



# INSTALLATION & OPERATION MANUAL



## EVO FLEX

DOMESTIC HOT WATER & SPACE HEAT PUMP



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## 1. Introduction

This manual contains information relating to the installation, troubleshooting, operation, and maintenance of this EvoHeat unit. Instructions in this manual must always be followed. Failure to comply with these recommendations will invalidate the warranty. Should you have any questions or require technical support, call the EvoHeat office on 1300 859 933 to speak to our team.

The data and information contained in this manual is correct at the time of publishing and is subject to change without notice. For the most up to date manual, contact EvoHeat directly.

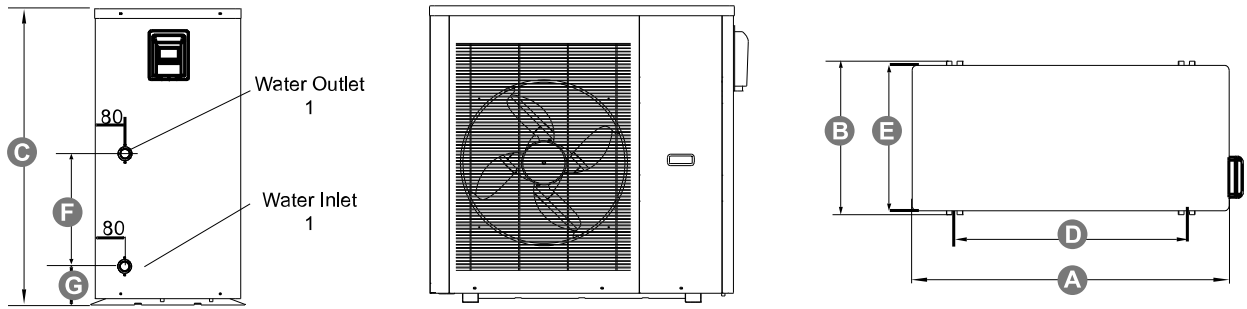


The Evo Flex Series heat pumps utilise advanced heat pump technology to achieve high efficiency with a C.O.P. of up to 4.8. With the application of DC inverter technology, the Evo Flex Series can adjust the output capacity automatically and control the room temperature accurately.

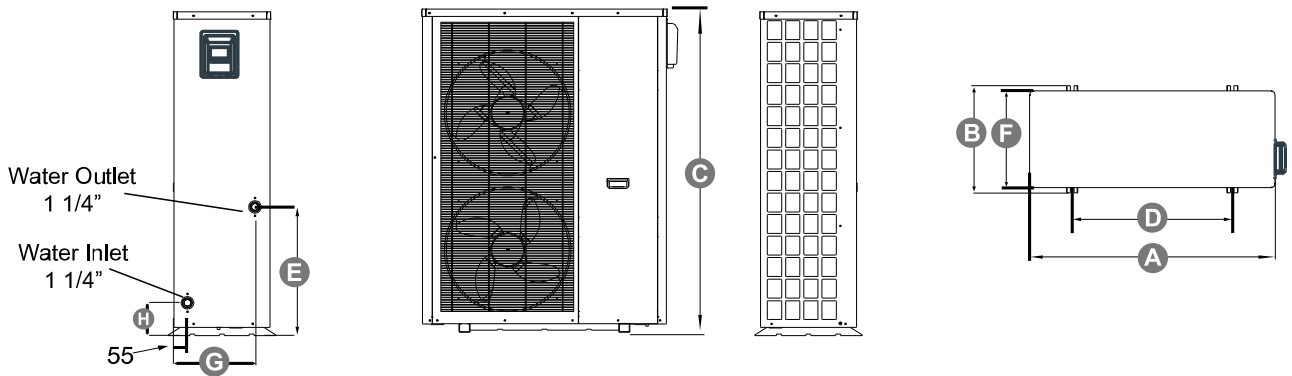
TECHNICAL DATA		Evo Flex 10	Evo Flex 17	Evo Flex 25
Heating Capacity Range	<b>kW</b>	2.5-10.8	5.0-17.3	7.0-25.1
Heating Power Input Range	<b>kW</b>	0.8-2.77	1.2-4.55	2.5-6.54
Cooling Capacity Range	<b>kW</b>	2.0-10.0	5.0-14.5	7.0-20.0
Cooling Power Input Range	<b>kW</b>	1.0~3.4	1.6~5.6	2.5~9.0
Frequency	<b>Hz</b>	30~90	30~90	30~90
ErP Level (35°C)	/	A++	A++	A++
ErP Level (55°C)	/	A+	A+	A+
Power Supply	/	220-240/1/50	220-240/1/50	380-415/3/50
Electric Heater	<b>kW</b>	3.0	/	/
Max. Running Current	<b>A</b>	18+13.7	27	14
Refrigerant Type	/	R410A	R410A	R410A
Refrigerant Charge	<b>g</b>	2400	3200	4400
Refrigerant Quantity	<b>kg</b>	2.4	3.2	4.4
Water Connection	/	1"	1 ¼"	1 ¼"
Water Flow	<b>m³h</b>	1.6	2.8	4.2
Water Pressure Drop	<b>kPa</b>	22	52	45
Water Pump Head	<b>M</b>	10	17	18
DC Fan Motor Quantity	/	1	2	2
DC Motor Power Input (MIN-MAX)	<b>W</b>	18-136	36-272	50-340
DC Fan Speed (MIN-MAX)	<b>rpm</b>	300-850	300-850	300-900
Pressure Sensor 1	<b>Bar</b>	0~20	0~20	0~20
Pressure Sensor 2	<b>Bar</b>	0~45	0~45	0~45
Noise	<b>dB(A)</b>	54	58	62
Net Weight	<b>kg</b>	110	163	219
Net Dimensions (LxWxH)	<b>mm</b>	980 x 465 x 910	990 x 437 x 1315	1175 x 450 x 1588
Operation Ambient Temp.	<b>°C</b>	-20~52	-20~52	-20~52

Heating: Ambient temp.(DB/WB): 7°C/6°C, Water temp. (In/Out): 30°C/35°C Cooling: Ambient temp.(DB/WB): 35°C/24°C, Water temp. (In/Out): 12°C/7°C The above data is tested under compressor frequency of 90Hz. The data above is for reference only.

