



### 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 C.O.P. not less than 3.5 at 30 °C,65 %RH ambient air and 30 °C , 60 °C inlet and outlet hot water.

### 3.0 EQUIPMENT SPECIFICATION

#### 3.1 COMPRESSOR " COPELAND "

Hermetic Scroll type compressor , suitable for high temperature operation with environmental friendly R134a refrigerant.

**Copeland**  
brand products

### 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 rifled copper tube - inner grooved for high efficiency and aluminium blue fin with galvanized end plates.



EVAPORATOR

### 3.4 REFRIGERANT EQUIPMENTS



Refrigerant equipment are included

- Thermal Expansion Valves ( Superheat Adjustable )
- Sight Glass
- Filter Dryer

### 3.5 CABINET

Heat pump cabinet is SUS304 Stainless Steel. Cabinet have 7 access door for serving , one for compressor and TXV , one for evaporator and condenser and one for electrical equipment. Cabinet base thickness is 2.0 mm. Heat pump is designed for both indoor and outdoor installation.

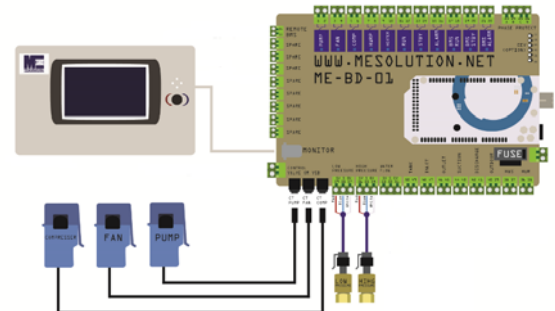
### 3.6 INSULATION

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

### 3.7 CONTROL FUNCTION

- Heat Pump Micro Controller for controlling constant 60 °C water temperature and allow you to easily adjust hot water temperature as desire.

- 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.

**ME-DB-01**  
Heat Pump Controller  
Wiring Diagram

DISPLAY AND CONTROLLER

### 3.8 PROTECTION FUNCTION

- High Pressure Safety Switch.
- Low Pressure Safety Switch.
- Water Temperature Overheat Safety Switch. Limit water temperature which might harm to user.
- Electrical Phases & Voltage Protection.
- Over Current Compressor Protection.
- Over Current Pump Protection.
- Over Current Blower Protection.
- Time delay for compressor protection.
- Auto-Restart Mode



## AIR SOURCE HEAT PUMP - 25KW

### TECHNICAL DATA OF AIR SOURCE HEAT PUMP

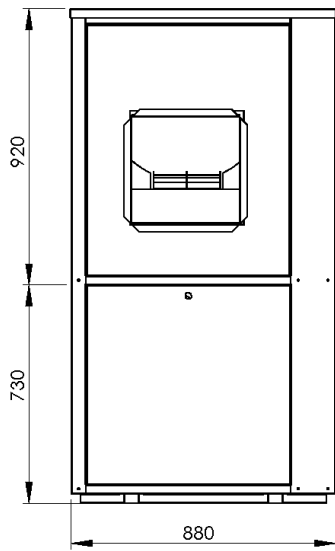
MODEL		25kW
HEATING CAPACITY	kW.	25.4
COOLING CAPACITY	kW. (Btu/h)	20.9(71,314)
HOT WATER RECOVERY RATE	Lph	729
WATER INLET TEMP.	°C	30
WATER OUTLET TEMP.		60
MAX. HOT WATER OUTLET TEMP.		70
AIR FLOW RATE	m3/hr (cfm)	4,247 (2,500)
COMPRESSOR	Type	SCROLL
	QT.	1
	Refrigerant	R-134a
ELECTRICAL	V/Ph/Hz	380/3/50
POWER AT RECOVERY RATE (Included all electrical parts)	kW	5.84
RLA (@ RECOVERY RATE)	A	12.1
FLA		17.4
CASING MATERIAL		SUS304 Stainless Steel
DIMENSION (W X D X H)	mm	880x675x1650
NET WEIGHT (approx.)	kg	245
WATER INLET	Inch	1"
WATER OUTLET		1"
CONDENSATED DRAIN		3/4"



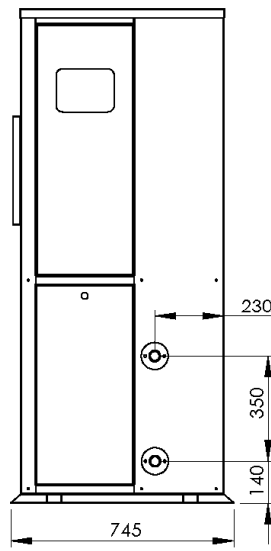
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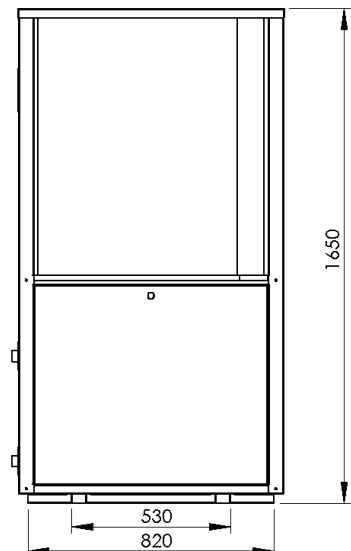
### DIMENSION



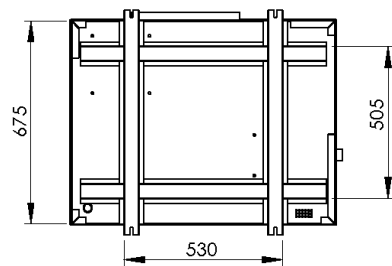
FRONT VIEW



RIGHT VIEW



BACK VIEW



BOTTOM VIEW

HEAT PUMP PERFORMANCE CURVE FOR 25KW

