



# WATER SOURCE & GEOTHERMAL HEAT PUMPS SPECIFICATION DATA SHEET

Dade Broward (786) 766-6600 & Palm Beach - Treasure Coast (561) 285-2110

# BFX031

WATER SOURCE & GEOTHERMAL HEAT PUMPS  
R410A REFRIGERANT

WATER LOOP				GROUND WATER			
Cooling		Heating		Cooling		Heating	
Capacity	EER	Capacity	COP	Capacity	EER	Capacity	COP
31,000	16	36,000	4.8	39,000	26	27,000	4.1

GROUND LOOP				FLOW RATE	
Cooling		Heating		AIR	WATER
Capacity	EER	Capacity	COP	CFM	GPM
31,800	17.6	20,000	3.5	1,000	7.5

## ELECTRICAL SPECIFICATIONS

Electrical Characteristics	Elect. Symbol	Compressor		Min Circuit Ampacity	Max Fuse Size
		RLA	LRA		
230/1/60	A	14.7	72.5	24	35
230/3/60	C	10.4	63	19	25
460/3/60	D	4.5	31	9	15
265/1/60	B	12.5	61	16	25

## FLUID PRESSURE DROP

Fluid Flow (GPM)	Pressure drop	
	(FOH)	(PSIG)
3.8	2.1	0.9
5.0	3.8	1.7
6.6	6.6	2.9
<b>7.5</b>	<b>8.5</b>	<b>3.7</b>
9.4	13.3	5.8

	UNIT WEIGHT (lbs)		DIMENSION		
	Unit Weight	Shipping Weight	Length	Width	Height
Vertical	210	230	21.50	21.50	39.00
Horizontal	210	230	33.50	21.50	20.75

## COOLING

Entering Fluid Temp. (°F)	Entering Air Fluid (°F)	Total Capacity (MBtuH)	Sensible Capacity (MBtuH)	SHF	Power Input (kW)	Heat Rejection (MBtuH)	EER
50	70 db 61 wb	36.08	23.88	0.66	1.65	40.72	26.5
59		34.33	23.07	0.67	1.79	39.45	22.9
70		32.13	22.05	0.69	1.97	37.86	19.1
86		28.82	20.58	0.71	2.21	35.38	15.0
100		25.81	19.21	0.74	2.42	33.10	12.1
50	75 db 63 wb	37.52	26.98	0.72	1.64	42.13	27.8
59		35.71	25.66	0.72	1.78	40.81	23.9
70		33.43	24.60	0.74	1.97	39.17	19.9
86		30.03	22.97	0.77	2.23	36.65	15.5
100		26.90	21.58	0.80	2.44	34.26	12.5
50	80.6 db 66.2 wb	39.86	28.84	0.72	1.62	44.41	29.9
<b>59</b>		<b>39.00</b>	<b>28.76</b>	<b>0.74</b>	<b>1.79</b>	<b>44.12</b>	<b>26.0</b>
70		35.52	26.88	0.76	1.96	41.25	21.12
<b>86</b>		<b>31.00</b>	<b>24.65</b>	<b>0.80</b>	<b>2.22</b>	<b>37.61</b>	<b>16.0</b>
100		28.63	23.93	0.84	2.33	35.59	14.0
50	85 db 71 wb	43.52	28.93	0.66	1.57	47.90	33.9
59		41.39	28.08	0.68	1.81	46.59	27.2
70		38.78	26.98	0.70	1.98	44.55	22.9
86		34.87	24.82	0.71	2.26	41.60	17.7
100		31.40	23.50	0.75	2.37	38.50	15.1

## HEATING

Entering Fluid Temp. (°F)	Entering Air Fluid (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Absorb. (MBtuH)	COP
50	60	28.69	2.15	22.32	4.5
60		33.00	2.26	26.26	4.9
68		36.52	2.33	29.56	5.2
80		41.69	2.38	34.56	5.8
<b>50</b>	<b>68</b>	<b>27.00</b>	<b>2.22</b>	<b>20.41</b>	<b>4.1</b>
60		31.73	2.37	24.62	4.5
<b>68</b>		<b>36.00</b>	<b>2.49</b>	<b>28.50</b>	<b>4.8</b>
80		40.45	2.54	32.76	5.3
50	80	25.87	2.38	18.72	3.6
60		29.90	2.53	22.25	3.9
68		33.38	2.64	25.36	4.2
80		38.55	2.77	30.08	4.6

## LOW TEMP HEATING

with Antifreeze by ARI-ISO 13256-1

Entering Fluid Temp. (°F)	Entering Air Fluid (°F)	Total Capacity (MBtuH)	Power Input (kW)	Heat of Absorb. (MBtuH)	COP
25	60	18.28	1.80	13.13	3.6
32		20.93	1.90	15.44	3.8
40		24.15	2.00	18.29	4.1
25	<b>68</b>	17.40	1.85	12.06	3.3
<b>32</b>		<b>20.00</b>	<b>1.96</b>	<b>14.29</b>	<b>3.5</b>
40		23.14	2.08	17.01	3.8
25	80	16.04	1.93	10.45	2.9
32		18.57	2.05	12.55	3.1
40		21.59	2.19	15.11	3.3

As a result of continuing research and development, specifications are subject to change without notice.

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