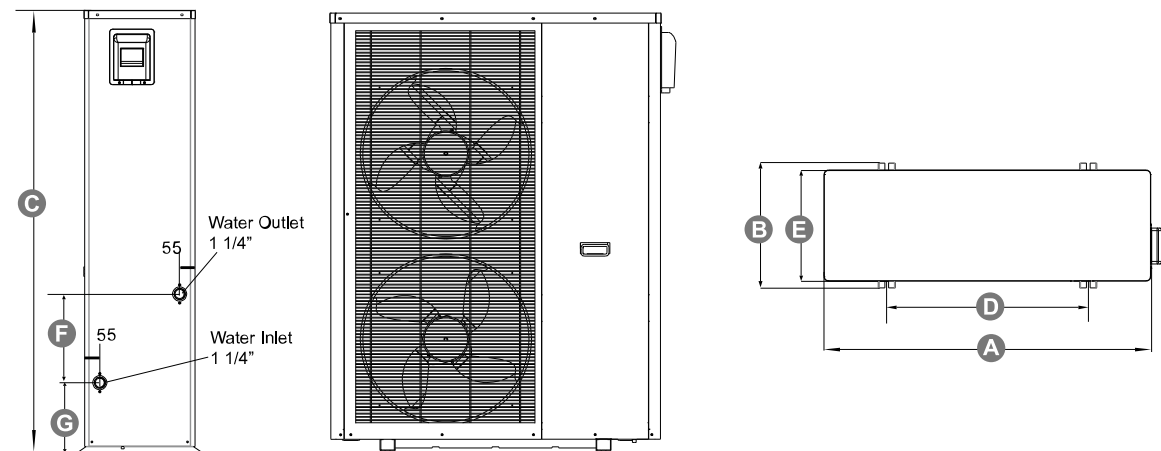
## 2. Dimensions



Evo Flex	A (L)	B (W)	C (H)	D	E	F	G
10	980	465	910	700	445	338	132



Evo Flex	A (L)	B (W)	C (H)	D	E	F	G	H
17	990	437	1315	650	525	395	330	133



Evo Flex	A (L)	B (W)	C (H)	D	E	F	G
25	1175	450	1588	725	400	320	254

### 3. Safety Instructions

- Installation, repairs and maintenance of this unit must be performed by a qualified technician.
- Any wiring must comply with local electrical regulations.
- If any abnormal instances occur or a strange smells, the unit must be shut off by the power supply.
- Do not put fingers or objects into the fans or evaporator of the unit.
- The unit must be earthed to avoid any risk caused by insulation defects.
- No wiring must come into contact with the heat source or the rotating fan parts.
- The unit must be handled and lifted with appropriate equipment in correlation with the unit's size and weight.
- Electrical power must be switched off before any work is started on the unit.
- Do not expose the unit to or install near any flammable gases.
- Ensure there is a circuit breaker for this unit.
- Copper and iron can not be used as a fuse.
- The unit is equipped with an over-load protection system. After a previous stoppage, the unit will not start for at least 3 minutes.
- If the supply cord is damaged, it must be replaced by the manufacturer, our service agent or a similarly qualified person in order to avoid a hazard.
- USE SUPPLY WIRES SUITABLE FOR 75°C.
- Caution: Single wall heat exchanger, not suitable for potable water connection.



## WARNING

### THIS PRODUCT CONTAINS A BUTTON BATTERY

If swallowed, a lithium button battery can cause severe or fatal injuries within 2 hours.

Keep batteries out of reach of children.

If you think batteries may have been swallowed or placed inside any part of the body, seek immediate medical attention.

## 4. Installation

### 4.1 Transit

When transporting the unit, ensure the unit is kept standing upright. Laying the unit down may damage internal parts.

If the unit needs to be hung up (such as for lifting with a crane) use an 8-metre cable. Ensure there is some kind of padding between the cable and the unit to prevent damage to the heat pump cabinet.

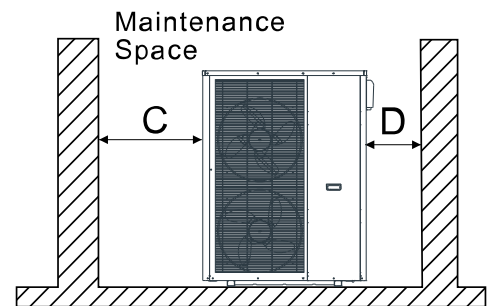
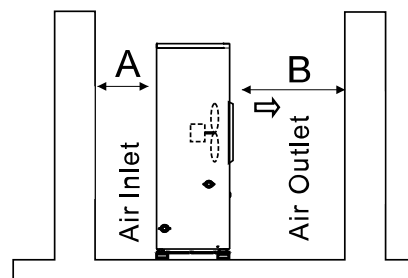
### 4.2 Location of Install

The unit can be installed in any outdoor area which can carry the weight of heavy machinery, such as a terrace, rooftop, the ground etc.

- The location must have adequate ventilation and be free from strong winds.
- The installation location must be free from heat radiation and fire hazards.
- Ensure there are no obstacles near the air inlet and outlet of the heat pump.
- There must be a water channel around the heat pump to drain condensing water.
- Ensure that there is enough space around the unit for maintenance.
- The heat pump can be installed onto the concrete basement using expansion screws, or onto a steel frame with rubber feet which can be placed on the ground or rooftop. Ensure the unit is placed horizontally.

