



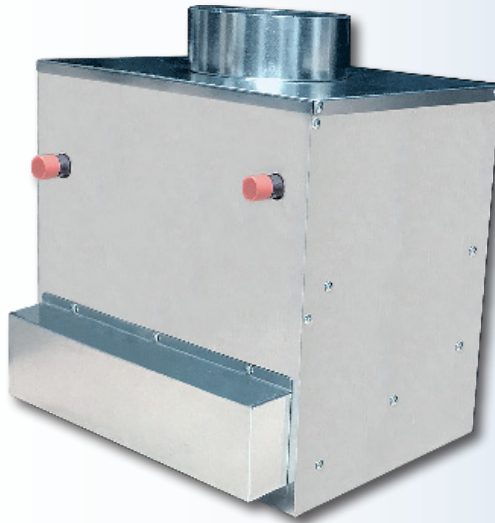
Efficient Heating, Cooling and IAQ Systems

ESP Cube EC Series

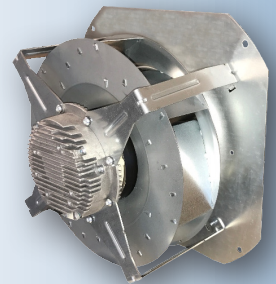
Compact Air Handler



CU-31-EC



CU-51-EC



with Variable Speed
Backward Curved Fan

The Most Flexible Air Delivery System for Small Spaces

Compact Heating, Cooling or Fresh Air

Stand-alone Make-Up Air or Exhaust Air Applications

Requires Little or No Maintenance, Only 2 Moving Parts

Multi-Positional to Suit any Mechanical Location

Perfect for Spaces Requiring Additional Heating, Cooling or Fresh Air

- Apartments/Condos
- Basements
- Secondary Suites
- Modular Homes
- Garages & Workshops
- Sun Rooms/Porches/Foyers
- Large Open Unconditioned or Unheated Spaces
- "Tiny" Homes

Matching Coils
Refrigerant Coils
RCM-30, RBM/RPM-E/RCM-50
Chilled Water Coils
WBM/WCM-50
Hot Water Coils
HWC-30, HWC-50



Efficient Heating, Cooling and IAQ Systems

ESP Cube EC Series

Options

- Variable Speed Motors
- Filter Assembly Optional
- Use Ducted or Unducted
- Available with or without Hot Water Coil
- Cooling Coil Option Available
- Circuit Board Compatible with all Thermostats

	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 ₂ O (Drop in KPa)	6.3 (18.83 KPa)	3 (8.97 KPa)	
Chilled Water Cooling⁽¹⁾	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 ₂ O (Drop in KPa)	-	3 (8.97 KPa)	
Refrigerant Cooling⁽¹⁾	RCM-30	RBM/RPM-E/RCM-50	
RBM/RPM-E/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	Ø3/4" (19mm)	
	Return	Ø3/4" (19mm)	
Supply Air Size	Round Duct	Round Duct	Rectangular Duct
	Ø8" round (203mm)	Ø8" round (203mm)	17.5" x 13" (445mm x 330mm)
Supply Maximum Length ⁽²⁾	50' (15.24m)		50' (15.24m)
Return Size Needed	Ø10" or 100 in ²		Ø12" or 120 in ²
Nominal Outlets ⁽³⁾	6 (HE) 12 (2")		10 (HE) 20 (2")
Maximum Outlets ⁽³⁾	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)

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

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

⁽³⁾ 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