

# Alarm List

- Please read it carefully before use

Haier

| CODE | FAULT                               | ID  | ID NAME   | POSSIBLE CAUSE  | SUGGESTION   |
|------|-------------------------------------|-----|---|---|--|
| 1001 | The software version does not match | ID1 | The inverter software version does not match            | The equipment's internal software version does not match  | If the software version does not match or upgrade fails, please upgrade again. If upgrade fails several times, please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback.  |
|      |                                     | ID2 | The inverter software & hardware version does not match |   |  |
|      |                                     | ID3 | The protocol versions among equipment do not match      |   |  |
| 1002 | Low insulation resistance           | ID1 | Low insulation resistance                               | The PV string is short circuited to the PE, or the PV string is installed in a chronically humid environment.   | <ol style="list-style-type: none"> <li>1. Check whether the DC cable is short-circuited or damaged. Replace or repair the cable when necessary.</li> <li>2. Check whether the positive and negative terminals of the DC cable are short circuited to the ground cable. Replace or repair the cable when necessary.</li> <li>3. If the cable is normal and the fault occurs on a rainy day, check the cable again in good weather.</li> <li>4. In the Haier Smart Cube app, check whether the ISO resistance protection value is too high. You can set a lower ISO protection value if local regulations and laws are met.</li> <li>5. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
| 1003 | Over-temperature                    | ID1 | Inverter over-temperature                               | Too high ambient temperature, poor ventilation in the installation location<br>Malfunction of the internal power module results in abnormal internal heating. | <ol style="list-style-type: none"> <li>1. Check whether the installation location is properly ventilated or is exposed to direct sunlight and corrective measures are taken</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |

|      |                        |     |                                     |                        |   |
|------|------------------------|-----|-------------------------------------|------------------------|---|
| 1004 | Equipment fault        | ID1 | Malfunction of the power module     | Internal circuit fault | <ol style="list-style-type: none"> <li>1. Give a standby/shutdown command to turn off the DC &amp; AC switches and wait for several minutes until the equipment is completely powered off.</li> <li>2. Resume the operation of the DC &amp; AC switches and give a startup command.</li> <li>3. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |                        | ID2 | Control module fault                |                        |   |
|      |                        | ID3 | Auxiliary power supply module fault |                        |   |
|      |                        | ID4 | Built-in PID module fault           |                        |   |
|      |                        | ID5 | Monitoring module fault             |                        |   |
|      |                        | ID6 | Heating film fault                  |                        |   |
|      |                        | ID7 | External fan fault                  |                        |   |
| 1005 | System grounding fault | ID1 | System grounding fault              | PE cable not grounded  | <ol style="list-style-type: none"> <li>1. Check whether the PE cable is properly connected.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |

|      |                               |      |                               |  |  |
|------|-------------------------------|------|-------------------------------|--|--|
| 1006 | PV string overvoltage         | ID1  | String 1 input overvoltage    | Too many strings in series. The open-circuit voltage is greater than the max. input voltage. | <ol style="list-style-type: none"> <li>1. Check whether the voltage of the PV in the faulty string exceeds the system voltage and reduce the number of PVs in the string as appropriate.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |
|      |                               | ID2  | String 2 input overvoltage    |  |  |
|      |                               | ID3  | String 3 input overvoltage    |  |  |
|      |                               | ID4  | String 4 input overvoltage    |  |  |
|      |                               | ID5  | String 5 input overvoltage    |  |  |
|      |                               | ID6  | String 6 input overvoltage    |  |  |
|      |                               | ID7  | String 7 input overvoltage    |  |  |
|      |                               | ID8  | String 8 input overvoltage    |  |  |
|      |                               | ID9  | String 9 input overvoltage    |  |  |
|      |                               | ID10 | String 10 input overvoltage   |  |  |
|      |                               | ID11 | String 11 input overvoltage   |  |  |
|      |                               | ID12 | String 12 input overvoltage   |  |  |
|      |                               | ID13 | String 13 input overvoltage   |  |  |
|      |                               | ID14 | String 14 input overvoltage   |  |  |
|      |                               | ID15 | String 15 input overvoltage   |  |  |
|      |                               | ID16 | String 16 input overvoltage   |  |  |
| 1007 | PV string reversely connected | ID1  | String 1 reversely connected  | Positive and negative terminals reversely connected  | <ol style="list-style-type: none"> <li>1. Check whether the positive and negative terminals of the faulty string are reversely connected. If this happens, wait until the current of the PV string reduces to below 0.5 A, and then turn off the DC switch and adjust the polarity of the string.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |                               | ID2  | String 2 reversely connected  |  |  |
|      |                               | ID3  | String 3 reversely connected  |  |  |
|      |                               | ID4  | String 4 reversely connected  |  |  |
|      |                               | ID5  | String 5 reversely connected  |  |  |
|      |                               | ID6  | String 6 reversely connected  |  |  |
|      |                               | ID7  | String 7 reversely connected  |  |  |
|      |                               | ID8  | String 8 reversely connected  |  |  |
|      |                               | ID9  | String 9 reversely connected  |  |  |
|      |                               | ID10 | String 10 reversely connected |  |  |
|      |                               | ID11 | String 11 reversely connected |  |  |
|      |                               | ID12 | String 12 reversely connected |  |  |
|      |                               | ID13 | String 13 reversely connected |  |  |
|      |                               | ID14 | String 14 reversely connected |  |  |
|      |                               | ID15 | String 15 reversely connected |  |  |
|      |                               | ID16 | String 16 reversely connected |  |  |

|      |                           |      |                           |  |   |
|------|---------------------------|------|---------------------------|--|---|
| 1008 | PV string sinking current | ID1  | String 1 sinking current  | Inconsistent configuration of strings                | <ol style="list-style-type: none"> <li>1. Check whether the number of panels configured in the faulty string is less than that in other strings. If this happens, wait until the current of the PV string reduces to below 0.5 A, and then turn off the DC switch and adjust the panel configuration of the string.</li> <li>2. Check whether the panels of the string are occluded. Eliminate the occlusion or clean panels when necessary.</li> <li>3. Check whether panels are correctly oriented. Adjust the orientation of panels when necessary.</li> <li>4. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |                           | ID2  | String 2 sinking current  |  |   |
|      |                           | ID3  | String 3 sinking current  |  |   |
|      |                           | ID4  | String 4 sinking current  |  |   |
|      |                           | ID5  | String 5 sinking current  |  |   |
|      |                           | ID6  | String 6 sinking current  |  |   |
|      |                           | ID7  | String 7 sinking current  |  |   |
|      |                           | ID8  | String 8 sinking current  |  |   |
|      |                           | ID9  | String 9 sinking current  |  |   |
|      |                           | ID10 | String 10 sinking current |  |   |
|      |                           | ID11 | String 11 sinking current |  |   |
|      |                           | ID12 | String 12 sinking current |  |   |
|      |                           | ID13 | String 13 sinking current |  |   |
|      |                           | ID14 | String 14 sinking current |  |   |
|      |                           | ID15 | String 15 sinking current |  |   |
|      |                           | ID16 | String 16 sinking current |  |   |
| 1009 | AFCI fault                | ID1  | AFCI fault of string 1    | DC cable damaged<br>Poor contact of string connector | <ol style="list-style-type: none"> <li>1. Turn off the DC switch of the PV, check the faulty string for DC cable damage, poor contact of connector, and burn. If any, replace the damaged cable, tighten the loose connector, or replace the part with burn mark.</li> <li>2. Turn on the DC switch of the PV again and clear the AFCI fault in the app. Then, put the equipment back into operation.</li> <li>3. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |
|      |                           | ID2  | AFCI fault of string 2    |  |   |
|      |                           | ID3  | AFCI fault of string 3    |  |   |
|      |                           | ID4  | AFCI fault of string 4    |  |   |
|      |                           | ID5  | AFCI fault of string 5    |  |   |
|      |                           | ID6  | AFCI fault of string 6    |  |   |
|      |                           | ID7  | AFCI fault of string 7    |  |   |
|      |                           | ID8  | AFCI fault of string 8    |  |   |
|      |                           | ID9  | AFCI fault of string 9    |  |   |
|      |                           | ID10 | AFCI fault of string 10   |  |   |
|      |                           | ID11 | AFCI fault of string 11   |  |   |
|      |                           | ID12 | AFCI fault of string 12   |  |   |
|      |                           | ID13 | AFCI fault of string 13   |  |   |
|      |                           | ID14 | AFCI fault of string 14   |  |   |
|      |                           | ID15 | AFCI fault of string 15   |  |   |
|      |                           | ID16 | AFCI fault of string 16   |  |   |

