

BECKHOFF New Automation Technology

Object Dictionary | EN

AX8820

Universal regenerative unit

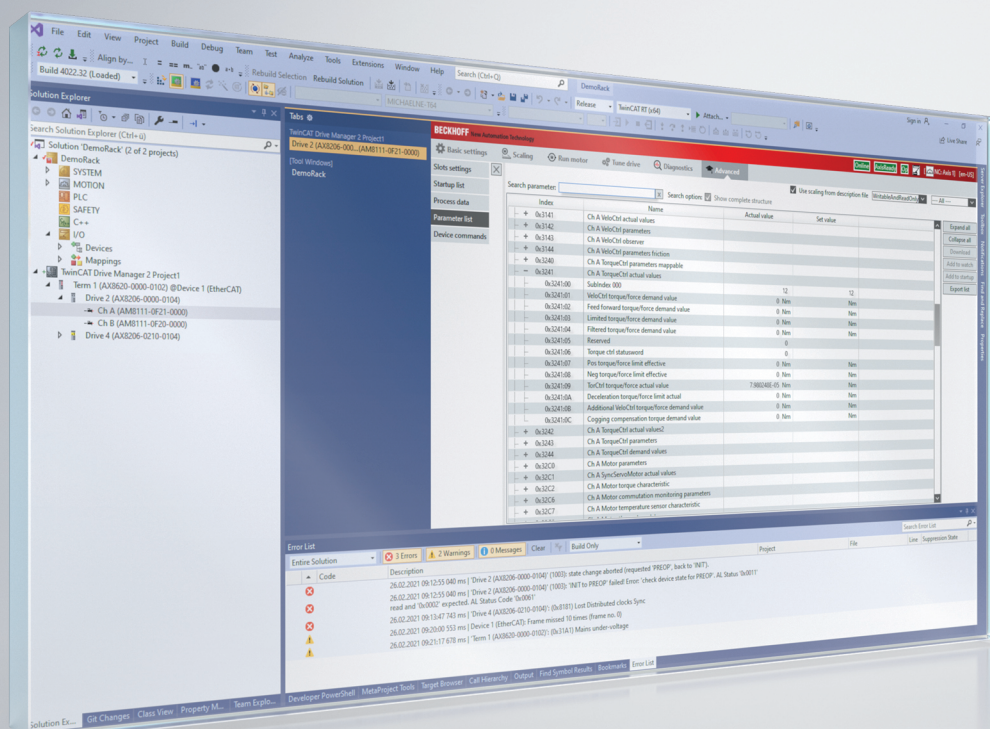


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1 Standard-Objects

1.1 1000 Device type

Description	Value
Index	0x1000 (Device)
Subindex	0x00
Datatype	UINT32
Min. Value	
Default	5001 (0x00001389)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.2 1008 Device name

Description	Value
Index	0x1008 (Device)
Subindex	0x00
Datatype	VISIBLE_STRING
Min. Value	
Default	AX8820-0070
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.3 1009 Hardware version

Description	Value
Index	0x1009 (Device)
Subindex	0x00
Datatype	VISIBLE_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.4 100A Software version

Description	Value
Index	0x100A (Device)
Subindex	0x00
Datatype	VISIBLE_STRING
Min. Value	
Default	00
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.5 100B Bootloader version

Description	Value
Index	0x100B (Device)
Subindex	0x00
Datatype	VISIBLE_STRING
Min. Value	
Default	N/A
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.6 1011:x Restore default parameters

Description	Value
Index	0x1011 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	1 (0x01)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.6.1 1011:01 SubIndex 001

Description	Value
Index	0x1011 (Device)
Subindex	0x01
Datatype	UINT32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.7 1018:x Identity

Description	Value
Index	0x1018 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	4 (0x04)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.7.1 1018:01 Vendor ID

Description	Value
Index	0x1018 (Device)
Subindex	0x01
Datatype	UINT32
Min. Value	
Default	2 (0x00000002)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.7.2 1018:02 Product code

Description	Value
Index	0x1018 (Device)
Subindex	0x02
Datatype	UINT32
Min. Value	
Default	578052114 (0x22746012)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.7.3 1018:03 Revision

Description	Value
Index	0x1018 (Device)
Subindex	0x03
Datatype	UINT32
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.7.4 1018:04 Serial number

Description	Value
Index	0x1018 (Device)
Subindex	0x04
Datatype	UINT32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.8 10E2:x Manufacturer-specific Identification Code

Description	Value
Index	0x10E2 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	1 (0x01)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.8.1 10E2:01 SubIndex 001

