit Size (Amps)	18	35	36
Electrical Input Cooling (kW) <sup>(1)</sup>	2.0	3.25	5.3
Electrical Input Heating (kW) <sup>(1)</sup>	2.3	3.15	5.2
Sound Pressure (dB) (A) @ 1m	61	62	63
Soft Starter	Variable Frequency		
Dimensions - Outdoor Unit			
Dimensions (L x W x H)	38" x 16.14" x 32" (965mm x 410mm x 813mm)	38" x 16.14" x 32" (965mm x 410mm x 813mm)	37.5" x 16.25" x 52.5" (953mm x 413mm x 1,334mm)
Weight	155 lbs (70.3 kg)	155 lbs (70.3 kg)	269 lbs (122 kg)

(1) Capacities are based on A.S.3823.12

(2) Capacity modulation is extended by variable indoor airflow. Actual percentage loading will vary depending on application.

**DESIGN CONDITIONS:**

Cooling 35°C (95°F) DB Outdoor / 27°C (80°F) DB, 19°C (66°F) WB Air Entering Indoor Unit

Heating 7°C (44°F) DB, 6°C (43°F) WB Outdoor/ 21°C (70°F) DB Air Entering Indoor Unit

Nominal Operating Range -10°C (14°F) WB to 50°C (122°F) DB

Sound pressure level is influenced by the surroundings, therefore it may vary upon location.

## Features:

- Variable Speed Compressor allows for Zoning with True Efficiency
- 2, 3 or 5 Ton Cooling Capacity
- Easy Installation
- Energy Efficient Zoning
- Patented Interface allows Integration with 3rd Party Air Handlers

# Flexible Duct Specifications

## 2" & HE Flexible Duct



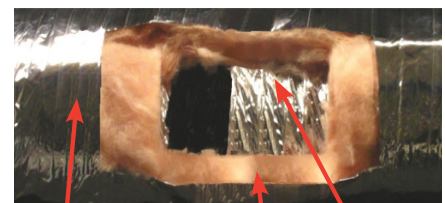
Specifications	2" x 10' AFD	2" x 15' AFD	2" x 25' UFD
Part Number	R4.2 - 20020120010 (4/Cartron)	R4.2 - 20020120015 (4/Cartron)	R4.2 - 20020120025 (1/Cartron)
	R8 - 20022120010 (2/Cartron)	R8 - 20022120015 (2/Cartron)	R8 - 20022120025 (1/Cartron)
UL Listed	Air Duct, Class 1	Air Duct, Class 1	Air Duct, Class 1
Maximum Rated Velocity	5000 ft/min and/or 25,4 m/s	5000 ft/min and/or 25,4 m/s	5000 ft/min and/or 25,4 m/s
Maximum Rated Positive Pressure	10 in. W.C. And/or 2.5 Kpa	10 in. W.C. And/or 2.5 Kpa	10 in. W.C. And/or 2.5 Kpa
Maximum Rated Negative Pressure	0.5 in. W.C. And/or 0.12 Kpa	0.5 in. W.C. And/or 0.12 Kpa	0.5 in. W.C. And/or 0.12 Kpa
Maximum Flame Spread	25	25	25
Maximum Smoke Developed	50	50	50
Standard UL	Standard UL 181	Standard UL 181	Standard UL 181
Standard CAN/ULC	Standard CAN/ULC-S110-M	Standard CAN/ULC-S110-M	Standard CAN/ULC-S110-M
2" Flex Outside Diameter (R4.2)	4.5" (101mm)	4.5" (101mm)	4.5" (101mm)
2' Flex Outside Diameter (R8)	6.5" (165mm)	6.5" (165mm)	6.5" (165mm)
Specifications	HE x 10' AFD	HE x 15' AFD	HE x 25' UFD
Part Number	R4.2 - 20062020010 (2/Cartron)	R4.2 - 20062020015 (2/Cartron)	R4.2 - 20062020025 (1/Cartron)
	R8 - 20062030010 (1/Cartron)	R8 - 20062030015 (1/Cartron)	R8 - 20062030025 (1/Cartron)
UL Listed	Air Duct, Class 1	Air Duct, Class 1	Air Duct, Class 1
Maximum Rated Velocity	5000 ft/min and/or 25,4 m/s	5000 ft/min and/or 25,4 m/s	5000 ft/min and/or 25,4 m/s
Maximum Rated Positive Pressure	10 in. W.C. And/or 2.5 Kpa	10 in. W.C. And/or 2.5 Kpa	10 in. W.C. And/or 2.5 Kpa
Maximum Rated Negative Pressure	0.5 in. W.C. And/or 0.12 Kpa	0.5 in. W.C. And/or 0.12 Kpa	0.5 in. W.C. And/or 0.12 Kpa
Maximum Flame Spread	25	25	25
Maximum Smoke Developed	50	50	50
Standard UL	Standard UL 181	Standard UL 181	Standard UL 181
Standard CAN/ULC	Standard CAN/ULC-S110-M	Standard CAN/ULC-S110-M	Standard CAN/ULC-S110-M
HE Flex Outside Diameter (R4.2)	5.5" (140mm)	5.5" (140mm)	5.5" (140mm)
HE Flex Outside Diameter (R8)	7.5" (190mm)	7.5" (190mm)	7.5" (190mm)

