

9 Troubleshooting

9.1 Single phase unit

Error code display

Error code	Description	Error code	Description
E01	Communication fault between IDU and ODU	P0C	Current protection
E02	Zero cross detection fault of IDU	P1x	Bus voltage protection
E03	stall fault of indoor fan	P21	Low temperature dehumidification fault
E04	T2B (indoor coil outlet temp.) sensor fault	P22	High and low temp. protection of evaporator
E08	Mode conflict	P23	High temp. protection of condenser
E09	ODU EEPROM error	P24	High and low temp. protection of environment
E0E	IDU EEPROM error	P25	High discharge temperature of compressor
E11	IDU T1 (room temperature) sensor fault	P28	Abnormal discharge in commodity inspection mode (compressor reversal)
E12	IDU T2 (indoor coil middle temp.) sensor fault	P29	T3 abnormal in commodity inspection heating mode (System exception, 4-way valve disconnected)
E13	ODU T3 (outdoor coil outlet temp.) sensor fault	P30	High pressure protection
E14	ODU T4 (ambient temp.) sensor fault	P31	Low pressure protection
E15	ODU discharge temp. sensor fault	H1x	Compressor fault
E16	Module temp. sensor fault	H3x	PFC fault
E17	Suction temp. sensor fault	L01	Lower frequency because of voltage limit
E18	TZA sensor fault	L02	Lower frequency because of high or low temp. limit of evaporator
E19	TZB sensor fault	L03	Lower frequency because of high temp. limit of condenser
E2x	Fan motor fault	L05	Lower frequency because of high discharge temp. of compressor
		L06	Lower frequency because of module temperature limit
		L0C	Lower frequency because of current limit

Spot check table

Fr	Running frequency
FT	Target frequency
T1	Unit A T1
T2	Unit A T2
Sr	IDU A fan speed
Tb	IDU A T2B
AL	IDU A EXV opening degree
An	Capacity demand of IDU A
Hn	Amended total capacity demand
b1	Unit B T1
b2	Unit B T2
bb	Unit B T2B
bS	Unit B fan speed
bL	Unit B EXV opening degree
bn	Capacity demand of IDU B
TH	Suction temperature
T3	Outdoor unit pipe temperature
T4	Ambient temperature
TP	Discharge temperature
T6	IPM board temperature
od	Mode
dT	Outdoor load target state
CC	Quantity of IDU
Ud	DC voltage
dL	Current
Pr	Outdoor unit fan speed
Lr	Master EXV opening degree

Notice:

For single phase units, an additional maintenance controller is needed to show error codes and do spot check.

9.2 Three-phase unit

Error code display

Display	Definition of fault or protection	Remark
E1	Three-phase power phase sequence fault	
E2	Communication fault between the outdoor unit and themast	Communication is interrupted for more than 2 minutes 20minutes after the initial power-on or within 20 minutes
E4	Temperature sensor fault	
E6	Condenser pipe temperature sensor fault	
E9	AC over-voltage / under-voltage protection	
E10	EEPROM fault	
H0	Master chip and DSP communication fault	
H4	Display P6 protection for 3 times within 30 minutes	Unable to restore unless a second power-on
H5	Display P2 protection for 3 times within 30 minutes	Unable to restore unless a second power-on
H6	Display P4 protection for 3 times within 100 minutes	Unable to restore unless a second power-on
H9	Display P9 protection for 2 times within 10 minutes	Unable to restore unless a second power-on
H10	3 times of P3 protection occurs within 60 minutes	Unable to restore unless a second power-on
P1	High pressure protection	
P2	Low pressure protection	Display H5 after 3 times of P2 protection within 30 minutes
P3	Primary / secondary over current protection	
P4	Exhaust overheating protection	3 time of P4 protection appears within 100 minutes and then H6 occurs
P5	High pipe temperature protection	
P6	Module protection	3 times of P6 protection appears within 30 minutes and then H4 occurs
P9	DC fan fault	Display H9 after 2 times of P9 protection within 10 minutes
P10	Anti-typhoon protection	
P11	Refrigeration T2 overheating protection	
L0	DC compressor module fault	
L1	DC bus low voltage protection	
L2	DC bus high voltage protection	
L4	MCE fault / sync / closed loop	
L5	Zero speed protection	
L7	Phase sequence error protection	
L8	15Hz protection	

L9	Hz Protection	
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Spot check table

No.		Display content	Remark
0	Normal display	Current frequency / indoor unit amount	Display the starting amount when standby
1	1-	Outdoor unit local capacity	
2	2-	Total capacity demands of indoor unit	
3	3-	Total capacity demands after outdoor Unit	
4	4-	Operation mode	0: Power OFF / air supply;2: Cooling;3: Heating;4: Forced cooling
5	5-	Actual running ability of outdoor unit	
6	6-	Fan status	0-7
7	7-	T2/T2B on average	
8	8-	T3 pipe temperature	
9	9-	T4 environmental temperature	
10	10-	T5 exhaust temperature	
11	11-	Opening of the electronic expansion valve	Actual value = spot inspection display value x 8
12	12-	Primary side current	
13	13-	Secondary circuit current	
14	14-	Primary side voltage	
15	15-	Secondary side voltage	Actual value = spot inspection display value x 4
16	16-	Sets of indoor units	
17	17-	Number of working indoor units	
18	18-	Last fault or protection code	No protection or fault display
19	19-	Control parameter	---
20	20-	Control parameter	---
21	21-	---	Spot check over