5				Limit to the max operating frequency caused by	
3					
				too low power voltage	
6	*	*	*	Operation at fixed frequency (in the case of	
				capability measuring or compulsory operation at	
				fixed frequency)	
7	О	×	×	Protective frequency decreasing against outdoor	
				overload (overpower, over frequency conversion	
				rate, over torque, detection of DC under-voltage)	
8	*	×	×	Frequency decreasing caused by indoor and	
				outdoor communication fault	
9	×	*	О	Frequency decreasing or prohibition of	
				frequency rising protection against overload of	
				outdoor coiled pipe	
10	×	*	×	Frequency decreasing or prohibition of	
				frequency rising for power-saving when it is	
				being used simultaneously with other appliances	

## 2.Indication by the indoor unit:

2.1. The 7-segment tube of the indoor display board will show the error code automatically when the unit has the following trouble:

Error	Power	Timer	Running	Sleep	Remark: ★Light	o Flas	h x OFF
code	1	2	3	4	Content	Remark	The root cause is may be
	I	2	2   3	4	Content	Remark	one of the following
					the error code		a. The connection between
					will display when		the
					the		display board and control
EA					communication		board is loose;
					between display		b. The indoor control board
					board and		is failure.
					control board		c.The wiring of the display
					have in trouble		board is failure.

2.2.When the unit has the following trouble and the compressor stops running, press the sleep button on the remote controller for 10 times in ten seconds and the 7-segment tube of the display board will show the error code as the following, if two malfunction happened at the same time, it need press the sleep button for 10 times again, the LED will show the other error code.

Refer to the remote controller which the sleep key can set into 4 different combination ways (Hisense's new design remote controller), when using to check the error codes only takes effect for pressing the sleep key 10 times in ten seconds instead of 4 times.

NOTE: If the troubleshooting inquiry display by 7-segment tube, then the error code will be displayed, otherwise only the LED of the display board can show.

Error	Running	Timer	Sleep	Power	Remark: <b>★Ligh</b>	nt o Fla	ash x OFF
code	1	2	3	4	Content	Remark	The root cause is may be one of the following
0					Normal		

1					Т	<del>_</del> ,
1	x	0	X	х	The failure for temperature sensor of outdoor coil	<ul> <li>a. The outdoor temperature sensor loose;</li> <li>b. The outdoor temperature sensor is failure;</li> <li>c. The indoor control board is failure</li> </ul>
2	×	0	*	×	Compressor exhaust temperature sensor in trouble	<ul> <li>a.the compressor exhaust temperature sensor connect loose;</li> <li>b.the compressor exhaust temperature sensor is failure;</li> <li>c.the outdoor control board is failure</li> </ul>
5	*	O	×	×	IPM module protection	<ul> <li>a.The IPM board is failure;</li> <li>b.The outdoor fan is broken;</li> <li>c.The outdoor fan motor is failure;</li> <li>d.The outdoor fan has been blocked;</li> <li>e.The condenser is dirty;</li> <li>f.The outdoor unit has been installed without standard.</li> </ul>
6	*	О	×	*	AC voltage higher or lower protection	<ul><li>a.the supply voltage is higher or lower than normal;</li><li>b.the inner supply voltage of the unit is higher or lower than normal</li></ul>
7	*	O	*	×	Communication failure between the indoor unit and outdoor unit	a.the communication cable connect loose; b.the communication cable is failure; c.the connection between the filter board and the outdoor control board is incorrect or loose; d.the connection between the filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; h.the outdoor control board is failure.
8	*	О	*	*	Current overload protection	<ul><li>a.the fan motor run abnormally;</li><li>b.the condensor and evaporator is dirty;</li><li>c.the air inlet and outlet is</li></ul>

