

## 15.2. Error codes

The following table contains all error codes of the inverter in ascending order.

Error code	Error message	Error type	Configurable in
8784	0x2250 CiA: Continuous over current (internal)	Fault	-
8992	0x2320 CiA: Short circuit/earth leakage (internal)	Fault	-
9024	0x2340 CiA: Short circuit (device internal)	Fault	-
9040	0x2350 CiA: i <sup>2</sup> *t overload (thermal state)	Fault	<a href="#">0x2D4B:003 (P308.03)</a>
9090	0x2382 I*t error	Fault	<a href="#">0x2D40:005 (P135.05)</a>
9091	0x2383 I*t warning	Warning	-
9095	0x2387 I <sub>max</sub> : Clamp responded too often	Fault	-
9096	0x2388 SLPSM stall detection active	Trouble	-
12576	0x3120 Mains phase fault	Fault	-
12816	0x3210 DC bus overvoltage	Fault	-
12817	0x3211 DC bus overvoltage warning	Warning	-
12832	0x3220 DC bus undervoltage	Trouble	-
12833	0x3221 DC bus undervoltage warning	Warning	-
12834	0x3222 DC-bus voltage to low for power up	Warning	-
16912	0x4210 PU: overtemperature fault	Fault	-
17024	0x4280 Heat sink temperature sensor fault	Fault	-
17025	0x4281 Heat sink fan warning	Warning	-
17029	0x4285 PU overtemperature warning	Warning	-
17168	0x4310 Motor temperature error	Fault	<a href="#">0x2D49:002 (P309.02)</a>
20754	0x5112 24 V supply critical	Warning	-
20864	0x5180 Overload 24 V supply	Warning	-
21376	0x5380 OEM hardware incompatible	Fault	-
24592	0x6010 Watchdog time-out	Warning	-
24961	0x6181 Time-out in 125 us task	Fault	-
24962	0x6182 Time-out in 250 us task	Fault	-
24963	0x6183 Time-out in 1 ms task	Fault	-
24964	0x6184 Time-out in 8 ms task	Fault	-
24968	0x6188 Internal error	Fault	-
24969	0x6189 PU: programming fault	Fault	-
24970	0x618A Internal fan warning	Warning	-
24976	0x6190 PU: communication mismatch	Fault	-
24977	0x6191 PU: communication not synchronous	Trouble	-
24978	0x6192 Communication error PU-CU	Trouble	-
24979	0x6193 PU: communication error	Fault	-
24980	0x6194 SDO communication with PU aborted	Fault	-
24981	0x6195 I2C connection lost	Warning	-
24982	0x6196 I2C bus error	Warning	-
25008	0x61B0 PU: uC supply voltage drop down	Fault	-
25009	0x61B1 PU: general error	Fault	-
25216	0x6280 Trigger/functions connected incorrectly	Trouble	-
25217	0x6281 User-defined fault 1	Fault	-
25218	0x6282 User-defined fault 2	Fault	-
25232	0x6290 Warning invert rotation	Warning	-
25233	0x6291 Maximum allowed troubles exceeded	Fault	-
25248	0x62A0 AC Drive: user fault	Fault	-
25249	0x62A1 Network: user fault 1	Fault	-

Error code		Error message	Error type	Configurable in
25250	0x62A2	Network: user fault 2	Fault	-
25265	0x62B1	NetWordIN1 configuration incorrect	Trouble	-
25504	0x63A0	On-board EEPROM: access error	Fault	-
25505	0x63A1	CU: load error ID tag	Fault	-
25506	0x63A2	PU: load error ID tag	Fault	-
25507	0x63A3	Power unit unknown	Fault	-
25508	0x63A4	On-board EEPROM: timer overflow	Warning	-
28800	0x7080	Assertion level monitoring (Low/High)	Fault	-
28801	0x7081	Analog input 1 fault	Fault	<a href="#">0x2636:010 (P430.10)</a>
28802	0x7082	Analog input 2 fault	Fault	<a href="#">0x2637:010 (P431.10)</a>
28803	0x7083	HTL input fault	Warning	<a href="#">0x2641:006 (P416.06)</a>
28833	0x70A1	Analog output 1 fault	Warning	-
28834	0x70A2	Analog output 2 fault	Warning	-
28961	0x7121	Pole position identification fault	Fault	<a href="#">0x2C60</a>
29056	0x7180	Motor overcurrent	Fault	<a href="#">0x2D46:002 (P353.02)</a>
29445	0x7305	Encoder open circuit	Warning	<a href="#">0x2C45 (P342.00)</a>
29573	0x7385	Feedback system: speed limit	Warning	-
30336	0x7680	Memory module is full	Warning	-
30337	0x7681	Memory module not present	Fault	-
30338	0x7682	Memory module invalid user data	Fault	-
30340	0x7684	Data not compl. saved before powerdown	Warning	-
30342	0x7686	Network: configuration error	Fault	-
30343	0x7687	Memory module: timer overflow	Warning	-
30345	0x7689	Memory module: invalid OEM data	Warning	-
30346	0x768A	Memory module: wrong type	Fault	-
30352	0x7690	EPM firmware version incompatible	Fault	-
30353	0x7691	EPM data: firmware type incompatible	Fault	-
30354	0x7692	EPM data: new firmware type detected	Fault	-
30355	0x7693	EPM data: PU size incompatible	Fault	-
30356	0x7694	EPM data: new PU size detected	Fault	-
30357	0x7695	Invalid parameter changeover configuration	Warning	-
30358	0x7696	EPM data: unknown parameter found	Info	-
30359	0x7697	Parameter changes lost	Fault	-
33042	0x8112	Network: timeout explicit message	Warning	<a href="#">0x2859:006 (P515.06)</a>
33044	0x8114	Network: overall communication timeout	Warning	See details for <a href="#">33044</a>
33045	0x8115	Time-out (PAM)	No response	<a href="#">0x2552:004 (P595.04)</a>
33046	0x8116	Modbus TCP master time-out	Fault	<a href="#">0x2859:008 (P515.08)</a>
33047	0x8117	Modbus TCP Keep Alive time-out	Fault	<a href="#">0x2859:009 (P515.09)</a>
33154	0x8182	CAN: bus off	Trouble	<a href="#">0x2857:010</a>
33155	0x8183	CAN: warning	Warning	<a href="#">0x2857:011</a>
33156	0x8184	CAN: heartbeat time-out consumer 1	Fault	<a href="#">0x2857:005</a>
33157	0x8185	CAN: heartbeat time-out consumer 2	Fault	<a href="#">0x2857:006</a>
33158	0x8186	CAN: heartbeat time-out consumer 3	Fault	<a href="#">0x2857:007</a>
33159	0x8187	CAN: heartbeat time-out consumer 4	Fault	<a href="#">0x2857:008</a>
33168	0x8190	Network: watchdog timeout	Fault	See details for <a href="#">33168</a>
33169	0x8191	Network: disruption of cyclic data exchange	No response	<a href="#">0x2859:002 (P515.02)</a>
33170	0x8192	Network: initialisation error	Fault	See details for <a href="#">33170</a>
33171	0x8193	Network: invalid cyclic process data	Trouble	See details for <a href="#">33171</a>
33184	0x81A0	Modbus transmit message error	Warning	-

