

EXINDA Flex Simultaneous Heating and Cooling Heat Pump Chiller

Rated Cooling Capacity: 35 Ton
Rated Heating Capacity: 40 Ton

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.



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 (A2L) for environmental compliance.
- EVI DC inverter scroll compressors are applied to improve low-ambient heating performance and support operation down to -13°F ambient, subject to stated operating limits.
- Smart freeze protection auto-activates during shutdown or standby.
- Intelligent defrost control is designed to optimize defrost timing and reduce supply temperature fluctuation during low-ambient heating operation.
- Modular design compatible with up to 16 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	R-454B (A2L)
Refrigerant Circuits	2
Refrigerant Charge per Circuit	25.8 lbs
Compressor Type / Quantity	DC Inverter EVI Scroll / 2
Capacity Control	Variable-speed inverter control
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
Cooling Ambient Range	-4 °F to 110 °F
Heating Ambient Range	-13 °F to 100 °F
Maximum Leaving Hot Water Temperature	140°F when ambient is above -4°F
	130°F when ambient is from -13°F to -4°F
Minimum Leaving Chilled Water Temperature	39°F with water; down to 5°F with 40% glycol solution
Simultaneous Heating and Cooling Limits Maximum simultaneous condition	140°F leaving hot water and 41°F leaving chilled water
Water-Side Heat Exchanger	Plate heat exchanger
Water Connections	2-1/2 in. Victaulic Connections
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)	111.6 A
Maximum Overcurrent Protection (MOP)	139 A
Rated Load Amps (RLA)	74 A
Full Load Amps (FLA)	89.3 A
Recommended Circuit Breaker	125 A

Nominal Performance Summary

Cooling Mode (A95°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: Leaving Chilled Water 44°F; Heating: Entering/Leaving Hot Water 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

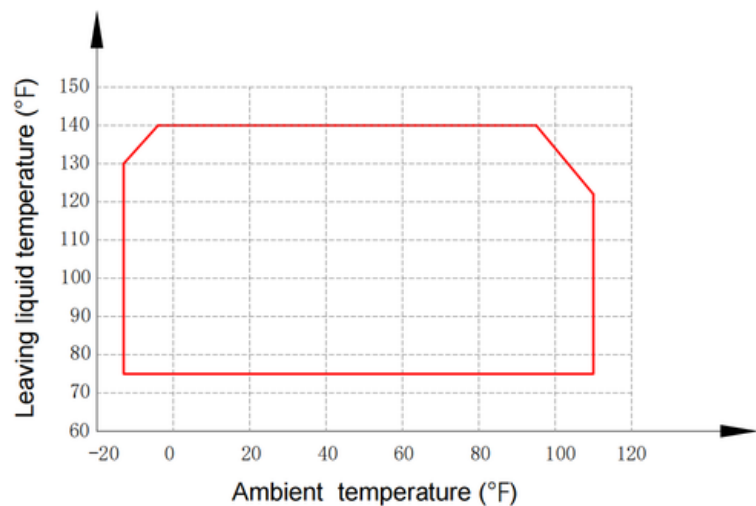
(1) Nominal cooling performance shown at 95°F ambient, 54°F entering water, 44°F leaving water condition.

(2) Nominal heating performance shown at 47°F/43°F ambient and 105°F leaving hot water condition.

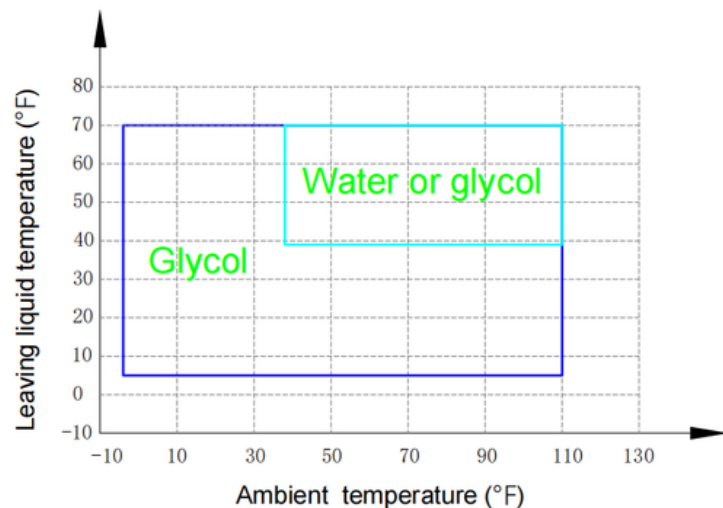
(3) Simultaneous nominal performance shown at 44°F leaving chilled water and 95°F/105°F entering/leaving hot water conditions.

