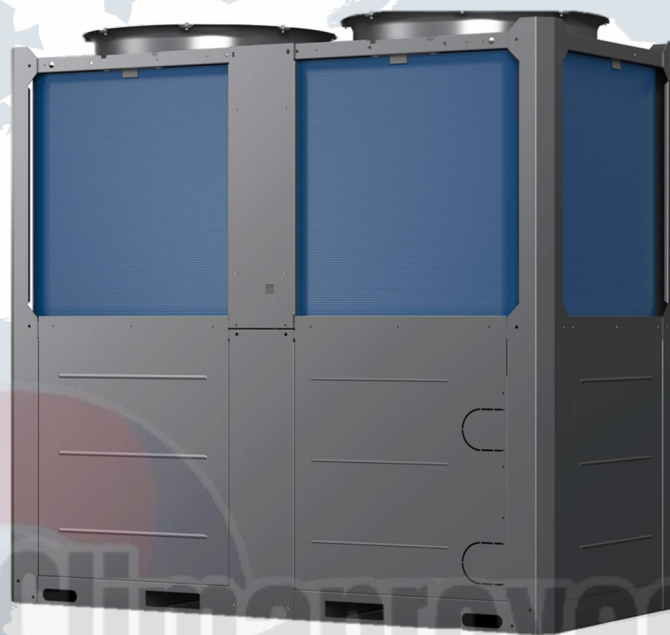




Air Source Heat Pump DC Inverter Aqua Thermal Super Series

20 Ton, 230 V, 3 Phase

Model: MHS-SVC75-XN8TL-B

Midea Building Technologies Division
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Note: Product specifications change from time to time as product improvements and developments are released and may vary from those in this document.

Submittal Data Sheet

Air Source Heat Pump
DC Inverter Aqua Thermal Super Series
Capacity: 20 ton



Unit Performance and Data:

Model	MHS-SVC75-XN8TL-B		
Performance			
Cooling (A95°F/W44°F) ¹	Capacity	kBtu/h	240.0
	Input	kW	23.5
	EER	Btu/W*h	10.2
Heating (A47°F/W105°F)	Capacity	kBtu/h	255.9
	Input	kW	19.0
	COP	kW/kW	4.0
Heating (A47°F/W120°F) ²	Capacity	kBtu/h	255.9
	Input	kW	22.1
	COP	kW/kW	3.4
Heating (A17°F/W120°F)	Capacity	kBtu/h	204.7
	Input	kW	26.7
	COP	kW/kW	2.3
IPLV: Integrated Part-Load Value		Btu/W*h	20.2
Operation Range	Heating	°F	-22 to 118.4
	Cooling	°F	5 to 131
Water Outlet Range ³	Heating	°F	77 to 149
	Cooling	°F	14 to 77
Electrical			
Power supply		V/Ph/Hz	208-230/3/60
MCA		A	103
MOP		A	125
Compressor RLA		A	42.0
Fan	Input Power	kW	0.92
	FLA	A	4.0
Unit Data			
Refrigerant Type, Charge		-	R32, 2 x 12.6 lbs
Fan Air Flow		CFM	2 x 8,500
Water Pipe Connection Size		Inch	2
Water Flow Range		GPM	17.6 to 57.0
Optional Internal Pump Head		PSI	21.6 @ 47.7 GPM
Water Side Pressure Drop	Single Wall	PSI	7.6 @ 47.7 GPM
	Double Wall	PSI	4.1 @ 47.7 GPM
Sound Pressure ⁴		dB (A)	70.5
Dimension, W x D x H	Unit Net	inch	78-3/4 x 37-13/16 x 74
	Shipping	Inch	82.0 x 40-5/8 x 79-1/2
Weight	Unit Net	lbs	1,192
	Shipping	lbs	1,246

Notes:

- AHRI 550-590 Cooling Capacity Conditions: 95°F Ambient Air, 54°F EWT and 44°F LWT.
- Full Load Heating Performance Tested based on AHRI Standard 550/590.
- Low water outlet temperature in the cooling mode and high water outlet temperature in heating mode.
- The sound pressure levels are measured at 3.3 feet.
- Performance data applies to both single wall and double wall heat exchanger options.

