

Submittal Data Sheet

Air To Water Heat Pump

Model No. : FBMBHTF4B2

Provides space heating and cooling & domestic hot water in extreme cold climates. With high COP for maximum performance, its modular design allows Flexibility by combining multiple units to various applications. Such as Restaurants, Hotels, Multi-family buildings, Laundry facilities, Healthcare facilities, Schools, Sports arenas, Gyms and much more.

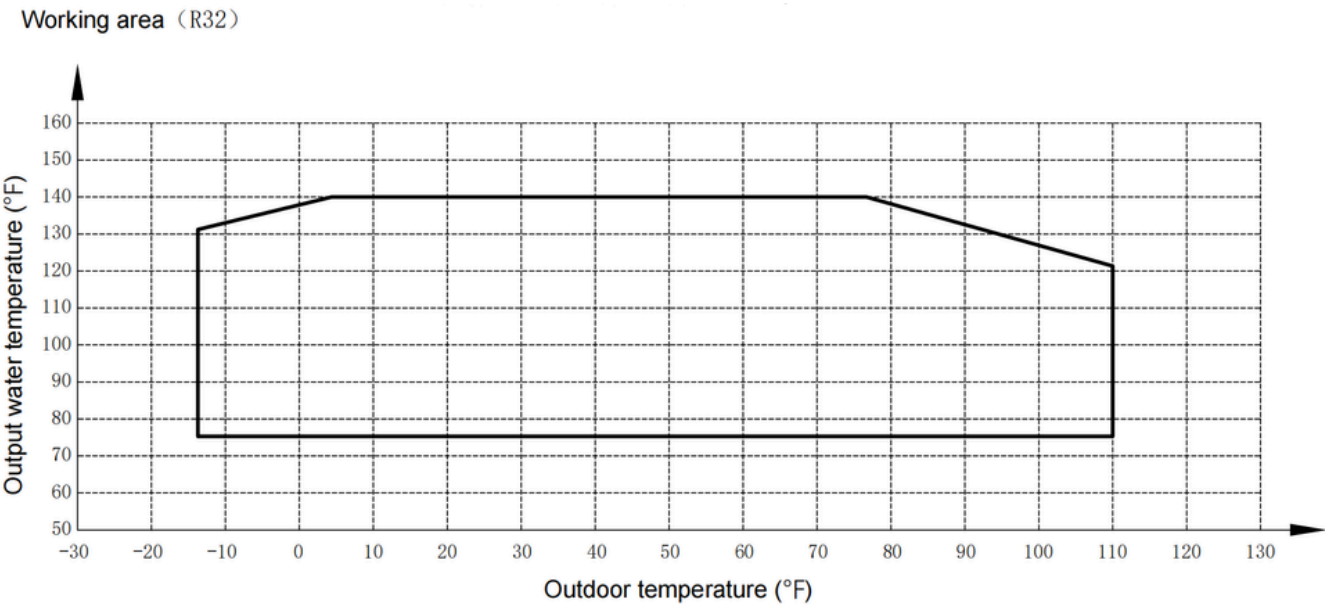


FEATURES

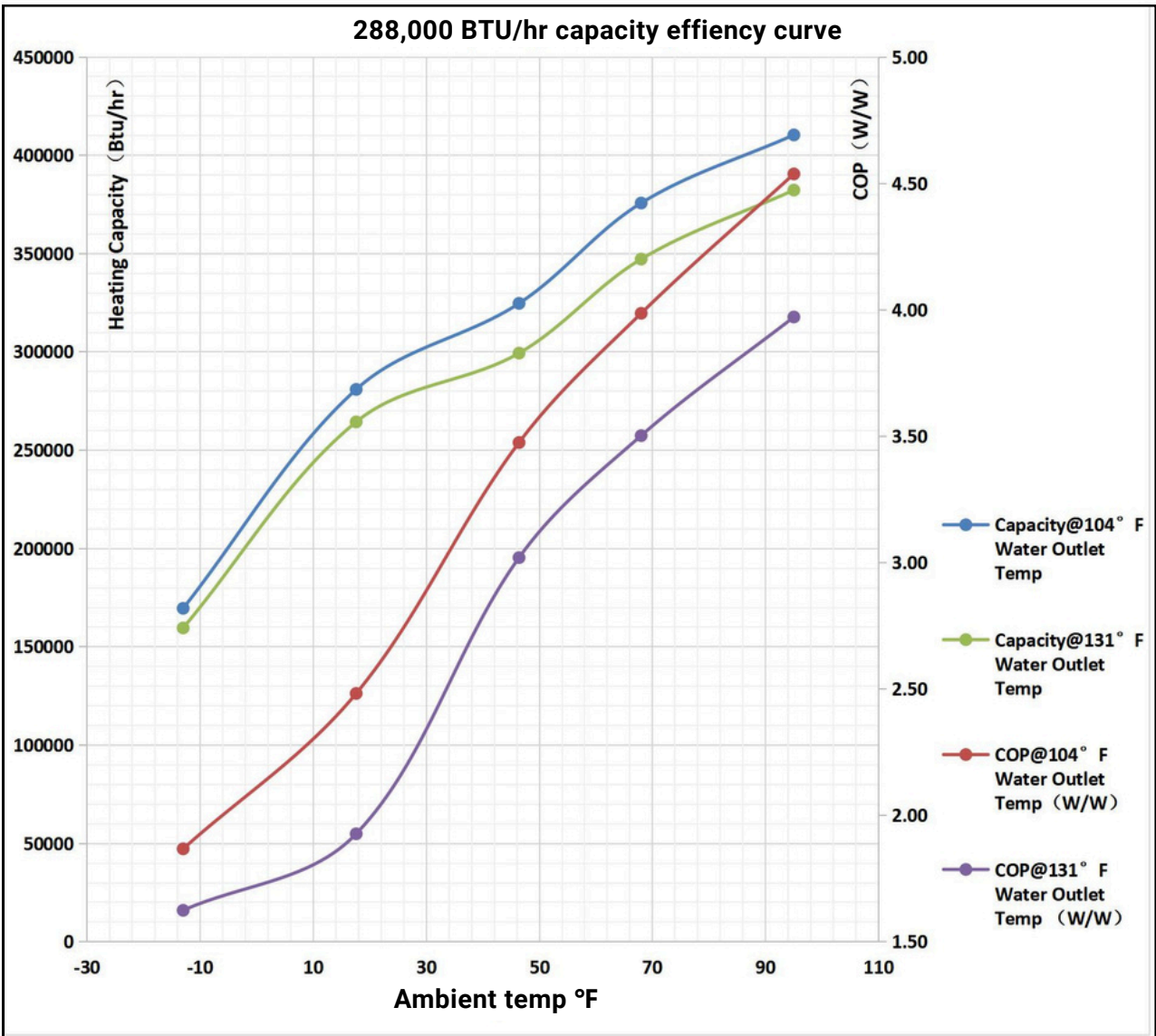
- Eco-Friendly R32 Refrigerant -A2L refrigerant in low GWP675.
- EVI Inverter Twin-Scroll Compressor – Ensuring stable operation down to -13°F.
- Smart Anti-Freeze Protection – Automatically activates in standby mode to prevent freezing.
- Intelligent Defrost System – Rapid, demand-based defrosting for minimal temperature fluctuation and 30% higher efficiency.
- Scalable Cascade Function – Connect up to 8 units for enhanced reliability and extended lifespan.
- Standard Limited Warranty – 10-years coverage on compressor and parts.
- Unit UL-60335-2-40 (safety)