### 4.3 Minimum Clearances


- A: 500mm**
- B: 1500mm**
- C: 1000mm**
- D: 500mm**



### 4.4 Plumbing


- Try to reduce the resistance to the water from the piping.
- The piping must be clear and free from dirt and blockage. A water leakage test must be carried out to ensure that there is no water leaking before the installation can be made.
- The pipe must be tested by pressure separately. DO NOT test it together with the unit.
- There must be an expansion tank on the top point of the water loop, and the water level inside the tank must be at least 0.5meters higher than the top point of the water loop.
- The flow switch is installed inside of the heat pump, check to ensure that the wiring and action of the switch is normal and controlled by the controller.
- Try to avoid any air from being trapped inside the water pipe, there must be an air vent on the top point of the water loop.
- There must be a thermometer and pressure meter at the water inlet and outlet for easy inspection during running.
- There must be drainage on the low points of the water system, and there is already drainage on the chassis of the heat pump. The water in the system must be drained out during winter if the heat pump is not to be used.

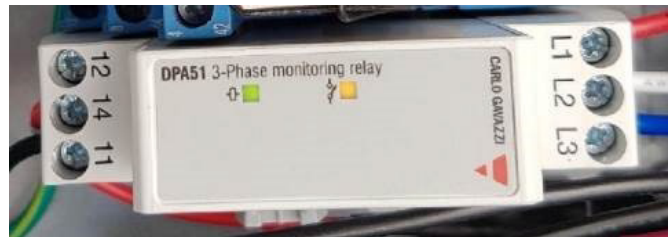
## 4.5 Electrical Connection

 Always use a suitably qualified Electrician to perform any electrical work, they must read the manual before connecting.

Ensure all cabling, circuit breakers, and protections are of a suitable size and specification in accordance with electrical wiring legislation for the heater being installed. Ensure to check that there is adequate voltage and current available at the heater connection to run the unit.

- Open the panel and open the power line hole
- Thread the power line through the hole and connect it to the power line terminal. The three-core control line of the remote controller shall be plugged with the three-core signal line on the main board according to the wiring diagram.
- For an external water pump, thread the power line of the water pump through the hole and connect it to the water pump terminals.
- If an additional auxiliary heater is needed to be controlled by the heat pump controller, the relay (or power) of the aux-heater must be connected to the relevant output of the controller.

 Correct phase connection is important with 3 phase heaters. NOTE: if 2 lights are showing on the 3 PHASE relay monitor this means the EvoHeat heat pump has been wired correctly (one orange light and one green light). If only one light is showing, the phases are out of rotation and need to be rotated to get the correct phase rotation.



## 4.6 Initial Start-up

### Prior To:

Check the indoor unit, make sure that the pipe connection is done correctly and that the relevant valves are open.

Check the water loop to ensure that there is enough water inside of the expansion tank, that the water supply is good and that the water loop has no air in it and is full of water. Make sure there is good insulation for the water pipe.

Check the electrical wiring. Make sure that the power voltage is normal, the screws are fastened, the wiring is made in line with the diagram and the earthing is connected.

Check that the heat pump, including all the screws and different parts are in good order. When the power is on, review the indicator on the controller to see if there is any failure indications. The gas gauge can be connected to the check valve to see the high pressure (or low pressure) of the system during trial running.

### Trial Operation:

Start the heat pump and check whether the water pump is running, if it is running normally there will be 0.2MPa on the water pressure meter.

When the water pump runs for 1 minute, the compressor will start. Hear whether there is a strange sound coming from the compressor. If an abnormal sound occurs, please stop the unit and check the compressor. If the compressor runs well, look for the pressure meter of the refrigerant.

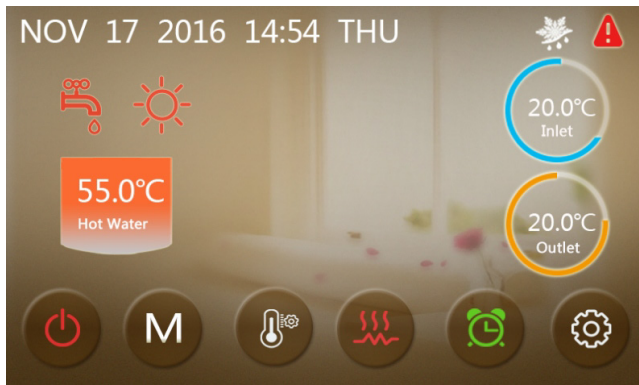
Check whether the power input and running current is in line with the manual. If not stop the unit and check for why this may be occurring.

Adjust the valves on the water loop to make sure that the hot (cool) water supply to each door is good and meets the requirement of heating (or cooling).

Review whether the outlet water temperature is stable.

## 5. Operation

### 5.1 The Controller



	<b>ON/OFF</b>	Turn the unit on or off. When the unit is on, the button will be red.
	<b>MODE</b>	Switch modes
	<b>TEMP. SETTING</b>	Enter the temperature setting menu.
	<b>FAST HEATING</b>	Press this to begin rapid heating.
	<b>TIMER</b>	Set a unit on/off timer. When a timer is on, this icon will be green.
	<b>SETUP</b>	Check the unit status, time, factory parameters, temp. curve, timer & mute settings.

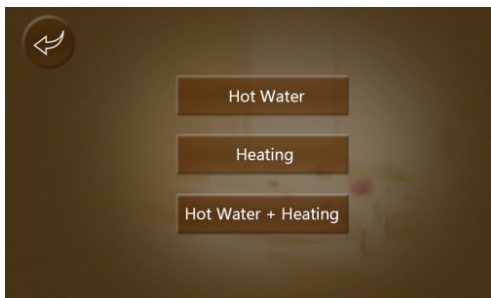
<b>FAULT</b>	<b>DEFROSTING</b>	<b>HOT WATER MODE</b>	<b>HEATING MODE</b>
When an error occurs this icon will flash at the top right of the screen. Tap the icon to see a record of failures.	When this icon is shown the unit is in defrosting mode.	When this icon is shown the unit is in hot water mode.	When this icon is shown the unit is in heating mode.