Features:

Standard Features

- 20-ton modular unit, wide operating range.
- Low GWP R32 refrigerant.
- Two independent refrigerant circuits.
- DC inverter EVI scroll compressor for optimal efficiency.
- Inverter fan.
- High efficient “Double U” air side heat exchanger.
- Refrigerant Cooling PCB.
- Explosion-proof electrical control box.
- Dual system backup operation.
- Up to 8 heat pumps in one bank.

Optional Features

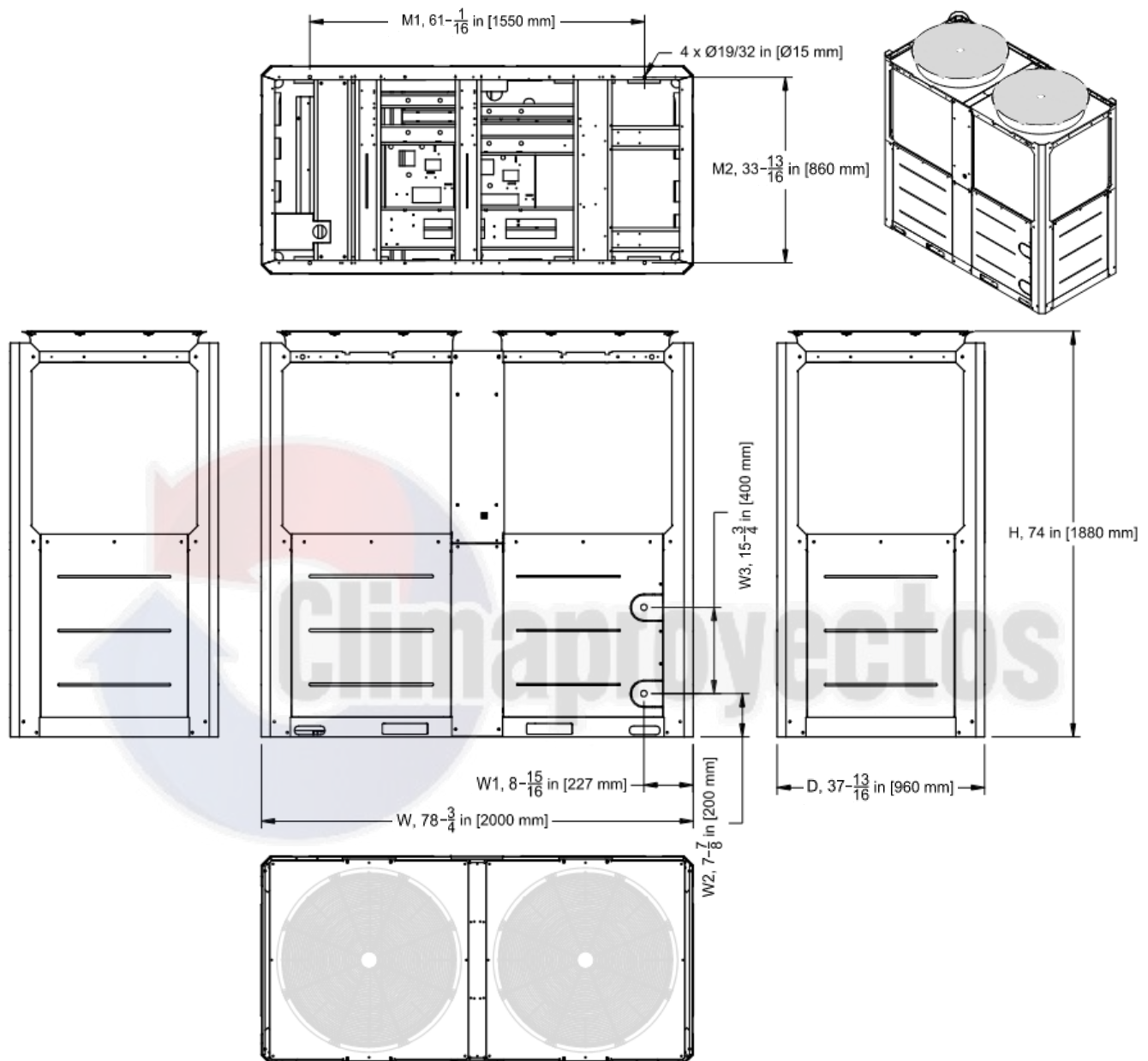
- Anti-corrosion Protection.
- Double-Wall plate heat exchanger for directly connection to DHW system.
- Support factory-installed internal water pump or external water pump.
- Support fixed or inverter water pump.
- Centralized drainage tray + bottom plate electric heating for frost conditions

