compressor's current operating frequency.

| Symbols for indicator light:: ★: ON O: flashing ×: OFF | | | | |
|---|---|---|---|---|
| | LED1 | LED2 | LED3 | The cause of the restriction on the compressor's current operating frequency |
| 1 | O | O | O | Normal frequency ascent and descent with no restriction on the frequency |
| 2 | × | × | ★ | Frequency descent or restriction on frequency ascent caused by overcurrent |
| 3 | × | ★ | ★ | Frequency descent or restriction on frequency ascent caused by anti-freeze in cooling or overload control in heating |
| 4 | ★ | × | ★ | Frequency descent or restriction on frequency ascent caused by too high compressor discharge temperature |
| 5 | × | ★ | × | Restriction on maximum operation operating frequency caused by too low voltage on the supply circuit |
| 6 | ★ | ★ | ★ | Operating at a fixed frequency (when in a capacity measurement or forced operation at a fixed frequency.) |
| 8 | ★ | × | × | Communication frequency drops. |

**3.12 Special notes**

3.12.1 The outdoor unit of this model is electrified by the indoor unit control. After the system starts to operate, the indoor unit supplies the outdoor unit (except for the ventilation mode). If the EEPROM data is read correctly after turning on the power, the indoor unit's beeper rings one time, or if it is not the case the beeper will ring two times and the system cannot be started. Normally, when the indoor unit receives a control signal from the remote controller and emergency button, the system will be started and the beeper will ring two times, and in other cases, the beeper will ring one time.

3.12.2 This model can achieve the power interruption restoration function by the selection of the EEPROM data. The power interruption restoration is applied only for the basic functions (turning ON and OFF, setting temperatures, modes, fan speeds and flap's position) and not for other special functions such as sleep, timing and power-saving run.

## 7-1. Trouble alarm

**Trouble List**

Indication on the outdoor unit

When the compressor is interrupted, the outdoor LEDs are used to indicate the troubles listed below:

| Symbols for indicator lights: ★: ON O: flashing ×: OFF | | | | |
|---|---|---|---|---|
| | LED1 | LED2 | LED3 | Troubles |
| 1 | × | × | × | Normal |
| 2 | × | × | ★ | Room temperature sensor short-circuited, open circuited or the corresponding test circuit in trouble |
| 3 | × | ★ | × | Indoor heat exchanger temperature sensor short-circuited, open circuited or the corresponding test circuit in trouble |
| 4 | ★ | × | × | Compressor temperature sensor short-circuited, open circuited or the corresponding test circuit in trouble |
| 5 | ★ | × | ★ | Outdoor heat exchanger temperature sensor short-circuited, open circuited or the corresponding test circuit in trouble |
| 6 | ★ | ★ | × | Outdoor atmosphere temperature sensor short-circuited, open circuited or the corresponding test circuit in trouble |
| 9 | × | × | O | Signal communication abnormal (indoor – outdoor) |
| 10 | × | O | × | Power module (IPM)protection |
| 11 | ★ | O | ★ | Maximum current control |
| 12 | ★ | O | × | Current overload control |
| 13 | × | O | ★ | Compressor discharge temperature too high |
| 14 | ★ | ★ | O | Over and under-voltage control |
| 18 | × | ★ | O | Compressor housing temperature too high |
| 19 | ★ | ★ | ★ | Outdoor memory in trouble |
| 20 | × | O | O | Indoor fan motor in trouble |
| 22 | O | O | × | DC compressor fails to start |
| 23 | O | × | O | DC compressor out of step |

Indication by the indoor unit

Press the high power for 4 times in a row and the trouble codes listed below will be displayed.

| | | | |
|---|---|---|---|
| 0 | No trouble | 16 | Anti-freeze or overload control |
| 1 | Outdoor coil temperature sensor in trouble | 18 | DC compressor fails to start |
| 2 | Compressor temperature sensor in trouble | 19 | DC compressor out of step |
| 3 | Voltage transformer in trouble | | |
| 4 | Current transformer in trouble | | |

| | | | |
|---|---|---|---|
| 5 | IPM module protection | | |
| 6 | Over and under-voltage control | 33 | Room temperature sensor in trouble |
| 7 | Communication trouble | 34 | Indoor coil temperature sensor in trouble |
| 8 | Current overload control | 36 | Communication between the indoor and outdoor in trouble |
| 9 | Maximum current control | 39 | Indoor fan motor operation abnormal |
| 10 | 4-way valve changeover abnormal | 40 | Grid protection alarm (cabinet type) |
| 11 | Outdoor EEPROM in trouble | 41 | Detecting failures by zero-crossing |
| 13 | Compressor exhaust temperature too high control | | |
| 14 | Outdoor ambient temperature sensor in trouble | | |
| 15 | Compressor housing temperature control | | |
| | | | |

## 7-2. Service flow chart