						abnormally
9	×	×	О	×	Maximum current protection	<ul> <li>a.the outdoor control board is short circuit;</li> <li>b.the drive board is short circuit;</li> <li>c.the other components is short circuit</li> </ul>
10	×	×	О	*	Communication trouble between outdoor unit and driver	<ul><li>a. the connection wires connect loose</li><li>b.the outdoor board or drive board is failure;</li></ul>
11	×	*	О	×	Outdoor EEPROM in trouble	<ul><li>a.the EEPROM chip is loose;</li><li>b.the EEPROM chip inserted with opposite direction;</li><li>c.the EEPROM chip is failure</li></ul>
12	×	*	О	*	Outdoor ambient temperature too low protection	Outdoor ambient temperature too low
13	*	×	О	×	Compressor exhaust temperature too high protection	<ul><li>a.the compressor exhaust temperature sensor is failure;</li><li>b.the refrigerant of the unit is not enough</li></ul>
14	*	×	O	*	Outdoor ambient temperature sensor in trouble	<ul> <li>a.the outdoor ambient</li> <li>temperature sensor connect</li> <li>loose;</li> <li>b.the outdoor ambient</li> <li>temperature sensor is failure;</li> <li>c.the outdoor control board is failure</li> </ul>
15	*	*	О	×	Compressor shell temperature too high protection	<ul><li>a.the compressor exhaust temperature sensor connect loose</li><li>b.the refrigerant of the unit is not enough</li></ul>
16					Anti-freeze protection with cooling or overload protection with heating in	<ul> <li>a.the indoor coil temperature sensor connect loose;</li> <li>b.the indoor coil temperature sensor is failure;</li> <li>c.the indoor control board is failure</li> <li>d. the refrigerant system is abnormal.</li> </ul>

1	1				1	
17					DEC protection	a.the PFC is failure;
17					PFC protection	<b>b.</b> the outdoor drive board is failure
						a.the outdoor drive board is
18					DC compressor	
10					start failure	failure;
						b.the compressor is failure  a.the outdoor drive board is
	×	×	×	О		
19					Compressor	failure; <b>b.</b> the compressor is failure
19					drive in trouble	<b>c.</b> the outdoor control board is
						failure
				O		a.the connection of the outdoor
	*	×	×			
					Outdoor fan	fan motor is loose;
20						<b>b.</b> there are something block the
20					motor locked	outdoor fan;
					rotor protection	c.the fan motor is failure;
						<b>d.</b> the outdoor control board is
						failure
						<ul><li>a.the refrigerant is too much;</li><li>b.the outdoor fan motor is</li></ul>
					Outdoor coil	
					anti-overload	failure;
21						c.the outdoor fan is broken;
					protection with	d.the condensor is dirty;
					cooling	e.the air inlet and air outlet of
						the indoor unit and the outdoor
					Compressor	unit is not normally
22					Compressor	it is normal mode in cold
22					pre heating	weather
					process	
24					Chip in outdoor	a. Using the wrong drive board;
24					board in trouble	b.Using the wrong compressor.
						<b>a.</b> Radiator sensor fails
					Overheated	<b>b.</b> Detection circuit of the
26					outdoor radiator	sensor on the control panel
					Juliuooi Taulatoi	fails
						a. The pressure switch
						fails
					Protection	b. The pressure detection
					against too high	switch on the control panel
27					system	fails
					pressure	c. The measured value of
					1	system pressure exceeds
						the limit
					The failure for	a. The indoor room
					temperature	temperature sensor loose;
33	0	X	X	*	sensor of	b. The indoor room
					indoor room	temperature sensor is
L	I	<u> </u>	<u> </u>	<u> </u>		toporataro concor lo