Description	Value
Index	0x10E2 (Device)
Subindex	0x01
Datatype	VISIBLE_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.9 10F0:x Backup parameter handling

Description	Value
Index	0x10F0 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	1 (0x01)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.9.1 10F0:01 Checksum

Description	Value
Index	0x10F0 (Device)
Subindex	0x01
Datatype	UINT32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10 10F3:x Diagnosis History

Description	Value
Index	0x10F3 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	35 (0x23)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.1 10F3:01 Maximum Messages

Description	Value
Index	0x10F3 (Device)
Subindex	0x01
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.2 10F3:02 Newest Message

Description	Value
Index	0x10F3 (Device)
Subindex	0x02
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.3 10F3:03 Newest Acknowledged Message

Description	Value
Index	0x10F3 (Device)
Subindex	0x03
Datatype	UINT8
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.10.4 10F3:04 New Messages Available

Description	Value
Index	0x10F3 (Device)
Subindex	0x04
Datatype	BOOL
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.5 10F3:05 Flags

Description	Value
Index	0x10F3 (Device)
Subindex	0x05
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.10.6 10F3:06 Diagnosis Message 001

Description	Value
Index	0x10F3 (Device)
Subindex	0x06
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.7 10F3:07 Diagnosis Message 002

Description	Value
Index	0x10F3 (Device)
Subindex	0x07
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.8 10F3:08 Diagnosis Message 003

Description	Value
Index	0x10F3 (Device)
Subindex	0x08
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.9 10F3:09 Diagnosis Message 004

Description	Value
Index	0x10F3 (Device)
Subindex	0x09
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.10 10F3:0A Diagnosis Message 005

Description	Value
Index	0x10F3 (Device)
Subindex	0x0A
Datatype	OCTET_STRING
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.11 10F3:0B Diagnosis Message 006

Description	Value
Index	0x10F3 (Device)
Subindex	0x0B
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.12 10F3:0C Diagnosis Message 007

Description	Value
Index	0x10F3 (Device)
Subindex	0x0C
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.13 10F3:0D Diagnosis Message 008

Description	Value
Index	0x10F3 (Device)
Subindex	0x0D
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.14 10F3:0E Diagnosis Message 009

Description	Value
Index	0x10F3 (Device)
Subindex	0x0E
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.15 10F3:0F Diagnosis Message 010

Description	Value
Index	0x10F3 (Device)
Subindex	0x0F
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.16 10F3:10 Diagnosis Message 011

Description	Value
Index	0x10F3 (Device)
Subindex	0x10
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.17 10F3:11 Diagnosis Message 012

Description	Value
Index	0x10F3 (Device)
Subindex	0x11
Datatype	OCTET_STRING
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.18 10F3:12 Diagnosis Message 013

Description	Value
Index	0x10F3 (Device)
Subindex	0x12
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.19 10F3:13 Diagnosis Message 014

Description	Value
Index	0x10F3 (Device)
Subindex	0x13
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.20 10F3:14 Diagnosis Message 015

Description	Value
Index	0x10F3 (Device)
Subindex	0x14
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.21 10F3:15 Diagnosis Message 016

Description	Value
Index	0x10F3 (Device)
Subindex	0x15
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.22 10F3:16 Diagnosis Message 017

Description	Value
Index	0x10F3 (Device)
Subindex	0x16
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.23 10F3:17 Diagnosis Message 018

Description	Value
Index	0x10F3 (Device)
Subindex	0x17
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.24 10F3:18 Diagnosis Message 019

Description	Value
Index	0x10F3 (Device)
Subindex	0x18
Datatype	OCTET_STRING
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.25 10F3:19 Diagnosis Message 020

Description	Value
Index	0x10F3 (Device)
Subindex	0x19
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.26 10F3:1A Diagnosis Message 021

Description	Value
Index	0x10F3 (Device)
Subindex	0x1A
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.27 10F3:1B Diagnosis Message 022

Description	Value
Index	0x10F3 (Device)
Subindex	0x1B
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.28 10F3:1C Diagnosis Message 023

Description	Value
Index	0x10F3 (Device)
Subindex	0x1C
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.29 10F3:1D Diagnosis Message 024

Description	Value
Index	0x10F3 (Device)
Subindex	0x1D
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.30 10F3:1E Diagnosis Message 025

Description	Value
Index	0x10F3 (Device)
Subindex	0x1E
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.31 10F3:1F Diagnosis Message 026

Description	Value
Index	0x10F3 (Device)
Subindex	0x1F
Datatype	OCTET_STRING
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.32 10F3:20 Diagnosis Message 027