### Features :

Inner core is made of a double lamination of foil laminate and clear polyester film which is interlaced with a galvanised steel wire (.041) having a 3/4" pitch.

The core is wrapped with fibreglass insulation certified "GREENGUARD" having a coefficient of R4.2/R8.4 and is encapsulated by a metalized vapour barrier reinforced with fibreglass string.

### Cut away showing the Inner Core



Metallized Vapour Barrier      Inner Core  
Fibreglass Insulation

# HEPS Air Purification System

## Whole Home/Office Air Purification



Specifications	HEPS	HEPS-1750
Part Number	20180100000	20180101750
Capacity	1.5 -5 Tons	2.5 - 5 Tons
Application Range	2,000 Square Feet	3, 000 Square Feet
Filter	Electrostatic MERV-13 Needled Fiber	Electrostatic MERV-13 Needled Fiber
Power	120V/60 Hz .6 Amps 49.2 Watts	120V/60 Hz .6 Amps 49.2 Watts
Number of UV Lamps	2	2
UV Range	UVC Germicidal Wavelength - 254 nanometers	UVC Germicidal Wavelength - 254 nanometers
Lamp Wattage	30 Watts	30 Watts
Fuse	AGC-2	AGC-2
Particulate Reduction <sup>(1)</sup>	92.30%	92.30%
Pressure Drop (in WC)	.30 @ 1200 cfm	.32 @ 1600 cfm
Titanium Catalyst	Surface Area - 450 Sq. In. active surface area	Surface Area - 557 Sq. In. active surface area
Service Interval	Filter - Every 6 Months Merv-13 P/N 20180100015 Merv-14 P/N 20180100006	Filter - Every 6 Months Merv-13 P/N 20180100012
	UV Lamps - Every 12 Months P/N 20180100001	UV Lamps - Every 12 Months P/N 20180100001
MERV 13 Filter Size	24 3/4" x 3 3/4" x 15 7/8" (629mm x 95mm x 403mm)	24 3/4" x 3 3/4" x 20 1/8" (629mm x 95mm x 511mm)
Unit Dimensions	26 1/16" x 10 5/16" x 18 3/8" (662mm x 262mm x 467mm)	28 1/2" x 10 5/16" x 21 1/8" (723mm x 262mm x 537mm)
Unit Weight	23 Lbs (10 kg) (Shipping - Add 6 lbs)	29 Lbs (13 kg) (Shipping - Add 10 lbs)
Shipping Dimensions	29" x 11" x 21" (735mm x 280mm x 530mm)	32" x 14" x 23" (812mm x 355mm x 584mm)

MERV = ASHRAE Standard for Minimum Efficiency Reporting Value  
UV = Ultraviolet

### Features :

Easily Installed on any Hi-Velocity or existing HVAC System, 3 Powerful Technologies clean the air down to the last molecule!