Operation Envelope

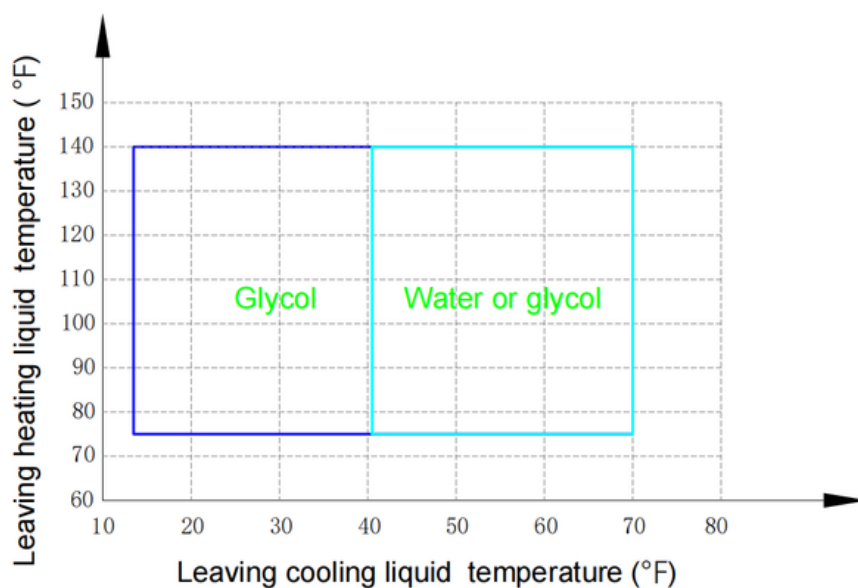
Heating operation envelope



Cooling operation envelope



Simultaneous cooling and heating envelope

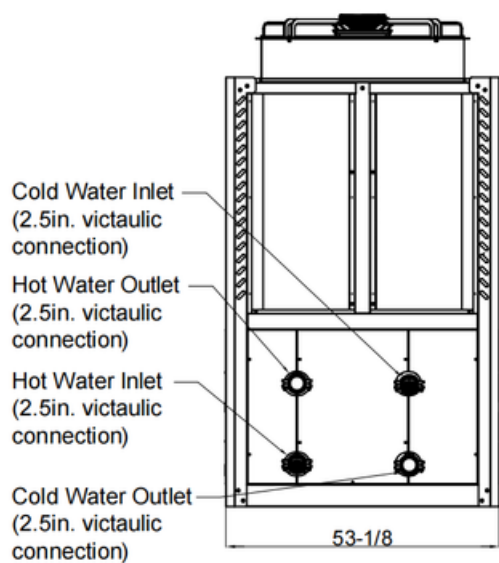


Operation envelope shown is based on manufacturer selection data.

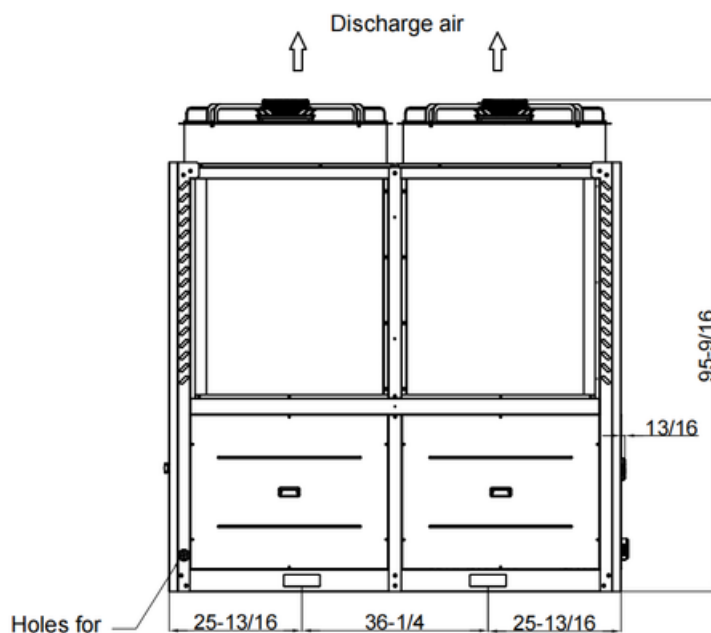
For leaving chilled water below 39°F, glycol solution is required.