Description	Value
Index	0x10F3 (Device)
Subindex	0x20
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.33 10F3:21 Diagnosis Message 028

Description	Value
Index	0x10F3 (Device)
Subindex	0x21
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.34 10F3:22 Diagnosis Message 029

Description	Value
Index	0x10F3 (Device)
Subindex	0x22
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.10.35 10F3:23 Diagnosis Message 030

Description	Value
Index	0x10F3 (Device)
Subindex	0x23
Datatype	OCTET_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.11 10F8 Timestamp Object

Description	Value
Index	0x10F8 (Device)
Subindex	0x00
Datatype	UINT64
Min. Value	
Default	
Max. Value	
Unit	ns
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.12 1C00:x Sync manager type

Description	Value
Index	0x1C00 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	4 (0x04)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.12.1 1C00:01 SubIndex 001

Description	Value
Index	0x1C00 (Device)
Subindex	0x01
Datatype	UINT8
Min. Value	
Default	1 (0x01)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.12.2 1C00:02 SubIndex 002

Description	Value
Index	0x1C00 (Device)
Subindex	0x02
Datatype	UINT8
Min. Value	
Default	2 (0x02)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.12.3 1C00:03 SubIndex 003

Description	Value
Index	0x1C00 (Device)
Subindex	0x03
Datatype	UINT8
Min. Value	
Default	3 (0x03)

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.12.4 1C00:04 SubIndex 004

Description	Value
Index	0x1C00 (Device)
Subindex	0x04
Datatype	UINT8
Min. Value	
Default	4 (0x04)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.13 1C12:x RxPDO assign

Description	Value
Index	0x1C12 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.14 1C13:x TxPDO assign

Description	Value
Index	0x1C13 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.14.1 1C13:01 Subindex 001

Description	Value
Index	0x1C13 (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	6658 (0x1A02)
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.14.2 1C13:02 Subindex 002

Description	Value
Index	0x1C13 (Device)
Subindex	0x02
Datatype	UINT16
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.14.3 1C13:03 Subindex 003

Description	Value
Index	0x1C13 (Device)
Subindex	0x03
Datatype	UINT16
Min. Value	
Default	0

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.14.4 1C13:04 Subindex 004

Description	Value
Index	0x1C13 (Device)
Subindex	0x04
Datatype	UINT16
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.15 1C33:x SM input parameter

Description	Value
Index	0x1C33 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	32 (0x20)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.1 1C33:01 Sync mode

Description	Value
Index	0x1C33 (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	3 (0x0003)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.15.2 1C33:02 Cycle time

Description	Value
Index	0x1C33 (Device)
Subindex	0x02
Datatype	UINT32
Min. Value	
Default	125000 (0x0001E848)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.15.3 1C33:03 Shift time

Description	Value
Index	0x1C33 (Device)
Subindex	0x03
Datatype	UINT32
Min. Value	
Default	0

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.4 1C33:04 Sync modes supported

Description	Value
Index	0x1C33 (Device)
Subindex	0x04
Datatype	UINT16
Min. Value	
Default	1040 (0x0410)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.5 1C33:05 Minimum cycle time

Description	Value
Index	0x1C33 (Device)
Subindex	0x05
Datatype	UINT32
Min. Value	
Default	15625 (0x00003D09)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.6 1C33:06 Calc and copy time

Description	Value
Index	0x1C33 (Device)
Subindex	0x06
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.7 1C33:07 Minimum delay time

Description	Value
Index	0x1C33 (Device)
Subindex	0x07
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.8 1C33:09 Maximum delay time

Description	Value
Index	0x1C33 (Device)
Subindex	0x09
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.9 1C33:0B SM event missed counter

Description	Value
Index	0x1C33 (Device)
Subindex	0x0B
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.10 1C33:0C Cycle exceeded counter

Description	Value
Index	0x1C33 (Device)
Subindex	0x0C
Datatype	UINT16
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.11 1C33:0D Shift too short counter

Description	Value
Index	0x1C33 (Device)
Subindex	0x0D
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.15.12 1C33:20 Sync error

Description	Value
Index	0x1C33 (Device)
Subindex	0x20
Datatype	BOOL
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.16 2C20:x PSM Statusword

This object contains the status of the module

Description	Value
Index	0x2C20 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	1 (0x01)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.16.1 2C20:01 Statusword