Section   Sect	1			1			foil
Second Control board is failure;   Second Control							
The failure for temperature sensor loose;  A x x x x x x x x x x x x x x x x x x							
34							
34						The failure for	-
Sensor of indoor coil temperature  O  A  X  X  Sensor of indoor coil temperature  a.the communication cable connect loose; b.the communication cable is failure; c. the connection between the filter board and the outdoor control board is incorrect or loose; d.the connection between the filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; f.the PFC board is failure; f.the pFC board is failure; h.the outdoor control board is failure.  Indoor failure  Indoor failure  The failure  The failure for loose; c. The indoor control board is failure; f.the connection between the filter board and the terminal is incorrect or loose; e. the indoor control board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure c. The failure for loose; f. The failure for loose; c. The fan motor cord connect loose; c. The fan motor control board is failure The indoor control board is failure The indoor control board is failure The indoor control board is failure						temperature	
Indoor coil temperature   C. The indoor control board is failure.	34	О	x	*	x	sensor of	·
temperature    Salure   Salure						indoor coil	· ·
a.the communication cable connect loose; b.the communication cable is failure; c.the connection between the filter board and the outdoor control board is incorrect or loose; d.the connection between the filter board and the outdoor control board is incorrect or loose; d.the connection between the filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PPC board is failure; g.the power board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure   The failure for Indoor grounding  The indoor control board is failure						temperature	
connect loose; b.the communication cable is failure; c.the connection between the filter board and the outdoor control board is incorrect or loose; the indoor unit and outdoor unit incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; f.the power board is failure; h.the outdoor control board is failure; h.the outdoor control board is failure  Indoor EEPROM failure  a. The EEPROM chip loose; b. The indoor control board is failure a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor cord connect loose; d. The fan motor cord connect loose; The findoor fan motor; b. The fan motor cord connect loose; c. The fan motor cord connect loose; d. The indoor control board is failure  The failure for lindoor grounding  The indoor control board is failure			<b>A</b>				
b.the communication cable is failure; c.the connection between the filter board and the outdoor control board and the outdoor control board is incorrect or loose; the indoor unit and outdoor unit incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; h.the outdoor control board is failure; h.the outdoor control board is failure; h.the outdoor control board is failure a. The EEPROM chip loose; b. The indoor control board is failure a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor cord connect loose; d. The fan motor ord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The indoor control board is failure  The failure for lodoor grounding  The indoor control board is failure		O	*	×	*		
failure; c.the connection between the filter board and the outdoor control board is incorrect or loose; the indoor unit and outdoor unit  and outdoor unit  and outdoor unit  between the indoor unit and outdoor unit  and outdoor unit  and outdoor unit  between the filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure  The indoor control board is failure							· ·
C.the connection between the filter board and the outdoor control board is incorrect or loose; the indoor unit and outdoor unit incorrect or loose; the indoor control board is failure; the PFC board is failure; the pFC board is failure; the power board is failure.  Indoor  Indoor  Indoor fan failure  Indoor fan motor control board is failure  Indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure							
36   Communication failure between the indoor unit and outdoor unit incorrect or loose;    4							
Communication failure between the indoor unit and outdoor unit and outdoor unit and outdoor unit and outdoor unit  Bilder between the indoor unit and outdoor unit  Bilder board and the terminal is incorrect or loose;  Bilder board and the terminal is incorrect or loose;  Bilder board is failure;  Bilder board is failure;  Bilder board is failure;  Bilder board is failure;  Bilder Bilder board is failure;  Bilder							
failure between the indoor unit and outdoor unit incorrect or loose;  e.the indoor control board is failure; f.the PFC board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure  The indoor control board is failure						Communication	
the indoor unit and outdoor unit and outdoor unit and outdoor unit    Columbia   Columbi							
and outdoor unit  filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure	26						i i
unit  unit  incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure	30						
e.the indoor control board is failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure							
failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.  Indoor  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure						unit	·
f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.  Indoor a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure							
g.the power board is failure; h.the outdoor control board is failure.  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure   The failure for Indoor grounding  The indoor control board is failure							
h.the outdoor control board is failure.  Indoor  a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure							
failure.    Society of the indoor control board is failure   Society of the indoor control board is failure							1 - 1
38 o ★ ★ ★ EEPROM   a. The EEPROM chip loose; b. The indoor control board is failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  41 ★ ★ o ★ Indoor grounding  The failure for Indoor grounding  The indoor control board is failure							
38  o ★ ★ ★ EEPROM failure  a. There are something block the indoor fan motor;  b. The failure  a. There are something block the indoor fan motor;  b. The fan motor cord connect loose;  c. The fan motor is failure;  d. The indoor control board is failure   **The failure for Indoor grounding  The indoor control board is failure						Indoor	
failure  failure  failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  failure  failure  a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure	38	О	*	*	*		-
a. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for lndoor grounding  The indoor control board is failure							failure
the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  the indoor fan motor; b. The fan motor cord connect loose; The fan motor is failure; The failure  The indoor control board is failure							
39 o x ★							
abnormally  c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure						Indoor fan	·
abnormally  c. The fan motor is failure; d. The indoor control board is failure  The failure for Indoor grounding  The indoor control board is failure	39	О	x	*	*	motor run	loose;
41 ★ o ★ Indoor grounding failure  failure  The failure for Indoor grounding failure						abnormally	c. The fan motor is failure;
The failure for Indoor grounding  The indoor control board is failure							d. The indoor control board is
41 ★ o ★ Indoor grounding The indoor control board is failure							failure
41						The failure for	
grounding failure	1,1	_	_		_	Indoor	The indoor control board is
protective	4	<b>*</b>	_		*	grounding	failure
						protective	