- Electrostatic MERV-13 Needled Fiber Filter Removes Allergens Electrostatically
- Photo-Catalytic Oxidation Destroys Toxic Chemicals and Eliminates Household Odors
- Ultraviolet Light Neutralizes Disease Germs on Contact



# HEPS P-20 Portable Air Purification

## 5 Steps to Clean Room Air

Specifications	HEPS P-20 Portable Air Purification
Part Number	20180100020
Maximum Airflow	265 cfm
Power Consumption	106 watts, 0.89 amps
Voltage	115V/1ph/60 Hz
Blower	Backward-curved motorized impeller-sealed bearings
UVC Germicidal Lamp	8 watts
Microwatts at surface per cm <sup>2</sup>	16,000
Microwatts at surface per cm <sup>2</sup> @ 1ft	540
UVC Germicidal Wavelength	254 nanometers
Stage 1 Pre-Filter	5 Micron
Stage 2 High Efficiency Filter	.30 Micron Hospital Grade
Stage 1 Gas Absorption Layer	Activated Charcoal
Stage 2 Gas Absorption Layer	Activated Charcoal
Catalyst	TiO <sub>2</sub> Anatase
Application Range	1,000 Square Feet (Automode)
Service Interval	Replace Filter and UV Lamps every 12 Months
Filter Efficiency %	99%
Sound Level dBA	48 to 68
Unit Dimensions	18" x 21.5" x 8" (457mm x 546mm x 203mm)
Unit Weight	23 Lbs (10 kg) (Shipping - Add 6 lbs)
Shipping Dimensions	20" x 22" x 10" (508mm x 558 mm x 254mm)

UVC = Ultraviolet C

### Features :

- **Treated Pre-filter** removes all particles from the air larger than 5 Microns
- Hospital grade **HEPA Filter** removes allergens so small they can only be seen by a Microscope
- Specially formulated **Gas Absorption Media** removes Toxic Fumes
- **Photo-Catalytic Oxidation** Destroys Toxic Chemicals and Eliminates Household Odors
- **Ultraviolet Light** Neutralizes Disease Germs on Contact

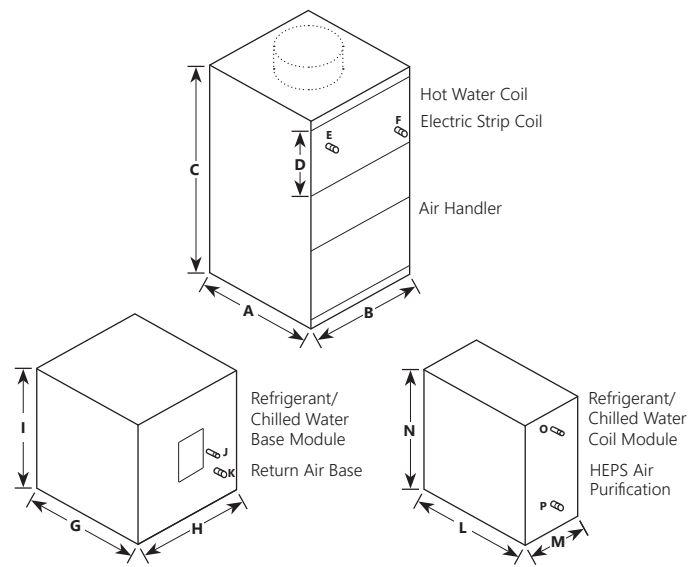
# Quick Sizing Guide

## ALL UNITS

Item	Length	Width	Height
<b>Cube Air Handlers</b>	<b>A</b>	<b>B</b>	<b>C</b>
CU-31	14" (356mm)	13 1/2" (343mm)	14 1/2" (368mm)
CU-51	14" (356mm)	18 1/4" (464mm)	16 1/4" (413mm)

<b>Hi-Velocity Air Handlers</b>	<b>A</b>	<b>B</b>	<b>C</b>
HE-Z/HE-B/HE/HV-50/51	14 1/2" (368mm)	18 1/4" (464mm)	32 5/16" (821mm)
HE-Z/HE-B/HE/HV-70/71	19 1/2" (495mm)	18 1/4" (464mm)	32 5/16" (821mm)
HE-Z/HE-B/HE-P/HE/HV-100/101	25 1/2" (648mm)	18 1/4" (464mm)	32 5/16" (821mm)
HE-P-240/241	26 3/4" (679mm)	24 1/4" (616mm)	38 3/4" (984mm)

