EXINDA Simultaneous Heating and Cooling Heat pump chiller - 40Ton

Model No.： FBMBHTF4B2C5

EXINDA Simultaneous Heating and Cooling (SHC) heat pump chiller is an advanced HVAC system designed to provide both chilled water for cooling and hot water for heating concurrently from a single unit.

R454B INVERTER Hydronic

FEATURES

- Available in 4-pipe (simultaneous heating & cooling) version, allowing recovery of heat while cooling and supporting mixed load buildings
- Equipped with independent heating/cooling exchangers and low-GWP refrigerant R-454B for environmental compliance.
- EVI DC inverter scroll compressors enhance heating by 40%, operating steadily at -13°F.
- Smart freeze protection auto-activates during shutdown or standby.
- Intelligent defrost: precise timing, minimal temperature fluctuation, 30% better performance.
- Modular design compatible with up to 8 units in cascade for capacity flexibility and minimal footprint.
- Silent acoustic configurations available to reduce noise in sensitive applications.

Technical Data

Item	Specification
Model	FBMBHTF4B2C5
Refrigerant Type	R454B
Refrigerant Circuits	2
Refrigerant Charge per Circuit	25.8 lbs
Compressor Type / Quantity	DC Inverter EVI Scroll / 2
Capacity Step	Stepless (inverter)
Air-Side Heat Exchanger	Copper tube, aluminum plate fin
Fan Type / Quantity	Axial fan, EC inverter motor / 2
Total Air Flow Rate	26,600 CFM
Working Ambient Temp (Cooling)	–4 °F to 110 °F
Working Ambient Temp (Heating)	–13 °F to 100 °F
Max Leaving Water Temp (Heating) -4°F or above	140 °F
Max Leaving Water Temp (Heating) -13 °F to -4°F	130 °F
Min Leaving Water Temp (Cooling) 5°F, 40% glycol	39°F
Simultaneous heating and cooling (Max)	140°F heating hot LWT+ 41°F Cooling chilled LWT
Water-Side Heat Exchanger	Plate heat exchanger
Water Connection	Flange 2-1/2”
Dimensions (L × W × H)	89 in × 53-1/8 in × 95-9/16 in
Net Weight	2,780 lbs
Shipping Weight	3,000 lbs

Electrical Data

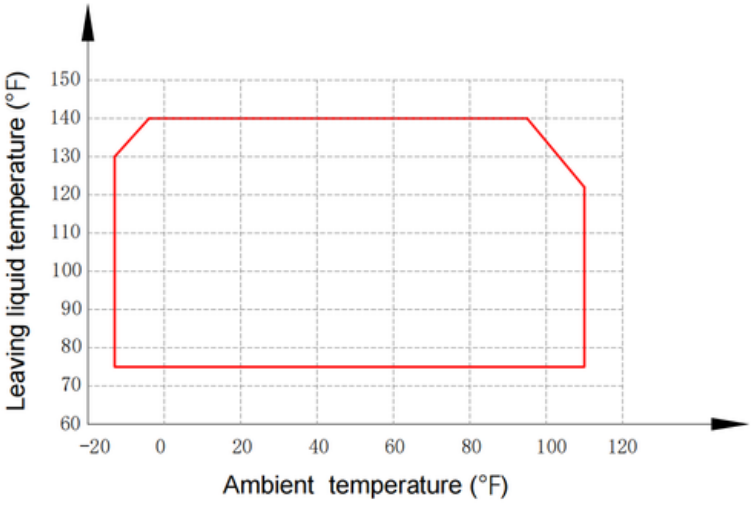
Item	Specification
Voltage / Phase / Frequency	460 V / 3 ph / 60 Hz
Minimum Circuit Ampacity (MCA)	98A
Maximum Overcurrent Protection (MOP)	122 A
Rated Load Amps (RLA)	65 A

