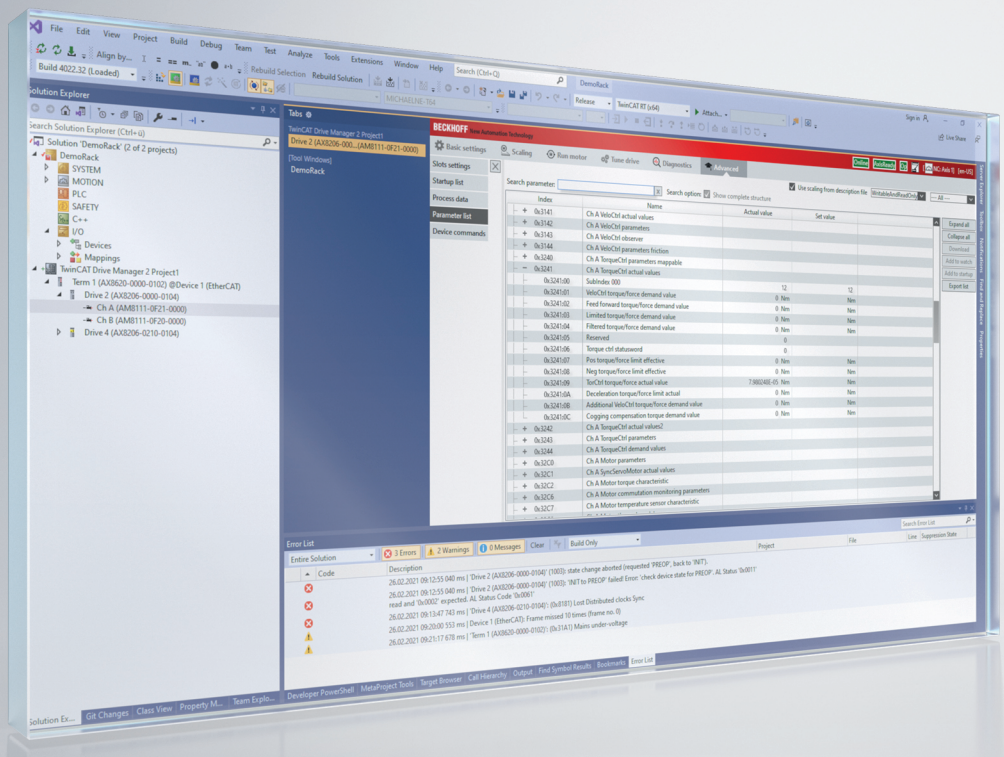
BECKHOFF New Automation Technology

Diagnostic Messages | EN

AX8820

Universal regenerative unit



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1 Standard-Messages

1.1 0000, No errors

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
0000	0

Class	Type
Info	Information

Standard Reaction	Reset
No	Information: No reset required.

Internal: *0x0000, No errors*

1.2 2389, Mains short circuit

A short circuit was detected in the mains.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
2389	9097

Class	Type
Error	Error

Standard Reaction	Reset
Generative brake ramp order to the axis	A reset is not possible. The PSM detected a fatal hardware or software error.

Possible Causes	Solutions
There is a problem with the hardware or the mains connection.	Check that the mains is connected properly.

Internal: *0x2389, Mains short circuit*

1.3 2390, Continuous overcurrent. Phase SS.

The requested current in a mains phase permanently exceeds the rated current.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
2390	9104

Class	Type
Error	Error

Standard Reaction	Reset
Generative brake ramp order to the axis	A reset is not possible. The PSM detected a fatal hardware or software error.

Possible Causes	Solutions
There is a problem with the hardware or the mains connection.	Check that the mains conncection is correct.

Internal: *0x2390, Continuous overcurrent. Phase %s.*

1.4 23A2, Continuous overcurrent. Phase SS.

The requested current in a mains phase exceeds the warning threshold.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
23A2	9122

Class	Type
Warning	Warning

Standard Reaction	Reset
No	Warning: No reset required.

Possible Causes	Solutions
There is a problem with the hardware or the mains connection.	Check that the mains is connected properly.

Internal: *0x23A2, Continuous overcurrent. Phase %s.*

1.5 3110, Mains overvoltage

The actual mains voltage exceeds the parameterized mains voltage by more than 20% or by more than the parameterized positive tolerance if this higher than 20%.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
3110	12560

Class	Type
Error	Error

Standard Reaction	Reset
NC-Handling order	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
The actual mains voltage is too high.	Check the connected mains voltage.