Error code	Error message	Error type	Configurable in
33185	0x81A1 Modbus: network time-out	Fault	0x2858:001 (P515.01)
33186	0x81A2 Modbus: incorrect request by master	Warning	-
33200	0x81B0 iCIF connection lost	Fault	-
33414	0x8286 Network: PDO mapping error	Fault	See details for <a href="#">33414</a>
33425	0x8291 CAN: RPDO1 time-out	Fault	0x2857:001
33426	0x8292 CAN: RPDO2 time-out	Fault	0x2857:002
33427	0x8293 CAN: RPDO3 time-out	Fault	0x2857:003
33553	0x8311 Torque limit reached	No response	0x2D67:001 (P329.01)
36992	0x9080 Keypad removed	Fault	-
65282	0xFF02 Brake resistor: overload fault	Fault	0x2550:011 (P707.11)
65285	0xFF05 Safe Torque Off error	Fault	-
65286	0xFF06 Motor overspeed	Fault	0x2D44:002 (P350.02)
65289	0xFF09 Motor phase missing	No response	0x2D45:001 (P310.01)
65290	0xFF0A Motor phase failure phase U	No response	0x2D45:001 (P310.01)
65291	0xFF0B Motor phase failure phase V	No response	0x2D45:001 (P310.01)
65292	0xFF0C Motor phase failure phase W	No response	0x2D45:001 (P310.01)
65305	0xFF19 Motor parameter identification fault	Fault	-
65334	0xFF36 Brake resistor: overload warning	Warning	0x2550:010 (P707.10)
65335	0xFF37 Automatic start disabled	Fault	-
65366	0xFF56 Maximum motor frequency reached	Warning	-
65413	0xFF85 Keypad full control active	Warning	-

### Details regarding the individual error messages

8784 | 0x2250 CiA: Continuous over current (internal)

Keypad display: PU over current

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>Overcurrent at the brake chopper (brake transistor).</li> <li>Continuous overcurrent on the inverter/motor side.</li> <li>DC bus relay has not been closed due to a malfunction.</li> </ul>	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset after a blocking time of 5 s.</li> </ul>	<ul style="list-style-type: none"> <li>Check brake resistor and wiring.</li> <li>Check motor and wiring for short circuits.</li> </ul>

8992 | 0x2320 CiA: Short circuit/earth leakage (internal)

Keypad display: Earth leak

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>Short circuit/earth fault of motor cable</li> <li>Capacitive charging current of the motor cable too high.</li> </ul>	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset after a blocking time of 5 s.</li> </ul>	<ul style="list-style-type: none"> <li>Check motor cable.</li> <li>Check length of the motor cable.</li> <li>Use shorter or lower-capacitance motor cable.</li> </ul>

9024 | 0x2340 CiA: Short circuit (device internal)

Keypad display: Motor shorted

Cause	Error type/response	Remedy
Short circuit of motor cable	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset after a blocking time of 5 s.</li> </ul>	Check motor cable for short circuit.

9040 | 0x2350 CiA: i<sup>2</sup>\*t overload (thermal state)

Keypad display: i2t motor

Cause	Error type/response	Remedy
Motor thermally overloaded, e. g. by an impermissible continuous current or by frequent or too long acceleration processes.	Fault <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 5 s.</li> <li>The error type can be configured in <a href="#">0x2D4B:003 (P308.03)</a>.</li> </ul>	Check drive dimensioning.

Related topics

▶ [Motor overload monitoring \(i<sup>2</sup>\\*t\)](#) 186

9090 | 0x2382 I\*t error

Keypad display: Ixt error

Cause	Error type/response	Remedy
Device utilisation (I*t) too high by frequent and too long acceleration processes.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset after a blocking time of 3 s.</li> <li>The error type can be configured in <a href="#">0x2D40:005 (P135.05)</a>.</li> </ul>	Check drive dimensioning.

Related topics

▶ [Device overload monitoring \(i\\*t\)](#) 109

9091 | 0x2383 I\*t warning

Keypad display: Ixt warning

Cause	Error type/response	Remedy
Device utilisation (I*t) too high by frequent and too long acceleration processes.	Warning	Check drive dimensioning.

Related topics

▶ [Device overload monitoring \(i\\*t\)](#) 109

9095 | 0x2387 I<sub>max</sub>: Clamp responded too often

Keypad display: Clamp timeout

Cause	Error type/response	Remedy
Maximum current of the axis (display in <a href="#">0x2DDF:002</a> ) has been reached too often in succession.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	<ul style="list-style-type: none"> <li>Select a flatter speed ramp.</li> <li>Reduce the load.</li> <li>Set I<sub>max</sub> controller more dynamically.</li> </ul>

Related topics

▶ [I<sub>max</sub> controller](#) 175

9096 | 0x2388 SLPSM stall detection active

Keypad display: SLPSM stall det.

Cause	Error type/response	Remedy
Overload of the motor with sensorless control for synchronous motors (SL-PSM).	Trouble <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	<ul style="list-style-type: none"> <li>Reduce load at the axis.</li> <li>Check settings of the SL-PSM parameters.</li> </ul>

Related topics

▶ [Sensorless control for synchronous motors \(SL-PSM\)](#) 148

## 12576 | 0x3120 Mains phase fault

Keypad display: Mains Phase fail

Cause	Error type/response	Remedy
Mains phase failure	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring of the mains connection.</li> <li>Check fuses.</li> </ul>

## 12816 | 0x3210 DC bus overvoltage

Keypad display: DC Bus OV

Cause	Error type/response	Remedy
DC-bus voltage has exceeded the error threshold for overvoltage due to a too high braking energy. The error threshold (display in 0x2540:006 (P208.06)) results from the setting of the rated mains voltage in 0x2540:001 (P208.01).	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	<ul style="list-style-type: none"> <li>Reduce dynamic performance of the load profile.</li> <li>Check mains voltage.</li> <li>Check settings for the brake energy management.</li> <li>Connect brake resistor to the power unit and activate the integrated brake chopper.</li> </ul>

## Related topics

▶ [Mains voltage](#)  117

▶ [Brake energy management](#)  385

## 12817 | 0x3211 DC bus overvoltage warning

Keypad display: Warn.DC Bus OV

Cause	Error type/response	Remedy
DC-bus voltage has exceeded the warning threshold for overvoltage set in 0x2540:005 (P208.05) due to a too high braking energy.	Warning	<ul style="list-style-type: none"> <li>Reduce dynamic performance of the load profile.</li> <li>Check mains voltage.</li> <li>Check settings for brake energy management.</li> <li>Connect brake resistor to the power unit and activate the integrated brake chopper.</li> </ul>

## Related topics

▶ [Mains voltage](#)  117

▶ [Brake energy management](#)  385

## 12832 | 0x3220 DC bus undervoltage

Keypad display: DC Bus UV

Cause	Error type/response	Remedy
DC-bus voltage has fallen below the error threshold for undervoltage. The error threshold (display in 0x2540:003 (P208.03)) results from the setting of the rated mains voltage in 0x2540:001 (P208.01).	Trouble	<ul style="list-style-type: none"> <li>Check mains voltage.</li> <li>Check DC-bus voltage.</li> <li>Check mains settings.</li> </ul>

## Related topics

▶ [Mains voltage](#)  117

## 12833 | 0x3221 DC bus undervoltage warning

Keypad display: Warn.DC Bus UV

Cause	Error type/response	Remedy
DC-bus voltage has fallen below the warning threshold for undervoltage set in <a href="#">0x2540:002 (P208.02)</a> .	Warning	<ul style="list-style-type: none"> <li>• Check mains voltage.</li> <li>• Check DC-bus voltage.</li> <li>• Check mains settings.</li> </ul>

Related topics

▶ [Mains voltage](#)  117

## 12834 | 0x3222 DC-bus voltage to low for power up

Keypad display: DC-bus on-UV

Cause	Error type/response	Remedy
The input voltage is too low to switch on the inverter.	Warning	<ul style="list-style-type: none"> <li>• Check mains voltage.</li> <li>• Check mains settings.</li> </ul>

Related topics

▶ [Mains voltage](#)  117

## 16912 | 0x4210 PU: overtemperature fault

Keypad display: PU Overtemp.