<b>Lo-Velocity Air Handlers</b>	<b>A</b>	<b>B</b>	<b>C</b>
JH-15/30	14" (356mm)	12" (304mm)	22" (559mm)
LV-Z/LV-B-750, LV-50	14 1/2" (368mm)	18 1/4" (464mm)	32 5/16" (821mm)
LV-Z/LV-B-1050, LV-70	19 1/2" (495mm)	18 1/4" (464mm)	32 5/16" (821mm)
LV-120/140	25 1/2" (648mm)	18 1/4" (464mm)	32 5/16" (821mm)
LV-Z/LV-B-1750	26 3/4" (679mm)	24 1/4" (616mm)	38 3/4" (984mm)



<b>RBM/RBM-I Refrigerant Base Modules</b>		<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>
RBM/RBM-I-50	Fits HE-Z/HE-B/HE/HV-50/51/52, CU-51, LV-Z/LV-B-750/751, LV-50 (1.5 - 2 Tons)	14 1/2" (368mm)	18 1/4" (464mm)	18 1/4" (464mm)	3/8" (RBM-I 1/2")	7/8" (22mm)
RBM/RBM-I-70	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70 (2.5 - 3 Tons)	19 3/8" (492mm)	18 1/4" (464mm)	18 1/4" (464mm)	3/8" (RBM-I 1/2")	7/8" (22mm)
RBM/RBM-I-100	Fits HE-Z/HE-P/HE-B/HE/HV-100/101 (3.5 - 5 Tons), HE-P-240 (x2 Coils 5-10 Tons)	25 3/8" (645mm)	18 1/4" (464mm)	18 1/4" (464mm)	3/8" (RBM-I 1/2")	7/8" (22mm)

<b>RCM/RCM-I Refrigerant Modules</b>		<b>L</b>	<b>M</b>	<b>N</b>	<b>O</b>	<b>P</b>
RCM-30	Fits JH 15/30, CU-31 (1 Ton)	14 3/8" (365mm)	12 1/4" (311mm)	12 3/8" (314mm)	3/8" (9.5mm)	5/8" (15.9mm)
RCM/RCM-I-50	Fits HE-Z/HE-B/HE/HV-50/51/52, CU-51, LV-Z/LV-B-750/751, LV-50 (1.5 - 2 Tons)	14 3/8" (365mm)	10 1/8" (257mm)	18 1/2" (470mm)	1/2" (13mm)	7/8" (22mm)
RCM/RCM-I-70	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70 (2.5 - 3 Tons)	19 3/8" (492mm)	10 1/8" (257mm)	18 1/2" (470mm)	1/2" (13mm)	7/8" (22mm)
RCM/RCM-I-100	Fits HE-Z/HE-P/HE-B/HE/HV-100/101 (3.5 - 5 Tons), HE-P-240 (x2 Coils 5-10 Tons)	25 3/8" (645mm)	10 1/8" (257mm)	18 1/2" (470mm)	1/2" (13mm)	7/8" (22mm)

<b>WCM/WM Chilled Water Modules</b>		<b>L</b>	<b>M</b>	<b>N</b>	<b>O</b>	<b>P</b>
WCM-50	Fits HE-Z/HE-B/HE/HV-50/51/52, CU-51, LV-Z/LV-B-750/751, LV-50	14 3/8" (365mm)	10 1/8" (257mm)	18 1/2" (470mm)	3/4" (19mm)	3/4" (19mm)
WCM-70	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70	19 3/8" (492mm)	10 1/8" (257mm)	18 1/2" (470mm)	3/4" (19mm)	3/4" (19mm)
WCM-100	Fits HE-Z/HE-P/HE-B/HE/HV-100/101, LV-Z/LV-B/LV-E-1050/1051, LV-120/140	25 3/8" (645mm)	10 1/8" (257mm)	18 1/2" (470mm)	3/4" (19mm)	3/4" (19mm)
WM-1750	Fits LV-Z/LV-B/LV-E-1750/1751	26 1/4" (667mm)	8 1/4" (209mm)	22 5/8" (575mm)	1" (25mm)	1" (25mm)