Performance Data

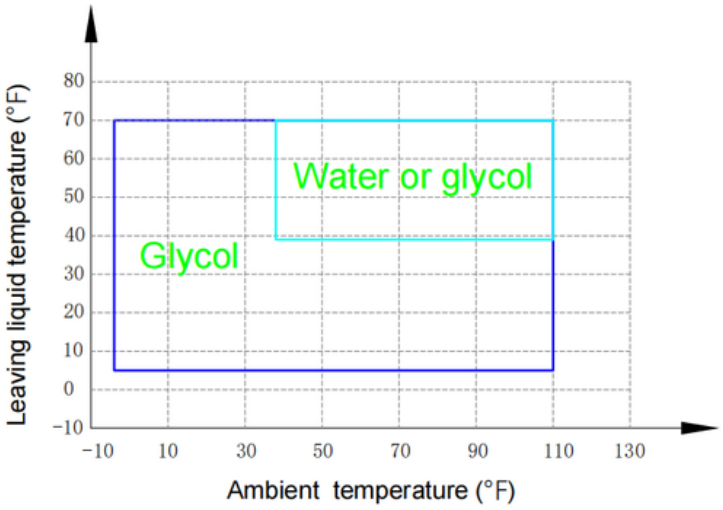
Cooling Mode(A 95°F，EWT/LWT 54°F/44°F) (1)	
Nominal Cooling Capacity (Ton)	35
Input Power (KW)	42.2
EER (BTU/W)	10
Heating mode (A47°F/43°F,W105°F) (2)	
Heating Capacity (Ton)	40
Input Power (KW)	38.7
COP (KW/KW)	3.64
Simultaneous heating and cooling mode (Cooling chilled LWT 44°F,heating hot EWT/LWT 95°F/105°F) (3)	
Cooling Capacity (Ton)	34
Heating Capacity (Ton)	48
Input Power (KW)	35.2
COP (SHC) (KW/KW)	8.2
Sound Power Level (Cooling) dB (A)	86