Cause	Error type/response	Remedy
The heatsink temperature of the power unit (display in <a href="#">0x2D84:001 (P117.01)</a> ) has exceeded the fixed error threshold (100 °C). <ul style="list-style-type: none"> <li>• Ambient temperature too high.</li> <li>• Fan or ventilation slots are polluted.</li> <li>• Fan is defective.</li> </ul>	Fault	<ul style="list-style-type: none"> <li>• Provide for a sufficient cooling of the device.</li> <li>• Clean fan and ventilation slots.</li> <li>• If required, replace fan.</li> <li>• Reduce switching frequency in .</li> </ul>

## 17024 | 0x4280 Heat sink temperature sensor fault

Keypad display: Heatsink sensor

Cause	Error type/response	Remedy
Sensor for the temperature monitoring of the power unit is defective. The failure of the temperature monitoring function poses the risk of overheating!	Fault	Hardware error: it is necessary to contact the manufacturer, since the device must be replaced.

## 17025 | 0x4281 Heat sink fan warning

Keypad display: Heatsink fan

Cause	Error type/response	Remedy
Warning of the heatsink fan.	Warning	Check/replace the heatsink fan.

## 17029 | 0x4285 PU overtemperature warning

Keypad display: Warn.PU Overtemp

Cause	Error type/response	Remedy
The heatsink temperature of the power unit (display in <a href="#">0x2D84:001 (P117.01)</a> ) has exceeded the warning threshold set in <a href="#">0x2D84:002</a> . <ul style="list-style-type: none"> <li>• Ambient temperature too high.</li> <li>• Fan or ventilation slots are polluted.</li> <li>• Fan is defective.</li> </ul>	Warning	<ul style="list-style-type: none"> <li>• Provide for a sufficient cooling of the device.</li> <li>• Clean fan and ventilation slots.</li> <li>• If required, replace fan.</li> <li>• Reduce switching frequency in .</li> </ul>

Related topics

▶ [Heatsink Temperature Monitoring](#)  109

17168 | 0x4310 Motor temperature error

Keypad display: Overtemp. motor

Cause	Error type/response	Remedy
<p>The motor temperature sensor connected to terminals X109/T1 and X109/T2 measures a too high motor temperature.</p> <ul style="list-style-type: none"> <li>• Motor too hot by impermissibly high currents.</li> <li>• Motor too hot by frequent and too long acceleration processes.</li> </ul>	<p>Fault</p> <ul style="list-style-type: none"> <li>• The error can only be reset after a blocking time of 5 s.</li> <li>• The error type can be configured in <a href="#">0x2D49:002 (P309.02)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>• Check drive dimensioning.</li> <li>• Check motor temperature sensor and wiring.</li> </ul>

Related topics

▶ [Motor temperature monitoring](#) 📖 190

20754 | 0x5112 24 V supply critical

Keypad display: 24V supply low

Cause	Error type/response	Remedy
<p>24V voltage failed or too low.</p>	<p>Warning</p>	<ul style="list-style-type: none"> <li>• Check optional external 24V voltage supply (terminal X3/24E), if connected.</li> <li>• Check mains voltage.</li> </ul>

20864 | 0x5180 Overload 24 V supply

Keypad display: Overload 24V

Cause	Error type/response	Remedy
<p>Output current at the 24V output or at the digital outputs too high.</p>	<p>Warning</p>	<p>Check 24V output and digital outputs for earth fault or overload.</p>

21376 | 0x5380 OEM hardware incompatible

Keypad display: Incomp. OEM HW

Cause	Error type/response	Remedy
<p>The control unit (OEM hardware) is not compatible with the power unit (OEM hardware).</p>	<p>Fault</p> <ul style="list-style-type: none"> <li>• The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>• The error can only be reset by mains switching.</li> </ul>	<ul style="list-style-type: none"> <li>• Use compatible hardware.</li> <li>• Contact the OEM.</li> </ul>

24592 | 0x6010 Watchdog time-out

Keypad display: Watchdog timeout

Cause	Error type/response	Remedy
	<p>Warning</p>	

24961 | 0x6181 Time-out in 125 µs task

Keypad display: Timeout-125µsTsk

Cause	Error type/response	Remedy
	<p>Fault</p> <ul style="list-style-type: none"> <li>• The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>• The error can only be reset by mains switching.</li> </ul>	

24962 | 0x6182 Time-out in 250 us task

Keypad display: Timeout-250usTsk

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	

24963 | 0x6183 Time-out in 1 ms task

Keypad display: Timeout-1ms-Task

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	

24964 | 0x6184 Time-out in 8 ms task

Keypad display: Timeout-8ms-Task

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	

24968 | 0x6188 Internal error

Keypad display: Internal error

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	

24969 | 0x6189 PU: programming fault

Keypad display: PU Prog. error

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	

24970 | 0x618A Internal fan warning

Keypad display: Internal fan

Cause	Error type/response	Remedy
Warning of the internal fan.	Warning	Check/replace internal fan.

24976 | 0x6190 PU: communication mismatch mismatch

Keypad display: PU comm

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	



24977 | 0x6191 PU: communication not synchronous

Keypad display: PU Sync. Fault

Cause	Error type/response	Remedy
	Trouble <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	

24978 | 0x6192 Communication error PU-CU

Keypad display: Comm.error PU-CU

Cause	Error type/response	Remedy
	Trouble <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	

24979 | 0x6193 PU: communication error

Keypad display: PU comm error

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	

24980 | 0x6194 SDO communication with PU aborted

Keypad display: PU SDO comm err.

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	

24981 | 0x6195 I2C connection lost

Keypad display: I2C conn. error

Cause	Error type/response	Remedy
	Warning	

24982 | 0x6196 I2C bus error

Keypad display: I2C bus error

Cause	Error type/response	Remedy
	Warning	

25008 | 0x61B0 PU: uC supply voltage drop down

Keypad display: PU uC supply err

Cause	Error type/response	Remedy
	Fault	

25009 | 0x61B1 PU: general error

Keypad display: PU general error

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	

25216 | 0x6280 Trigger/functions connected incorrectly

Keypad display: P400 config err

Cause	Error type/response	Remedy
<p>The assignment directives have not been observed.</p> <ul style="list-style-type: none"> <li>If the "flexible I/O configuration" is active as control source, the "Enable inverter" or "Run" function must be connected to a digital input in order that the motor can be stopped again any time!</li> <li>The use of the "Start forward (CW)" and "Start reverse (CCW)" functions excludes the use of the "Run forward (CW)" and "Run reverse (CCW)" functions, and vice versa.</li> </ul>	Trouble	<p>Check and correct the assignment of the triggers for the functions.</p> <ul style="list-style-type: none"> <li>With keypad or network control, the two "Enable inverter" and "Run" functions can also be set to "Constant TRUE [1]" to start the motor.</li> </ul>

Related topics

▶ [Start / stop motor](#)  493

25217 | 0x6281 User-defined fault 1

Keypad display: User fault 1

Cause	Error type/response	Remedy
<p>Flexible I/O configuration: the "Activate fault 1" function is activated via the trigger selected in <a href="#">0x2631:043 (P400.43)</a>.</p>	Fault	Eliminate error cause and then reset error.

