12.4 Error codes

When a safety device is activated, an error code(which does't include external failure) will be displayed on the user interface.
A list of all errors and corrective actions can be found in the table below.
Reset the safety by turning the unit OFF and back ON.
In case this procedure for resetting the safety is not successful, contact your local dealer.

Fault number	Fault name	Failure analysis	Diagnosis method	Solution
P01	Water flow protection	1. Lack of water in water system. 2. Water flow switch is fault. 3. Water system is blocked.	1. Check whether the valve of water replenishing is off. 2. Check whether the water flows witch is damage. 3. Check whether the Y shape filter is blocked.	1. Open the valve. 2. Change the water flows witch. 3. Clean or change the filternet.
P02	High pressure protection	1. Water flow is over low. 2. High pressure switch is fault. 3. Refrigerant system is blocked. 4. EXV is locked.	1. Check whether there is water shortage or insufficient pump flow; 2. Check whether the highpressure switch is damage. 3. Check whether the refrigerant system is blocked. 4. Check whether there is EXV reset sound when the unit is standby, and power on or off.	1. Refill water or Add an additional water pump. 2. Change high pressure switch. 3. Change the filter of refrigerant system. 4.Change the EXV.
P03	Low pressure protection	1. Lack of refrigerant. 2. Refrigerant system is blocked 3. The unit is not running in regulations operating condition.	1. Check whether the refrigerant system is leakage. 2. Check whether the filter in refrigerant system is blocked. 3. Check whether the outdoor ambient and the inlet water temperature is normal.	1. Repair the leakage point. 2. Change the filter of refrigerant system. 3. If the ambient temperature and water temperature is too high or low,the unit will stop.
P04	Condenser temperature over-heat protection	1. Airflow of outdoor fan is insufficient. 2. Condenser is too dirty. 3. The temperature sensor (T3) is fault.	1. Check whether there is any obstacle which is preventing the airflow. 2. Check whether the condenser is too dirty. 3. Check whether the condenser pipe temperature sensor(T3) is normal.	1. Clean the vents 2. Clean the condenser. 3. Replace the temperature sensor.
P05	Discharge temperature protection	1. Lack of refrigerant. 2. Discharge temperature sensor is fault.	1. Check whether the refrigerant system is leakage. 2. Check whether the discharge temperature sensor is normal.	1. Repair the leakage point. 2. Replace the temperature sensor
P06	Anti-freezing protection of leaving water	1. Water flow is too low. 2. Heat-exchanger is blocked. 3. Y shape filter in water system is blocked. 4. Load is too low.	1. Check whether there is some air in water circuit system. 2. Check whether the heat-exchanger is blocked. 3. Check whether the Y shape filter is blocked. 4. Check whether the water circuit system is reasonable.	1. If there is a problem with the drain valve, replace it with a new one; 2. Blow the plate heat exchanger with water or high-pressure gas in the opposite direction for cleaning; 3. Clean the filter; 4. The water circulation system must have a shunt.
P07	Anti-freezing protection of condenser pipe	1. Lack of refrigerant. 2. Water circuit system is blocked. 3. Refrigerant system is blocked.	1. Check for leaks in the system; 2. Check whether Y shape filter is blocked. 3. Check whether filter in refrigerant system is blocked.	1. Repair the leakage point. 2. Clean the filter. 3. Replace the filter.
P08	Middle pressure protection	Middle pressure switch off	Check whether the middle pressure switch is open circuit, when turn off the unit.	Replace the middle pressure switch.
P10	Low pressure sensor protection	1. Lack of refrigerant; 2. The refrigeration system is blocked; 3. Exceeding the scope of system work.	1. Check whether the system is leaking; 2. Check if the filter net is blocked; 3. Check whether the ambient temperature or water temperature exceeds the limit.	1. Repair the leak and refill the refrigerant; 2. Replace the filter; 3. Exceed the system working limit, can't run
P11	DC fan 1 failure	1. The fan is faulty or stuck; 2. The main control board is faulty	1. Check whether the fan is stuck, or replace with a new fan; 2. Replace the main control board	1. Check if the fan is stuck, or replace with a new fan; 2. Replace the main control board