Status bits: - Bit 0: Ready to operate dc output 1 - Bit 1: Error active
- Bit 2: Warning active - Bit 3: Reserved - Bit 4: Brake chopper active
- Bit 5: Fan active - Bit 6: Charging activeReserved - Bit 7: Dc out 1 active
- Bit 8 - 9: Reserved - Bit 10: Dc out 2 active - Bit 11: Ready to operate dc output 2
- Bit 12: Energy recovery active - Bit 13 - 15: Reserved

Description	Value
Index	0x2C20 (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.17 2C22:x PSM Actual voltages

This object contains the actual voltages

Description	Value
Index	0x2C22 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	32 (0x20)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.17.1 2C22:01 Actual mains voltage

Actual RMS-value of mains voltage

Description	Value
Index	0x2C22 (Device)
Subindex	0x01
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	V
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.17.2 2C22:02 Actual mains L1-L2 voltage

Actual value of mains voltage L1 to L2.

Description	Value
Index	0x2C22 (Device)
Subindex	0x02
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	V
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.17.3 2C22:03 Actual mains L2-L3 voltage

Actual value of mains voltage L2 to L3.

Description	Value
Index	0x2C22 (Device)

Description	Value
Subindex	0x03
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	V
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.17.4 2C22:04 Actual mains L3-L1 voltage

Actual value of mains voltage L3 to L1.

Description	Value
Index	0x2C22 (Device)
Subindex	0x04
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	V
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.17.5 2C22:20 Actual DC link voltage

Actual voltage value at the DC link.

Description	Value
Index	0x2C22 (Device)
Subindex	0x20
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	V
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.18 2C23:x PSM Actual currents

This object contains the actual current

Description	Value
Index	0x2C23 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	6 (0x06)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.18.1 2C23:01 Actual mains L1 current

Actual value of mains current L1.

Description	Value
Index	0x2C23 (Device)
Subindex	0x01
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	A
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.18.2 2C23:02 Actual mains L2 current

Actual value of mains current L2.

Description	Value
Index	0x2C23 (Device)
Subindex	0x02
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	A
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.18.3 2C23:03 Actual mains L3 current

Actual value of mains current L3.

Description	Value
Index	0x2C23 (Device)

Description	Value
Subindex	0x03
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	A
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.18.4 2C23:04 Actual mains rms current

Actual value of mains rms current.

Description	Value
Index	0x2C23 (Device)
Subindex	0x04
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	A
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.18.5 2C23:05 Actual active current

Actual d-component current.

Description	Value
Index	0x2C23 (Device)
Subindex	0x05
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	A
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.18.6 2C23:06 Actual reactive current

Actual d-component current.

Description	Value
Index	0x2C23 (Device)
Subindex	0x06
Datatype	REAL32
Min. Value	
Default	

Description	Value
Max. Value	
Unit	A
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19 2C24:x PSM Actual data

This object contains the actual data

Description	Value
Index	0x2C24 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	162 (0xA2)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.19.1 2C24:01 Actual mains supply frequency

Estimated frequency of power supply.

Description	Value
Index	0x2C24 (Device)
Subindex	0x01
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	Hz
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.2 2C24:02 Actual mains supply type

Estimated power supply type. AC_3phases = 0 AC_1phases = 1

Description	Value
Index	0x2C24 (Device)
Subindex	0x02
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.3 2C24:03 Actual active power

This object contains the actual data

Description	Value
Index	0x2C24 (Device)

Description	Value
Subindex	0x03
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	W
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.4 2C24:04 Actual reactive power

This object contains the actual data

Description	Value
Index	0x2C24 (Device)
Subindex	0x04
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	VAR
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.5 2C24:23 Actual device load utilization

Actual load utilization of the device.

Description	Value
Index	0x2C24 (Device)
Subindex	0x23
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	%
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.6 2C24:24 Actual device overload utilization

Actual overload utilization of the device.

Description	Value
Index	0x2C24 (Device)
Subindex	0x24
Datatype	UINT16
Min. Value	
Default	

Description	Value
Max. Value	
Unit	%
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.7 2C24:A0 Actual device temperature

Actual device temperature.

Description	Value
Index	0x2C24 (Device)
Subindex	0xA0
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 °C
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.8 2C24:A1 Actual commutation angle

Actual commutation angle.

Description	Value
Index	0x2C24 (Device)
Subindex	0xA1
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 °
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.19.9 2C24:A2 Actual recovery energy

Actual recovery energy.