Related topics

▶ [Triggering a user-defined fault](#)  543

25218 | 0x6282 User-defined fault 2

Keypad display: User fault 2

Cause	Error type/response	Remedy
<p>Flexible I/O configuration: the "Activate fault 2" function is activated via the trigger selected in <a href="#">0x2631:044 (P400.44)</a>.</p>	Fault	Eliminate error cause and then reset error.

Related topics

▶ [Triggering a user-defined fault](#)  543

25232 | 0x6290 Warning invert rotation

Keypad display: Invert rotation

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>Negative setpoint selection with an active limitation of rotation <a href="#">0x283A (P304.00)</a>.</li> <li>The "Invert rotation" <a href="#">0x2631:013 (P400.13)</a> function was requested with an active limitation of rotation <a href="#">0x283A (P304.00)</a>.</li> </ul>	<p>Warning</p> <ul style="list-style-type: none"> <li>The motor is brought to a standstill, since a reversal of the rotating direction is not permissible.</li> </ul>	Check setpoint selection and trigger.

Related topics

▶ [Motor rotating direction](#)  183

25233 | 0x6291 Maximum allowed troubles exceeded

Keypad display: Trouble overflow

Cause	Error type/response	Remedy
The number of permitted restart attempts after a fault set in <a href="#">0x2839:003 (P760.03)</a> was exceeded. The fault occurred to frequently and could not be reset.	Fault <ul style="list-style-type: none"> <li>The motor remains at a standstill, no automatic restart is executed.</li> </ul>	Check and the eliminate the fault.

Related topics

▶ [Automatic restart](#)  435

25249 | 0x62A1 Network: user fault 1

Keypad display: Netw.UserFault 1

Cause	Error type/response	Remedy
The "Activate fault 1" function was triggered via the NetWordIN1 data word <a href="#">0x4008:001 (P590.01)</a> .	Fault	Eliminate error cause and then reset error.

Related topics

▶ [Further process data](#)  220

25250 | 0x62A2 Network: user fault 2

Keypad display: Netw.UserFault 2

Cause	Error type/response	Remedy
The "Activate fault 2" function was triggered via the NetWordIN1 data word <a href="#">0x4008:001 (P590.01)</a> .	Fault	Eliminate error cause and then reset error.

Related topics

▶ [Further process data](#)  220

25265 | 0x62B1 NetWordIN1 configuration incorrect

Keypad display: NetWordIN1 error

Cause	Error type/response	Remedy
Two bits of the NetWordIN1 data word <a href="#">0x4008:001 (P590.01)</a> were assigned to the same function.	Trouble	Check and correct configuration of the NetWordIN1 data word. <ul style="list-style-type: none"> <li>The functions that are to be triggered via bits 0 ... 15 of the NetWordIN1 data word are defined in <a href="#">0x400E:001 (P505.01)</a> ... <a href="#">0x400E:016 (P505.16)</a>.</li> </ul>

25504 | 0x63A0 On-board EEPROM: access error

Keypad display: EEPROM fault

Cause	Error type/response	Remedy
	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	

25505 | 0x63A1 CU: load error ID tag

Keypad display: CU ID tag error

Cause	Error type/response	Remedy

Cause	Error type/response	Remedy
Calibration data of the control unit not compatible or faulty.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	<ul style="list-style-type: none"> <li>Update firmware of the inverter to the most recent version.</li> <li>If the error persists, the control unit or the device has to be replaced. In this case, please contact the manufacturer.</li> </ul>

25506 | 0x63A2 PU: load error ID tag

Keypad display: PU ID tag error

Cause	Error type/response	Remedy
Calibration data of the power unit not compatible or faulty.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	<ul style="list-style-type: none"> <li>Update firmware of the inverter to the most recent version.</li> <li>If the error persists, the power unit or the device has to be replaced. In this case, please contact the manufacturer.</li> </ul>

25507 | 0x63A3 Power unit unknown

Keypad display: PU unknown

Cause	Error type/response	Remedy
The power unit installed is not supported by the software.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error can only be reset by mains switching.</li> </ul>	Update firmware of the inverter to the most recent version.

25508 | 0x63A4 On-board EEPROM: timer overflow

Keypad display: EEPROM overflow

Cause	Error type/response	Remedy
	Warning	

28800 | 0x7080 Assertion level monitoring (Low/High)

Keypad display: Assertionlevel

Cause	Error type/response	Remedy
The last setting of the connection level differs from the saved setting.	Fault	<ol style="list-style-type: none"> <li>Check setting in <a href="#">0x2630:001 (P410.01)</a>.</li> <li>Execute device command "Save user data" <a href="#">0x2022:003 (P700.03)</a>.</li> <li>Switch inverter off and on again.</li> </ol>

28801 | 0x7081 Analog input 1 fault

Keypad display: AI1 fault

Cause	Error type/response	Remedy
The monitoring function of the input signal configured for analog input 1 in <a href="#">0x2636:008 (P430.08)</a> and <a href="#">0x2636:009 (P430.09)</a> has been triggered.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2636:010 (P430.10)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check input signal at analog input 1.</li> <li>Check configuration of the monitoring function.</li> </ul>

Related topics

▶ [Analog input 1](#)  562

28802 | 0x7082 Analog input 2 fault

Keypad display: AI2 fault

Cause	Error type/response	Remedy
The monitoring function of the input signal configured for analog input 2 in <a href="#">0x2637:008 (P431.08)</a> and <a href="#">0x2637:009 (P431.09)</a> has been triggered.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2637:010 (P431.10)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check input signal at analog input 2.</li> <li>Check configuration of the monitoring function.</li> </ul>

Related topics

▶ [Analog input 2](#)  566

28803 | 0x7083 HTL input fault

Keypad display: HTL input fault

Cause	Error type/response	Remedy
The monitoring of the input signal configured for the HTL input has been triggered.	Warning <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2641:006 (P416.06)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check input signal at the HTL input.</li> <li>Check configuration of the monitoring function.</li> </ul>

Related topics

▶ [HTL input setpoint source](#)  528

28833 | 0x70A1 Analog output 1 fault

Keypad display: AO1 fault

Cause	Error type/response	Remedy
Open circuit or short circuit at analog output 1.	Warning	<ul style="list-style-type: none"> <li>Check wiring of analog output 1.</li> <li>Check definition of the output range in <a href="#">0x2639:001 (P440.01)</a>.</li> </ul>

