7.5 Error messages

Error message	Cause	Remedies
An01: AIN1_I < 4 mA	Open-circuit monitoring for analog input 1 has tripped. • Only if the analog input has been configured as a current loop of 4 ... 20 (C00034/1 = 2).	• Check wiring of the analog X3/A1I input terminal for open circuit. • Check minimum current values of the signal sources.
Ck16: Time overflow manual control	Manual PC control: The connection monitoring has tripped. • The online connection between the PC and the controller has been interrupted for a longer period of time than the timeout set in C00464/1.	• Check the communication link between the PC and the controller. • Check the voltage supply/function of the controller. • Adjust the timeout (C00464/1).
dF10: AutoTrip Reset	Too frequent auto-trip reset.	• Check the error cause that activates the auto-trip reset. • Eliminate error cause and reset (acknowledge) error manually afterwards.
dF14: SW/HW invalid	Device error	Consultation with Lenze required.
dF18: BU RCOM error		
dF21: BU Watchdog		
dF22: CU watchdog		
dF25: CU RCOM error	Mains switching too frequent. • Cyclic mains switching every 3 min is permissible.	• After switching the mains 3 times in one minute, there must be a switching pause of 9 min. • If the problem occurs again, you needs to consult Lenze.
dF50: Retain error	An error has occurred when accessing retain data. • Either caused by an internal hardware error or by lack of mains switching after a firmware download.	Mains switching • If the problem occurs again, you needs to consult Lenze.
dH09: EEPROM power section	Device error	Consultation with Lenze required.
dH10: Fan failure	The device fan has failed. Possible causes: • The short-circuit check of the fan connection has tripped. • The speed monitoring of the fan has tripped.	• Check the fan for short-circuit. • Clean the fan.
dH68: Adjustment data error CU	Device error	Consultation with Lenze required.
dH69: Adjustment data error BU		
FC1: Field controller limitation	The output of the field controller has reached its maximum limit value. The drive is at the torque limit in the field weakening range.	• Observe load requirements. • Correct dimensioning or reduce setpoint from the field weakening range if necessary.
FCH1: Switching frequency reduction	Load-dependent switching frequency reduction	• Observe load requirements. • Correct dimensioning or reduce setpoint generation dynamics if necessary.
FCH2: Max. speed for Fchop	Maximum speed for chopper frequency has been reached. • The maximum speed has been exceeded depending on the switching frequency.	Select the correct maximum speed as a function of the switching frequency.

Error message	Cause	Remedies
ID1: Motor data identification error	During the identification of the motor parameters, an error has occurred. Possible causes: • Interrupted motor cable. • Switched-off power section during the identification. • Implausible start parameter settings.	• Check the motor connections and the corresponding plug connector on the device and, if necessary, the motor terminal box. • Correct start parameters for the motor parameter identification (motor nameplate data). • Stable power supply of the device.
ID3: CINH motor data identification	The device has detected controller inhibit during the motor data identification. • This cancels the identification process. The Lenze setting of the motor data is used.	• Do not set controller inhibit during the motor data identification. • Do not execute any device function which may activate controller inhibit.
ID4: Resistor identification error	The device has recognised that an error has occurred in the calculation of the motor cable resistance. • The parameters for cable cross-section and cable length are implausible.	Enter sensible values for cable cross-section and motor cable length.
LP1: Motor phase failure	Motor phase failure - power section • This error message is displayed if a motor phase carries less current of one half-wave than set in C00599.	• Check the motor connections and the corresponding plug connector on the device and, if necessary, the motor terminal box. • Check the trigger threshold (C00599).
LU: DC bus undervoltage	The device has detected a DC bus undervoltage. The inverter control is switched off because the drive properties of the motor control cannot be provided anymore due to the DC bus undervoltage. • Depending on the configuration of the auto-start lock function, C00142 serves to set that, if this error has been tripped, the controller only starts after the controller inhibit is switched.	• Switch on mains supply or ensure sufficient supply via DC bus. • Adjust setting in C00142 if required.
MCI1: Module missing / incompatible	The optional communication module has been removed or there is a connection problem or incompatibility with the standard device.	• Check connection between the communication module and standard device. • Check if the module is plugged in correctly. • In case of an incompatibility, either the module or the software of the standard device is out of date. In this case, please contact Lenze.
OC1: Power section - short circuit	The device has recognised a short circuit of the motor phases. To protect the device electronics, the inverter control is switched off. • Mostly, incorrectly executed motor connections are the cause. • If the device is inappropriately dimensioned with regard to the motor load and the current limitation in the controller (Imax controller) is set incorrectly, this error message may also occur.	• Check motor connections and the corresponding plug connector on the device. • Only use permissible combinations of device power and motor power. • Do not set the dynamics of the current limitation controller too high.

