

# Troubleshooting

**AXIhycon**

**5 – 10 H**

## 1. OPERATING STATUS

Message	Description	Solution
Generating	Generating	No need to deal with, the inverter is in normal operation
Grid Off	Control inverter to turn off - Set the inverter to Grid ON	Set the inverter to Grid ON
LimByEPM	Inverter is under external control	1. Confirm whether the inverter is connected to an EPM/meter to do export control. 2. Confirm whether the inverter is controlled by an external third-party device. 3. Confirm whether the power setting of the inverter Power Control is limited
LimByVg	Inverter is under Volt-Watt working mode	1. Subject to local safety regulations, when the grid voltage is high, the Voltwatt working mode is triggered, which generally does not need to be dealt with; 2. The factory mistake may causes the mode to turn on. If you need to turn it off, you can turn it off in the LCD. Setting process: main menu→advanced setting→password 0010→STD mode setting→working mode→working mode: NULL→save and exit.
LimByVar	Inverter is under Volt-Var working mode	1. Subject to local safety regulations, when the grid voltage is high, the Voltvar working mode is triggered, which generally does not need to be dealt with; 2. The factory mistake may causes the mode to turn on. If you need to turn it off, you can turn it off in the LCD. Setting process: main menu→advanced setting→password 0010→STD mode setting→working mode→working mode: NULL→save and exit.
LimByPlmt	Inverter is under P Factor working mode	If you need to turn this mode off, you can turn it off in the LCD. Setting process: main menu→advanced setting→password 0010→STD mode setting→working mode →working mode: NULL→save and exit.
OpenRun	Open loop operation - No need to deal with, the inverter is in open loop operation state, only appear in the internal test environment.	No need to deal with, the inverter is in open loop operation state, only appear in the internal test environment.
SoftRun	Wait to start generating - Try to restart the inverter, if it is still not resolved, please contact the manufacturer's customer service.	Try to restart the inverter, if it is still not resolved, please contact the manufacturer's customer service.
Waiting	Wait to operate - Test whether the DC input voltage of the inverter reaches the minimum starting voltage.	Test whether the DC input voltage of the inverter reaches the minimum starting voltage.
Off	Control inverter to turn off - Set the inverter to Grid ON	Set the inverter to Grid ON
GridToLoad	The loads are support by Grid directly	No need to deal with it.
LmtByDRM	DRM Function is Enabled	No need to deal with it.
LimByEPM	Inverter is under external control	1. Confirm whether the inverter is connected to an EPM/meter to do export control.

		2. Confirm whether the inverter is controlled by an external third-party device. 3. Confirm whether the power setting of the inverter Power Control is limited
LmtByFreq	The output power is limited by frequency	The output power is limited by frequency
LmtByTemp	The output power is limited by temperature	No need to deal with, the inverter is in normal operation
LmtByVg	Inverter is under Volt-Watt working mode	1. Subject to local safety regulations, when the grid voltage is high, the Voltwatt working mode is triggered, which generally does not need to be dealt with; 2. The factory mistake may causes the mode to turn on. If you need to turn it off, you can turn it off in the LCD. Setting process: main menu→advanced setting→password 0010→STD mode setting→working mode →working mode: NULL→save and exit.
LmtByUnFr	The output power is limited by the low frequency.	No need to deal with it.
Normal	Normal Operation	
Standby	Inverter is operating in Off-Grid Mode.	No need to deal with, the inverter is in normal operation.
StandbySynoch	The inverter operation status is turned to Grid-tied from Off-Grid mode.	No need to deal with it.

## 2. WARNING MESSAGES

Message	Description	Solution
DcSpdFail	DC SPD fault	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
FuseFail	Fuse alarm on 125K-EHV-5G and Korean 100K with fuse model	Restart the inverter and replace the fuse referring to the manual. If it is still not eliminated, please contact the manufacturer's customer service.
Surge Alarm	Gird has surge	Grid has surge. It is for after-sale information analysis, doesn't affect inverter operation.
VgSpdFail	AC SPD fault	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
Over-Load	Overload Fault	1.The Backup load power is too large or some inductive loads have large temporary start-up power. 2.Please trun off some backup loads or the inductive backup loads.

