



AIR SOURCE HEAT PUMP - ECO_SERIES



1.0 GENERAL SPECIFICATION

Air to Water Heat Pump. Unit is included with compressor , evaporator, condenser and electrical control panel. Refrigerant is environmental friendly R-134A. Heat Pump can produce 70 °C maximum hot water temperature.

2.0 PERFORMANCE

The unit have COP not less than 4.0 at 30 °C, 65 %RH ambient air. The water temperature inlet and outlet is 50 °C and 60 °C.

3.0 EQUIPMENT SPECIFICATION

3.1 COMPRESSOR

Hermetic Scroll type compressor , suitable for high temperature operation with environmental friendly R134A refrigerant.



Copeland[®]
brand products

LEAF
Green innovation.

M & E TEAM WORK CO.,LTD.
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3.2 CONDENSER

Condenser is plate heat exchanger , SUS 316 Stainless steel , Copper welding. Refrigerant side is tested at pressure 500 psig and water side is tested at pressure 300 psig.



Plate Heat Exchanger

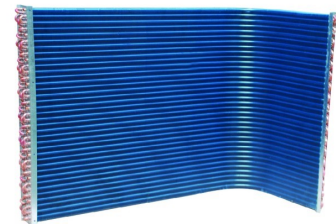
3.3 EVAPORATOR

Evaporator is copper tube and aluminium blue fin with galvanized end plates.

3.4 REFRIGERANT EQUIPMENTS

Refrigerant equipment are included

- Thermal Expansion Valves
- Filter Dryer
- Service Valve



Evaporator Coil

3.5 CABINET

Heat pump cabinet is enameled galvanized steel thickness 1.0-1.5 mm. Designed for both indoor and outdoor installation.

3.6 INSULATION

EPDM Close Cell Insulation. Excellent insulator with low thermal conductivity.



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3.7 PROTECTION FUNCTION

- High Pressure Safety Switch.
- Low Pressure Safety Switch.
- Electrical Phases & Voltage Protection.
- Water Flow Switch Protection (Dry Contact).
- Over Current Compressor Protection.
- Time Delay for Compressor Protection.
- Auto-Restart Mode

3.8 CONTROL FUNCTION

- Operating hours counter. Display accumulated total working hours of heat pump. Easily monitoring and planning for preventive maintenance.
- Data Report print out and Service Online by ME Solution program easily for management.
- 6 point temperature display inside heat pump. Provide good accuracy for heat pump performance monitoring and easily diagnosis heat pump malfunction.
- Controller reserved for external water flow safety switch.
- RS485 port for communication and data transfer



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TECHNICAL DATA OF HEAT PUMP : ECO-SERIES

MODEL		ECO 10	ECO 15	ECO 25	ECO 35
HEATING CAPACITY	kW	10.7	15.4	24.7	35.2
COOLING CAPACITY	kW. (Btu/h)	7.5 (25,591)	11.9 (40,855)	19.7 (67,219)	27.9 (95,345)
HOT WATER RECOVERY RATE	Lph	922	1,360	2,127	3,032
WATER INLET TEMP.	°C	50			
WATER OUTLET TEMP.		60			
MAX. HOT WATER OUTLET TEMP.		70			
AIR FLOW RATE	cfm	1,100	1,350	2,250	3,000
COMPRESSOR	Type	SCROLL			
	Qt.	1			
	Refrigerant	R-134a			
ELECTRICAL	V / Ph / Hz	220 / 1 / 50	380 / 3 / 50		
COP		4.5	4.4	4.4	4.4
POWER AT RECOVERY RATE (Included all electrical parts)	kW	2.4	3.5	5.8	8.1
RLA (@ RECOVERY RATE)	A	14.5	8.0	11.8	16.0
FLA		19.9	12.9	15.9	22.4
CASING MATERIAL		ENAMELED GALVANIZED STEEL			
DIMENSION (W X D X H)	mm	350x1100x825		395x1140x1275	395x1220x1350
NET WEIGHT (Approximate)	kg	85	95	110	155
WATER INLET & OUTLET	Inch	1"			1-1/4"
CONDENSATED DRAIN		3/4"			1"

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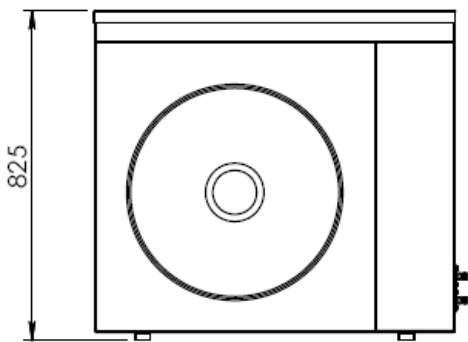
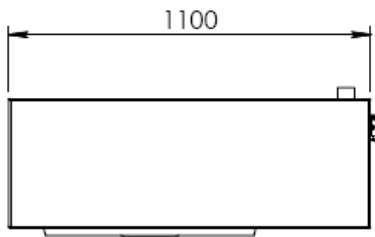
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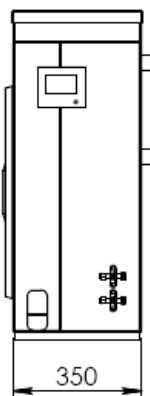
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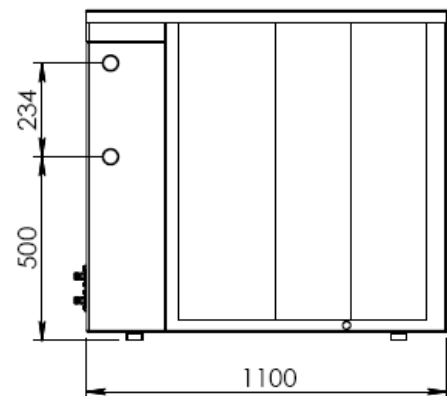
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FRONT VIEW