### 5.2 Operating Functions

#### 5.2.1 Start-up & Shutdown

To turn the unit on or off, press **ON/OFF** button.  
The icon will be grey when the unit is off, and green when it is on.

#### 5.2.2 Mode Switch

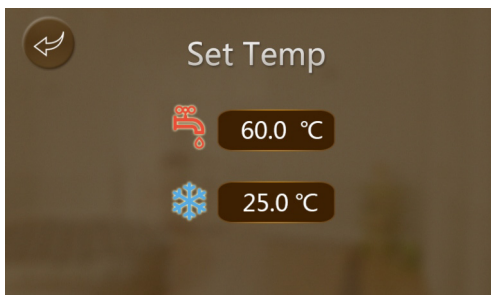


From the main menu there are five different operating modes that can be chosen from. Press **MODE** to select from the options:

**Hot Water, Heating, Cooling, Hot Water & Heating or Hot Water & Cooling**

*Note: If you have purchased a heating-only model (with no cooling functions) "cooling" mode will not appear.*

#### 5.2.3 Setting the Target Temperature

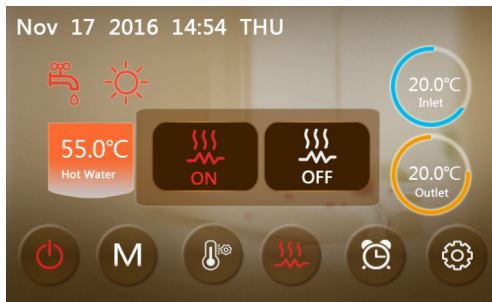


Press the **TEMP. SETTING** button to change the set temperature values of heating and/or cooling mode.

Press the temperature value to alter the value, then press 'Enter' to save and return to the main menu.



### 5.2.4 Fast Heating Mode



While the unit is in heating mode, press the **FAST HEATING** button to enable the rapid heating function.

### 5.2.5 Setting a Timer



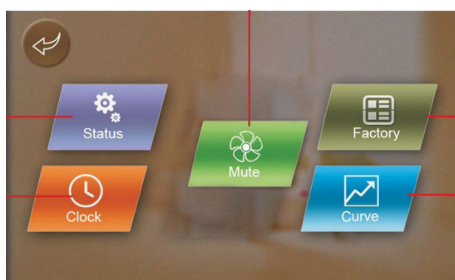
You can set a customised start-up and shutdown timer for your unit.

Press the **TIMER** button on the main menu and enter your desired 'ON' & 'OFF' times.

Press the On/Off button to the left of each time to toggle the start/end timers. When they are not on the button will be grey instead of coloured.

*Example: The unit will turn on at 17:10 and shut down at 20:10.*

### 5.2.6 Setup Interface



<b>STATUS</b>	Press this to view the status interface.
<b>CLOCK</b>	View/change system time & date settings.
<b>MUTE</b>	Turn on/off the silent function OR set mute timing intervals
<b>FACTORY</b>	Enter the factory interface.
<b>CURVE</b>	View the temperature curves.

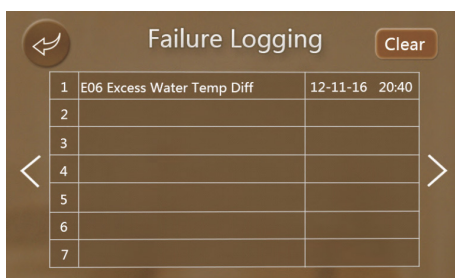
### 5.2.7 Setting the Date & Time



From the Setup interface, press **CLOCK** to enter into the system date & time setting menu. Use the arrows to adjust the date & time as required, then press the enter button to save changes.

Press the return key to return to the previous menu or to cancel any changes.

### 5.2.8 Fault Interface



Press the **FAULT** icon on the main menu to display a record of all failures that have occurred.

After faults have been reviewed and corrected, press the top right 'Clear' button to wipe the records.

Note: when clearing the fault records, it may ask for a password first. The password will be the first 2 numbers of the top fault. In this example, the password would be 12.

### 5.2.9 Colour Display Calibration

Keep clicking quickly at the blank area on any interface till you hear a long beep. You will then enter the calibration interface. Click "+" to start calibration. When you hear the beep again, you will have finished calibration and can exit.

## 6. Troubleshooting

### 6.1 Electronic Control Fault Table

Protect/Fault	Error Code	Cause	Solution
Inlet Temp. Sensor Fault	P01	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Outlet Temp. Sensor Fault	P02	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Water Tank Temp Sensor	P03	The temp. sensor is broken or short circuited	Check or change the temp. sensor
At Sensor Fault	P04	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Suction Temp. Sensor Fault	P17	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Coil Temp Sensor	P153	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Exhaust Temp Sensor	P181	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Exhaust Overtemp	P182	The temp. sensor is broken or short circuited	Check or change the temp. sensor
Suction Pressure Sensor Fault	PP2	The pressure sensor is broken	Check or change the pressure sensor or pressure
Exhaust Pressure Sensor Fault	PP1	The pressure sensor is broken	Check or change the pressure sensor or pressure
Low AT Protection	TP	The environment temp. is low	
Electric Overheat Protection	E04	The compressor is overloaded	Check whether the system of the compressor is running normally
Communication Fault	E08	Communication failure between wire controller and mainboard	Check the wire connection between remote wire controller and main board
HP Protection	E11	The high-pressure switch is broken	Check the pressure switch and cold circuit
LP Protection	E12	Low pressure1 protection	Check the pressure switch and cold circuit
Primary Anti-Freezing Prot.	E19	The ambient temp. is low	
Secondary Anti-Freezing Prot.	E29	The ambient temp. is low	
Flow Switch Protection	E032	No water/little water in water system	Check the pipe water flow and water pump
Compressor Overcurrent Shutdown Fault	E051	The compressor is overloaded	Check whether the system of the compressor is running normally
Anti-Freezing Prot	E171	Water flow is not enough	Check the pipe water flow and whether water system is jammed
DC Fan Motor 1 Failure	F031	1. Motor is in locked-rotor state 2. The wire connection between DC-fan motor module and fan motor is in bad contact	1. Change a new fan motor 2. Check the wire connection and make sure they are in good contact
DC Fan Motor 2 Failure	F032	1. Motor is in locked-rotor state 2. The wire connection between DC-fan motor module and fan motor is in bad contact	1. Change a new fan motor 2. Check the wire connection and make sure they are in good contact
Dc Fan Motor Comms Failure	E081	Speed control module and main board communication fail	Check the communication connection