## 3. ALARM

Message	Code	Description	Solution
OV-G-V 01	1010	Grid voltage is higher than standard code's 1st level overvoltage limit for the set peirod of time.	1. If it happens accidentally, it may be a short-term abnormality of the grid. The inverter will resume normal operation after detecting that the grid is normal, without manual intervention. 2. Check if the standard is set correctly. 3. If it occurs frequently, please check the grid voltage and the grid frequency if it is within the standard protection range of the inverter. If not, please check whether the AC side circuit breaker and the output cable are connected properly. 4. If the grid voltage and grid frequency are not within the standard protection range of the inverter, and the AC side wiring is confirmed to be correct, this alarm still appears frequently. After obtaining the approval from the local power operator, please contact customer service to modify the inverter grid Over and under voltage/frequency protection points.
OV-G-V 02		Grid voltage transient value is over 1.35 times of rated voltage peak value.	
OV-G-V 03		Grid voltage is higher than the 10min overvoltage limit in the standard code.	
OV-G-V 04		Grid voltage is higher than standard code's 2nd level overvoltage limit for the set peirod of time.	
OV-G-V 05		Grid voltage transient value is over 1.35 times of rated voltage peak value over 200ms.	
UN-G-V	1011	Grid voltage is lower than the limit.	
OV-G-F	1012	Grid frequency is higher the limit.	
UN-G-F	1013	Grid frequency is lower the limit.	
Back-feed_lac	1014	AC backfeed current	
NO-Grid	1015	No grid	
			1. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service. 1. Confirm whether the power grid is properly connected. 2. Confirm whether the connected power grid is normal. 3. Check if the Grid Standard is set correctly.

			. If the grid connection is normal, you need to contact manufacturer's customer service with information of AV Voltage details and where voltage was measured.
G-PHASE	1016	Grid has unbalanced 3phase	1. Confirm whether the power grid is properly connected. 2. Confirm whether the connected power grid is normal. 3. If the grid connection is normal, you need to contact manufacturer's customer service.
G-F-FLU	1017	Grid frequency is abnormal	1. Confirm whether the power grid is properly connected. 2. Confirm whether the connected power grid is normal. 3. If the grid connection is normal, you need to contact manufacturer's customer service.
OV-G-I	1018	Grid output overcurrent	1. Confirm whether the power grid is properly connected. 2. Confirm whether the connected power grid is normal. 3. If the grid connection is normal, you need to contact manufacturer's customer service.
IGFOL-F	1019	Grid current tracking error	1. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
PHASE-FAULT	101A	Abnormal grid phase angle	1. Check whether the AC side wiring is correct. 2. Check whether the grid phase angle is 120°. 3. Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
OV-DC	1020	DC overvoltage	1. Check whether the input voltage exceeds the maximum input voltage of the inverter; 2. Restart the inverter 3. If it is still not ruled out, please contact the manufacturer's customer service.
BoostFal	1020	DC boost circuit fault	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
OV-BUS	1021	DC bus overvoltage	1. Check whether the input voltage exceeds the maximum input voltage of the inverter; 2. Restart the inverter 3. If it is still not ruled out, please contact the manufacturer's customer service.
UNB-BUS	1022	DC bus voltage and DC bus half voltage is not correct	1. Check whether the inverter bus voltage and bus half voltage are correct, 2. Restart the inverter 3. If it is still not ruled out, please contact the manufacturer's customer service.
UN-BUS02	1023	Abnormal display of DC bus voltage	
UN-BUS	1023	DC bus voltage is too low	1. Check whether the input voltage is too low 2. Restart the inverter 3. If it is still not ruled out, please contact the manufacturer's after sales engineer.
DC-INTF.	1027	Abnormal DC input current	1. Check whether the DC wiring is falsely connected or damaged. 2. Restart the inverter. 3. If it is still not resolved, please contact the manufacturer's customer service.
Reve-DC	1028	DC reversely connected.	1. Check whether the DC wiring is reversed. 2. Check whether the wire has correct size. 3. Check if correct Grid Standard is set. 4. Restart the inverter 5. If it is still not resolved, please contact the manufacturer's customer service.
PvMidIso	1029	PV middle point low insulation protection	1. Check the time when the error is reported. If the error is reported in the early morning or late afternoon or on a rainy day, it is a normal phenomenon. The moisture in the air increases, the impedance becomes low, and it is easy to report the ISO; 2. Use the resistance level of the multimeter to measure the resistance of the PV string to the ground, and the resistance should be above 20kΩ; if the impedance is too low, please check the insulation between the PV string and the ground, or make a new cable between panel and the inverter 3. Use a multimeter to measure the resistance of the N wire and the ground wire. This value should be close to zero. Otherwise, there is a problem with the connection between the AC N wire and the ground wire. Please check the AC wiring; 4. Please check whether the software version is the latest. You can try to update the software (due to the continuous changes in regulations, the ISO detection threshold is also changed along with version upgrade) 5. If the above is normal, please contact after-sales service.
PVGndRun	1029	The PV terminal of the inverter is grounded during operation.	1. Check that the PV string connected to the inverter is grounded, and use a multimeter to check the DC gear.

