

Source Water Entering Temp = 90°F	HEATING MODE										COOLING MODE				
	Units	R-410A					R-134a					R-410A	R-134a	Units	
Building Water Entering Temp	°F					100	110	120	130	140	55	55	°F	Building Water Entering Temp	
Building Water Leaving Temp	°F					110	120	130	140	150	45	45	°F	Building Water Leaving Temp	
Heating Capacity	MBTUH					805.3	770.6	527.4	509.7	492.7	493.1	326.4	MBTUH	Cooling Capacity	
Condenser Water Flow	GPM					161.1	154.1	105.5	101.9	98.5	98.6	65.3	GPM	Evaporator Water Flow	
Evaporator Load	MBTUH					668.3	616.3	414.5	384.5	353.8	613.6	406.7	MBTUH	Condenser Load	
Evaporator Water Flow	GPM					133.7	123.3	82.9	76.9	70.8	122.7	81.3	GPM	Condenser Water Flow	
Power Input	kW					40.1	45.2	33.1	36.7	40.7	35.3	23.5	kW	Power Input	
COP	-					5.88	5.00	4.67	4.07	3.55	13.97	13.87	-	EER	
Source Water Leaving Temp	°F					80	80	80	80	80	100	100	°F	Source Water Leaving Temp	

Source Water Entering Temp = 90°F	HEATING MODE										COOLING MODE				
	Units	R-410A					R-134a					R-410A	R-134a	Units	
Building Water Entering Temp	°F					90	100	110	120	130	140	55	55	°F	Building Water Entering Temp
Building Water Leaving Temp	°F					100	110	120	130	140	150	45	45	°F	Building Water Leaving Temp
Heating Capacity	MBTUH					839.3	805.3	770.6	527.4	509.7	492.7	526.3	345.3	MBTUH	Cooling Capacity
Condenser Water Flow	GPM					167.9	161.1	154.1	105.5	101.9	98.5	105.3	69.1	GPM	Evaporator Water Flow
Evaporator Load	MBTUH					717.1	668.3	616.3	414.5	384.5	353.8	633.4	417.8	MBTUH	Condenser Load
Evaporator Water Flow	GPM					143.4	133.7	123.3	82.9	76.9	70.8	126.7	83.6	GPM	Condenser Water Flow
Power Input	kW					35.8	40.1	45.2	33.1	36.7	40.7	31.4	21.2	kW	Power Input
COP	-					6.87	5.88	5.00	4.67	4.07	3.55	16.78	16.26	-	EER
Source Water Leaving Temp	°F					70	70	70	70	70	70	90	90	°F	Source Water Leaving Temp

Source Water Entering Temp = 70°F	HEATING MODE										COOLING MODE					
	Units	R-410A					R-134a					R-410A	R-134a	Units		
Building Water Entering Temp	°F					80	90	100	110	120	130	140	55	55	°F	Building Water Entering Temp
Building Water Leaving Temp	°F					90	100	110	120	130	140	150	45	45	°F	Building Water Leaving Temp
Heating Capacity	MBTUH					840.3	776.6	746.4	715.7	484.7	469.3	454.8	557.5	361.8	MBTUH	Cooling Capacity
Condenser Water Flow	GPM					168.1	155.3	149.3	143.1	96.9	93.9	91.0	111.5	72.4	GPM	Evaporator Water Flow
Evaporator Load	MBTUH					697.5	655.1	609.9	561.8	372.7	345.2	317.0	652.9	427.9	MBTUH	Condenser Load
Evaporator Water Flow	GPM					139.5	131.0	122.0	112.4	74.5	69.0	63.4	130.6	85.6	GPM	Condenser Water Flow
Power Input	kW					41.8	35.6	40.0	45.1	32.8	36.4	40.4	28.0	19.4	kW	Power Input
COP	-					5.88	6.39	5.47	4.65	4.33	3.78	3.30	19.94	18.70	-	EER
Source Water Leaving Temp	°F					60	60	60	60	60	60	60	80	80	°F	Source Water Leaving Temp