|      |                   |     |                             |  |   |
|------|-------------------|-----|-----------------------------|--|---|
| 1010 | Grid power outage | ID1 | Grid power outage           | Grid power outage or AC switch turned off                            | <p>Generally, the inverter will be again connected to the grid after the grid resumes normal operation. If the fault reoccurs:</p> <ol style="list-style-type: none"> <li>1. Check whether the grid undergoes power outage. If this happens, wait patiently until the grid restores the power supply.</li> <li>2. Check whether the AC switch is turned off. If this happens, turn on the AC switch.</li> <li>3. Please check whether the off-grid feature is enabled for off-grid products.</li> <li>4. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
| 1011 | Grid overvoltage  | ID1 | Grid overvoltage Level I    | The grid voltage is greater than the overvoltage threshold Level I   | <p>Generally, the inverter will be again connected to the grid after the grid resumes normal operation. If the fault reoccurs:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid voltage. If the grid voltage is greater than the set point, please consult your local grid operator for solutions.</li> <li>2. In the app, check the settings of protection parameters. Change the overvoltage threshold with the consent of your local grid operator.</li> <li>3. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>                  |
|      |                   | ID2 | Grid overvoltage Level II   | The grid voltage is greater than the overvoltage threshold Level II  |   |
|      |                   | ID3 | Grid overvoltage Level III  | The grid voltage is greater than the overvoltage threshold Level III |   |
| 1012 | Grid undervoltage | ID1 | Grid undervoltage Level I   | The grid voltage is less than the undervoltage threshold I           | <p>Generally, the inverter will be again connected to the grid after the grid resumes normal operation. If the fault reoccurs:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid voltage. If the grid voltage is less than the set point, please consult your local grid operator for solutions.</li> <li>2. Check whether the settings of protection parameters are compliant in the app.</li> <li>3. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |                   | ID2 | Grid undervoltage Level II  | The grid voltage is less than the undervoltage threshold Level II    |   |
|      |                   | ID3 | Grid undervoltage Level III | The grid voltage is less than the undervoltage threshold Level III   |   |