Submittal Data Sheet

Air Source Heat Pump
DC Inverter Aqua Thermal Super Series
Capacity: 20 ton



Dimensions:



Dimension: inch (mm)			
Width, W	Depth, D	Height, H	Water Inlet, W1
78-3/4" (2,000)	37-13/16" (960)	74" (1,880)	8-15/16" (227)
Water Inlet, W2	Water Outlet, W3	Mounting Hole, M1	Mounting Hole, M2
7-7/8" (200)	15-3/4" (400)	61-1/16" (1,550)	33-13/16" (860)

*M5/M6 screws are use for panel installation.

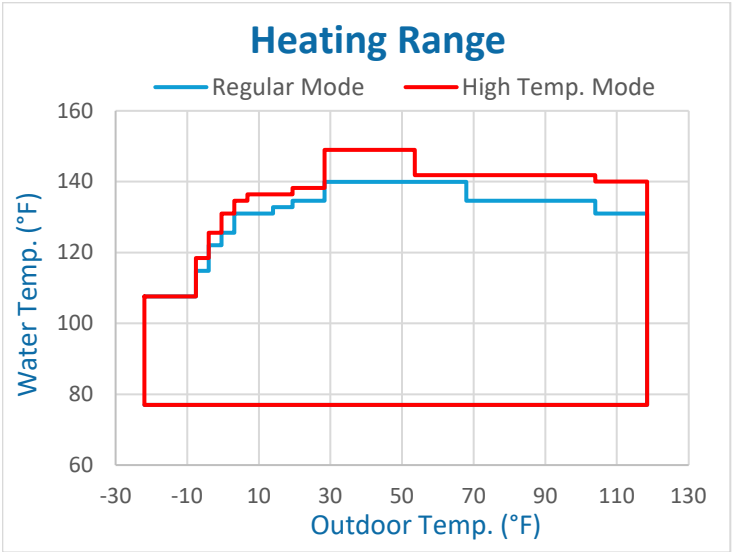
Submittal Data Sheet

Air Source Heat Pump
DC Inverter Aqua Thermal Super Series
Capacity: 20 ton



Heating Operating Range:

Heating Mode		
Outdoor Air Temperature, °F	Maximum Water Outlet Temperature, °F	
	Regular Model	High Temp. Mode
-22 to -7.6	107.6	107.6
-7.6 to -4.0	114.8	118.4
-4.0 to 0.4	122	125.6
-0.4 to 3.2	125.6	131
3.2 to 14	131	134.6
14 to 19.4	132.8	136.4
19.4 to 28.4	134.6	138.2
28.4 to 68	140	149
68 to 104	134.6	141.8
104 to 118.4	131	140



- Notes:
- 1. Regular mode range is based on the flow rate of 47.7 gpm.
 - 2. High Temperature Output mode range is based on the flow rate of 17.6 gpm.

Heating Performance:

Leaving Water Temperature		Outdoor Temperature, Dry Bulb, °F/°C								
		-4/-20	5/-15	17/-8.3	32/0	47/8.3	59/15	77/25	104/40	118/48
140 °F (60 °C)	HC	-	-	-	188.2	191.2	235.4	249.8	276.3	292.1
	PI	-	-	-	27.7	22.9	21.8	19.6	18.8	19.0
	COP	-	-	-	2.0	2.5	3.2	3.7	4.3	4.5
131 °F (55 °C)	HC	-	131.2	186.1	231.2	232.2	268.1	319.2	363.1	384.0
	PI	-	24.8	27.7	29.3	23.1	23.7	24.7	23.2	23.8
	COP	-	1.6	2.0	2.3	3.0	3.3	3.8	4.6	4.7
120 °F (49 °C)	HC	110.2	143.9	204.7	253.6	255.9	278.1	327.2	377.4	398.0
	PI	22.6	24.8	26.7	29.4	22.1	22.0	23.5	22.6	22.2
	COP	1.4	1.7	2.3	2.5	3.4	3.7	4.1	4.9	5.3

- Notes:
- 1. HC: Total heating capacity (kBtu/h)
 - 2. PI: Power input (kW)
 - 3. Performance specifications measured with water pump operating at rated water flow rate 47.7 GPM.

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