Fault number	Fault name	Failure analysis	Diagnosis method	Solution
P13	4-way valve fault	1. Entering/leaving water temperature sensors are reversely inserted. 2. 4-way valve is fault. 3. PCB is fault.	1. Check whether the entering and leaving temperature sensors are reversely inserted. 2. Check whether action of 4-way valve is normal. 3. Check whether the sample temperature of motherboard is accurate	1. Correct the wrong place; 2. Try to switch repeatedly to see if it works, if not, replace it; 3. If it is wrong, replace it;
P21	DC pump is abnormal	1. The water pump is faulty or stuck; 2. The system lacks water and is blocked; 3. Main control board failure	1. Check whether the water pump is blocked, or replace with a new water pump; 2. Check whether the system is short of water, whether it is blocked, and whether the valve is closed; 3. Replace the main control board	1. Check if the water pump is blocked, or replace with a new water pump; 2. Refill water or clean or replace the filter net and open the valve; 3. Replace the main control board
P25	Outlet pressure sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. The main control board is faulty;	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E01	Communication error of controller	1. The communication cable is disconnected; 2. The wire controller is faulty; 3. The main control board is faulty;	1. Check whether the communication cable is open or the plug is in poor contact; 2. Confirm whether the wire controller is normal on a normal machine; 3. Use a normal wire controller to confirm whether it is normal on the faulty machine;	1. Replace the communication cable or repair; 2. Replace the line controller; 3. Replace the main control board;
E02	TP exhaust temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. The main control board is faulty;	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E03	T3 coil temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board ailure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E04	T4 Ambient temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board failure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E05	T5 liquid pipe temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board failure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E06	TH return air temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board failure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;

Fault number	Fault name	Failure analysis	Diagnosis method	Solution
E07	TW water tank temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board failure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E08	T6 Inlet water temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board failure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E09	T7 outlet water temperature sensor failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. Main control board failure	1. Use a multimeter to check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E10	Communication failure between main control board and drive board	1. The communication cable is disconnected; 2. The main control board is faulty; 3. The drive module is faulty;	1. Check whether the communication cable is open or the plug is in poor contact; 2. Replace the main control board and confirm whether it is normal; 3. Replace the drive board and confirm whether it is normal;	1. Replace or repair the communication cable; 2. Replace the main control board; 3. Replace the drive module;
E13	Communication fault between main and auxiliary unit	1.Communication cable is disconnected. 2. The control board of the main unit is broken. 3. Failure of the auxiliary device control board.	1. Check that the communication cable is not broken or that the plug is connected. 2. Replace the control board of the main unit to confirm if it is correct. 3. Replace the control board of the auxiliary unit to confirm if it is correct	1. Replace or repair the communication cable. 2. Replace the control board of the main unit. 3. Replace the control board of the auxiliary device.
E14	Low pressure sensor LPS failure	1. The sensor connection line is open or short-circuited; 2. Sensor failure; 3. The main control board is faulty;	1. Check whether the sensor and connection are abnormal; 2. Replace the faulty sensor with a normal sensor to confirm whether it is normal; 3. Replace the main control board and confirm whether it is normal;	1. Repair the connecting wire and plug or replace the sensor; 2. Replace the motherboard;
E15	DC bus voltage is too low	Wiring error or IPM module failure Check whether the wiring is wrong, reconnect the cable or replace the IPM module		
E16	DC bus voltage is too high			
E17	AC current protection (input current)			
E18	IPM module is abnormal			
E19	PFC abnormal			

Fault number	Fault name	Failure analysis	Diagnosis method	Solution
E20	Compressor failed to start	Wiring error or IPM module failure Check whether the wiring is wrong, reconnect the cable or replace the IPM module		
E21	Compressor phase loss			
E22	IPM Module reset			
E23	Compressor over-current			
E24	PFC module temperature is too high			
E25	Current detection circuit failure			
E26	Out of step			
E27	PFC module temperature sensor is abnormal			
E28	Communication fail			
E29	IPM module temperature is too high			
E30	IPM module temperature sensor failure			
E31	Reserved			
E32	Reserved			
E33	Reserved			
E34	AC input voltage is abnormal			
E51	The built-in temperature sensor Tro of the wire controller is faulty	Wiring error or IPM module failure Check whether the wiring is wrong, reconnect the cable or replace the IPM module		
E49	TC error the final water temperature sensor			
E52	Zone 2 temperature sensor Tw2 error			
E53	Up temperature sensor TE1 of buffer tank error			
E54	Down temperature sensor TE2 of buffer tank error			
E50	Solar temperature sensor Tso error			
E56	outlet water pressure sensor PS1 error			
E35	Drive EEPR error			
E36	Power off reset			
E37	Reserved			
E38	Reserved			