Related topics

▶ [Analog output 1](#)  578

28834 | 0x70A2 Analog output 2 fault

Keypad display: AO2 fault

Cause	Error type/response	Remedy
Open circuit or short circuit at analog output 2.	Warning	<ul style="list-style-type: none"> <li>Check wiring of analog output 2.</li> <li>Check definition of the output range in <a href="#">0x263A:001 (P441.01)</a>.</li> </ul>

Related topics

▶ [Analog output 2](#)  580

28961 | 0x7121 Pole position identification fault

Keypad display: Pole pos. error

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>Too many deviations during the pole position identification.</li> <li>Compared to the inverter, the rated motor current is too high or too low.</li> </ul>	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The error type can be configured in <a href="#">0x2C60</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check setting of the motor data.</li> <li>Ensure that the motor is at a standstill during the pole position identification process.</li> <li>Ensure that the motor and inverter match each other in terms of power.</li> </ul>

## 29056 | 0x7180 Motor overcurrent

Keypad display: Mot max current

Cause	Error type/response	Remedy
The motor current has exceeded the warning/error threshold for the motor current monitoring set in <a href="#">0x2D46:001 (P353.01)</a> .	Fault <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 1 s.</li> <li>The error type can be configured in <a href="#">0x2D46:002 (P353.02)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check motor load.</li> <li>Check drive dimensioning.</li> <li>Check warning/error threshold set in <a href="#">0x2D46:001 (P353.01)</a>.</li> </ul>

## Related topics

► [Overcurrent monitoring](#)  193

## 29445 | 0x7305 Encoder open circuit

Keypad display: Encoder error

Cause	Error type/response	Remedy
The encoder signal loss monitoring function has detected a failure of the encoder signal.	Warning <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2C45 (P342.00)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check the encoder connection.</li> <li>Check encoder cable for wire breakage.</li> <li>Check encoder current supply.</li> </ul>

## Related topics

► [Encoder monitoring](#)  446

## 29573 | 0x7385 Feedback system: speed limit

Keypad display: F.fdb spd limit

Cause	Error type/response	Remedy
The feedback system exceeds the maximum permissible frequency range of the digital inputs.	Warning	Check feedback system.

## Related topics

► [Encoder monitoring](#)  446

## 30336 | 0x7680 Memory module is full

Keypad display: EPM full

Cause	Error type/response	Remedy
The memory module contains too many parameter settings.	Warning <ul style="list-style-type: none"> <li>The parameter settings were not saved in the memory module.</li> </ul>	Execute "Save user data" <a href="#">0x2022:003 (P700.03)</a> device command again. This reinitialises the user memory with the current parameter settings. In this way, parameter settings that are no longer required are automatically deleted.

## 30337 | 0x7681 Memory module not present

Keypad display: EPM not present

Cause	Error type/response	Remedy
The inverter memory module was removed.	Fault <ul style="list-style-type: none"> <li>The default setting stored in the inverter firmware has been loaded.</li> <li>The error cannot be reset by the user.</li> </ul>	<ol style="list-style-type: none"> <li>Switch off inverter.</li> <li>Plug the memory module into the inverter.</li> <li>Switch the inverter on again.</li> </ol> <p>Note: The memory module cannot be replaced during ongoing operation!</p>

## 30338 | 0x7682 Memory module invalid user data

Keypad display: EPM invalid data

Cause	Error type/response	Remedy
The user parameter settings in the memory module are invalid.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The user parameter settings are lost.</li> <li>The default settings were automatically loaded.</li> </ul>	<ol style="list-style-type: none"> <li>Execute user parameter settings again.</li> <li>Execute device command "Save user data" <a href="#">0x2022:003 (P700.03)</a>.</li> </ol>

## 30340 | 0x7684 Data not compl. saved before powerdown

Keypad display: Save incomplete

Cause	Error type/response	Remedy
Saving of the parameter settings was interrupted by an unexpected disconnection.	Warning <ul style="list-style-type: none"> <li>The user parameter settings were not fully saved.</li> <li>At the next switch-on, the data stored are copied to the user memory.</li> </ul>	<ol style="list-style-type: none"> <li>Check user parameter settings. (The loaded backup is an older version.)</li> <li>If required, repeat the changes made last.</li> <li>Execute device command "Save user data" <a href="#">0x2022:003 (P700.03)</a>.</li> </ol>

## 30342 | 0x7686 Network: configuration error

Keypad display: Net.config.error

Cause	Error type/response	Remedy
Communication between the power unit and the control unit is faulty.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> </ul>	<ol style="list-style-type: none"> <li>Switch off inverter.</li> <li>Install control unit correctly on power unit.</li> <li>Switch the inverter on again.</li> </ol>

## 30343 | 0x7687 Memory module: timer overflow

Keypad display: EPM timer overfl

Cause	Error type/response	Remedy
	Warning	

## 30345 | 0x7689 Memory module: invalid OEM data

Keypad display: OEM data invalid

Cause	Error type/response	Remedy
The OEM memory contains invalid parameter settings or is empty.	Warning <ul style="list-style-type: none"> <li>The user parameter settings were automatically loaded.</li> </ul>	<ul style="list-style-type: none"> <li>Execute device command "Save OEM data" <a href="#">0x2022:006 (P700.06)</a>.</li> <li>Thus, the user parameter settings get lost!</li> </ul>

## 30346 | 0x768A Memory module: wrong type

Keypad display: Wrong EPM

Cause	Error type/response	Remedy
The memory module connected is not supported by the inverter.	Fault <ul style="list-style-type: none"> <li>The default setting stored in the inverter firmware has been loaded.</li> <li>The error cannot be reset by the user.</li> </ul>	<ol style="list-style-type: none"> <li>Switch off inverter.</li> <li>Replace plugged-in memory module by a memory module that matches the inverter.</li> <li>Switch the inverter on again.</li> </ol>

## 30352 | 0x7690 EPM firmware version incompatible

Keypad display: EPM-FW incompat.

Cause	Error type/response	Remedy
The parameter settings saved in the memory module are incompatible with the firmware version.	Fault <ul style="list-style-type: none"> <li>The data have been loaded into the RAM memory, but they are incompatible.</li> </ul>	<ol style="list-style-type: none"> <li>Execute device command "Load default settings" <a href="#">0x2022:001 (P700.01)</a>.</li> <li>Execute "Save user data" <a href="#">0x2022:003 (P700.03)</a> or "Save OEM data" <a href="#">0x2022:006 (P700.06)</a> device command.</li> </ol>

30353 | 0x7691 EPM data: firmware type incompatible

Keypad display: EPM: FW incompat.