<b>WBM Chilled Water Base Modules</b>		<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	<b>K</b>
WBM-50	Fits HE-Z/HE-B/HE/HV-50/51/52, CU-51, LV-Z/LV-B-750/751, LV-50	14 1/2" (368mm)	18 1/4" (464mm)	18 1/4" (464mm)	3/4" (19mm)	3/4" (19mm)
WBM-70	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70	19 3/8" (492mm)	18 1/4" (464mm)	18 1/4" (464mm)	3/4" (19mm)	3/4" (19mm)
WBM-100	Fits HE-Z/HE-P/HE-B/HE/HV-100/101, LV-Z/LV-B/LV-E-1050/1051, LV-120/140	25 3/8" (645mm)	18 1/4" (464mm)	18 1/4" (464mm)	3/4" (19mm)	3/4" (19mm)

<b>HWC Hot Water Coils</b>		<b>A</b>	<b>B</b>	<b>D</b>	<b>E</b>	<b>F</b>
HWC-30	Fits CU-31, JH-15/30	13 1/2" (343mm)	12 1/2" (317mm)	3 3/8" (85mm)	3/8" (9.5mm)	3/8" (9.5mm)
HWC-50	Fits HE-Z/HE-B/HE/HV-50/51, CU-51, LV-Z/LV-B-750/751, LV-50	13 1/2" (343mm)	16" (406mm)	5 1/2" (140mm)	3/4" (19mm)	3/4" (19mm)
HWC-70	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70	19" (483mm)	16" (406mm)	5 1/2" (140mm)	3/4" (19mm)	3/4" (19mm)
HWC-100	Fits HE-Z/HE-P/HE-B/HE/HV-100/101, LV-120/140	25" (635mm)	16" (406mm)	5 1/2" (140mm)	3/4" (19mm)	3/4" (19mm)
HWC-1750	Fits HE-P-240/241, LV-Z/LV-B/LV-E-1750/1751	26" (660mm)	22" (559mm)	6" (152mm)	1" (25mm)	1" (25mm)

Heating Coil Add-on does not come as a module, it slides into the Hi-Velocity Air Handler. Comes installed in all "H" Air Handlers.

<b>ESH/VESH Electrical Strip Heater</b>		<b>A</b>	<b>B</b>	<b>D</b>
ESH/VESH-400 (5-10 kW)	Fits CU-31	13 3/4" (349mm)	12 1/8" (308mm)	5 5/8" (143mm)
ESH/VESH-650 (5-15 kW)	Fits HE-Z/HE-B/HE/HV-50/51, LV-Z/LV-B-750/751, LV-50	13 3/4" (349mm)	17" (432mm)	5 5/8" (143mm)
ESH/VESH-750 (5-18 kW)	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70	18 3/4" (476mm)	17" (432mm)	5 5/8" (143mm)
ESH/VESH-1100 (10-23 kW)	Fits HE-Z/HE-P/HE-B/HE/HV-100/101, LV-120/140	24 3/4" (629mm)	17" (432mm)	5 5/8" (143mm)
ESH/VESH-2500 (10-25 kW)	Fits HE-P-240 BU, LV-Z-1750/1751 BU	25 3/4" (654mm)	21 7/8" (556mm)	6" (152mm)

Dimensions for the ESH do not include the electrical access panel, add 4" to Length (5" for 2500)

<b>HEPS Hi-Velocity Air Purification System (See parts list for replacement filters)</b>		<b>L</b>	<b>M</b>	<b>N</b>
HEPS w/ Merv 13 Filt.	Fits All 50/51/70/71/750/751/100/101/120/140/1050 Units	26 1/16" (662mm)	10 5/16" (262mm)	18 3/8" (467mm)
HEPS-1750 w/ Merv 13	Fits HE-P-240/241, LV-Z/LV-B/LV-E-1750/1751	28 1/2" (723mm)	10 5/16" (262mm)	21 1/8" (537mm)

<b>Return Air Base</b>		<b>G</b>	<b>H</b>	<b>I</b>
RA-50	Fits HE-Z/HE-B/HE/HV-50/51, CU-51, LV-Z/LV-B-750/751, LV-50	14 1/2" (368mm)	18 1/2" (470mm)	22 1/2" (572mm)
RA-70	Fits HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051, LV-70	19 1/2" (495mm)	18 1/2" (470mm)	22 1/2" (572mm)
RA-100	Fits HE-Z/HE-P/HE-B/HE/HV-100/101, LV-120/140	25 1/2" (648mm)	18 1/2" (470mm)	22 1/2" (572mm)
RA-1750	Fits HE-P-240/241, LV-Z/LV-B/LV-E-1750/1751	26 1/2" (673mm)	24 1/2" (622mm)	24" (610mm)