SIDE VIEW



BACK VIEW



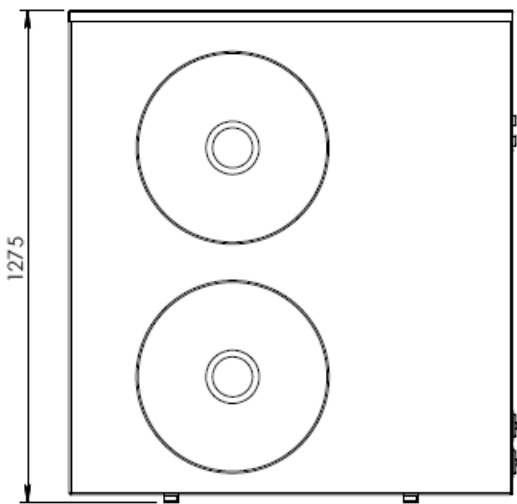
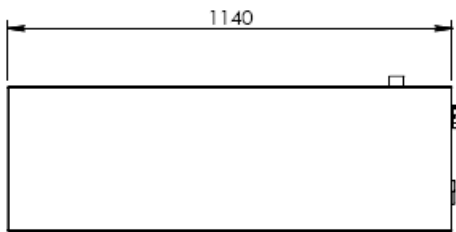
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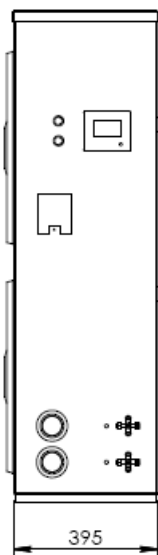
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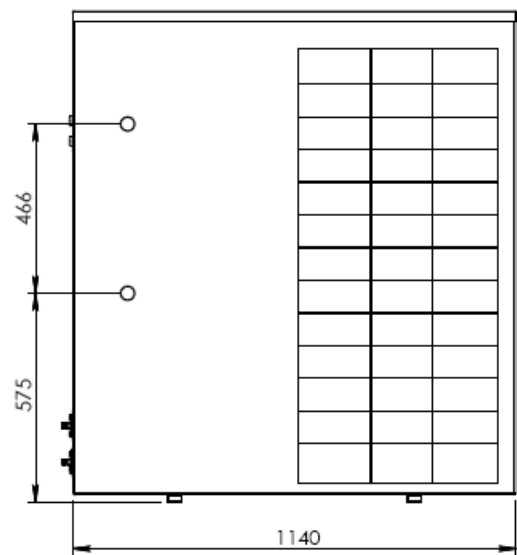
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FRONT VIEW



SIDE VIEW



BACK VIEW



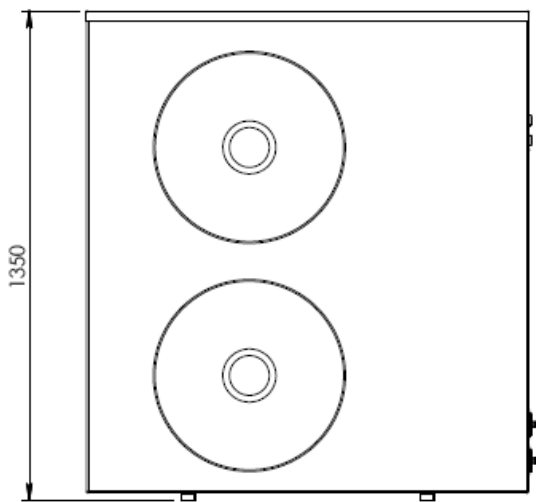
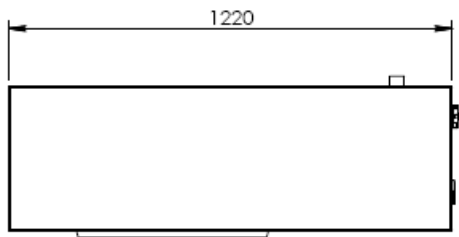
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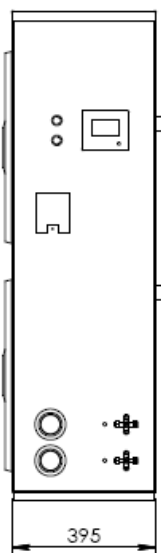
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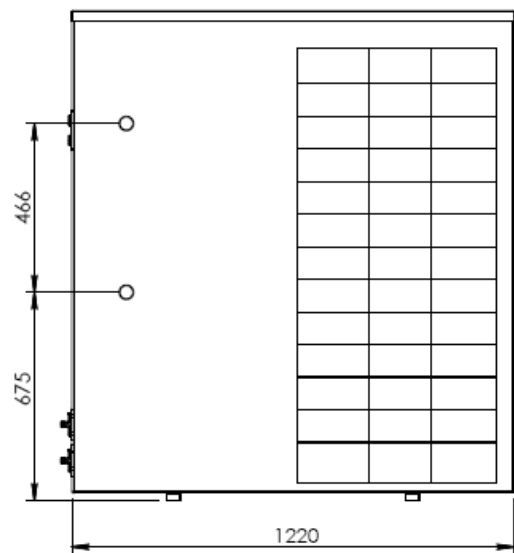
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FRONT VIEW



SIDE VIEW



BACK VIEW



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