## 6.2 Frequency Conversion Board Fault Table

Protect/Fault	Error Code	Cause	Solution
IPM Overcurrent Shutdown Fault	F00	IPM Input current is large	Check and adjust the current measurement
Compressor Activation Failure	F01	Lack of phase, step or drive hardware damage	Check the measuring voltage, check frequency conversion board hardware
PFC Fault	F03	The PFC circuit protection	Check the PFC switch tube short circuit or not
DC Bus Overload	F05	DC bus voltage < Dc bus Overload – voltage protection value	Check the input voltage measurement
DC Bus Underload	F06	DC bus voltage < Dc bus underload – voltage protection value	Check the input voltage measurement
AC Input Underload	F07	The input voltage is under, causing the input current to be too low	Check the input voltage measurement
AC Input Overload	F08	The input voltage is over, causing the input current to be too high	Check and adjust the current measurement
Input Voltage Sample Fault	F09	The input voltage sampling fault	Check and adjust the current measurement
Communication Failure between DSP and PFC	F10	DSP and PFC connect fault	Check the communication connection
Communication Fault (DSP)	F11	DSP and Inverter board communication failure	Check the communication connection
Communication Fault (Inverter Board)	F12	Communication failure between inverter board and main board	Check the wire connection between remote inverter board and main board
IPM Overheat Stop	F13	The IPM module has overheated	Check and adjust the current measurement
Weak Magnetism Alarm	F14	Compressor magnetic force is not enough	
Input Voltage Lacking Phase	F15	The input voltage lost phase	Check and measure the voltage adjustment
IPM Current Sample Fault	F16	IPM Sampling electricity is fault	Check and adjust the current measurement
Sensor Fault of Module/Radiator	F17	The transducer is overheating	Check and adjust the current measurement
IGBT Power Device Overheat Alarm	F20	The transducer is overheating	Check and adjust the current measurement
Overload Alarm	F21	The compressor input current is too large	Check and adjust the current measurement
AC Input OverCurrent Alarm	F22	Input current is too large	Check and adjust the current measurement
EEPROM Fault Alarm	F23	MCU Error	
Destroyed EEPROM Activation Ban Alarm	F24	MCU Error	
LP 15V Underload Fault	F25	The V15V is overload or undervoltage	Check the V15V input voltage in range 13.5V~16.5 or not
IGBT Power Device Overheat Fault	F26	Transducer temperature is too high	Check and adjust the current measurement

### 6.3 Troubleshooting Table

Failure	Possible Causes for the Failure	Solutions
Heat pump cannot be started	Wrong power supply	Shut off the power and check power supply
	Power supply cable loose	Check power cable and make right connection
	Circuit breaker open	Check for the cause and replace the fuse or circuit breaker
Water pump is running with high noise or without heater	Lack of water in the piping	Check the water supply and charge water to the piping
	Too much air in the water loop	Discharge the air in the water loop
	Water valves closed	Open the valves in the water loop
	Dirt and blockage on the water filter	Clean the water filter
Heat pump capacity is low, compressor does not stop	Lack of refrigerant	Check for the gas leakage and recharge the refrigerant
	Bad insulation on water pipe	Make good insulation on water pipe
	Low heat exchange rate on air side exchanger	Clean the air side heat exchanger
	Lack of water flow	Clean the water filter
High compressor exhaust	Too much refrigerant	Discharge the redundant gas
	Low heat exchange rate on air side exchanger	Clean the air side heat exchanger
Low pressure problem of the system	Lack of gas	Check the gas leakage and recharge freon
	Block on filter or capillary	Replace filter or capillary
	Lack of water flow	Clean the water filter and discharge the air in water loop
Compressor do not run	Power supply failure	Check off the power supply
	Compressor contactor broken	Replace compressor contractor
	Power cable loose	Tighten the power cable
	Protection on compressor	Check the compressor exhaust temp
	Wrong setting on return water temp	Reset the return water temp
	Lack of water flow	Clean the water filter and discharge the air in water loop
High noise of compressor	Liquid refrigerant goes into compressor	Bad evaporation, check the cause for bad evaporation and fix
	Compressor failure	Use new compressor
Fan do not run	Failure on fan relay	Replace the fan relay
	Fan motor broken	Replace fan motor
The compressor runs but heat pump has no heating or cooling capacity	No gas in the heat pump	Check system leakage and recharge refrigerant
	Heat exchanger broken	Find out the cause and replace the heat exchanger
	Compressor failure	Replace compressor
Low outlet water temperature	Low water flow rate	Clean the water filter and discharge the air in water loop
	Low setting for the desired water temp	Reset the desired water temperature
Low water flow protection	Lack of water in the system	Clean the water filter and discharge the air in water loop
	Failure on flow switch	Replace the flow switch