Error message	Cause	Remedies
OC2: Power section - earth fault	The device has recognised an earth fault at one of the motor phases. To protect the device electronics, the inverter control is switched off. • Mostly, incorrectly executed motor connections are the cause. • If motor filter, motor cable length, and cable type (shielding capacity) are dimensioned incorrectly, this error message may occur due to leakage currents to PE. • If motor filters with additional terminals for +UG and –UG and devices greater or equal 3 kW are used, the earth fault detection may be triggered due to leakage currents to +UG and –UG. • A cause can also be the use of shielded motor cables longer than 50 m.	• Check motor connections and the corresponding plug connector on the device. • Use motor filters, cable lengths, and cable types recommended by Lenze. • If motor filters with additional terminals for +UG and –UG and devices greater or equal 3 kW are used: Deactivate earth fault detection during operation by setting the filter time (C01770) to 250 ms. • If shielded motor cables longer than 50 m are used: Increase the filter time for earth fault detection during operation (C01770).
OC5: Ixt overload	The Ixt overload check has tripped. • Operating threshold = 100 % Ixt (adjustable in C00123) Possible causes: • Wrong dimensioning of the device with regard to its motor load. • Load cycles are not complied with.	• Check and, if required, correct dimensioning of the device and the motor load with regard to technical data. • Reduce motor load cycles (observe load cycles according to documentation).
OC6: I2xt motor overload	Thermal overload of the motor.	• Observe load requirements. • Correct dimensioning if necessary. • In case of VFCplus operation: Check Vmin boost (C00016).
OC7: Motor overcurrent	The maximum current monitoring has tripped. • The instantaneous value of the motor current has exceeded the limit value set in C00939.	Check and, if required, correct dimensioning of the load with regard to the installed device power.
OC10: Max. current reached	The device displays that the maximum current has been reached.	• Check and, if required, correct dimensioning of the load with regard to the installed device power. • Check the maximum current settings in C00022 (Imax in motor mode) and C00023 (Imax in generator mode).
OC11: Active clamp operation	The device indicates that the "CLAMP" overcurrent limitation has been activated. • A permanent clamp operation causes an overload disconnection.	Reduce setpoint generation dynamics or motor load.
OC12: I2xt overload - brake resistor	Too frequent and too long braking processes.	Check drive dimensioning.
OC13: Max. current for Fch exceeded	The device has detected a motor current which exceeds the maximum current limit at permanent switching frequency of the inverter. • If a permanent switching frequency inverter is set, a certain limit arises for the maximum current, depending on the setting. If this current limit is exceeded due to a load impulse or overload, an error message is displayed.	• Observe the maximum current setting depending on the set switching frequency of the inverter. • Reduce the required load or setting of the dynamic switching frequency if necessary.

