OMEGA TECHNOLOGY

OTEC AIR CONDITIONING
The Art of Comfort

OMEGA Inverter Modular Chiller

SUBMITTAL DATA

208~230V/3/60Hz

460V/3/60Hz

Job:	**Engineer:**
Location:	**Architect:**
Schedule No.:	**Date:**
System Designation:	**For:** ☐ Reference ☐ Approval ☐ Review ☐ Construction

FEATURES

- Anti-Corrosion Protection
- Refrigerant-Cooled PCB Board
- Welding Free Branch Piping
- Linear Capacity Match with IDU
- Automatic Fault Detection
- Intelligent Soft Start
- Cooling and Heating System
- Full DC Inverter Technology

1.Specifications

ACMI Series Inverter Modular Chiller

Model			ACMI020H4T-DHC070		
unit			PI		SI
Power supply		V/Ph/Hz	208~230 V/3PH/50-60Hz		
Cooling(A95W44)	Capacity	TR	20.00	kW	70.34
	Input	kW	23.45	kW	23.45
	EER	Btu/W*h	10.24	kW/kW	3.00
Heating(A47/W105)	Capacity	kBtu/h	255.9	kW	75
	Input	kW	18.99	kW	18.99
	COP	kW/kW	3.95	kW/kW	3.95
Heating(A17W105)	Capacity	kBtu/h	211.6	kW	62
	Input	kW	23.85	kW	23.85
	COP	kW/kW	2.6	kW/kW	2.6
Heating(A47W120)	Capacity	kBtu/h	255.9	kW	75
	Input	kW	22.06	kW	22.06
	COP	kW/kW	3.4	kW/kW	3.4
Heating(A17W120)	Capacity	kBtu/h	204.7	kW	60
	Input	kW	26.67	kW	26.67
	COP	kW/kW	2.25	kW/kW	2.25
IPLV		Btu/W*h	20.15	kW/kW	5.905
Compressor	Type		Inverter Scroll		
	Poles		6		
	Speed range	rps	10 ~ 140		
	Capacity (60rps)	W	23600		
	Input (60rps)	W	7152		
	Max. heating frequency	Hz	115		
	Max. cooling frequency	Hz	115		
Fan	Type		BLDC		
	Number of fans		2		
	Air flow	cfm	16865	m^3/h	28670
	Rated Motor input		0.92 kW		
Air side heat exchanger	Number of rows		3		
	Number of circuits		19		
Refrigerant	Type (GWP)		R32(675)		
	Charged volume	lbs	12.57*2	kg	5.7*2
sound pressure Level （1m, 2m）	Heating (47℉ /105℉ LWT)	dB(A)	69.5		
	Heating max (17℉ /105℉ LWT)	dB(A)	70.5		
	Cooling (95℉ /44℉ LWT)	dB(A)	67		
	Cooling max(95℉ /44℉ LWT)	dB(A)	68.2		
Unit dimension (W×H×D)		inch	78.74×74.02×37.8	mm	2000×1880×960
Packing dimension (W×H×D)		inch	82.08×79.52×40.55	mm	2085×2020×1030
Net weight		lbs	1192	kg	541
Gross weight		lbs	1246	kg	565

1. Specifications

Connection dimension	Water side	inch	2	mm	50
Connection method	Water side	hoop connection			
Outdoor air temperature range	Cooling	℉	5~131	℃	-15 ~ 55
	Heating	℉	-22~118.4	℃	-30 ~ 48
	DHW	℉	-22~118.4	℃	-30 ~ 48
Water side heat exchanger	Type	plate heat exchanger			
	Cooling Water Flow (10°F Delta)	GPM	47.73	m^3/h	10.84
	Water Pressure Drop	ft H_2O	17.43	kPa	52
Safety valve		psi	87.0	MPa	0.6
Flow switch		GPM	10.04	m^3/h	2.28
Water flow range		GPM	17.61 ~ 57.06	m^3/h	4 ~ 12.96
Water outlet temperature setting range	Cooling	℉	41 ~ 77(14 ~ 77)*	℃	5 ~ 25 (-10 ~ 25)*
	Heating	℉	77 ~ 140(77 ~ 149)*	℃	25 ~ 60 (25 ~ 65)*
	DHW（tank）	℉	86 ~ 140(86 ~ 158)*	℃	30 ~ 60 (30 ~ 70)*
Nominal return water temperature range	Cooling mode	℉	17.6 ~ 86	℃	-8 ~ 30
	heating mode (DHW)	℉	68 ~ 141.8	℃	20 ~ 61

Notes:

1. AHRI 550-590 cooling capacity conditions: 95°F; ambient air, 54°F EWT and 44°F LWT;

2. Full load heating performance tested based on AHRI Standard 550/590;

3. Sound pressure tested at 3.3 feet, 6.6 feet;

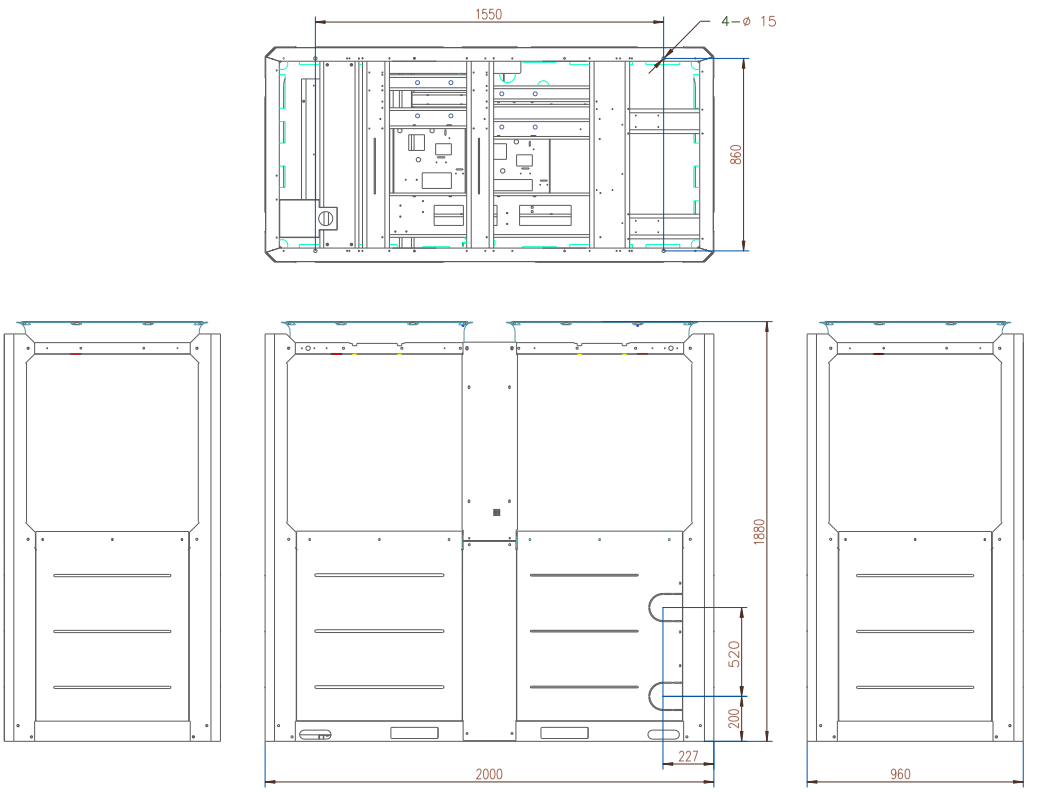
4. This product contains fluorinated greenhouse gases (R32, GWP (Global Warning Potential: 675))

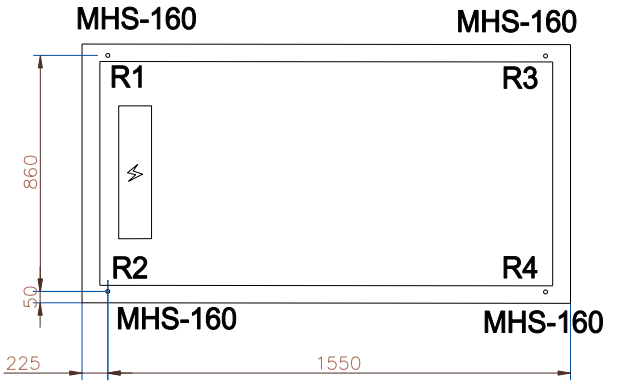
5. Antifreeze fluid is need when water temperature is less than 41℉(5℃).

*It is recommended to customize the centralized drainage module if operating under ambient temperature 5℉

* Outside the bracket is the regular mode, inside the bracket is the low water cooling mode or the high water heating/hot water heating mode (need Auxiliary Electric Heat), Electric Heater installed in the tank is field supplied.