Vbus-Sam	102A	DC bus voltage and DC bus half voltage is not correct.	<ol style="list-style-type: none"> <li>1. Check whether the inverter bus voltage and bus half are correct</li> <li>2. Restart the inverter</li> <li>3. If it is still not ruled out, please contact the manufacturer's customer service.</li> </ol>
GRID-INTF.	1030	Grid interference	<ol style="list-style-type: none"> <li>1. Multiple inverters installed in line and the grid voltage wave is non-ideal.</li> <li>2. Grid filters need to be set. Changing the grid filter in the "Special Setting" may solve the problem.</li> <li>3. Downstream equipment needs to be changed or repaired.</li> </ol> Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
INI-FAULT	1031	DSP initializing fault.	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
OV-TEM	1032	<p>The internal temperature near IGBTs is beyond the limitation.</p> <p>Typically 115°C for 3P inverters</p>	<ol style="list-style-type: none"> <li>1: Check whether the installation location of the inverter meets the requirements of the user manual. (Installation in direct sunlight? Inverter mounted incorrectly (angle)? Faulty temperature probe? Loose connection of temperature probe?)</li> <li>2: Try to lower the ambient temperature</li> <li>3: Turn off the inverter and restart it after 15 minutes</li> <li>4: If the error still exists, please contact the manufacturer's customer service.</li> </ol>
PV ISO-PRO 01	1033	Low PV insulation protection	1. Check the time when the error is reported. If the error is reported in
PV ISO-PRO 02	1033	Low PV insulation protection	<p>the early morning or late afternoon or on a rainy day, it is a normal phenomenon. The moisture in the air increases, the impedance becomes low, and it is easy to report the ISO;</p> <ol style="list-style-type: none"> <li>2. Use the resistance level of the multimeter to measure the resistance of the PV string to the ground, and the resistance should be above 20kΩ; if the impedance is too low, please check the insulation between the PV string and the ground, or make a new cable between panel and the inverter</li> <li>3. Use a multimeter to measure the resistance of the N wire and the ground wire. This value should be close to zero. Otherwise, there is a problem with the connection between the AC N wire and the ground wire. Please check the AC wiring;</li> <li>4. Please check whether the software version is the latest. You can try to update the software (due to the continuous changes in regulations, the ISO detection threshold is also changed along with version upgrade)</li> <li>5. If the above is normal, please contact after-sales service.</li> </ol>
ILeak-PRO 01	1034	Leakage current protection	<ol style="list-style-type: none"> <li>1. Connect each string of components individually in turn to determine whether it is caused by a single string problem. If there is no error when inserting one of the string, it can be determined that it is caused by the string problem. Check whether the problematic string has broken insulation or other problems. <ul style="list-style-type: none"> <li>A: Damaged PV wire insulation.</li> <li>B: PV wire is incorrect gauge.</li> <li>C: Faulty transformer downstream.</li> <li>D: Incorrect wiring of RSD.</li> <li>E: Buried AC wires are saturated with Wire</li> <li>F: AC Wire is low quality</li> </ul> </li> <li>2. If this error occurs only on a rainy day or in the morning, the leakage current is too large due to the aging of the module. The error will be automatically cleared when it is sunny or when the air humidity decreases.</li> <li>3. This issue may be solved by remotely upgrading the software. Please contact our customer support team.</li> </ol>
ILeak-PRO 02			
ILeak-PRO 03			
ILeak-PRO 04			
RelayChk-FAIL	1035	Relay selfcheck protection	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
DSP-B-Sam-Fau	1036	Missing or error from DSP software	1. Check whether the inverter's DSP software version number exists, and try to restart the inverter. If it is still not ruled out, please contact the manufacturer's customer service.
DSP-B-FAULT	1036	fault between master DSP and slave dsp	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
DSP-B-Com-Fau	1036	DSP software is missing	
DCInj-FAULT	1037	DC injection component too large.	
12Power-FAULT	1038	12V power supply fault	
ILeak-Check	1039	RCMU Selfcheck protection	
UN-TEM	103A	Low temperature	Check whether the ambient temperature is too low and restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.