Performance			
Nominal heating capacity	288,000 BTU/hr	Nominal cooling capacity	20.6 Tons
Refrigerant Type	R32	GWP (Global Warming Potential)	675
Refrigerant Charge (lbs.)	13.22 Lbs*2	Operating ambient temperature range (°F)	-13~110
Rated Heating capacity (Btu/hr)	340,938	Rated Cooling capacity (Btu/hr)	247,407
Heating input power (W)	25741	Cooling input power (W)	25445
COP(W/W)	3.88	EER(Btu/W)	9.72
Rated Heating Conditions (°F)	Leaving Water Temp. : 95 Ambient (DB/WB) : 47/43	Rated Cooling Conditions (°F)	Leaving Water Temp. : 44.6 Ambient (DB/WB) : 95/75.2
Performance values indicated above are in accordance with EN14511			
Product Details			
Power Supply (V/Ph/Hz)	380~460V / 3Ph / 60Hz	Compressor Type	Twin-Scroll Inverter
Power Supply Connections	L1, L2,L3 ,N ,Ground	Sound Pressure dB(A) (Daytime Max/Rated/Low Noise)	69/65/62
Min. Circuit Amps MCA (A):	60.6	Max Overcurrent Protection (MOP) (A)	76
Cooling Mode Leaving Water Temp (°F)	44.6 ~ 80.6	Heating Mode Leaving Water Temp (°F)	77 ~ 140
Piping Connections Inlet/ Outlet (in.)	2-1/2 Class 150 flange ANSI B16.5 standard	Water flow(GPM)	56.5
Net Dimensions (LxWxH) (in.)	81-1/2 × 48-7/16 × 88-13/16	Shipping Dimensions (LxWxH) (in.)	84-7/16 × 51 × 94-13/16
Net (kgs)	999	Shipping Weight (kgs)	1098
Notes: • Must follow installation instructions in the applicable installation manual. 1. Power wiring size must comply with the applicable local and national code. 2. Acceptable operating voltage range: 480 - 600V. 3. Sound power level is measured in accordance with ISO 9614. • Daytime Max: This mode is measured based on max. fan RPM and max. compressor Hz. that can be reached under outdoor air temperature of 35.6°F. • Rated: This mode is measured on the rated condition in the semi-anechoic rooms. Therefore, these values may vary depending on operation conditions. • Low Noise: This mode lowers noise by limiting the compressor Hz. and fan RPM, and thus the performance may be limited. 4. Sound pressure level is converted value at 1m distance . 5.All installation sites must be equipped with ground fault protection in accordance with the local codes, such as a Ground Fault Protection device or Ground Fault Circuit Breaker.			

