TRUST
Air Conditioners

PACKAGE CHILLER

TRUST AIR CONDITIONING EQUIPMENT CO.
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Troubleshooting

1. Troubleshooting..... 2

توجه:

شرکت تراست حق تغییر مشخصات دستگاه ها را در جهت بهبود و ارتقای کیفیت برای خود محفوظ می دارد.

2009-09

1. Troubleshooting

1.1 Failure & Protection Codes of the Module

Code	Trouble
E0	Water-flow detection error (the third time)
E1	Power phases sequence failure
E2	Communication failure
E3	Total outlet water Temperature sensor failure
E4	Outlet water temperature sensor in double-pipe heat interchanger error
E5	Pipe temperature sensor in condenser A error
E6	Pipe temperature sensor in condenser B error
E7	Outdoor Temperature sensor failure
E8	Error of the Air Exhaust Temp. Sensor at Digital Compressor
E9	Water-flow check trouble(wire controller and control board can recover automatically when the trouble is displayed for the first and second times
EA	Main unit detect that auxiliary unit's quantity have decreased.
Eb	Freeze-proof temperature sensor 1 in double-pipe heat interchanger error
EC	Wire controller can not search the modules on line
ED	Wire control and module unit communication error
Ed	1-hour consecutive 4-times PE protection
EE	Wire control and computer communication error
EF	Inlet water temperature sensor error
P0	System A high-pressure protection or discharge gas Temperature protection
P1	System A low-pressure protection
P2	System B high-pressure protection or discharge gas Temperature protection
P3	System B low-pressure protection
P4	System A current protection
P5	System B current protection
P6	System A Condenser high-Temperature protection
P7	System B Condenser high-Temperature protection
P8	Digital compressor discharge Temperature protection, when it is above 125℃
Pb	System anti-freeze protection
PE	Low-temperature protection of plate heat exchanger
F1	Wire controller failure
F2	Failure of reduction of wired controller number at parallel connection of multiple wired controller (reserved)

1.2 Troubles and Solutions

Troubles	Possible reasons	Solutions
High discharge pressure (Cooling)	Air or other gas enter the system	Discharge the gas from refrigerant charging hole, re-vacuuming if necessary
	Fins are dirty or jammed by some obstacles	Splash the fins of condenser
	The condenser wind flow is insufficient or motor fail	Check the condenser motor, repair it if necessary
	High suction pressure	Refer to the “high suction pressure” part.
	Refrigerant over-charged	Discharge the additional refrigerant
	High surrounding Temp	Measure the surrounding Temp
Low discharge pressure (Cooling)	Surrounding Temp. is lower	Measure the surrounding Temp
	Refrigerant leak or insufficient	Leak-hunting or recharging
	Low suction pressure	Refer to the “low suction pressure”
High suction pressure (Cooling)	Refrigerant over-charged	Discharge the additional refrigerant
	High Temp. of the inlet chilled-water	Check the heat insulation of water pipeline
Low suction pressure (Cooling)	Insufficient water flow	Measure the Temp difference between inlet and outlet water, adjust the water flow
	Low Temp. of inlet chilled-water	Check installation
	Refrigerant leak or insufficient	Leak-hunting or recharging
	Scaling in the evaporator	Descaling
High discharge pressure (Heating)	Water flow Insufficient	Measure the Temp difference between inlet and outlet water, adjust the water flow
	Air or other gas enter the system	Discharge the gas from refrigerant charging hole, re-vacuuming if necessary.
	Scaling in the waterside heat- exchanger	Descaling
	High Temp of outlet cooling water	Check the water Temp
	High suction pressure	Refer to “high suction pressure” part
Low discharge pressure (Heating)	Low Temp of cooling water	Check the Temp of cooling water
	Refrigerant leak or insufficient	Leak-hunting or recharging
	Low suction pressure	Refer to “low suction pressure” part
High suction pressure (Heating)	High surrounding Temp	Measure the surrounding Temp
	Refrigerant over-charged	Discharge the additional
Low suction pressure (Heating)	Refrigerant insufficient	Recharging
	Air flow insufficient	Check the running direction of the fan
	Short cycle of air flow	Find the reason which causes short cycle, then eliminate it
	Defrosting insufficient	Four-way valve or heat-sensitive resistance failure, replace them if necessary
Compressor stops by anti-freeze protection (Cooling)	Chilled-water insufficient	Failure of the water pump or water flow switch, maintain or replace them if necessary
	Air enters the water system	Discharge the air
	Failure of the heat-sensitive resistance	If failure confirmed, replace it.
Compressor stops by High-pressure protection	High discharge pressure	Refer to “high discharge pressure”
	High-pressure switch failure	If failure confirmed, maintain or replace it if necessary
Compressor stops by the overload protection	High-pressure both of discharge and suction	Refer to “high discharge pressure” or “low suction pressure” parts.
	High or low voltage, single phase or unbalance of the phases	Check the voltage which should never exceed or below 20V to the rating.
	Short circuit of the motor or terminals	Check the motor and the corresponding resistance of the terminals
	Over-load component failure	Replace it
Compressor stops by the inner Temp sensor or high discharge Temp protection.	High or low voltage	Check the voltage which should never exceed or below 20V to the rating.
	High discharge pressure or low suction pressure	Refer to “high discharge pressure” and “low suction pressure” parts.
	Components failure	Check the inner Temp sensor, when the motor is cool
Compressor stops by the low-pressure protection	Filter blocked before (or after) electric expansion valve	Replace filter
	Low-pressure switch failure	If failure is confirmed, replace it.
	Low suction pressure	Refer to “low suction pressure” part.
Abnormal noise caused by compressor	Compressor liquid pumping caused by the entrance of liquid refrigerant.	Adjust the refrigerant volume, check expansion valve and suction gas degree of superheat.
	Compressor aging	Replace compressor
Other abnormal noise	Panel bolt loosed	Fix all components
	Insufficient strength of the installation foundation.	Refer to “Unit installation” part
Compressor can’t start	Current relay open, burning the fuse.	Replace the invalid components
	Open circuit of the control wire	Check the control system connection
	High or low-pressure protection	Refer to the parts above about the failures caused by suction and discharge pressure
	Contactor wire burn out	Replace the invalid components
	Contactor wire burn out	Exchange any two of three phases with each other.
	Water system failure	Check water system
	Failure code displayed by the wire controller.	Confirm the type of failure and take the corresponding measure.
	“OFF” signal input of “ON/OFF” port	Check the “ON/OFF” port signal，it’s “ON” normally.
	Multiple connection failure of “ON/OFF” port when combination with several modules.	Check the “ON/OFF” port multiple connection wiring in every module, confirm the “red-to-red” and “blue to blue” correspondence
Air-side heat-exchanger over-frosted	Four-way valve or heat-sensitive resistance failure.	Short cycle of the air flow
	Short cycle of the air flow	Check the system; eliminate the failure causing short cycle.

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Air Conditioning Systems

Cooling & Heating

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