<b>HVS Series Variable Speed Heat Pump</b>		<b>Length</b>	<b>Width</b>	<b>Height</b>
HVS-24	Can be used with HE-Z/HE-B/HE/HV-50/51, CU-51, LV-Z/LV-B-750/751, LV-50	38" (965mm)	16.14" (410mm)	32" (813mm)
HVS-36	Can be used with HE-Z/HE-B/HE/HV-70/71, LV-Z/LV-B/LV-E-1050/1051	38" (965mm)	16.14" (410mm)	32" (813mm)
HVS-60	Can be used with HE-Z/HE-P/HE-B/HE/HV-100/101, LV-120/140	37.5" (953mm)	16.25" (413mm)	52.5" (1,334mm)



## WARRANTY

Energy Saving Products Ltd. is proud to offer a limited warranty. This warranty applies strictly to the first purchaser at wholesale level and only to the Air Handler unit and module. It does not include connections, attachments and other products or materials furnished by the installer.

This warranty excludes any damages caused by changes, relocation to, or installation in a new site. This warranty does not cover any defects caused by failure to follow the installation and operating instructions furnished with the Air Handler. This warranty does not cover defects caused by failing to adhere to local building codes and following good industry standards. Failure to correctly install the Air Handler, or material related to the unit, may result in improper system performance and/or damages and will void this warranty. This warranty does not cover material installed in or exposed to a corrosive environment. This warranty does not cover products subjected to abnormal use, misuse, improper maintenance, or alteration of the product. Using the Air Handler and/or module as a source of temporary heating/cooling during construction will void this warranty.

**A Five (5) Year Limited Warranty** is extended on all components in products manufactured exclusively by Energy Saving Products. These components include Motors, WEG Controller, Circuit Boards, Dampers, Zoning Controls, Blowers, Motor & Blower Assemblies, Heating Coils, Chilled Water Coils, and Air Conditioning Coils. Note: If any product is installed in or exposed to a corrosive environment, warranty will be void.

**A Three (3) Year Limited Warranty** is extended on Electric Strip Heaters.

**A One (1) Year Limited Warranty** is extended on replacement parts.

Products sold by Energy Saving Products but manufactured by others, will carry the original manufacturer's warranty.

## TERMS & CONDITIONS

- **Warranty will not be considered unless a contractor has contacted Energy Saving Products Ltd. Technical Support department for assistance, and received a tech code.**
- Any repair performed under warranty must be approved by Energy Saving Products Ltd. for this warranty to be valid.
- The liability of Energy Saving Products Ltd. is limited to and shall not exceed the cost of pre-approved replacement parts.
- This warranty does not cover shipping costs to and from the factory, labor costs or any other cost associated with the installation of the replacement part.
- Inoperative parts must be returned to Energy Saving Products Ltd. with an ESP RMA Form that includes model, serial number, and a detailed description of the entire problem. Inoperative parts must be returned in testable condition.
- Energy Saving Products Ltd. is not liable for any other damages, personal injury, or any other losses of any nature.

### **Follow these steps for Service or Repair:**

1. Contact the installer of the product or a licensed service company
2. Contact the distributor
3. Contact Energy Saving Products Ltd. Mon-Fri 8 am – 4:30 pm MT 1-888-652-2219

**This warranty replaces all other warranties expressed or implied.**

[www.hi-velocity.com](http://www.hi-velocity.com)



Energy Saving Products Ltd, established in 1983, manufactures the Hi-Velocity Systems™ product line for residential, commercial and multi-family markets. Our facilities house Administration, Sales, Design, Manufacturing, as well as Research & Development complete with an in-house test lab. Energy Saving Products prides itself on Customer Service and provides design services and contractor support.

For all of your Heating, Cooling and Indoor Air Quality needs, the Hi-Velocity System is the right choice for you!



Small Duct Heating, Cooling and IAQ Systems

## Build Smart, Breathe *Easy*

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