Operation Envelope

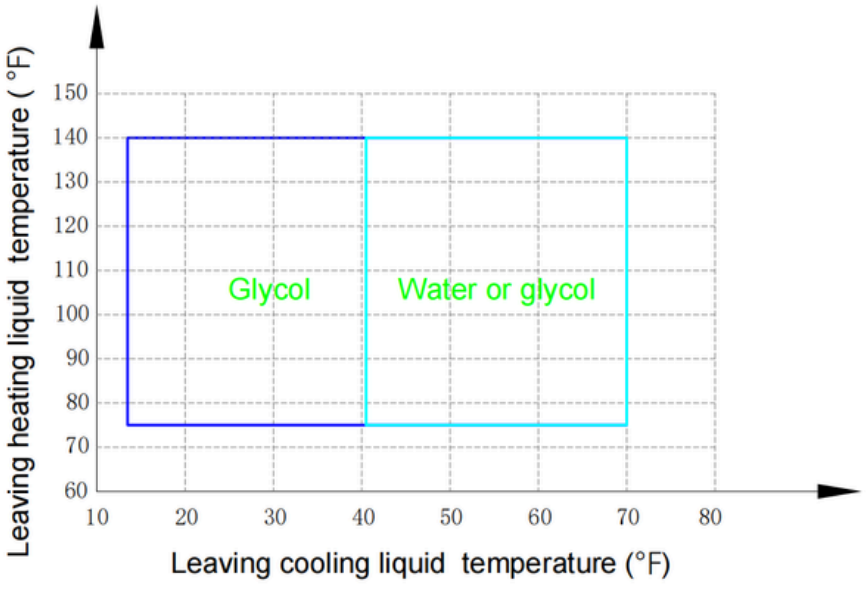
Heating operation envelope



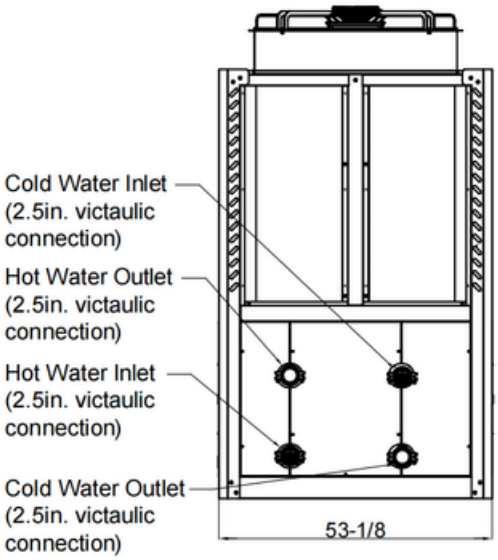
Cooling operation envelope



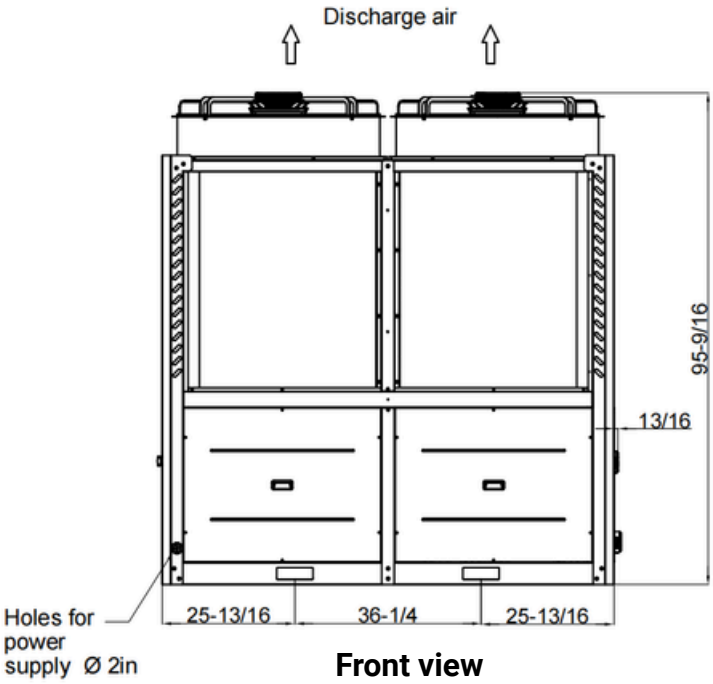
Simultaneous cooling and heating envelope



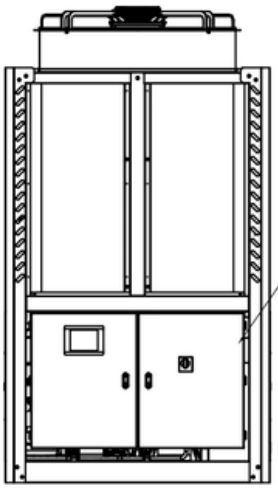
Mechanical drawing



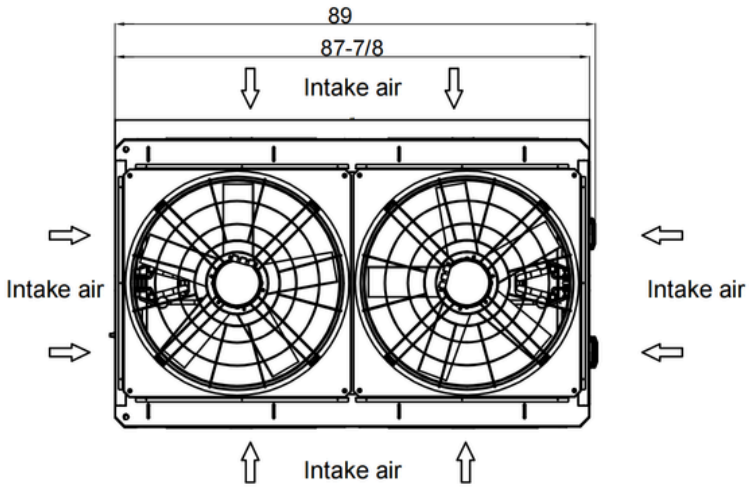
Left side view

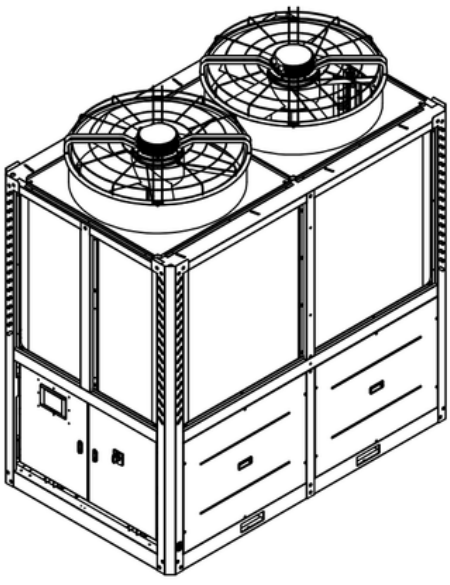


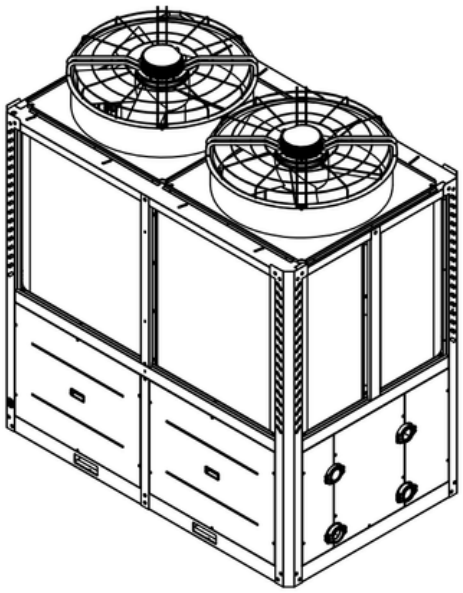
Front view



Right side view







Unit:inch