|      |   |     |   |   |  |
|------|---|-----|---|---|--|
| 1013 | Grid overfrequency                          | ID1 | Grid overfrequency Level I                  | The grid frequency is greater than the overfrequency threshold Level I                    | <p>Generally, the inverter will be again connected to the grid after the grid resumes normal operation. If the fault reoccurs:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid frequency. If the grid frequency is greater than the setting range, please consult your local grid operator for solutions.</li> <li>2. Check whether the settings of protection parameters are compliant in the app.</li> <li>3. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |   | ID2 | Grid overfrequency Level II                 | The grid frequency is greater than the overfrequency threshold Level II                   |  |
|      |   | ID3 | Grid overfrequency Level III                | The grid frequency is greater than the overfrequency threshold Level III                  |  |
| 1014 | Grid underfrequency                         | ID1 | Grid underfrequency Level I                 | The grid frequency is less than the underfrequency threshold Level I                      | <p>Generally, the inverter will be again connected to the grid after the grid resumes normal operation. If the fault reoccurs:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid frequency. If the grid frequency is greater than the setting range, please consult your local grid operator for solutions.</li> <li>2. Check whether the settings of protection parameters are compliant in the app.</li> <li>3. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |   | ID2 | Grid underfrequency Level II                | The grid frequency is less than the underfrequency threshold Level II                     |  |
|      |   | ID3 | Grid underfrequency Level III               | The grid frequency is less than the underfrequency threshold Level III                    |  |
| 1015 | Grid voltage imbalance                      | ID1 | Grid voltage imbalance                      | <p>Three-phase grid phase angle imbalance</p> <p>Three-phase grid amplitude imbalance</p> | <p>Generally, the inverter will be again connected to the grid after the grid resumes normal operation. If the fault reoccurs:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid voltage. If the phase voltage amplitude of individual phases in the grid or phase difference is large, please consult your local grid operator for solutions.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |
| 1016 | DC component of output current out of limit | ID1 | DC component of output current out of limit | The DC component in the AC output current is greater than the set point                   | <ol style="list-style-type: none"> <li>1. This may be occasionally caused by transient environmental changes. The equipment will resume normal operation without manual intervention after the environment is stabilized.</li> <li>2. If this happens frequently or cannot be resumed for an extended period of time, please contact Service Center.</li> </ol>  |
| 1017 | Leak current out of limit                   | ID1 | Leak current out of limit                   | The leak current exceeds the protection threshold   | <p>This may be occasionally caused by transient environmental changes. The equipment will resume normal operation without manual intervention after the environment is stabilized.</p> <p>If this happens frequently or cannot be resumed for an extended period of time, please contact Service Center.</p>   |

|      |                     |     |                             |   |  |
|------|---------------------|-----|-----------------------------|---|--|
| 1018 | Communication fault | ID1 | 4G communication fault      | Insufficient 4G traffic or SIM card not inserted<br>Poor contact of internal communication Dongle | Please check the availability of your 4G traffic. Top up when necessary.<br>If the 4G traffic is sufficient, re-insert the 4G Dongle and wait until 4G communication is resumed.<br>If the fault persists, please contact Service Center.                                  |
|      |                     | ID2 | CAN communication fault     | Poor contact of floating connectors<br>CAN module communication fault                             | 1. Restart the equipment and wait for resuming normal operation.<br>2. If the fault persists, please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback.   |
|      |                     | ID3 | Meter communication fault   | Poor contact between meter connector and equipment  | 1. Check whether the communication port of the meter is reliably connected.<br>2. If the fault persists, please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback.  |
|      |                     | ID4 | Gateway communication fault | Poor contact between Gateway and all-in-one machine   | 1. Check whether the Gateway communication port is reliably connected.<br>2. The air switch in the Gateway is not turned on.<br>3. If the fault persists, please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback. |



|      |                     |      |   |   |   |
|------|---------------------|------|---|---|---|
| 1019 | Internal protection | ID1  | MPPT1 overcurrent protection              | MPPT overcurrent protection triggered               | <p>This may be occasionally caused by transient environmental changes. The equipment will resume normal operation without manual intervention after the environment is stabilized. If this happens frequently or cannot be resumed for an extended period of time, please contact Service Center.</p> |
|      |                     | ID2  | MPPT2 overcurrent protection              |   |   |
|      |                     | ID3  | MPPT3 overcurrent protection              |   |   |
|      |                     | ID4  | MPPT4 overcurrent protection              |   |   |
|      |                     | ID5  | MPPT5 overcurrent protection              |   |   |
|      |                     | ID6  | MPPT6 overcurrent protection              |   |   |
|      |                     | ID7  | MPPT7 overcurrent protection              |   |   |
|      |                     | ID8  | MPPT8 overcurrent protection              |   |   |
|      |                     | ID9  | MPPT9 overcurrent protection              |   |   |
|      |                     | ID10 | MPPT10 overcurrent protection             |   |   |
|      |                     | ID11 | MPPT11 overcurrent protection             |   |   |
|      |                     | ID12 | MPPT12 overcurrent protection             |   |   |
|      |                     | ID13 | MPPT13 overcurrent protection             |   |   |
|      |                     | ID14 | MPPT14 overcurrent protection             |   |   |
|      |                     | ID15 | MPPT15 overcurrent protection             |   |   |
|      |                     | ID16 | MPPT16 overcurrent protection             |   |   |
|      |                     | ID17 | Inverter output overcurrent protection    | Inverter overcurrent protection triggered           |   |
|      |                     | ID18 | BUS overvoltage protection                | Internal BUS overvoltage protection triggered       |   |
|      |                     | ID19 | Internal BUS voltage imbalance protection | Internal BUS voltage imbalance protection triggered |   |
|      |                     | ID20 | Internal control protection               | Internal control protection triggered               |   |