Cause	Error type/response	Remedy
The parameter settings saved in the memory module are incompatible with the firmware type. Example: Memory module of an inverter with an application IO is used in an inverter with a standard IO.	Fault <ul style="list-style-type: none"> <li>The data have been loaded into the RAM memory, but they are incompatible.</li> </ul>	<ol style="list-style-type: none"> <li>Execute device command "Load default settings" <a href="#">0x2022:001 (P700.01)</a>.</li> <li>Execute "Save user data" <a href="#">0x2022:003 (P700.03)</a> or "Save OEM data" <a href="#">0x2022:006 (P700.06)</a> device command.</li> </ol>

30354 | 0x7692 EPM data: new firmware type detected

Keypad display: UserCU not match

Cause	Error type/response	Remedy
The parameter settings saved in the memory module do not match the inverter hardware.	Fault <ul style="list-style-type: none"> <li>The data have been loaded into the RAM memory without being modified, and they are compatible.</li> <li>The settings loaded must be accepted by the user (see remedy).</li> </ul>	<ol style="list-style-type: none"> <li>Check parameter settings.</li> <li>Reset error.</li> <li>Execute "Save user data" <a href="#">0x2022:003 (P700.03)</a> or "Save OEM data" <a href="#">0x2022:006 (P700.06)</a> device command.</li> </ol>

30355 | 0x7693 EPM data: PU size incompatible

Keypad display: EPM PU size inco

Cause	Error type/response	Remedy
The parameter settings saved in the memory module are incompatible with the inverter.	Fault <ul style="list-style-type: none"> <li>The data have been loaded into the RAM memory, but they are incompatible.</li> </ul>	<ol style="list-style-type: none"> <li>Execute device command "Load default settings" <a href="#">0x2022:001 (P700.01)</a>.</li> <li>Execute "Save user data" <a href="#">0x2022:003 (P700.03)</a> or "Save OEM data" <a href="#">0x2022:006 (P700.06)</a> device command.</li> </ol>

30356 | 0x7694 EPM data: new PU size detected

Keypad display: EPM new PU size

Cause	Error type/response	Remedy
The parameter settings saved in the memory module comply with a different hardware. Example: Memory module of an inverter with a power of 3 kW is used in an inverter with a power of 18.5 kW.	Fault <ul style="list-style-type: none"> <li>The data have been loaded into the RAM memory without being modified, and they are compatible.</li> <li>The settings loaded must be accepted by the user (see remedy).</li> </ul>	<ol style="list-style-type: none"> <li>Check parameter settings.</li> <li>Reset error.</li> <li>Execute "Save user data" <a href="#">0x2022:003 (P700.03)</a> or "Save OEM data" <a href="#">0x2022:006 (P700.06)</a> device command.</li> </ol>

30357 | 0x7695 Invalid parameter changeover configuration

Keypad display: InvalidChgovrCfg

Cause	Error type/response	Remedy
One or more parameters can no longer be used for the "Parameter change-over" function.	Warning <ul style="list-style-type: none"> <li>The parameter change-over function is deactivated.</li> </ul>	<ol style="list-style-type: none"> <li>Check error message for parameter changeover in <a href="#">0x4047:001 (P756.01)</a>.</li> <li>Correct the list entry shown in <a href="#">0x4047:002 (P756.02)</a>.</li> </ol>

30358 | 0x7696 EPM data: unknown parameter found

Keypad display: Unkn. Par in EPM

Cause	Error type/response	Remedy
The memory module contains parameter settings for one or several parameters that are not known to the inverter.	Info	Execute the "Save user data" <a href="#">0x2022:003 (P700.03)</a> device command. This reinitialises the user memory with the current parameter settings. In this way, parameter settings that are no longer required are automatically deleted.



## 30359 | 0x7697 Parameter changes lost

Keypad display: Parameter loss

Cause	Error type/response	Remedy
A voltage failure has occurred and changed parameter settings that had not been saved yet were available.	Fault <ul style="list-style-type: none"> <li>The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>The parameter settings changed have been lost.</li> </ul>	<ol style="list-style-type: none"> <li>Execute parameter settings again.</li> <li>Execute device command "Save user data" <a href="#">0x2022:003 (P700.03)</a>.</li> </ol>

## 33042 | 0x8112 Network: timeout explicit message

Keypad display: TO expl. msg

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>Within the time-out period for explicit messages, which has been parameterised by the scanner, no "explicit message" was received.</li> <li>The connection to the scanner has been interrupted.</li> <li>Failure of an explicit connection.</li> </ul>	Warning <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2859:006 (P515.06)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check cables and terminals.</li> <li>Plug network cables into the Ethernet port.</li> <li>Check the requested package interval (RPI) of the explicit connection.</li> <li>Increase time limit for explicit messages in the scanner.</li> </ul>

## 33044 | 0x8114 Network: overall communication timeout

Keypad display: TO overall comm

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>EtherNet/IP: the maximum permissible timeout period for the CIP communication set in <a href="#">0x23A1:010 (P510.10)</a> has been exceeded.</li> <li>Modbus TCP/IP: the maximum permissible time-out period for the TCP communication set in <a href="#">0x23B1:010 (P510.10)</a> has been exceeded.</li> </ul>	Warning <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2859:007 (P515.07)</a> (EtherNet/IP), <a href="#">0x2859:007 (P515.07)</a> (Modbus TCP).</li> </ul>	<ul style="list-style-type: none"> <li>Check cables and terminals.</li> <li>Connect network cable.</li> </ul>

## 33045 | 0x8115 Time-out (PAM)

Keypad display: Time-out (PAM)

Cause	Error type/response	Remedy
The parameter access monitoring (PAM) function has been activated. For a time longer than the time-out period set in <a href="#">0x2552:003 (P595.03)</a> , no value was entered into the "Keepalive-Register" <a href="#">0x2552:002 (P595.02)</a> .	No response <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2552:004 (P595.04)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check communication.</li> <li>Check settings of the parameter access monitoring (PAM) function.</li> </ul>

Related topics

▶ [Parameter access monitoring \(PAM\)](#)  225

## 33046 | 0x8116 Modbus TCP master time-out

Keypad display: MBTCP mast t-out

Cause	Error type/response	Remedy
No valid messages have been received by the Modbus master for a time longer than the timeout period set in <a href="#">0x23B6:001 (P514.01)</a> .	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2859:008 (P515.08)</a>.</li> </ul>	Check communication with the master.

Related topics

▶ [Time-out behaviour](#)  306

## 33047 | 0x8117 Modbus TCP Keep Alive time-out

Keypad display: MB.Keep Alive TO

Cause	Error type/response	Remedy
For a time longer than the time-out period set in <a href="#">0x23B6:002 (P514.02)</a> , no value was entered into the Keep alive register <a href="#">0x23B6:005 (P514.05)</a> .	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2859:009 (P515.09)</a>.</li> </ul>	Check communication with the master.

Related topics

▶ [Time-out behaviour](#)  306

## 33154 | 0x8182 CAN: bus off

Keypad display: CAN bus off

Cause	Error type/response	Remedy
Too many faulty frames have been received. <ul style="list-style-type: none"> <li>Defective cable (e. g. loose contact).</li> <li>Two nodes with the same node address.</li> </ul>	Trouble <ul style="list-style-type: none"> <li>Change to the "Bus-Off" communication status.</li> <li>The error type can be configured in <a href="#">0x2857:010</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring of the network.</li> <li>Check bus terminating resistor.</li> <li>Set the identical baud rate for each node of the network.</li> <li>Assign a unique node address to each node of the network.</li> <li>Eliminate EMC interferences.</li> </ul>

## 33155 | 0x8183 CAN: warning

Keypad display: CAN bus warning

Cause	Error type/response	Remedy
Too many faulty frames have been received. <ul style="list-style-type: none"> <li>Defective cable (e. g. loose contact).</li> <li>Two nodes with the same node address.</li> </ul>	Warning <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2857:011</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring of the network.</li> <li>Check bus terminating resistor.</li> <li>Set the identical baud rate for each node of the network.</li> <li>Assign a unique node address to each node of the network.</li> <li>Eliminate EMC interferences.</li> </ul>