Description	Value
Index	0x2C24 (Device)
Subindex	0xA2
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	kJ
Access / EtherCAT-State	Ro
PDO Mapping	Transmit

Description	Value
Revision	All

1.20 2C25:x PSM Actual diagnostics

This object contains the diagnostic values

Description	Value
Index	0x2C25 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	32 (0x20)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.20.1 2C25:01 DC link state machine

Actual value of Dc link state machine

Description	Value
Index	0x2C25 (Device)
Subindex	0x01
Datatype	ENUM (UINT8)
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

Enum Value	Description
14 (0x0E)	PowerLoss
12 (0x0C)	ErrorState
5 (0x05)	ShortPowerLoss
3 (0x03)	DcLinkOk
1 (0x01)	BypassChargeResistor
0 (0x00)	WaitingForCharging

1.20.2 2C25:02 Umains state machine

Actual value of Umains state machine

Description	Value
Index	0x2C25 (Device)
Subindex	0x02
Datatype	ENUM (UINT8)
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro

Description	Value
PDO Mapping	Transmit
Revision	All

Enum Value	Description
5 (0x05)	PowerSupplyTypeDetection
4 (0x04)	U mainsTooHigh
3 (0x03)	U mainsTooLow
2 (0x02)	U mainsLoss
1 (0x01)	U mainsOk
0 (0x00)	U mainsOff

1.20.3 2C25:03 Actual error code

Actual active error code.

Description	Value
Index	0x2C25 (Device)
Subindex	0x03
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.4 2C25:10 Debug pointer data 1

Actual value at debug pointer data 1.

Description	Value
Index	0x2C25 (Device)
Subindex	0x10
Datatype	INT32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.5 2C25:11 Debug pointer data 2

Actual value at debug pointer data 2.

Description	Value
Index	0x2C25 (Device)
Subindex	0x11
Datatype	INT32
Min. Value	

Description	Value
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.6 2C25:12 Debug pointer data 3

Actual value at debug pointer data 3.

Description	Value
Index	0x2C25 (Device)
Subindex	0x12
Datatype	INT32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.7 2C25:13 Debug pointer data 4

Actual value at debug pointer data 4.

Description	Value
Index	0x2C25 (Device)
Subindex	0x13
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.8 2C25:14 Debug pointer data 5

Actual value at debug pointer data 5.

Description	Value
Index	0x2C25 (Device)
Subindex	0x14
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro

Description	Value
PDO Mapping	Transmit
Revision	All

1.20.9 2C25:15 Debug pointer data 6

Actual value at debug pointer data 6.

Description	Value
Index	0x2C25 (Device)
Subindex	0x15
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.10 2C25:16 Debug pointer data 7

Actual value at debug pointer data 7.

Description	Value
Index	0x2C25 (Device)
Subindex	0x16
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit
Revision	All

1.20.11 2C25:20 Warning register

Actual warning status. - Bit 0: Reserved - Bit 1: BrakeResistor-LoadUtilisationReached - Bit 2: DeviceOvertemperature - Bit 3: DClinkContinuousOvercurrent - Bit 4: FanMalfunction - Bit 5: MainsOvervoltage - Bit 6: MainsUndervoltage - Bit 7 - 15: Reserved

Description	Value
Index	0x2C25 (Device)
Subindex	0x20
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	Transmit

Standard-Objects

Description	Value
Revision	All

1.21 2C27:x PSM Standard parameters

Description	Value
Index	0x2C27 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	113 (0x71)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.21.1 2C27:70 Power factor

This parameter describes the ratio of effective and reactive power.

Description	Value
Index	0x2C27 (Device)
Subindex	0x70
Datatype	REAL32
Min. Value	0.8
Default	1.0
Max. Value	1.0
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.21.2 2C27:71 Compensation mode

Description	Value
Index	0x2C27 (Device)
Subindex	0x71
Datatype	ENUM (UINT8)
Min. Value	
Default	capacitive (0)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
1 (0x01)	inductive
0 (0x00)	capacitive

1.22 2C28:x PSM Advanced parameters

Advanced parameter is an extension of actual diagnostic. A connection to firmware internal variables can be configured here

Description	Value
Index	0x2C28 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	36 (0x24)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.22.1 2C28:01 Debug index

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x01
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.2 2C28:02 Debug value float

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x02
Datatype	REAL32
Min. Value	-3.40282E+38
Default	0.0
Max. Value	3.40282E+38
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.3 2C28:03 Debug value string

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x03
Datatype	VISIBLE_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.4 2C28:10 Type debug pointer 1