Source Water Entering Temp = 60°F	HEATING MODE										COOLING MODE						
	Units	R-410A					R-134a					R-410A	R-134a	Units			
Building Water Entering Temp	°F					70	80	90	100	110	120	130	140			°F	Building Water Entering Temp
Building Water Leaving Temp	°F					80	90	100	110	120	130	140	150			°F	Building Water Leaving Temp
Heating Capacity	MBTUH					709.2	686.8	664.0	640.8	617.4	408.9	397.9	387.8			MBTUH	Cooling Capacity
Condenser Water Flow	GPM					141.8	137.4	132.8	128.2	123.5	81.8	79.6	77.6			GPM	Evaporator Water Flow
Evaporator Load	MBTUH					613.2	579.3	543.2	504.8	463.9	298.7	275.7	252.3			MBTUH	Condenser Load
Evaporator Water Flow	GPM					122.6	115.9	108.6	101.0	92.8	59.7	55.1	50.5			GPM	Condenser Water Flow
Power Input	kW					28.1	31.5	35.4	39.8	45.0	32.3	35.8	39.7			kW	Power Input
COP	-					7.39	6.39	5.50	4.71	4.02	3.71	3.26	2.86			-	EER
Source Water Leaving Temp	°F					50	50	50	50	50	50	50	50			°F	Source Water Leaving Temp

Source Water Entering Temp = 50°F	HEATING MODE										COOLING MODE							
	Units	R-410A					R-134a					R-410A	R-134a	Units				
Building Water Entering Temp	°F					60	70	80	90	100	110	120	130	140			°F	Building Water Entering Temp
Building Water Leaving Temp	°F					70	80	90	100	110	120	130	140	150			°F	Building Water Leaving Temp
Heating Capacity	MBTUH					617.2	600.7	583.9	566.9	549.8	532.9	345.0	337.8	331.6			MBTUH	Cooling Capacity
Condenser Water Flow	GPM					123.4	120.1	116.8	113.4	110.0	106.6	69.0	67.6	66.3			GPM	Evaporator Water Flow
Evaporator Load	MBTUH					532.5	505.8	477.1	446.7	414.2	379.8	236.4	217.4	198.1			MBTUH	Condenser Load
Evaporator Water Flow	GPM					106.5	101.2	95.4	89.3	82.8	76.0	47.3	43.5	39.6			GPM	Condenser Water Flow
Power Input	kW					24.8	27.8	31.3	35.2	39.7	44.9	31.8	35.3	39.1			kW	Power Input
COP	-					7.29	6.33	5.47	4.71	4.05	3.48	3.18	2.81	2.48			-	EER
Source Water Leaving Temp	°F					40	40	40	40	40	40	40	40	40			°F	Source Water Leaving Temp

Source Water Entering Temp = 40°F	HEATING MODE										COOLING MODE						
	Units	R-410A					R-134a					R-410A	R-134a	Units			
Building Water Entering Temp	°F					60	70	80	90	100	110	120	130			°F	Building Water Entering Temp
Building Water Leaving Temp	°F					70	80	90	100	110	120	130	140			°F	Building Water Leaving Temp
Heating Capacity	MBTUH					519.9	507.8	495.7	483.6	471.8	460.4	291.3	287.3			MBTUH	Cooling Capacity
Condenser Water Flow	GPM					104.0	101.6	99.1	96.7	94.4	92.1	58.3	57.5			GPM	Evaporator Water Flow
Evaporator Load	MBTUH					436.1	413.4	389.3	363.8	336.6	307.8	184.3	168.7			MBTUH	Condenser Load
Evaporator Water Flow	GPM					87.2	82.7	77.9	72.8	67.3	61.6	36.9	33.7			GPM	Condenser Water Flow
Power Input	kW					24.6	27.7	31.2	35.1	39.6	44.7	31.3	34.8			kW	Power Input
COP	-					6.20	5.38	4.66	4.03	3.49	3.02	2.72	2.42			-	EER
Source Water Leaving Temp	°F					30	30	30	30	30	30	30	30			°F	Source Water Leaving Temp

Note: In View of Continuous Product Improvements, design and specification are subject to change without notice. EEE can accept no responsibility for possible errors in catalogues, brochures and other printed material.



ENVIRONMENTALLY ENGINEERED EQUIPMENT, INC.

# Water-to-Water Heat Pumps DS 40 Data Sheet