Error message	Cause	Remedies
OC14: Direct-axis current controller limitation	Direct-axis current controller limitation is active.	• Observe load requirements. • Correct dimensioning or reduce setpoint generation dynamics if necessary.
OC15: Cross current controller limitation	Cross current controller limitation is active.	• Observe load requirements. • Correct dimensioning or reduce setpoint generation dynamics if necessary. • Check parameter setting of the current controller with regard to the motor controllers (e.g. reduce Vp).
OC16: Torque controller limitation	Actuator limitation according to speed controller.	• Observe load requirements. • Correct dimensioning or reduce setpoint generation dynamics if necessary.
OC17: Clamp sets pulse inhibit	Due to a short overcurrent, the inverter was switched off for a short time (clamp disconnection).	• Check and, if required, correct dimensioning of the load with regard to the installed device power. • Reduce the dynamics of the setpoint change or speed control.
OH1: Heatsink overtemperature	The heatsink temperature is higher than the fixed limit temperature (90 ° C). Maybe the ambient temperature of the controller is too high or the fan or its ventilation slots are dirty.	• Check control cabinet temperature. • Clean filter. • Clean controller. • If required, clean or replace the fan. • Provide for sufficient cooling of the device.
OH3: Motor temperature (X106) triggered	The motor temperature monitoring function at the plug connector X106, terminal T1 /T2, has tripped. Possible causes: • The motor is overheated so that the thermal contact integrated into the motor has been switched. • An open circuit or a loose contact at the connections mentioned above has occurred.	• Check motor temperature monitoring. • Provide for sufficient cooling of the motor. • Check terminals for open circuit or loose contact.
OH4: Heatsink temp. > shutdown temp. - 5°C	The heatsink temperature now only differs by 5 °C from the shutdown temperature of the motor.	Prevent further heating, i.e. reduce motor load or set controller inhibit so that the heatsink can cool down again.
OS1: Max. speed limit reached	The device has recognised that the maximum speed has been reached.	• Limit setpoint selection to maximum values. • Adjust set speed limitation (C00909) and frequency limitation (C00910) if necessary.
OT1: Max. torque reached	The device indicates that the maximally possible torque at the motor shaft has been reached. • C00057 displays the current torque.	Reduce motor load.
OT2: Speed controller output limited	The output of the speed controller has reached the internal limit value. In this state, the speed controller is not able anymore to correct the system deviation. • Only with "Closed loop" operation or vector control (SLVC).	• Observe load requirements. • Correct dimensioning or reduce setpoint generation dynamics if necessary.
OU: DC bus overvoltage	The device has detected an overvoltage in the DC bus. To protect the device hardware, the inverter control is switched off. • If this error message remains active longer than the time set in C00601, a "Fault" is tripped.	• Reduce load in generator mode. • Use a brake resistor. • Use a regenerative power supply unit. • Establish a DC-bus connection.

Error message	Cause	Remedies
PS01: No memory module	Memory module is either not available or not snapped into place correctly.	• If a memory module has been provided: Plug the memory module into the slot of the standard device intended for this purpose. • If a memory module has been provided: Check if the memory module has been plugged-in correctly.
PS02: Invalid par. set	The parameter set saved to the memory module is invalid because it has not been saved completely.	Ensure voltage supply during the storage process and that the module remains plugged into the slot.
PS03: Invalid device par. set	The parameter set saved to the memory module is incompatible to the standard device.	When the memory module is exchanged, observe the downward compatibility.
PS04: Invalid MCI par. set	The parameter set saved to the communication module is incompatible to the standard device.	
PS07: Invalid memory module par. set	The parameter set saved to the memory module is invalid.	Consultation with Lenze required.
PS08: Invalid device par.	The parameter set in the device is invalid.	
PS09: Invalid par. format	The code format is invalid.	
PS10: Memory module binding invalid	Active device personalisation: The memory module and the controller do not have identical binding IDs.	• Use memory modules/controllers with matching binding IDs. • Consult the machine manufacturer.
SD3: Open circuit - feedback system	The device has detected open circuit in the feedback system.	Check wiring of the feedback system and the corresponding terminals.
SD10: Speed limit - feedback system 12	Maximally permissible speed of the feedback system connected to DI1/DI2 reached.	Reduce speed of the rotation shaft/feedback system. $n_{Encoder} <= (f_{max} \times 60)$ / encoder increment (at f_{max} = 10 kHz)
Su02: One mains phase is missing	One mains phase of a three-phase supply has failed.	Check mains connection (terminal X100).
Su03: Too frequent mains switching	Too frequent mains switching of the power section. • The device recognises if the power section is switched on and off too frequently. • To protect internal charging connections from destruction, the device reports this error and prevents the controller inhibit. All other functions are active.	The error must be acknowledged. The minimum waiting time between two mains switching processes is approximately three seconds.
Su04: CU insufficiently supplied	After switching on the device, the 24V supply voltage for the control electronics is too low (100ms after switch-on U is < 19V). • The current supply voltage is displayed in C00065.	The error must be acknowledged. With internal supply voltage via the power electronics, the controller must be replaced. With external supply voltage, check the correct connection and/or the stability of the supply voltage.