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x10
Datatype	ENUM (UINT16)
Min. Value	
Default	Integer 32 main CPU (5)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
12 (0x0C)	Unsigned integer 32 slave CPU
11 (0x0B)	Integer 32 slave CPU
10 (0x0A)	Unsigned integer 16 slave CPU
9 (0x09)	Integer 16 slave CPU
8 (0x08)	Unsigned integer 8 slave CPU
7 (0x07)	Integer 8 slave CPU
6 (0x06)	Unsigned integer 32 main CPU
5 (0x05)	Integer 32 main CPU
4 (0x04)	Unsigned integer 16 main CPU
3 (0x03)	Integer 16 main CPU
2 (0x02)	Unsigned integer 8 main CPU
1 (0x01)	Integer 8 main CPU

1.22.5 2C28:12 Address debug pointer 1

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x12
Datatype	UINT32
Min. Value	0
Default	0

Description	Value
Max. Value	4294967295 (0xFFFFFFFF)
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.6 2C28:13 Type debug pointer 2

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x13
Datatype	ENUM (UINT16)
Min. Value	
Default	Integer 32 main CPU (5)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
12 (0x0C)	Unsigned integer 32 slave CPU
11 (0x0B)	Integer 32 slave CPU
10 (0x0A)	Unsigned integer 16 slave CPU
9 (0x09)	Integer 16 slave CPU
8 (0x08)	Unsigned integer 8 slave CPU
7 (0x07)	Integer 8 slave CPU
6 (0x06)	Unsigned integer 32 main CPU
5 (0x05)	Integer 32 main CPU
4 (0x04)	Unsigned integer 16 main CPU
3 (0x03)	Integer 16 main CPU
2 (0x02)	Unsigned integer 8 main CPU
1 (0x01)	Integer 8 main CPU

1.22.7 2C28:15 Address debug pointer 2

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x15
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.8 2C28:16 Type debug pointer 3

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x16
Datatype	ENUM (UINT16)
Min. Value	
Default	Integer 32 main CPU (5)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
12 (0x0C)	Unsigned integer 32 slave CPU
11 (0x0B)	Integer 32 slave CPU
10 (0x0A)	Unsigned integer 16 slave CPU
9 (0x09)	Integer 16 slave CPU
8 (0x08)	Unsigned integer 8 slave CPU
7 (0x07)	Integer 8 slave CPU
6 (0x06)	Unsigned integer 32 main CPU
5 (0x05)	Integer 32 main CPU
4 (0x04)	Unsigned integer 16 main CPU
3 (0x03)	Integer 16 main CPU
2 (0x02)	Unsigned integer 8 main CPU
1 (0x01)	Integer 8 main CPU

1.22.9 2C28:18 Address debug pointer 3

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x18
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.10 2C28:19 Type debug pointer 4

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x19

Description	Value
Datatype	ENUM (UINT16)
Min. Value	
Default	Float main CPU (1)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
2 (0x02)	Float slave CPU
1 (0x01)	Float main CPU

1.22.11 2C28:1B Address debug pointer 4

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x1B
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.12 2C28:1C Type debug pointer 5

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x1C
Datatype	ENUM (UINT16)
Min. Value	
Default	Float main CPU (1)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
2 (0x02)	Float slave CPU
1 (0x01)	Float main CPU

1.22.13 2C28:1E Address debug pointer 5

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x1E
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.14 2C28:1F Type debug pointer 6

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x1F
Datatype	ENUM (UINT16)
Min. Value	
Default	Float main CPU (1)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
2 (0x02)	Float slave CPU
1 (0x01)	Float main CPU

1.22.15 2C28:21 Address debug pointer 6

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x21
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.22.16 2C28:22 Type debug pointer 7

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x22
Datatype	ENUM (UINT16)
Min. Value	
Default	Float main CPU (1)
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

Enum Value	Description
2 (0x02)	Float slave CPU
1 (0x01)	Float main CPU

1.22.17 2C28:24 Address debug pointer 7

Internal use only.

Description	Value
Index	0x2C28 (Device)
Subindex	0x24
Datatype	UINT32
Min. Value	
Default	0
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.23 2C29:x PSM Calculated parameters

This object is an extension of the standard parameter

Description	Value
Index	0x2C29 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	35 (0x23)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.23.1 2C29:01 Mains voltage max threshold

Maximal RMS-value of mains voltage.

Description	Value
Index	0x2C29 (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	0
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.23.2 2C29:02 Mains voltage min threshold

Minimal RMS-value of mains voltage.

Description	Value
Index	0x2C29 (Device)
Subindex	0x02
Datatype	UINT16
Min. Value	
Default	0
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.23.3 2C29:21 Voltage control proportional gain

This object contains the proportional gain of the voltage controller.