Internal: *0x3110, Mains overvoltage*

1.6 3130, Mains phase failure

One phase has failed in the 3-phase supply.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
3130	12592

Class	Type
Error	Error

Standard Reaction	Reset
NC-Handling order	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
The mains voltage supply is faulty.	Analyze the mains voltage supply.
You have connected a singe-phase mains supply but parameterized three phases.	Check and adjust the mains type parameterization. Switch the mains voltage off and on again.
The mains voltage supply is repeatedly exposed to interference.	Try to use a mains filter.

Internal: *0x3130, Mains phase failure*

1.7 3182, Wrong mains type

The connected mains type (3Ph/AC, 1Ph/AC or DC) does not match with the parameterized value of mains type.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
3182	12674

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
Wrong mains type parameterized.	Check the mains parameterization and adjust its value.
The power supply is not connected correctly.	Check and adjust the mains supply connection. Switch the mains voltage off and on again.

Internal: *0x3182, Wrong mains type*

1.8 31A0, Mains overvoltage

The connected mains voltage exceeds the parameterized warning threshold.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
31A0	12704

Class	Type
Warning	Warning

Standard Reaction	Reset
No	Warning: No reset required.

Possible Causes	Solutions
The actual mains voltage is too high.	Check the connected mains voltage.

Internal: *0x31A0, Mains overvoltage*

1.9 31A1, Mains undervoltage

The connected mains voltage fell below the parameterized warning threshold.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
31A1	12705

Class	Type
Warning	Warning

Standard Reaction	Reset
No	Warning: No reset required.

Possible Causes	Solutions
The actual mains voltage is too low.	Check the connected mains voltage.

Internal: *0x31A1, Mains undervoltage*

1.10 31A2, Mains phase failure

One phase has failed in the 3-phase supply.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
31A2	12706

Class	Type
Warning	Warning

Standard Reaction	Reset
No	Warning: No reset required.

Possible Causes	Solutions
The mains voltage supply is faulty.	Analyze the mains voltage supply.

Internal: *0x31A2, Mains phase failure*

1.11 3210, DC link overvoltage

The DC link voltage has risen above the permitted DC link voltage.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
3210	12816

Class	Type
Error	Error

Standard Reaction	Reset
Non-generative brake ramp order to the axis	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
The connected motors generate too much electromotive force, causing the DC link voltage to rise.	You need to reduce the electromotive force. You also can use brake chopper or energy recovery systems to prevent this error.
The configured DC link max voltage might be too low.	Check the configured DC link max voltage.

Internal: *0x3210, DC link overvoltage*

1.12 3220, DC link undervoltage

The DC link voltage has fallen below the permitted DC link voltage.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
3220	12832

Class	Type
Error	Error

Standard Reaction	Reset
Generative brake ramp order to the axis	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An unknown error has caused the DC link generation to be deactivated.	Check the error history for pending errors.

Internal: *0x3220, DC link undervoltage*

1.13 32A0, DC link undervoltage

The DC link voltage has fallen below the permitted DC link voltage.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
32A0	12960

Class	Type
Warning	Warning

Standard Reaction	Reset
No	Warning: No reset required.

Possible Causes	Solutions
The DC link voltage level was under the configured minimum.	Check the minimum DC link voltage parameter.

Internal: *0x32A0, DC link undervoltage*

1.14 4210, Excess temperature device: SS

The device temperature exceeds the permitted maximal value.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
4210	16912

Class	Type
Error	Error

Standard Reaction	Reset
NC-Handling order	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
Your application has produced a thermic overload in the power supply module.	Analyze your system and check the ambient temperature, for example.

Internal: *0x4210, Excess temperature device: %s*

1.15 42A0, Excess temperature device: SS

The actual device temperature exceeds the parameterized warning threshold.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
42A0	17056

Class	Type
Warning	Warning

Standard Reaction	Reset
No	Warning: No reset required.

Possible Causes	Solutions
Your application has produced a thermic overload in the power supply module.	Analyze your system and check the ambient temperature, for example.

Internal: *0x42A0, Excess temperature device: %s*

1.16 5560, Read data failed: SS

An error occurred while reading data from the EEPROM during initialization.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5560	21856

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate and transition PREOP to SAFEOP disabled	A reset is not possible. The PSM detected a fatal hardware or software error.

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5560, Read data failed: %s*

1.17 5561, Missing data: SS

An error occurred while reading data from the EEPROM during initialization.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5561	21857

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate and transition PREOP to SAFEOP disabled	A reset is not possible. The PSM detected a fatal hardware or software error.