AFCI-Check	1040	AFCI selfcheck protection	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
ARC-FAULT	1041	Detected DC arc in the DC circuit	Check if there is an arc in the inverter DC connection. 1. Are the MC4 Heads loose? 2. Are the MC4 heads broken? 3. Check Connection in inverter terminal or fuse block. 4. Check if connection in J-Box is bad/loose. 5. Are any PV panels cracked/damaged? 6. Check Firmware. 7. Check sensitivity level. 8. Try restarting the inverter. If it is still not resolved, please contact the manufacturer's customer service.
IG-AD	1047	Grid current sampling error.	Restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
IGBT-OV-I	1048	IGBT overcurrent	
Failsafe	2010	EPM communication fail	
L&PE FAULT	F017	The three phases on the AC side are connected to the ground.	Restart the inverter, if it is still not resolved, please contact the manufacturer's customer service; check the AC side wiring; check whether there is a ground fault on the AC side.
DSP-Self-Check	1058	DSP firmware does not match the hardware	1. Check whether the software version burned by the inverter is correct, and whether the software model number is consistent with the model number.
Vg-Sample	1059	The grid voltage sampling value is deviated	1. Check whether there is an error between the AC voltage displayed by the inverter and the AC voltage detected by the multimeter. If there is an error, try to restart the inverter. If it is still not eliminated, please contact the manufacturer.
OV-DCA-I	1025	DC1 current average overcurrent	1. Check the string for faults. (polarity) 2. Try to remove the faulty string from the MPPT. Otherwise, it might be some internal fault. 3. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
OV-DCB-I	1026	DC2 current average overcurrent	1. Check the string for faults. (polarity) 2. Try to remove the faulty string from the MPPT. Otherwise, it might be some internal fault. 3. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
UN-TEM	103A	Low temperature	Check whether the ambient temperature is too low and restart the inverter. If it is still not resolved, please contact the manufacturer's customer service.
OV-IgTr	1050	Grid current temporarily overcurrent	1. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
OV-Vbatt-H/OV-BUS-H	1051	Battery hardware overvoltage/Vbus	1. Check whether the battery circuit breaker has triggered. 2. Check whether the battery was damaged.
OV-ILLC	1052	LLC hardware overcurrent	1. Check whether Backup load is overloaded. 2. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
OV-Vbatt	1053	Battery overvoltage	1. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
UN-Vbatt	1054	Battery undervoltage	1. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
NO-Battery	1055	Battery is not connected	1. Check whether the battery has been well connected. 2. Check whether the circuit breaker or fuse have been triggered.
OV-Vbackup	1056	The backup voltage exceeds the setting value	1. Check whether the Backup terminal wiring is normal. 2. Restart the whole system, if it is still not ruled out, please contact the manufacturer's customer service.
Over-Load	1057	The backup load is overloaded	1. Check whether the backup load is overloaded. 2. Restart the whole system, if it is still not ruled out, please contact the manufacturer's customer service.
Failsafe	2010	EPM communication cables aren't connected.	1. Check the communication connection between inverter and Meter, confirm whether the internal EPM function has been enabled. 2. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
MET_Comm_FAIL	2011	Meter communication cables aren't connected	1. Check Meter communication cables. 2. Confirm whether the Meter brand has been selected correctly in the inverter LCD. 3. Restart the inverter, if it is still not ruled out, please contact the manufacturer's customer service.
CAN_Comm_FAIL	2012	Battery Communication Failure	1. Check whether the communication cable of meter is damaged.
DSP_Comm_FAIL	2014	DSP Communication Failure	1. Restart DSP to ensure whether the fault is existing.
Alarm1-BMS	2015	Battery BMS Alarm	1. Restart the Battery to ensure whether the fault is existing.

BatName-FAIL	2016	Wrong selection of battery brand	1. Please confirm whether the selected battery brand is the same as actual battery.
Alarm2-BMS	2017	Battery BMS Alarm 2	1. Restart the Battery to ensure whether the fault is existing.
DRM_LINK_FAIL	2018	DRM Connection Failure	Confirm whether DRM cable connection is reliable.
LG-BMS-Fault	2019	LG Battery BMS Fault	Restart the battery and contact battery manufacture for handling if the fault still exists.
LG-Comm-FAIL	2021	LG Battery Communication Failure	1. Restart the battery and contact battery manufacture for handling if the fault still exists.

If you encounter any issues with the inverter, please identify the inverter's serial number (S/N) and get in touch with us. We will strive to address your inquiry as promptly as possible.

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