

Submittal Data Sheet

Air To Water Heat Pump

Model No. : FBMBHTF4B2E3

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... like Restaurants, Hotels, Multi-family buildings, Laundry facilities, Healthcare facilities, Schools, Sports arenas, Gyms and so on.



FEATURES

- R290 New Eco-friendly Refrigerant – Energy-saving, green, non-ozone depleting, and low-carbon.
- DC inverter EVI scroll Compressor – Ensuring stable operation down to -25°C.
- 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 5-years all components.
- Unit IEC-60335-2-40 (safety) , EN 14825 (performance) approved.

Performance			
Nominal heating capacity	90KW	Nominal cooling capacity	72KW
Refrigerant Type	R290	GWP (Global Warming Potential)	675
Refrigerant Charge (kg)	2*6.0	Workable ambient temperature range (°C)	-25~43
Min/Max Heating Capacity (Kw)	26.5~89.5	Min/Max Cooling Capacity (Kw)	23.0~72.5
EL. Heating Power input Min/Max (W)	7320~24723	EL. Cooling Power input Min/Max (W)	6969~25445
COP(W/W)	3.62~4.47	EER(W/W)	2.85~3.30
Rated Heating Conditions(°C)	Leaving Water Temp. : 35 Ambient (DB/WB) : 7/6	Rated Cooling Conditions (°C)	Leaving Water Temp. : 7 Ambient (DB/WB) : 35/24

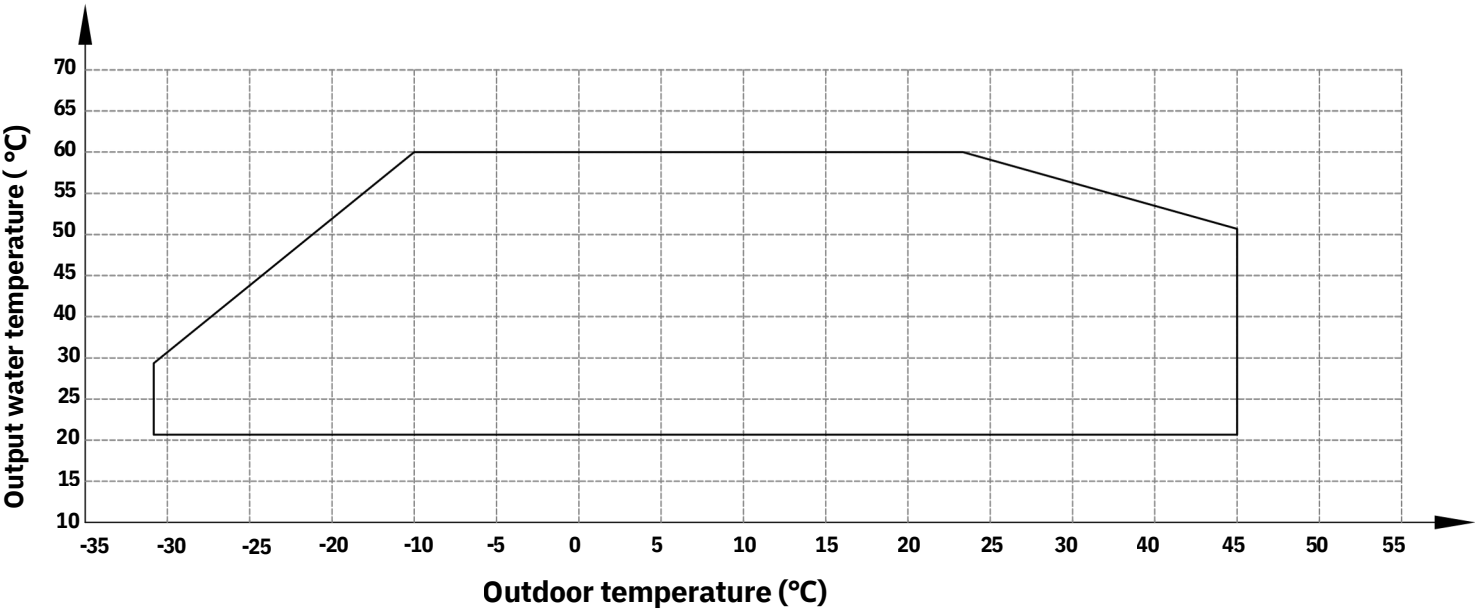
Performance values indicated above are in accordance with EN14511

Product Details			
Power Supply (V/Hz/Ph)	380~400V / 50Hz / 3Ph	Compressor Type	DC inverter EVI scroll
Power Supply Connections	R, S ,T ,N ,Ground	Sound Pressure dB(A)(Daytime Max/Rated/Low Noise)	69/65/62
Min. Circuit Amps MCA (A):	85	Max Overcurrent Protection (MOP) (A)	106
Cooling Mode Leaving Water Temp (°C)	7 ~ 27	Heating Mode Leaving Water Temp (°C)	35 ~ 60
Piping Connections Inlet/ Outlet	2-1/2 Flange	Water flow(m3/h)	15.4
Net Dimensions (LxWxH) (mm)	2070*1160*2256	Shipping Dimensions (LxWxH) (mm)	2145*1295*2409
Net Weight (kg)	800	Shipping Weight (kg)	880