Description	Value
Index	0x2C29 (Device)

Description	Value
Subindex	0x21
Datatype	REAL32
Min. Value	0.0
Default	0.0
Max. Value	3.40282E+38
Unit	A/V
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.23.4 2C29:22 Current control proportional gain

This object contains the proportional gain of the current controller.

Description	Value
Index	0x2C29 (Device)
Subindex	0x22
Datatype	REAL32
Min. Value	0.0
Default	0.0
Max. Value	3.40282E+38
Unit	V/A
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.23.5 2C29:23 Current control integral action time

This object contains the integral action time of the current controller.

Description	Value
Index	0x2C29 (Device)
Subindex	0x23
Datatype	REAL32
Min. Value	0.0
Default	0.0
Max. Value	3.40282E+38
Unit	s
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24 2C2A:x PSM Device info

Information about operation of the module

Description	Value
Index	0x2C2A (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	114 (0x72)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.1 2C2A:01 Rated output power

Device rated output power

Description	Value
Index	0x2C2A (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	7000 (0x1B58)
Max. Value	
Unit	W
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.2 2C2A:02 Peak output power

Device peak output power

Description	Value
Index	0x2C2A (Device)
Subindex	0x02
Datatype	UINT16
Min. Value	
Default	10000 (0x2710)
Max. Value	
Unit	W
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.3 2C2A:22 DC link max voltage

Maximal DC link voltage threshold supported by the device.

Description	Value
Index	0x2C2A (Device)

Description	Value
Subindex	0x22
Datatype	UINT16
Min. Value	
Default	8480 (0x2120)
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.4 2C2A:50 Device max temperature

Maximal heatsink temperature supported by the device, above which the error "Excess temperature device" is set.

Description	Value
Index	0x2C2A (Device)
Subindex	0x50
Datatype	UINT16
Min. Value	
Default	950 (0x03B6)
Max. Value	
Unit	0,1 °C
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.5 2C2A:60 Operating time

Operation time in seconds.

Description	Value
Index	0x2C2A (Device)
Subindex	0x60
Datatype	UINT32
Min. Value	
Default	
Max. Value	
Unit	s
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.6 2C2A:61 Total recovery energy

Information about operation of the module

Description	Value
Index	0x2C2A (Device)
Subindex	0x61
Datatype	UINT32
Min. Value	

Description	Value
Default	
Max. Value	
Unit	kJ
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.7 2C2A:70 Stopwatch task max

Internal use only.

Description	Value
Index	0x2C2A (Device)
Subindex	0x70
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	s
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.8 2C2A:71 Stopwatch task

Internal use only.

Description	Value
Index	0x2C2A (Device)
Subindex	0x71
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	s
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.24.9 2C2A:72 Stopwatch cycle

Internal use only.

Description	Value
Index	0x2C2A (Device)
Subindex	0x72
Datatype	REAL32
Min. Value	
Default	
Max. Value	
Unit	s
Access / EtherCAT-State	Ro

Standard-Objects

Description	Value
PDO Mapping	
Revision	All

1.25 2C2B:x PSM Error handling

This object contains error handling.

Description	Value
Index	0x2C2B (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	1 (0x01)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.25.1 2C2B:01 Reset errors

All resetable errors will be reset.

Description	Value
Index	0x2C2B (Device)
Subindex	0x01
Datatype	BOOL
Min. Value	
Default	FALSE
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26 2C2C:x PSM Factory settings

This object contains the device factory settings, which are read from EEPROM. Internal use only.

Description	Value
Index	0x2C2C (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	80 (0x50)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.26.1 2C2C:01 Command

Internal use only.

Description	Value
Index	0x2C2C (Device)
Subindex	0x01
Datatype	ENUM (UINT16)
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

Enum Value	Description
101 (0x65)	Read components factory settings
100 (0x64)	Write components factory settings
99 (0x63)	Read firmware parameters structure version
98 (0x62)	Write firmware parameters
96 (0x60)	Force command data integer
64 (0x40)	Read calibration data from memory
36 (0x24)	Reset total recovery energy
35 (0x23)	Reset mains current offsets
34 (0x22)	Reset mains voltage offsets
33 (0x21)	Reset operating time
32 (0x20)	Reset error list memory
5 (0x05)	Write Beckhoff identification code (BIC)
4 (0x04)	Write production date (dd.mm.yyyy)
3 (0x03)	Write HW revision
2 (0x02)	Write HW ids
1 (0x01)	Write scalings
0 (0x00)	Select

1.26.2 2C2C:02 Command data string

Internal use only.

Description	Value
Index	0x2C2C (Device)
Subindex	0x02
Datatype	VISIBLE_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.26.3 2C2C:03 Command data integer

By rising edge, slave in PREOP and right password the factory settings (2000) are written in the EEPROM. Internal use only.