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5561, Missing data: %s*

1.18 556C, Write data failed: SS

An error occurred while writing data to the EEPROM.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
556C	21868

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x556C, Write data failed: %s*

1.19 5570, Reset data failed: SS

An error occured while resetting the EEPROM data.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5570	21872

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5570, Reset data failed: %s*

1.20 5592, SS Firmware index is incompatible with this firmware

Detected incompatible PCB for this firmware.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5592	21906

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5592, %s Firmware index is incompatible with this firmware*

1.21 5593, SS Structure version is incompatible with this firmware

Detected incompatible structure version for this firmware.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5593	21907

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5593, %s Structure version is incompatible with this firmware*

1.22 5595, SS Component type is incompatible with this firmware

Detected incompatible component type for this firmware.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5595	21909

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5595, %s Component type is incompatible with this firmware*

1.23 5598, BIC update failed: SS

The update of the BIC has failed.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
5598	21912

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
An internal communication error occured.	Restart the device. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x5598, BIC update failed: %s*

1.24 55D0, Restored error messages from persistent memory

The persistent memory contains an error log. The messages are restored during power on phase.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
55D0	21968

Class	Type
Info	Information

Standard Reaction	Reset
No	Information: No reset required.

Internal: *0x55D0, Restored error messages from persistent memory*

1.25 6010, Software reset (watchdog)

A timeout has occurred.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
6010	24592

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate and transition PREOP to SAFEOP disabled	A fatal error occured. A device reboot is required.

Possible Causes	Solutions
Too many objects in the PDO mapping.	Check the number of objects in the PDO mapping.
An unknown hardware or software error has occurred.	Switch off the mains voltage and the 24 V supply. Switch them on again. If this error happens repeatedly, please contact your Beckhoff office.

Internal: *0x6010, Software reset (watchdog)*

1.26 6320, Parameter error

A parameterization error has occurred.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
6320	25376

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate and transition PREOP to SAFEOP disabled	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
There is a problem with the parameterization.	Check your parameterization. Use the standard parameters and reset your parameters.

Internal: *0x6320, Parameter error*

1.27 6321, Parameter error in object 0xXX/XX

The mentioned parameter contains a not accepted value.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
6321	25377

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate and transition PREOP to SAFEOP disabled	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
Something is wrong with the parameter in this object.	Please check the parameter of the mentioned object.

Internal: *0x6321, Parameter error in object 0x%x/%x*

1.28 6322, Parameter error in object 0xXX/XX, 0xXX/XX

The mentioned parameter contain not accepted values.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
6322	25378

Class	Type
Error	Error

Standard Reaction	Reset
PSM is not ready to operate and transition PREOP to SAFEOP disabled	Execute Reset-Command (Fault reset).

Possible Causes	Solutions
Something is wrong with the parameter in these objects.	Please check the parameter of the mentioned objects.

Internal: *0x6322, Parameter error in object 0x%x/%x, 0x%x/%x*

1.29 87D0, PLL sync lost

A problem has occured in the communication between the EtherCAT master and slave.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
87D0	34768

Class	Type
Info	Information

Standard Reaction	Reset
No	Information: No reset required.

Possible Causes	Solutions
The slave has received no process data for over one EtherCAT cycle.	Check the realtime tasks of your EtherCAT master.

Internal: *0x87D0, PLL sync lost*

1.30 A025, TxPdo Mapping Error: Too many inputs mapped to index 0xXX

A problem has occured with the mapping of TxPdo.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
A025	40997

Class	Type
Error	Error

Standard Reaction	Reset
No	A reset is not possible. The PSM detected a fatal hardware or software error.

Possible Causes	Solutions
Too many signals were mapped to this index.	Check the TxPdo Mapping.

Internal: *0xA025, TxPdo Mapping Error: Too many inputs mapped to index 0x%x*

1.31 FFC0, SS executed successfully

The requested command was executed successfully.

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
FFC0	65472

Class	Type
Info	Information

Standard Reaction	Reset
No	Information: No reset required.

Internal: *0xFFC0, %s executed successfully*

1.32 FFD0, Debug firmware, replace as soon as possiblea!

Debug firmware: Replace ASAP!

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
FFD0	65488

Class	Type
Info	Information

Standard Reaction	Reset
No	Information: No reset required.

Internal: *0xFFD0, Debug firmware, replace as soon as possiblea!*

1.33 FFD1, Dbg: SS

Internal use only

Diagnostic Code (Hex.)	Diagnostic Code (Dez.)
FFD1	65489

Class	Type
Info	Information

Standard Reaction	Reset
No	Information: No reset required.

Internal: *0xFFD1, Dbg: %s*

Trademark statements

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