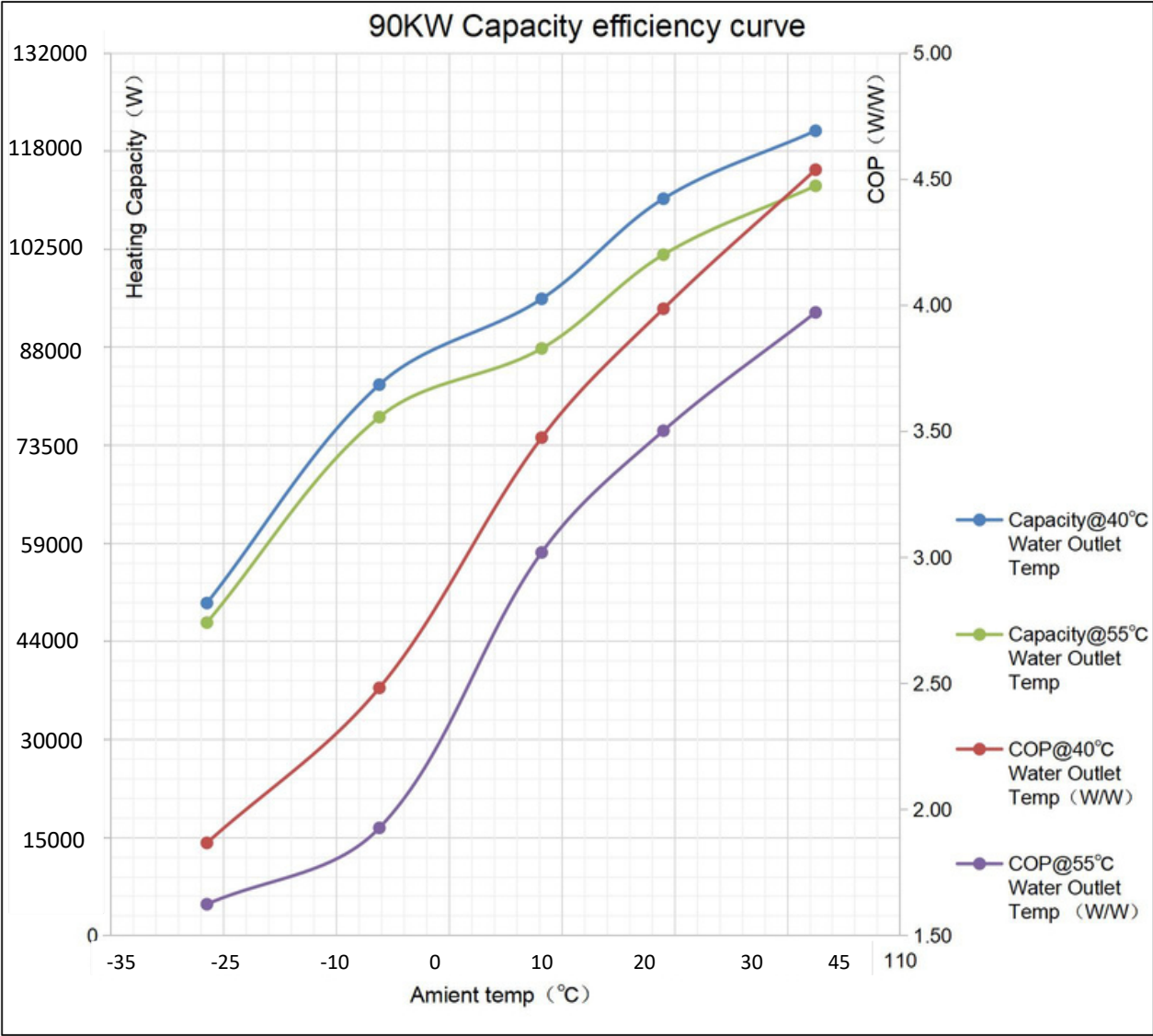
Notes:

- Must follow installation instructions in the applicable installation manual.
- 1. Power wiring size must comply with the applicable local and national code.
- 2. 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 2°C .
- 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.
- 3. Sound pressure level is converted value at 1m distance .
- 4.All installation sites must be equipped with an Earth Leakage Circuit Breaker (ELCB).

Operating Envelop



Heating Curve



Heating Capacity Table

Amient temp	Water Outlet Temp (°C)	Heating Capacity(W)	Input Power (W)	COP (W/W)
DB35°C	60	106442	29058	3.66
	55	112044	28211	3.97
	50	114331	27658	4.13
	45	116664	27036	4.32
	40	120272	26506	4.54
	35	122727	25734	4.77
DB30°C	60	103290	29905	3.45
	55	108726	29319	3.71
	50	112089	28465	3.94
	45	114377	27907	4.1
	40	117914	27360	4.31
	35	120320	27089	4.44
DB25°C	60	100374	29444	3.41
	55	103478	29009	3.57
	50	106678	28580	3.73
	45	109978	28158	3.91
	40	113379	27606	4.11
	35	115693	27065	4.27
DB20°C	60	98711	29636	3.33
	55	101764	29055	3.5
	50	104817	28764	3.64
	45	106913	28189	3.79
	40	110121	27625	3.99
	35	113424	26797	4.23

DB8°C	60	85991	30510	2.82
	55	87746	29057	3.02
	50	89537	28211	3.17
	45	92306	27658	3.34
	40	95161	27384	3.48
	35	99919	25741	3.88
DB2°C	60	82371	36565	2.25
	55	84052	34824	2.41
	50	85767	33166	2.59
	45	87518	31586	2.77
	40	89304	30082	2.97
	35	91126	28650	3.18
DB-8°C	60	75171	42217	1.78
	55	77496	40206	1.93
	50	79077	36565	2.16
	45	80691	34824	2.32
	40	82338	33166	2.48
	35	84018	31586	2.66
DB-12°C	55	59927	29111	2.06
	50	61780	28263	2.19
	45	63691	27176	2.34
	40	65661	26131	2.51
	35	67631	25086	2.7
DB-25°C	55	46785	28796	1.62
	50	47740	28232	1.69
	45	48714	27409	1.78
	40	49709	26611	1.87
	35	50723	26089	1.94

Dimension Drawing