## 33156 | 0x8184 CAN: heartbeat time-out consumer 1

Keypad display: CAN heartb. C1

Cause	Error type/response	Remedy
Within the heartbeat time <a href="#">0x1016:001 (P520.01)</a> , no heartbeat telegram was received by node 1 to be monitored.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2857:005</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check communication with the heartbeat producer.</li> <li>Reactivate heartbeat producer.</li> </ul>

Related topics

▶ [CANopen heartbeat protocol](#)  231

## 33157 | 0x8185 CAN: heartbeat time-out consumer 2

Keypad display: CAN heartb. C2

Cause	Error type/response	Remedy
Within the heartbeat time <a href="#">0x1016:002 (P520.02)</a> , no heartbeat telegram was received by node 2 to be monitored.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2857:006</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check communication with the heartbeat producer.</li> <li>Reactivate heartbeat producer.</li> </ul>

Related topics

▶ [CANopen heartbeat protocol](#)  231

## 33158 | 0x8186 CAN: heartbeat time-out consumer 3

Keypad display: CAN heartb. C3

Cause	Error type/response	Remedy
Within the heartbeat time <a href="#">0x1016:003 (P520.03)</a> , no heartbeat telegram was received by node 3 to be monitored.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2857:007</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check communication with the heartbeat producer.</li> <li>Reactivate heartbeat producer.</li> </ul>

Related topics

▶ [CANopen heartbeat protocol](#)  231

## 33159 | 0x8187 CAN: heartbeat time-out consumer 4

Keypad display: CAN heartb. C4

Cause	Error type/response	Remedy
Within the heartbeat time <a href="#">0x1016:004 (P520.04)</a> , no heartbeat telegram was received by node 4 to be monitored.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2857:008</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check communication with the heartbeat producer.</li> <li>Reactivate heartbeat producer.</li> </ul>

Related topics

▶ [CANopen heartbeat protocol](#)  231

## 33168 | 0x8190 Network: watchdog timeout

Keypad display: Watchdog timeout

Cause	Error type/response	Remedy
Time-out during cyclic data reception, e.g. due to an interrupted communication link to the master or missing cyclic data.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring of the network.</li> <li>Eliminate EMC interferences.</li> </ul>
	<a href="#">0x2859:001 (P515.01) (PROFIBUS)</a> ,	
	<a href="#">0x2859:001 (P515.01) (EtherCAT)</a> ,	
	<a href="#">0x2859:001 (P515.01) (EtherNet/IP)</a> ,	
	<a href="#">0x2859:001 (P515.01) (PROFINET)</a> .	

## 33169 | 0x8191 Network: disruption of cyclic data exchange

Keypad display: Cycl data error

Cause	Error type/response	Remedy
The communication partner has interrupted the cyclic data exchange.	No response <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2859:002 (P515.02)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring of the network.</li> <li>The slave must receive new parameterisation and configuration files by the master, in order to be able to exchange data again.</li> </ul>

## 33170 | 0x8192 Network: initialisation error

Keypad display: Net. Init. error

Cause	Error type/response	Remedy
The initialisation of the communication stack has been interrupted due to an incorrect address setting or communication configuration.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in</li> </ul>	Check master/slave configuration and restart the devices.
	<a href="#">0x2859:004 (P515.04) (PROFIBUS)</a> ,	
	<a href="#">0x2859:004 (P515.04) (EtherCAT)</a> ,	
	<a href="#">0x2859:004 (P515.04) (EtherNet/IP)</a> ,	
	<a href="#">0x2859:004 (P515.04) (PROFINET)</a> ,	
	<a href="#">0x2859:004 (P515.04) (Modbus TCP)</a> .	

## 33171 | 0x8193 Network: invalid cyclic process data

Keypad display: Inv. cyclic data

Cause	Error type/response	Remedy
The cyclic process data received are invalid.	Trouble <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2859:005 (P515.05)</a> (PROFIBUS), <a href="#">0x2859:005 (P515.05)</a> (EtherCAT), <a href="#">0x2859:005 (P515.05)</a> (EtherNet/IP), <a href="#">0x2859:005 (P515.05)</a> (PROFINET).</li> </ul>	Check cyclic process data sent by the master.

## 33184 | 0x81A0 Modbus transmit message error

Keypad display: Modbus TX error

Cause	Error type/response	Remedy
	Warning	

## 33185 | 0x81A1 Modbus: network time-out

Keypad display: Modbus time-out

Cause	Error type/response	Remedy
No valid messages have been received via the Modbus for a longer time than the time-out time set in <a href="#">0x2858:002 (P515.02)</a> .	Fault <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2858:001 (P515.01)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check communication with the master.</li> <li>Check wiring.</li> <li>Check bus termination.</li> </ul>

## 33186 | 0x81A2 Modbus: incorrect request by master

Keypad display: Modbus request

Cause	Error type/response	Remedy
The request by the master is invalid, e. g. invalid CRC checksum, non-supported function code, or impermissible data access.	Warning <ul style="list-style-type: none"> <li>The inverter (slave) responds to the master with an error code: 0x01 = invalid function code 0x02 = invalid data address 0x03 = invalid data value 0x04 = slave device failure</li> </ul>	Check request by the master: <ul style="list-style-type: none"> <li>Value in the valid range?</li> <li>Function code valid?</li> <li>No impermissible write access? (e. g. with regard to read-only parameters)</li> </ul>

## 33200 | 0x81B0 iCIF connection lost

Keypad display: iCIF disconnect.

Cause	Error type/response	Remedy
In case of the Ethernet communication interface, an internal software error has occurred.	Fault	<ul style="list-style-type: none"> <li>Switch inverter off and on again.</li> <li>In the event of a power failure during a firmware download, it is required to reload the firmware via the USB module and then restart the inverter.</li> </ul>

## Related topics

► [Firmware download with »EASY Starter \(Firmware loader\)«](#)  450

33414 | 0x8286 Network: PDO mapping error

Keypad display: PDO map error

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>Invalid PDO assignment by the master.</li> </ul>	Fault	Check data mapping in the master and slave.
<ul style="list-style-type: none"> <li>Internal PDO assignment was changed and does not comply with the configuration available in the master.</li> </ul>	<ul style="list-style-type: none"> <li>The error type can be configured in</li> </ul>	
	0x2859:003 (P515.03) (PROFIBUS),	
	0x2859:003 (P515.03) (EtherCAT),	
	0x2859:003 (P515.03) (EtherNet/IP),	
	0x2859:003 (P515.03) (PROFINET),	
	0x2859:003 (P515.03) (Modbus TCP).	