## 7. Appendix

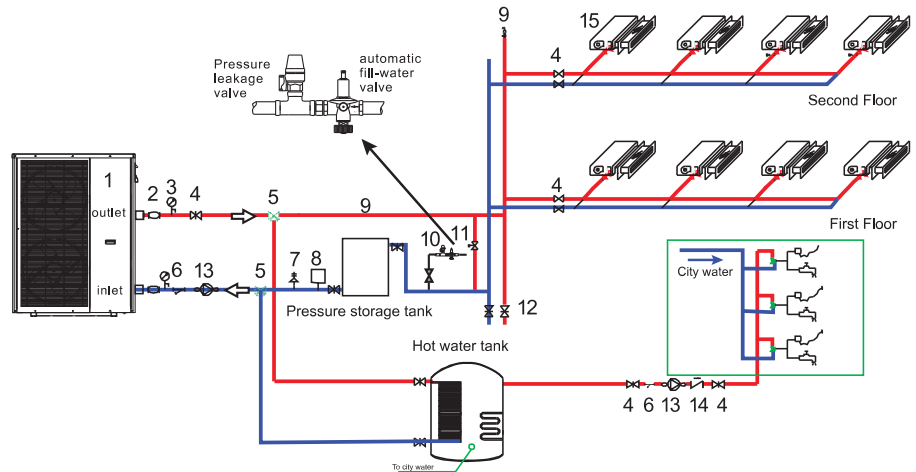
### 7.1 Parameter List

Meaning	Default	Remarks
Refrigeration target temperature set point	12°C	Adjustable
Heating the target temperature set point	40°C	Adjustable

### 7.2 Install Sketch Map

#### Special Installation (Expandable Water Tank)

- |                    |  |
|--------------------|--|
| 1. Main Unit       | 9. Vent Valve                          |
| 2. Connecting Hose | 10. Automatic Refill Valve             |
| 3. Pressure Meter  | 11. Pressure Differential Bypass Valve |
| 4. General Valve   | 12. Drain Valve                        |
| 5. Three-way Valve | 13. Non-return Valve                   |
| 6. Y-type Filter   | 14. Water Pump                         |
| 7. Safety Valve    | 15. Fan Coil                           |
| 8. Expansion Tank  |  |



### 7.3 Automatic Filled Water Valve

When the automatic filled-water valve is installed, the arrowhead orientation of inlet water must accord with the orientation of the valve.

Automatic filled-water has been adjusted in advance to 1.5ba.

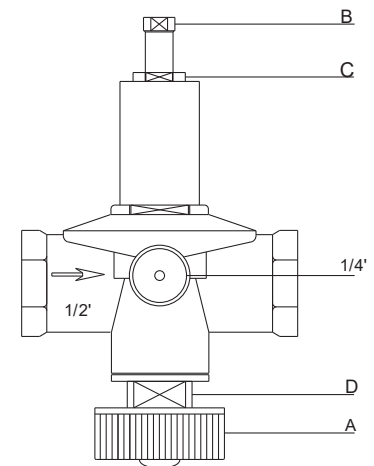
If readjusting the pressure of inlet water, please operate as follows:

- Open the Screw Cap ( C )
- If reducing the pressure of water supply, unscrew the pressure to adjust the screw ( B )
- If increasing the pressure of water supply, screw down the pressure to adjust the screw ( B )

When the system needs to be filled with water at first, rest the handle ( A ) of filled-water. Then the handle ( A ) can return (close) when the system is full of water.

Automatic filled-water valve needs periodic cleaning. When you must close the tap, unscrew the plug ( D ), remove the inside filter net. Reassemble after cleaning.

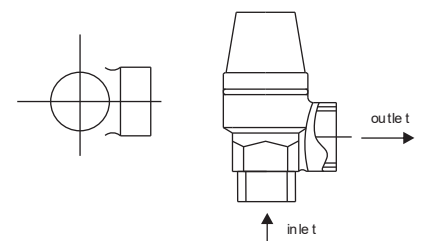
**NOTE:** There are two connections for water pressure meters in the central section of automatic filled-water, where the water pressure meter can be connected directly and display the set pressure. The screw cap ( C ) must be tweaked after adjusting the filled-water pressure.



### 7.4 Leakage Pressure Valve

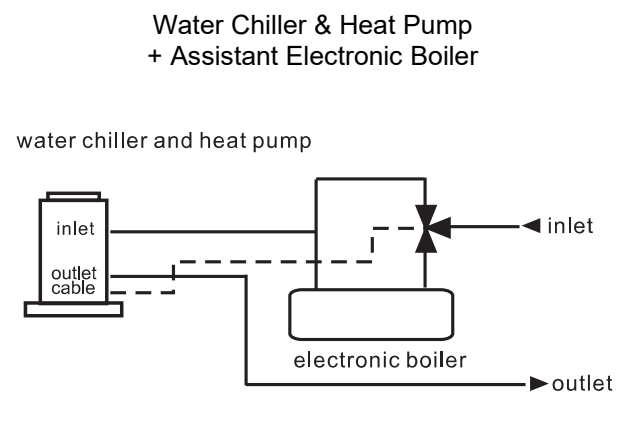
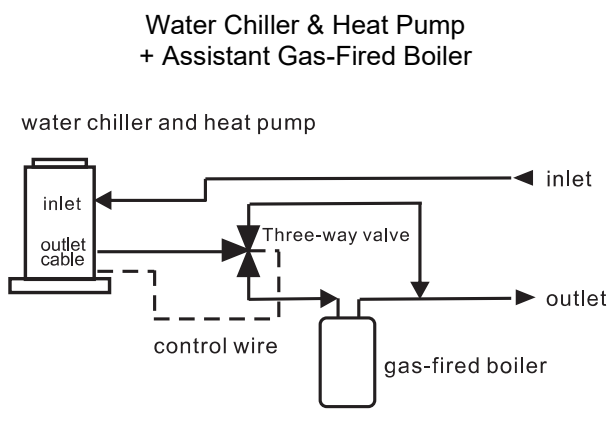
The action pressure of the leakage pressure valve is more than 3bar (valve is open), but the pressure cannot be adjusted.

The valve will open automatically to make sure that the water loop of air-con system is safe when the water pressure in the backwater side is higher than the set pressure.



### 7.5 Assistant Heat Source Connection

Unit provides the connection of assistant heat-source, which can be not only be for a gas fired boiler, but also for an electronic boiler or warm-net pipe for city accordingly.