2 Dimensinal Drawings - (MM)

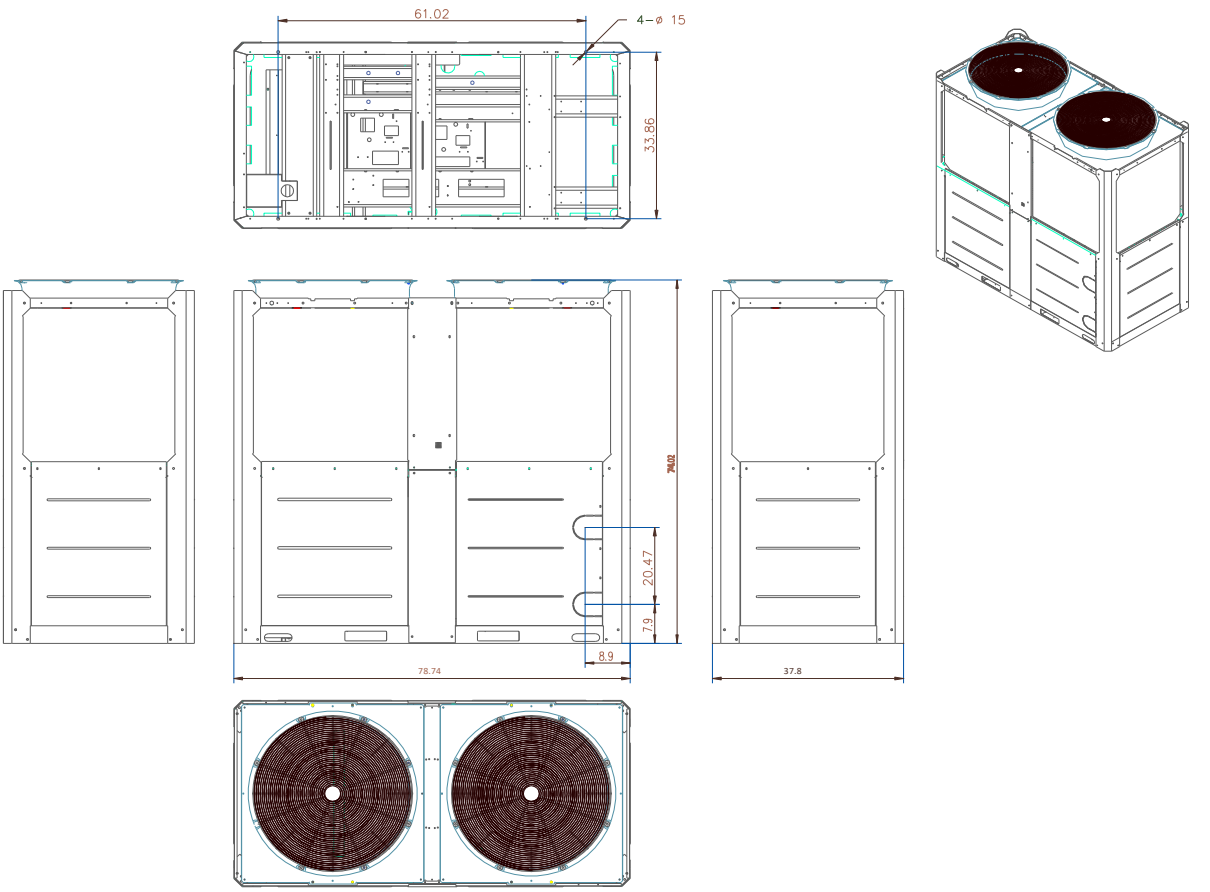


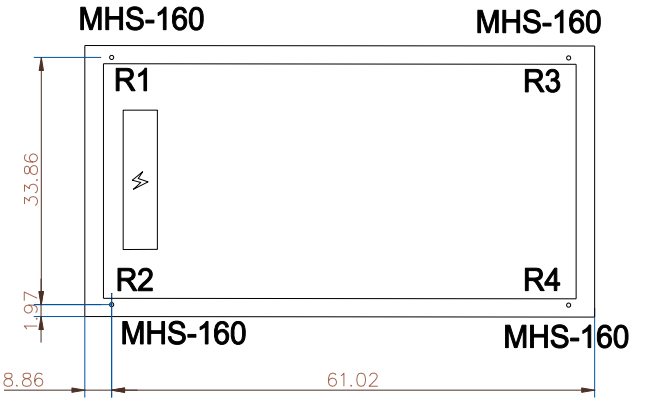


75kW

Weight to be supported by spring isolator(kg)			
R1	R2	R3	R4
120	120	120	120

2 Dimensinal Drawings - (MM)





20Ton

Weight to be supported by spring isolator(lbs)			
R1	R2	R3	R4
264.6	264.6	264.6	264.6

3-Electrical Characteristics

Electrical Characteristics

Outdoor unit electrical characteristics

System	Outdoor unit				Power current				Compressor		Fan	
	Voltage	Hz	Min.	Max.	MCA	MOP	TOCA	MFA	MSC	RLA	kW	FLA
	(V)		(V)	(V)	(A)	(A)	(A)	(A)	(A)	(A)		(A)
ACMI020H4T-DHC070	208-230/3/50-60	50/60	208	230	103	125	96	145	/	42	0.92	4

Note:

MCA: Min. Circuit Amps. (For wire diameter selection)

MOP: Maximum overcurrent protector

MSC: Max. Starting Amps.

FLA: Full Load Amps.

KW: Rated Motor Output

RLA: In nominal cooling or heating test condition, the input Amps of compressor where MAX. Hz can operate Rated Load Amps.

TOCA: Total over-current Amps.

MFA: Maximum fuse amps

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