33425 | 0x8291 CAN: RPDO1 time-out

Keypad display: Timeout RPDO1

Cause	Error type/response	Remedy
RPDO3 was not received within the time-out period set in 0x1402:005 (P542.05) or with the sync configured.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in 0x2857:001.</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate EMC interferences.</li> <li>Check bus load.</li> </ul>

Related topics

▶ [CANopen process data objects](#)  233

33426 | 0x8292 CAN: RPDO2 time-out

Keypad display: Timeout RPDO2

Cause	Error type/response	Remedy
RPDO2 was not received within the time-out period set in 0x1401:005 (P541.05) or with the sync configured.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in 0x2857:002.</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate EMC interferences.</li> <li>Check bus load.</li> </ul>

Related topics

▶ [CANopen process data objects](#)  233

33427 | 0x8293 CAN: RPDO3 time-out

Keypad display: Timeout RPDO3

Cause	Error type/response	Remedy
RPDO1 was not received within the time-out period set in 0x1400:005 (P540.05) or with the sync configured.	Fault <ul style="list-style-type: none"> <li>The error type can be configured in 0x2857:003.</li> </ul>	<ul style="list-style-type: none"> <li>Eliminate EMC interferences.</li> <li>Check bus load.</li> </ul>

Related topics

▶ [CANopen process data objects](#)  233

## 33553 | 0x8311 Torque limit reached

Keypad display: Torque limit

Cause	Error type/response	Remedy
Motor has reached the torque limit: <ul style="list-style-type: none"> <li>• 0x60E0: Positive torque limit</li> <li>• 0x60E1: Negative torque limit</li> <li>• 0x6072 (P326.0): Max torque</li> </ul>	No response <ul style="list-style-type: none"> <li>• The error type can be configured in 0x2D67:001 (P329.01).</li> </ul>	<ul style="list-style-type: none"> <li>• Observe load requirements.</li> <li>• Reduce motor load.</li> </ul>

## Related topics


▶ [Motor torque monitoring](#)  195

## 36992 | 0x9080 Keypad removed

Keypad display: Keypad removed

Cause	Error type/response	Remedy
The keypad was removed while the keypad control was activated.	Fault	<ul style="list-style-type: none"> <li>• Plug on the keypad again or</li> <li>• activate another control source.</li> </ul>

## Related topics

▶ [Control source change-over](#)  488

## 65282 | 0xFF02 Brake resistor: overload fault

Keypad display: BrkResistor OL.F

Cause	Error type/response	Remedy
The calculated thermal load of the brake resistor has reached the error threshold set in 0x2550:009 (P707.09). The regenerative energy is too high.	Fault <ul style="list-style-type: none"> <li>• The error can only be reset after a blocking time of 5 s.</li> <li>• The error type can be configured in 0x2550:011 (P707.11).</li> </ul>	<ul style="list-style-type: none"> <li>• Check drive dimensioning.</li> <li>• Check settings for the brake energy management.</li> </ul> Note: The error status will be reset if the thermal load falls below the error threshold 20 %.

## Related topics

▶ [Use of a brake resistor](#)  387

## 65285 | 0xFF05 Safe Torque Off error

Keypad display: STO error

Cause	Error type/response	Remedy
The safety module or safety circuit of the device was detected as being defective.	Fault <ul style="list-style-type: none"> <li>• The inverter is inhibited immediately. The motor becomes torqueless (coasts).</li> <li>• The error can only be reset by mains switching.</li> </ul>	Hardware error: it is necessary to contact the manufacturer since the device must be replaced.

## 65286 | 0xFF06 Motor overspeed

Keypad display: Motor overspeed

Cause	Error type/response	Remedy
The motor speed has reached the error threshold for overspeed set in <a href="#">0x2D44:001 (P350.01)</a> .	Fault <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 1 s.</li> <li>The error type can be configured in <a href="#">0x2D44:002 (P350.02)</a>.</li> </ul>	Check application.

## Related topics

▶ [Motor speed monitoring](#)  195

## 65289 | 0xFF09 Motor phase missing

Keypad display: Mot.Phase miss.

Cause	Error type/response	Remedy
A failure of several motor phases has been detected.	No response <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 2 s.</li> <li>The error type can be configured in <a href="#">0x2D45:001 (P310.01)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring between inverter and motor.</li> <li>In case of a false tripping, adapt the settings for the motor phase failure detection.</li> </ul>

## Related topics

▶ [Motor phase failure detection](#)  194

## 65290 | 0xFF0A Motor phase failure phase U

Keypad display: Phase U failure

Cause	Error type/response	Remedy
A failure of the motor phase U has been detected.	No response <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 2 s.</li> <li>The error type can be configured in <a href="#">0x2D45:001 (P310.01)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring between inverter and motor.</li> <li>In case of a false tripping, adapt the settings for the motor phase failure detection.</li> </ul>

## Related topics

▶ [Motor phase failure detection](#)  194

## 65291 | 0xFF0B Motor phase failure phase V

Keypad display: Phase V failure

Cause	Error type/response	Remedy
A failure of the motor phase V has been detected.	No response <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 2 s.</li> <li>The error type can be configured in <a href="#">0x2D45:001 (P310.01)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring between inverter and motor.</li> <li>In case of a false tripping, adapt the settings for the motor phase failure detection.</li> </ul>

## Related topics

▶ [Motor phase failure detection](#)  194

## 65292 | 0xFF0C Motor phase failure phase W

Keypad display: Phase W failure

Cause	Error type/response	Remedy
A failure of the motor phase W has been detected.	No response <ul style="list-style-type: none"> <li>The error can only be reset after a blocking time of 2 s.</li> <li>The error type can be configured in <a href="#">0x2D45:001 (P310.01)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check wiring between inverter and motor.</li> <li>In case of a false tripping, adapt the settings for the motor phase failure detection.</li> </ul>

## Related topics

► [Motor phase failure detection](#)  194

## 65305 | 0xFF19 Motor parameter identification fault

Keypad display: Motor ID fault

Cause	Error type/response	Remedy
During the automatic identification of the motor, an error has occurred.	Fault	<ul style="list-style-type: none"> <li>Set motor data so that they comply with the data on the motor nameplate.</li> <li>Check wiring of the motor.</li> </ul>

## 65334 | 0xFF36 Brake resistor: overload warning

Keypad display: BrkResistor OL.W

Cause	Error type/response	Remedy
The calculated thermal load of the brake resistor has reached the warning threshold set in <a href="#">0x2550:008 (P707.08)</a> . The regenerative energy is too high.	Warning <ul style="list-style-type: none"> <li>The error type can be configured in <a href="#">0x2550:010 (P707.10)</a>.</li> </ul>	<ul style="list-style-type: none"> <li>Check drive dimensioning.</li> <li>Check settings for the brake energy management.</li> </ul> <p>Note: The warning status is reset if the thermal load falls below the warning threshold of 20 %.</p>

## Related topics

► [Use of a brake resistor](#)  387

## 65335 | 0xFF37 Automatic start disabled

Keypad display: Auto start disab

Cause	Error type/response	Remedy
At mains connection, a start command was already available and the automatic start at power-up is set in <a href="#">0x2838:002 (P203.02)</a> to "Off [0]".	Fault	Deactivate start command and reset error.

## 65366 | 0xFF56 Maximum motor frequency reached

Keypad display: Max. motor freq.

Cause	Error type/response	Remedy
<ul style="list-style-type: none"> <li>The maximum motor speed set in <a href="#">0x6080 (P322.00)</a> is active.</li> <li>The maximum output frequency of the inverter has been reached.</li> </ul>	Warning	Check application.



Cause	Error type/response	Remedy
If the "Keypad Full Control" control mode is active.	Warning <ul style="list-style-type: none"><li>Both the activity of controlling and the setpoint selection are carried out via the keypad.</li></ul>	Clicking the CTRLkeypad key stops the control mode again.

## Related topics

- ▶ [Keypad Configuration of R/F and CTRL buttons](#)  366