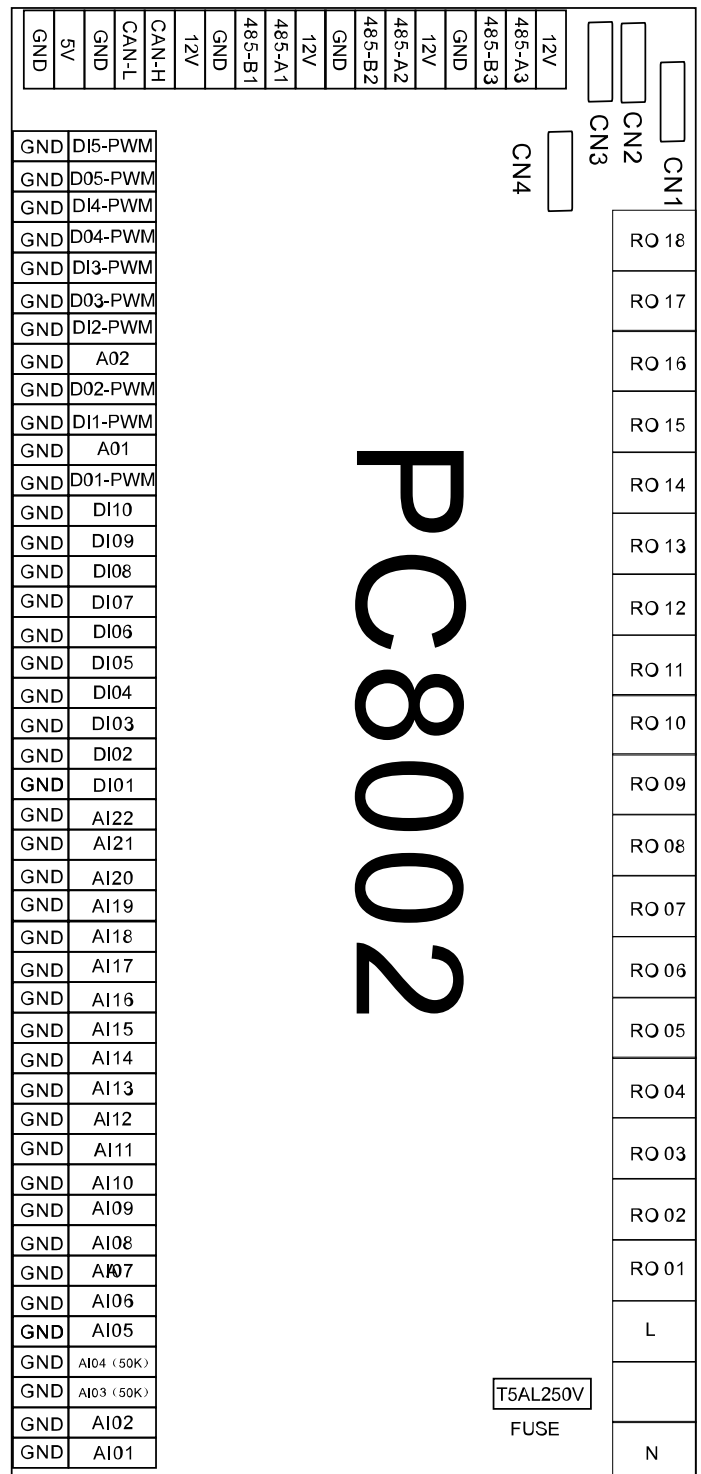


### 7.6 Cable Specifications

Nameplate maximum current	Phase line (Single Phase)	Phase Line (Three Phase)	Earth line	MCB	Creepage Protector	Signal Line
No more than 10A	2 x 1.5mm <sup>2</sup>	3 x 1.5mm <sup>2</sup>	1.5mm <sup>2</sup>	20A	30mA less than 0.1 sec	n x 0.5mm <sup>2</sup>
10~16A	2 x 2.5mm <sup>2</sup>	3 x 2.5mm <sup>2</sup>	2.5mm <sup>2</sup>	32A		
16~25A	2 x 4mm <sup>2</sup>	3 x 4mm <sup>2</sup>	4mm <sup>2</sup>	40A		
25~32A	2 x 6mm <sup>2</sup>	3 x 6mm <sup>2</sup>	6mm <sup>2</sup>	40A		
32~40A	2 x 10mm <sup>2</sup>	3 x 10mm <sup>2</sup>	10mm <sup>2</sup>	63A		
40~63A	2 x 16mm <sup>2</sup>	3 x 16mm <sup>2</sup>	16mm <sup>2</sup>	80A		
63~75A	2 x 25mm <sup>2</sup>	3 x 25mm <sup>2</sup>	25mm <sup>2</sup>	100A		
75~101A	2 x 25mm <sup>2</sup>	3 x 25mm <sup>2</sup>	25mm <sup>2</sup>	125A		
101~123A	2 x 35mm <sup>2</sup>	3 x 35mm <sup>2</sup>	35mm <sup>2</sup>	160A		
123~148A	2 x 50mm <sup>2</sup>	3 x 50mm <sup>2</sup>	50mm <sup>2</sup>	225A		
148~186A	2 x 70mm <sup>2</sup>	3 x 70mm <sup>2</sup>	70mm <sup>2</sup>	250A		
186~224A	2 x 95mm <sup>2</sup>	3 x 95mm <sup>2</sup>	95mm <sup>2</sup>	280A		