## 2.2 LED display

Error	Sleep	Timer	Running	Remark: <b>★Ligh</b>	t O Fla	ash x OFF
code	1	2	3	Content	Remark	The root cause is may be one of the following
0				Normal		

1					
1	О	*	*	The failure for temperature sensor of outdoor coil	<ul><li>d. The outdoor temperature sensor loose;</li><li>e. The outdoor temperature sensor is failure;</li><li>f. The indoor control board is failure</li></ul>
2	O	*	х	Compressor exhaust temperature sensor in trouble	<ul> <li>a.the compressor exhaust temperature sensor connect loose;</li> <li>b.the compressor exhaust temperature sensor is failure;</li> <li>c.the outdoor control board is failure</li> </ul>
5	*	O	x	IPM module protection	<ul> <li>a.The IPM board is failure;</li> <li>b.The outdoor fan is broken;</li> <li>c.The outdoor fan motor is failure;</li> <li>d.The outdoor fan has been blocked;</li> <li>e.The condenser is dirty;</li> <li>f.The outdoor unit has been installed without standard.</li> </ul>
6	x	O	х	AC voltage higher or lower protection	<ul><li>a.the supply voltage is higher or lower than normal;</li><li>b.the inner supply voltage of the unit is higher or lower than normal</li></ul>
7	*	*	X	Communication failure between the indoor unit and outdoor unit	a.the communication cable connect loose; b.the communication cable is failure; c.the connection between the filter board and the outdoor control board is incorrect or loose; d.the connection between the filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.
8		_		Current overload protection	<ul> <li>a.the fan motor run abnormally;</li> <li>b.the condensor and evaporator is dirty;</li> <li>c.the air inlet and outlet is abnormally</li> </ul>
9				Maximum current protection	<ul><li>a.the outdoor control board is short circuit;</li><li>b.the drive board is short circuit;</li><li>c.the other components is short</li></ul>