Final performance shall be confirmed at stated project design conditions.

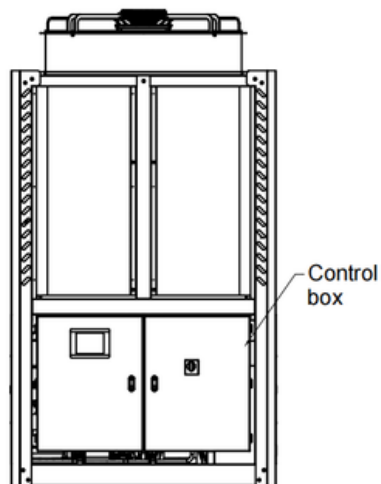
Mechanical drawing



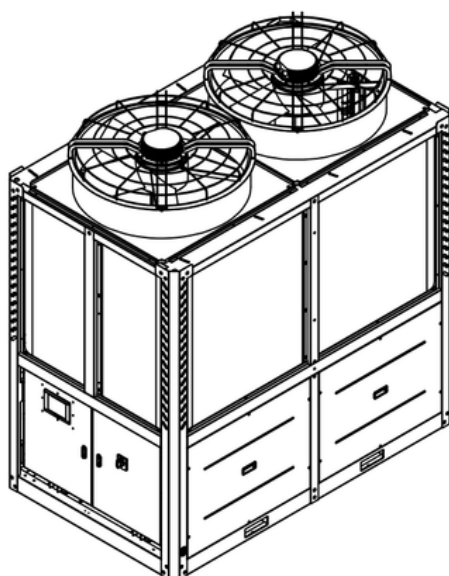
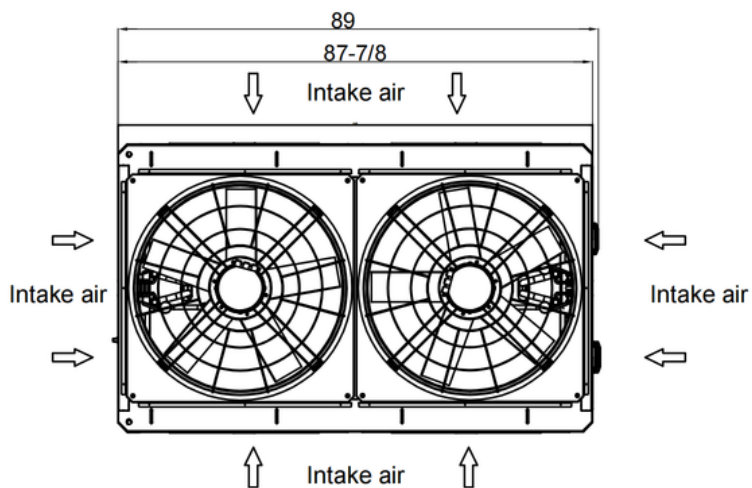
Left side view



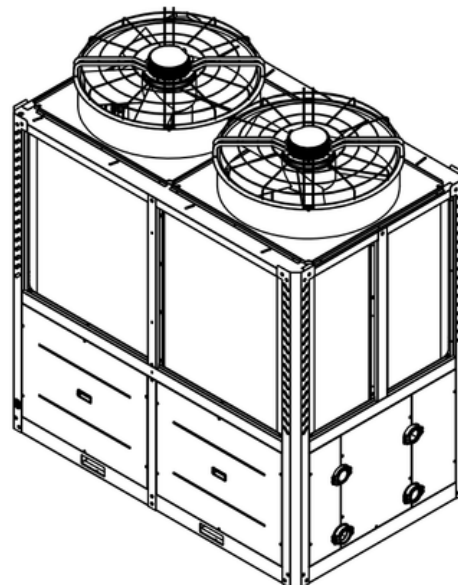
Front view



Right side view



Isometric View



Unit: in.