### 7.7 Controller Interface Diagram

No.	Sign	Meaning
01	RO 01	Compressor (output 220-230VAC)
02	RO 02	Water Pump (output 220-230VAC)
03	RO 03	4-way valve (output 220-230VAC)
04	RO 04	Fan (output 220-230VAC)
05	RO 05	Reserved
06	RO 06	Anti-freezing heater (output 220-230VAC)
07	RO 07	Crankshaft Heater (output 220-230VAC)
08	RO 08	Spray Valve (output 220-230VAC)
09	RO 09	Electric Auxiliary Heater (output 220-230VAC)
10	RO 10	Reserved
12	RO 11	Alarm (output 220-230VAC)
12	RO 12	Hot Water Pump
13	RO 13	Electromagnetic three-way valve
14	RO 14~RO18	Reserved
15	AC-L	Live Wire (output 220-230VAC)
16	AC-N	Neutral Wire (output 220-230VAC)
17	AI01	Water Inlet Temperature (input)
18	AI02	Water output temperature (input)
19	AI03	System exhaust temperature (input)
20	AI04	Reserved
21	AI05	System suction temperature (input)
22	AI06	System coil temperature (input)
23	AI07	Ambient temperature (input)
24	AI08	Water tank temperature (input)
25	AI09-AI20	Reserved
26	AI21	Suction pressure input
27	AI22	Exhaust pressure input
28	DI01	System high pressure (input)
29	DI02	System low pressure (input)
30	DI03	Water flow switch (input)
31	DI04	Emergency switch (input)
32	DI05	Mode switch (input)
33	DI06	Master-slave machine switch (input)
34	DI07	Electric heating overload protection switch (input)
35	485_A1	Frequency Conversion Board Communications
36	485_B1	Frequency Conversion Board Communications
37	485_A2	Communicate with wire controller and DC fan module
38	485_B2	Communicate with wire controller and DC fan module
39	485_A3	Reserved
40	485_B3	Reserved
41	12V	12V (output)
42	5V	5V (output)
43	CN1	Electronic expansion valve
44	CN2-CN4	Reserved



## 8. Maintenance



### DO I NEED TO GET MY UNIT SERVICED?

It is recommended that you get your EvoHeat unit serviced once a year by your local certified air conditioning or refrigeration technician. If your unit is located in a coastal area, more frequent maintenance may be necessary. During the service, they will check the operational pressures of the refrigeration system and give the unit and fins a good clean to ensure maximum performance.



### DO WE HAVE RECOMMENDED SERVICE AGENTS?

EvoHeat have a large database of recommended service agents. Please contact EvoHeat tech support on 1300 859 933 for your local service agent details.



### SHOULD I CHECK MY UNIT REGULARLY?

We recommend you check your unit regularly to avoid potential issues and damage to your heat pump.

Check the water inlet/outlets often for leaks. You should avoid the condition of no water or air entering into the system, as this will influence unit's performance and reliability.

The area around the unit should be dry, clean and well ventilated. Make sure there is nothing blocking the airflow of the heater e.g. Leaf litter. Clean the heat exchanger every few months to keep a good heat exchange rate and save energy.



### WHAT SHOULD I BE CHECKING REGULARLY?

You should discharge the water at the bottom of the water pump if the unit will not be used for an extended period. Discharge all water in the water pump and water system so that freezing of the water in the pump or water system does not occur. Check the unit thoroughly and fill the system with water fully before using it for the first time after a period of time.

Check the power supply and cable connection often, should the unit begin to operate abnormally, switch it off and contact the qualified technician

Clean the water filter periodically to maintain good water quality. Lack of water and dirty water can damage the unit. The heat pump will start the water every 72 hours when it is not running to avoid freezing.

The water loop of the heat pump MUST be protected from freezing in winter. Do not shut off the power supply to the heat pump in winter. When the air temperature is below 0°C, if the inlet water temperature is above 2°C and below 4°C the water pump will begin freezing protection. If the inlet water is lower than 2°C, the heat pump will begin heating.



## 9. Warranty



### Refer to the EvoHeat website for warranty details

Australia:

<https://evoheat.com.au/warranty-terms/>

## REGISTER YOUR WARRANTY



EvoHeat highly recommend customers complete their warranty details online to ensure efficient warranty claim processing. To register your warranty, scan our QR Code or head to our website and fill in the Warranty Registration Form: <https://evoheat.com.au/warranty-registration/>

1. Warranty terms are from date of purchase.
2. This warranty excludes any defect or injury caused by or resulting from misuse, abuse, neglect, accidental damage, improper voltage, vermin infestation, incompetent installation, any fault not attributable to faulty manufacture or parts, any modifications which affect the reliability or performance of the unit.
3. This warranty does not cover the following:
  - a) Natural Disasters (hail, lightening, flood, fire etc.)
  - b) Damage resulting from any animal or creature (including vermin, reptiles and insects)
  - c) Rust or damage to exterior coatings, materials, and cabinet caused by corrosive atmosphere or weather/environmental conditions.
  - d) When serviced by an unauthorised person without the permission of Evo Industries.
  - e) When a unit is installed by an unqualified person.
  - f) When failure occurs due to improper or incorrect installation.
  - g) Where failure occurs due to failure of any other equipment connected in relation with the EvoHeat unit (e.g. power supply, water pump etc.).
  - h) Where failure occurs due to improper maintenance or misuse (refer Operating Instructions).
  - i) Where the unit has not had its three-year general maintenance service performed by a certified plumber. Proof of this service will be required for warranty claims beyond three years.
  - j) 'No Fault Found' service calls where the perceived problem is explained within the operation instructions.
  - k) Costs associated with delivery, handling, freighting, or damage to the product in transit.
  - l) Where the unit has been relocated from its originally installed location.
4. If warranty service is required, you should:
  - a) Contact Evo Industries Australia on 1300 859 933 or via our Contact page on our website.
  - b) Provide a copy of your receipt as proof of purchase.
  - c) Have completed the online Service Request Form via the website [www.evoheat.com.au/service-request/](http://www.evoheat.com.au/service-request/)
5. Onsite technical service is available within the normal operating area of your Evo Authorised Service Agents. Service outside this area will incur a traveling fee.
6. Unless otherwise specified to the purchaser, the benefits conferred by this express warranty and additional to all other conditions, warranties, rights and remedies expressed or implied by the Trade Practices Act 1974 and similar consumer protection provisions contained in legislation of the States and Territories and all other obligations and liabilities on the part of the manufacturer or supplier and nothing contained herein shall restrict or modify such rights, remedies, obligations or liabilities.