|      |                                     |      |   |  |  |
|------|-------------------------------------|------|---|--|--|
| 1020 | Abnormal AFCI self-checking circuit | ID1  | AFCI self-checking circuit 1 fault            | DC arc detection circuit self-checking failed                | <ol style="list-style-type: none"> <li>1. Perform settings in your app. Clear the abnormal AFCI self-checking circuit alarm, restart the equipment, and wait until the equipment resumes normal operation.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |                                     | ID2  | AFCI self-checking circuit 2 fault            |  |  |
|      |                                     | ID3  | AFCI self-checking circuit 3 fault            |  |  |
|      |                                     | ID4  | AFCI self-checking circuit 4 fault            |  |  |
|      |                                     | ID5  | AFCI self-checking circuit 5 fault            |  |  |
|      |                                     | ID6  | AFCI self-checking circuit 6 fault            |  |  |
|      |                                     | ID7  | AFCI self-checking circuit 7 fault            |  |  |
|      |                                     | ID8  | AFCI self-checking circuit 8 fault            |  |  |
|      |                                     | ID9  | AFCI self-checking circuit 9 fault            |  |  |
|      |                                     | ID10 | AFCI self-checking circuit 10 fault           |  |  |
|      |                                     | ID11 | AFCI self-checking circuit 11 fault           |  |  |
|      |                                     | ID12 | AFCI self-checking circuit 12 fault           |  |  |
|      |                                     | ID13 | AFCI self-checking circuit 13 fault           |  |  |
|      |                                     | ID14 | AFCI self-checking circuit 14 fault           |  |  |
|      |                                     | ID15 | AFCI self-checking circuit 15 fault           |  |  |
|      |                                     | ID16 | AFCI self-checking circuit 16 fault           |  |  |
| 1021 | Off-grid protection                 | ID1  | Off-grid overload protection                  | Too high load power  |  |
|      |                                     | ID2  | Off-grid short circuit protection             | Power equipment short circuit                                |  |
|      |                                     | ID3  | Off-grid output overvoltage protection        | Software error due to high output                            |  |
| 1022 | Manual operation protection         | ID1  | EPO protection                                | The customer presses the rapid shutdown button in emergency. | 1. After confirming that there are no safety hazards at the scene, release the rapid shutdown button.  |
| 1023 | Abnormal wiring                     | ID1  | Abnormal AC wiring                            | Abnormal AC wiring   | <ol style="list-style-type: none"> <li>1. The AC wiring is abnormal at the AC port.</li> <li>2. The air switch in the Gateway is not turned on.</li> </ol>   |
| 1024 | Abnormal phase sequence             | ID1  | Abnormal phase sequence of three-phase grid   | Abnormal phase sequence of three-phase grid                  | Adjust the three-phase wiring sequence on the AC output side   |
| 2001 | The software version does not match | ID1  | The software version does not match           | The equipment's internal software version does not match     | If the software version does not match or upgrade fails, please upgrade again. If upgrade fails several times, please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback.  |
|      |                                     | ID2  | The software & hardware versions do not match |  |  |
|      |                                     | ID3  | The protocol version does not match           |  |  |

