

Error Codes and Descriptions

Below is a list of error and alarm codes that may occur in **FRENIC-Lift** inverters. Each error code helps identify the source of a potential problem.

1. Alarm Codes

Code	Explanation
------	-------------

OC1	Overcurrent (Level 1)
OC2	Overcurrent (Level 2)
OC3	Overcurrent (Level 3)
OU1	Overvoltage (Level 1)
OU2	Overvoltage (Level 2)
OU3	Overvoltage (Level 3)
LU	Low voltage
Lin	Input phase loss
OH1	Cooler overheating
OH2	External alarm (warnings from external sensors or inputs)
OH3	External alarm
OH4	Motor protection (PTC Thermistor detected)
OL1	Motor overload
DEAD	Inverter overload
PbF	Charging circuit error

2. Error Codes

Code	Explanation
------	-------------

Er1	Memory error (Parameters corrupted or unreadable)
Er2	Keypad communication error (Keypad connection is broken or faulty)
Er3	CPU error (Inverter's internal processor is not responding)
Er4	Option card communication error

Code Explanation

Er5	Option card error (Card is faulty or not recognized)
Er6	Operation error (Incorrect operation or parameter setting)
Er7	Adjustment error (Motor settings are not appropriate)
Er8	RS485 communication error
ErH	Hardware error (Option card not detected)
ECF	EN circuit error
PG	PG (Speed sensor) cable break
Ert	CAN Bus communication error
OS	Overspeed error
ErE	Speed discrepancy (outside of speed control)
Grass	Over-torque current

Troubleshooting Steps

🔴 When error codes occur, follow these steps:

1. Write down the error code.
2. Turn off the inverter and wait for a while.
3. Check the connections and wiring.
4. If the error persists, reset the parameters to factory settings.
5. If the problem persists, contact an authorized technical service.

These error codes are used to **diagnose potential problems that may affect the inverter's performance** .

1 Alarm Codes and Solution Methods**⚠ OC1, OC2, OC3 – Overcurrent Error****🔴 Reason:**

- Sudden overload of the motor
- Short circuit or wiring error
- Engine overlocking
- Incorrect parameter settings

🔧 Solution:

1. Check the motor connections (make sure to connect the U, V, W terminals correctly).
2. Reduce the mechanical load on the engine.
3. Reset parameters and check motor current limits.
4. **by lowering the value of F26 (Carrier Frequency) .**
5. If the problem persists, check if there is a problem with the internal circuits of the motor or inverter.

⚠ OU1, OU2, OU3 – Overvoltage Fault**🔴 Reason:**

- Rapid engine shutdown (regenerative energy accumulation)
- Sudden increases in mains voltage
- Incorrect braking resistor usage

🔧 Solution:

1. Check the mains voltage (confirm that it is within normal values).
2. Activate **the regenerative braking feature** while decelerating the motor .
3. If a braking resistor is connected, check that **a resistor of appropriate value is used .**
4. **Check the settings for F07 (Voltage Upper Limit).**

⚠ LU – Low Voltage Error**🔴 Reason:**

- Low mains voltage
- Fluctuations in power supply
- Phase loss (Input phase loss)

 Solution:

1. Measure the mains input voltage and check if it is low.
2. Examine input wiring and fuses to eliminate any loose connections.
3. Check other devices that draw high current and ensure that sufficient voltage is being supplied to the inverter.

⚠ Lin – Input Phase Loss **Reason:**

- Missing three-phase power connection
- Burnt input fuses or contactor failure
- Excessive imbalance in the mains voltage

 Solution:

1. Check that all input phases are properly connected to the inverter.
2. Test mains side fuses and replace if necessary.
3. Determine if an unbalanced condition exists by measuring the phase voltages.

⚠ OH1 – Coolant Overheating **Reason:**

- Air flow to the inverter is blocked
- High ambient temperature
- Cooling fan not working

 Solution:

1. Make sure the inverter's ventilation holes are open.
2. Check that the fan is working properly; if not, replace it.
3. Take additional cooling measures to reduce the ambient temperature.

🔧 Error Codes and Solution Methods**⚠ Er1 – Memory Error** **Reason:**

- Corruption or deletion of parameters
- EEPROM error

 Solution:

1. **Reset the parameters to factory settings (F00 → Load Factory Settings).**
2. **If the problem persists, update the inverter's software and try again.**
3. **Consult technical service to determine if the EEPROM chip is faulty.**

⚠ Er2 – Keypad Communication Error **Reason:**

- Keypad disconnection
- Damage to keypad circuits

 Solution:

1. **Check the keypad cable and reconnect it .**
2. **Test the keypad on another inverter, if it does not work, replace it.**
3. **Use an alternative connection to set parameters via RS485.**

⚠ Er3 – CPU Error **Reason:**

- Microprocessor failure
- Electrical interference or sudden power outages

 Solution:

1. **Turn off the inverter completely, wait 5 minutes and turn it on again.**
2. **Check the grounding; poor grounding can prevent the CPU from working properly.**
3. **If the problem persists, contact an authorized service center to have the inverter's internal circuits checked.**

⚠ Er8 – RS485 Communication Error **Reason:**

- RS485 connection disconnection
- Incorrect baud rate or protocol setting

 Solution:

1. **Check the connections and make sure the cables are secure.**
2. **Check the F29 (Baud Rate) and F30 (Communication Protocol) parameters.**

3. Try connecting with another device to test the connections.

⚠ ErE – Speed Mismatch Error

🔧 Reason:

- The motor cannot be controlled correctly by the inverter.
- PG (Speed Sensor) is sending faulty signal

🔧 Solution:

1. the motor connections and encoder signals.
2. Test if the PG sensor is working.
3. Check the motor parameters (F03, F04, F05) and set them to appropriate values.

⚠ Ot – Over- Torque Current

🔧 Reason:

- Excessive engine load
- Incorrect setting of torque limits

🔧 Solution:

1. Reduce engine load or increase acceleration time.
2. the torque limits (F14, F15) correctly.
3. Check the braking system and use appropriate braking resistors if necessary.

Conclusion and General Recommendations

- ✅ Do not force the inverter when error codes occur.
- ✅ To resolve the issue, first check the connections and parameters.
- ✅ For recurring errors, consider that there may be a problem with the inverter's internal circuits.
- ✅ Take note of the error codes before contacting the authorized technical service.