					circuit
10	*	х	x	Communication trouble between outdoor unit and driver	<ul><li>a. the connection wires connect loose</li><li>b.the outdoor board or drive board is failure;</li></ul>
11	0	х	х	Outdoor EEPROM in trouble	<ul><li>a.the EEPROM chip is loose;</li><li>b.the EEPROM chip inserted with opposite direction;</li><li>c.the EEPROM chip is failure</li></ul>
12				Outdoor ambient temperature too low protection	Outdoor ambient temperature too low
13	O	x	*	Compressor exhaust temperature too high protection	<ul><li>a.the compressor exhaust temperature sensor is failure;</li><li>b.the refrigerant of the unit is not enough</li></ul>
14	*	*	O	Outdoor ambient temperature sensor in trouble	<ul> <li>a.the outdoor ambient temperature sensor connect loose;</li> <li>b.the outdoor ambient temperature sensor is failure;</li> <li>c.the outdoor control board is failure</li> </ul>
15	x	О	*	Compressor shell temperature too high protection	<ul><li>a.the compressor exhaust</li><li>temperature sensor connect loose</li><li>b.the refrigerant of the unit is not enough</li></ul>
16	*	x	*	Anti-freeze protection with cooling or overload protection with heating in	<ul> <li>a.the indoor coil temperature sensor connect loose;</li> <li>b.the indoor coil temperature sensor is failure;</li> <li>c.the indoor control board is failure</li> <li>d. the refrigerant system is abnormal.</li> </ul>
17	x	*	x	PFC protection	<ul><li>a.the PFC is failure;</li><li>b.the outdoor drive board is failure</li></ul>
18	x	*	*	DC compressor start failure	<ul><li>a.the outdoor drive board is failure;</li><li>b.the compressor is failure</li></ul>

1		*	О		a.the outdoor drive board is failure;
10	X			Compressor	<b>b.</b> the compressor is failure
19				drive in trouble	c. the outdoor control board is
			_		failure
	<b>*</b>	X	0		a.the connection of the outdoor fan
				Outdoor fan	motor is loose; <b>b.</b> there are something block the
20				motor locked	outdoor fan;
				rotor protection	c.the fan motor is failure;
					<b>d.</b> the outdoor control board is
					failure
					<ul><li>a.the refrigerant is too much;</li><li>b.the outdoor fan motor is failure;</li></ul>
				Outdoor coil	c.the outdoor fan is broken;
21	x	X	O	anti-overload	<b>d.</b> the condensor is dirty;
				protection with cooling	e.the air inlet and air outlet of the
				Cooming	indoor unit and the outdoor unit is
				Compressor	not normally
22				Compressor pre heating	it is normal mode in cold weather
				process	
				Chip in outdoor	a. Using the wrong drive board;
24				board in trouble	b.Using the wrong compressor.
					a. Radiator sensor fails
0.6				Overheated	<b>b.</b> Detection circuit of the
26				outdoor radiator	sensor on the control panel
					fails
				Protection	a. The pressure detection switch
				against too high	b. The pressure detection switch on the control panel fails
27				system	c. The measured value of
				pressure	system pressure exceeds the
					limit
				T. 6 ". 6	d. The indoor room temperature
				The failure for temperature	sensor loose; e. The indoor room temperature
33	*	О	0	sensor of	sensor is failure;
				indoor room	f. The indoor control board is
					failure.
				The failure for	d. The indoor coil temperature
				temperature	sensor loose; e. The indoor coil temperature
34	x	О	О	sensor of	e. The indoor coil temperature sensor is failure;
				indoor coil	f. The indoor control board is
				temperature	failure.
36	О	*	О	Communication	<b>a.</b> the communication cable connect
				failure between	loose;

				the indoor unit and outdoor unit	b.the communication cable is failure; c.the connection between the filter board and the outdoor control board is incorrect or loose; d.the connection between the filter board and the terminal is incorrect or loose; e.the indoor control board is failure; f.the PFC board is failure; g.the power board is failure; h.the outdoor control board is failure.
38	О	О	x	Indoor EEPROM failure	<ul><li>c. The EEPROM chip loose;</li><li>d. The indoor control board is failure</li></ul>
39	0	О	*	Indoor fan motor run abnormally	b. There are something block the indoor fan motor; b. The fan motor cord connect loose; c. The fan motor is failure; d. The indoor control board is failure
41	x	x	*	The failure for Indoor grounding protective	The indoor control board is failure

The failure is detected when the room temperature sensor broken or shorted over 5 sec.

The failure is detected when the temperature sensor of heater exchange broken or shorted over 5 sec.

The failure is detected when each setting data is not match after the EEPPOM self-check two times.

The failure is occur when the grounding signal is not detected after the appliance power ON.