|      |   |     |   |   |  |
|------|---|-----|---|---|--|
| 2002 | The energy storage module has low insulation resistance to the ground | ID1 | The energy storage module has low insulation resistance to the ground | The energy storage module is short circuited to the housing   | <ol style="list-style-type: none"> <li>1. Give a standby/shutdown command from the app to turn off the DC &amp; AC switches and wait for several minutes until the equipment is completely powered off.</li> <li>2. Resume the operation of the DC &amp; AC switches and give a startup command.</li> <li>3. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>           |
| 2003 | Over-temperature  | ID1 | Energy storage power module over-temperature                          | Too high ambient temperature, poor ventilation in the installation location<br>Malfunction of the internal power module results in abnormal internal heating. | <ol style="list-style-type: none"> <li>1. Check whether the installation location is properly ventilated or is exposed to direct sunlight and corrective measures are taken</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |   | ID2 | Energy storage battery module over-temperature                        |   |  |
| 2004 | Equipment fault   | ID1 | Abnormal energy storage control circuit                               | Internal circuit fault  | <ol style="list-style-type: none"> <li>1. Give a standby/shutdown command from the app to turn off the DC &amp; AC switches and wait for several minutes until the equipment is completely powered off.</li> <li>2. Resume the operation of the DC &amp; AC switches and give a startup command.</li> <li>3. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>           |
|      |   | ID2 | Energy storage power fault  |   |  |
|      |   | ID3 | Auxiliary power supply module fault                                   |   |  |
|      |   | ID4 | Communication fault between master and slave                          |   |  |
| 2005 | Under-temperature   | ID1 | Energy storage battery module under-temperature                       | Too low ambient temperature   | <ol style="list-style-type: none"> <li>1. Wait until the ambient temperature rises to the operating temperature range of the equipment. The fault will be eliminated and the equipment automatically resumes normal operation.</li> <li>2. If the fault persists even after the ambient temperature rises to the operating temperature range, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
| 2006 | Battery module over-voltage   | ID1 | Battery module over-voltage   | Too high voltage of the battery module or cells therein.<br>The battery is over-charged.  | Please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback.   |
| 2007 | Battery module under-voltage  | ID1 | Battery module undervoltage   | Too low voltage of the battery module or cells therein.<br>The undervoltage fault may be caused by prolonged energy storage.                                  | Please open the Haier Smart Cube app and go to the Support > troubleshooting page to submit your fault feedback.   |

|      |                                       |     |  |  |   |
|------|---------------------------------------|-----|--|--|---|
| 2008 | Internal protection                   | ID1 | Power module input overvoltage protection          | Internal overvoltage protection triggered  | <ol style="list-style-type: none"> <li>1. This may be occasionally caused by transient environmental changes. The equipment will resume normal operation after the environment is stabilized.</li> <li>2. If this fault occurs frequently or persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |                                       | ID2 | Power module output overvoltage protection         | Internal overvoltage protection triggered  |   |
|      |                                       | ID3 | Power module overcurrent protection                | Internal current imbalance protection triggered  |   |
|      |                                       | ID4 | Internal in-series module voltage imbalance        | Internal in-series module voltage imbalance  |   |
|      |                                       | ID5 | Internal in-parallel module current imbalance      | Internal in-parallel module current imbalance  |   |
| 3001 | The software version does not match   | ID1 | The software & hardware versions do not match      | Part versions do not match in the all-in-one system.   | Please upgrade the versions. If the fault persists, please open the Haier Smart Cube app and go to the APP-support-troubleshooting page to submit your fault feedback.  |
|      |                                       | ID2 | The protocol versions among equipment do not match |  |   |
| 3002 | Over-temperature                      | ID1 | Over-temperature                                   | <p>Too high ambient temperature, poor ventilation in the installation location</p> <p>Internal component malfunction</p> | <ol style="list-style-type: none"> <li>1. Check whether the installation location is properly ventilated and corrective measures are taken.</li> <li>2. Check whether the equipment is exposed to direct sunlight and corrective measures are taken.</li> <li>3. If the fault persists after you exclude the above-mentioned causes, please open the app and go to the APP-support-troubleshooting page to submit your fault feedback.</li> </ol> |
| 3003 | Equipment fault                       | ID1 | Auxiliary power supply module fault                | Internal circuit fault   | <ol style="list-style-type: none"> <li>1. Give a standby/shutdown command from the app to turn off the grid switch and wait for several minutes until the equipment is completely powered off.</li> <li>2. Resume the operation of the grid switch and give a startup command.</li> <li>3. If the fault persists, please open the Haier Smart Cube app and go to the APP-support-troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |                                       | ID2 | Internal communication fault                       |  |   |
|      |                                       | ID3 | Control circuit fault                              |  |   |
| 3004 | Too high off-grid output leak current | ID1 | Too high off-grid output leak current              | Too high leak current for loads in off-grid mode   | Check loads for insulation damage   |
| 3005 | N line grounding fault                | ID1 | N line grounding fault                             | Too high voltage of N line to PE in off-grid mode  | <ol style="list-style-type: none"> <li>1. Give a standby/shutdown command from the app to turn off the grid switch and wait for several minutes until the equipment is completely powered off.</li> <li>2. Resume the operation of the grid switch and give a startup command.</li> <li>3. If the fault persists, please open the Haier Smart Cube app and go to the APP-support-troubleshooting page to submit your fault feedback.</li> </ol>   |