Operating Envelope



Heating Curve

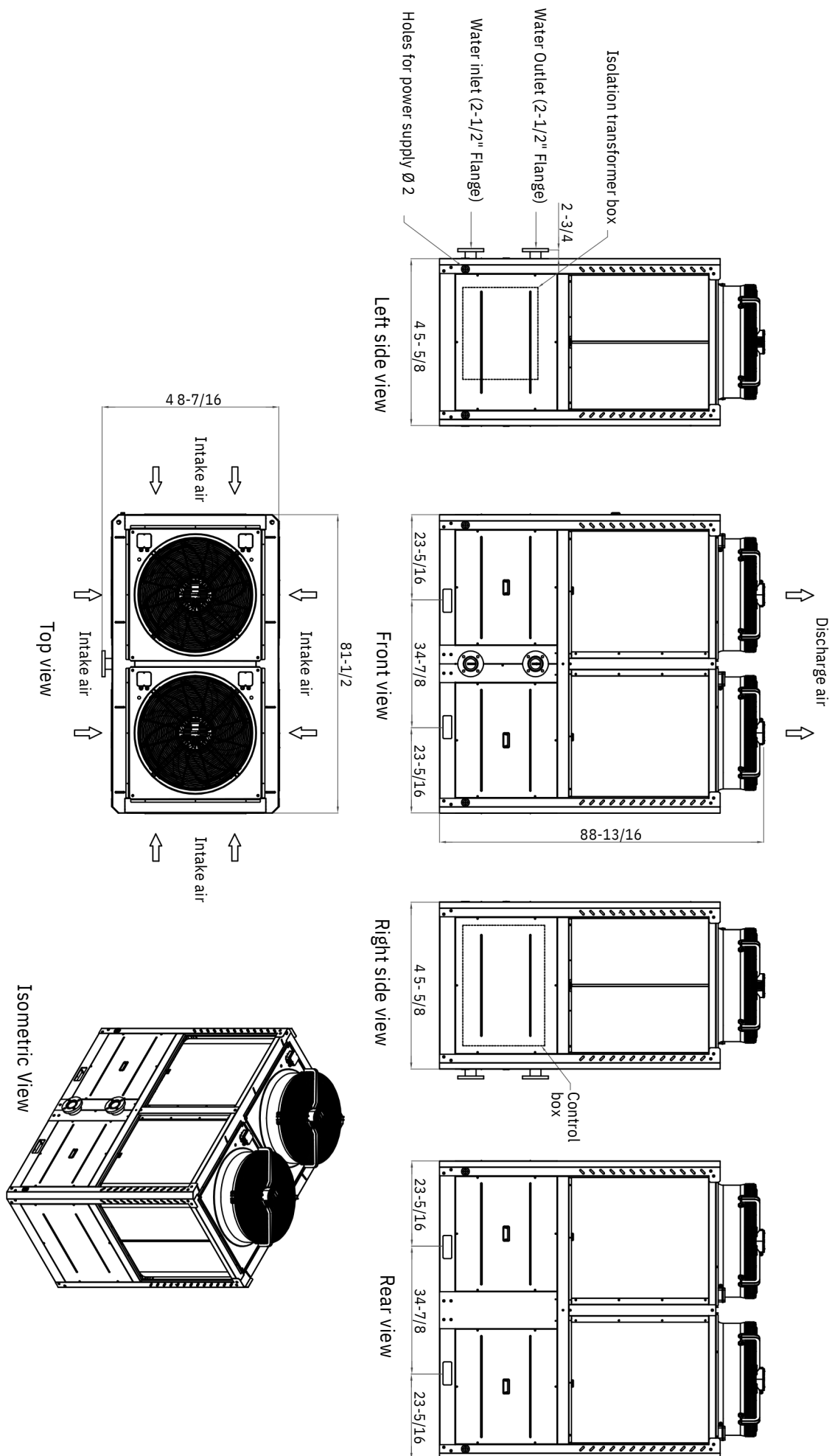


Heating Capacity Table

Amient temp	Water Outlet Temp(°F)	Heating Capacity(Btu/hr)	Input Power (W)	COP (W/W)
DB95°F	140	363195	29058	3.66
	131	382311	28211	3.97
	122	390113	27658	4.13
	113	398075	27036	4.32
	104	410386	26506	4.54
	95	418762	25734	4.77
DB86°F	140	352441	29905	3.45
	131	370990	29319	3.71
	122	382464	28465	3.94
	113	390269	27907	4.1
	104	402340	27360	4.31
	95	410551	27089	4.44
DB77°F	140	342489	29444	3.41
	131	353081	29009	3.57
	122	364001	28580	3.73
	113	375259	28158	3.91
	104	386865	27606	4.11
	95	394760	27065	4.27
DB68°F	140	336816	29636	3.33
	131	347233	29055	3.5
	122	357650	28764	3.64
	113	364803	28189	3.79
	104	375747	27625	3.99
	95	387020	26797	4.23

DB46.4°F	140	293415	30510	2.82
	131	299403	29057	3.02
	122	305513	28211	3.17
	113	314962	27658	3.34
	104	324703	27384	3.48
	95	340938	25741	3.88
DB35.6°F	140	281061	36565	2.25
	131	286797	34824	2.41
	122	292650	33166	2.59
	113	298622	31586	2.77
	104	304717	30082	2.97
	95	310935	28650	3.18
DB17.6°F	140	256494	42217	1.78
	131	264427	40206	1.93
	122	269823	36565	2.16
	113	275330	34824	2.32
	104	280949	33166	2.48
	95	286682	31586	2.66
DB10°F	131	204480	29111	2.06
	122	210804	28263	2.19
	113	217323	27176	2.34
	104	224045	26131	2.51
	95	230766	25086	2.7
DB-13°F	131	159638	28796	1.62
	122	162896	28232	1.69
	113	166221	27409	1.78
	104	169613	26611	1.87
	95	173074	26089	1.94

Dimensional Drawing



Unit:inch