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| 3006 | Abnormal phase sequence of grid wiring     | ID1 | Negative phase sequence of grid wiring     | Negative phase sequence of grid wiring   | <ol style="list-style-type: none"> <li>1. Swap the sequence of any two phases in L1, L2 and L3 at the incoming line terminal of the grid.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the APP-support-troubleshooting page to submit your fault feedback.</li> </ol>   |
| 3007 | Abnormal phase sequence of inverter wiring | ID1 | Negative phase sequence of inverter wiring | Negative phase sequence of inverter wiring   | <ol style="list-style-type: none"> <li>1. Swap the sequence of any two phases in L1, L2 and L3 at the output terminal of the inverter.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the APP-support-troubleshooting page to submit your fault feedback.</li> </ol>  |
| 5001 | Grid overvoltage                           | ID1 | Grid input overvoltage                     | The actual grid voltage exceeds 20% of the rated voltage.  | <p>If the grid voltage is restored to <math>\pm 20\%</math> of the rated voltage, the charger will be connected to the grid again. If this fault occurs again:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid voltage. If the grid voltage is 20% greater than the rated voltage, consult with your local grid operator for solutions.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
| 5002 | Grid undervoltage                          | ID1 | Grid input undervoltage                    | The actual grid voltage is 20% less than the rated voltage.  | <p>If the grid voltage is restored to <math>\pm 20\%</math> of the rated voltage, the charger will be connected to the grid again. If this fault occurs again:</p> <ol style="list-style-type: none"> <li>1. Measure the actual grid voltage. If the grid voltage is 20% greater than the rated voltage, consult with your local grid operator for solutions.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
| 5003 | Overcurrent Level I                        | ID1 | Output circuit overcurrent Level I         | The output current is 10% greater than the rated current.  | <ol style="list-style-type: none"> <li>1. Stop charging and remove the charging gun. Try again when the charger resumes normal operation.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |
|      | Overcurrent Level II                       | ID2 | Output circuit overcurrent Level II        | The output current is 20% greater than the rated current.  | <ol style="list-style-type: none"> <li>1. Stop charging and remove the charging gun. Try again when the charger resumes normal operation.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |
| 5004 | Leak current out of limit                  | ID1 | Leak current out of limit                  | <ol style="list-style-type: none"> <li>1. The charging cable is damaged.</li> <li>2. The vehicle grounding cable or power cable is faulty.</li> <li>3. The charging gun is moistened.</li> </ol> | <ol style="list-style-type: none"> <li>1. Check whether the charging cable is damaged.</li> <li>2. Use another vehicle and charge it again.</li> <li>3. Check whether the charging gun is moistened.</li> <li>4. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |

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| 5005 | Grounding fault         | ID1 | Grounding fault                        | Poor grounding connection of input   | <ol style="list-style-type: none"> <li>1. Check whether the grounding cable is properly connected.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>  |
| 5006 | Abnormal phase sequence | ID1 | Abnormal phase sequence of grid wiring | Phases L and N reversed for three-phase grid   | <ol style="list-style-type: none"> <li>1. Check whether phases L and N are reversed for the three-phase grid.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
| 5007 | Equipment fault         | ID1 | Leak current detection circuit fault   | Leak current detection circuit fault   | <ol style="list-style-type: none"> <li>1. Restart the charger and check whether the fault is eliminated.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |                         | ID2 | Relay stuck                            | Relay stuck  | <ol style="list-style-type: none"> <li>1. Restart the charger and check whether the fault is eliminated.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |                         | ID3 | Pilot circuit fault                    | <ol style="list-style-type: none"> <li>1. The pilot circuit is faulty.</li> <li>2. The charging gun is unexpectedly removed during charging.</li> </ol>                    | <ol style="list-style-type: none"> <li>1. Check whether the charging gun is removed during charging.</li> <li>2. Restart the charger and check whether the fault is eliminated.</li> <li>3. Use another vehicle and charge it again.</li> <li>4. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>             |
|      |                         | ID4 | Auxiliary power supply module fault    | Internal circuit fault   | <ol style="list-style-type: none"> <li>1. Restart the charger and check whether the fault is eliminated.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
|      |                         | ID5 | Electric lock fault                    | <ol style="list-style-type: none"> <li>1. The charging connector is not properly connected.</li> <li>2. The electric lock for the charging connector is faulty.</li> </ol> | <ol style="list-style-type: none"> <li>1. Check whether the charging connector is securely inserted to the charging port on the vehicle.</li> <li>2. Lock and unlock the electric lock twice in your app and check whether the alarm is cleared.</li> <li>3. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
|      |                         | ID6 | EPO protection                         | The customer presses the rapid shutdown button in emergency.   | Check that there are no safety hazards and reset the rapid shutdown button.  |
|      |                         | ID7 | Lamp panel communication fault         | Lamp panel not connected or damaged  | <ol style="list-style-type: none"> <li>1. Restart the charger and check whether the fault is eliminated.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |

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| 5008 | Over-temperature            | ID1 | Too high internal temperature | <ol style="list-style-type: none"> <li>1. The ambient temperature is greater than 55°C.</li> <li>2. Check the existence of heat sources nearby.</li> <li>3. Loose connection.</li> <li>4. The cable is not compliant with specification requirements.</li> </ol> | <ol style="list-style-type: none"> <li>1. Check whether the charger is exposed to strong light.</li> <li>2. Check the existence of heat sources nearby.</li> <li>3. Check whether the ambient temperature is below 55</li> <li>4. Restart the equipment.</li> <li>5. Check whether incoming cables are connected properly.</li> <li>6. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol> |
| 5009 | Charging cable fault        | ID1 | Charging cable fault          | For a charger with a socket, the charging cable has abnormal current-carrying capacity.  | <ol style="list-style-type: none"> <li>1. Remove the charging cable. Measure the resistance between PP and PE with a multimeter and check whether the resistance is 100, 220, 680, or 1500 ohm (<math>\pm 3\%</math>).</li> </ol> <p>If so, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</p> <p>If not so, please replace the charging cable.</p>  |
| 5010 | Meter communication fault   | ID1 | Meter communication fault     | The meter loses communication with the charger for more than 1 minute.   | <ol style="list-style-type: none"> <li>1. Check whether the RS-485 cable is connected between the charger and meter or disable the load balance feature.</li> <li>2. If the fault persists after you exclude the above-mentioned causes, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |
| 5011 | Charging output overcurrent | ID1 | Charging output overcurrent   | The actual output current is 25% greater than the charger control output current.  | <ol style="list-style-type: none"> <li>1. Stop charging and remove the charging gun. Try again when the charger resumes normal operation.</li> <li>2. If the fault persists, please open the Haier Smart Cube app and go to the Support &gt; troubleshooting page to submit your fault feedback.</li> </ol>   |