Description	Value
Index	0x2C2C (Device)
Subindex	0x03
Datatype	UINT64
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.26.4 2C2C:30 Device Factory settings Structure version

This object contains the device factory settings, which are read from EEPROM. Internal use only.

Description	Value
Index	0x2C2C (Device)
Subindex	0x30
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.5 2C2C:31 DC link voltage scaling gain

Scaling gain of dc link voltage.

Description	Value
Index	0x2C2C (Device)
Subindex	0x31
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.6 2C2C:32 DC link voltage offset

Offset of dc link voltage.

Description	Value
Index	0x2C2C (Device)
Subindex	0x32
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.7 2C2C:33 DC link voltage sys scaling gain

Scaling gain of dc link voltage sys.

Description	Value
Index	0x2C2C (Device)
Subindex	0x33
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.8 2C2C:34 DC link voltage sys offset

Offset of dc link voltage sys.

Description	Value
Index	0x2C2C (Device)
Subindex	0x34
Datatype	INT16
Min. Value	

Description	Value
Default	
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.9 2C2C:35 Mains voltage scaling gain 1

Scaling gain of U mains voltage 1.

Description	Value
Index	0x2C2C (Device)
Subindex	0x35
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.10 2C2C:36 Mains voltage offset1

Offset of U mains voltage 1.

Description	Value
Index	0x2C2C (Device)
Subindex	0x36
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.11 2C2C:37 Mains voltage scaling gain 2

Scaling gain of U mains voltage 2.

Description	Value
Index	0x2C2C (Device)
Subindex	0x37
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw

Description	Value
PDO Mapping	
Revision	All

1.26.12 2C2C:38 Mains voltage offset 2

Offset of U mains voltage 2.

Description	Value
Index	0x2C2C (Device)
Subindex	0x38
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.13 2C2C:39 Mains voltage scaling gain 3

Scaling gain of U mains voltage 3.

Description	Value
Index	0x2C2C (Device)
Subindex	0x39
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.14 2C2C:3A Mains voltage offset 3

Offset of U mains voltage 3.

Description	Value
Index	0x2C2C (Device)
Subindex	0x3A
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 V
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.15 2C2C:3B Mains current scaling gain 1

Scaling gain of U mains current 1.

Description	Value
Index	0x2C2C (Device)
Subindex	0x3B
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.16 2C2C:3C Mains current offset 1

Offset of U mains current 1.

Description	Value
Index	0x2C2C (Device)
Subindex	0x3C
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,01 A
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.17 2C2C:3D Mains current scaling gain 2

Scaling gain of U mains current 2.

Description	Value
Index	0x2C2C (Device)
Subindex	0x3D
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.18 2C2C:3E Mains current offset 2

Offset of U mains current 2.

Description	Value
Index	0x2C2C (Device)

Description	Value
Subindex	0x3E
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,01 A
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.19 2C2C:3F Mains current scaling gain 3

Scaling gain of U mains current 3.

Description	Value
Index	0x2C2C (Device)
Subindex	0x3F
Datatype	INT16
Min. Value	
Default	
Max. Value	
Unit	0,1 %
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.20 2C2C:40 Checksum page 0

Checksum read from EEPROM.

Description	Value
Index	0x2C2C (Device)
Subindex	0x40
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.26.21 2C2C:41 Mains current offset 3

Offset of U mains current 3.

Description	Value
Index	0x2C2C (Device)
Subindex	0x41
Datatype	INT16
Min. Value	
Default	

Description	Value
Max. Value	
Unit	0,01 A
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.26.22 2C2C:50 Checksum page 1

This object contains the device factory settings, which are read from EEPROM. Internal use only.

Description	Value
Index	0x2C2C (Device)
Subindex	0x50
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.27 2C2D:x PSM HW ids

The object shows the hardware identification of the module

Description	Value
Index	0x2C2D (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	63 (0x3F)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.27.1 2C2D:01 Device id Structure version

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.2 2C2D:02 Device manufacturer date week

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x02
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.3 2C2D:03 Device manufacturer date year

Internal use only.

Description	Value
Index	0x2C2D (Device)

Description	Value
Subindex	0x03
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.4 2C2D:1F Device checksum

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x1F
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.5 2C2D:20 Pcb id 0 Structure version

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x20
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.6 2C2D:21 Pcb id 0 Manufacturer date week

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x21
Datatype	UINT8
Min. Value	
Default	

Description	Value
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.7 2C2D:22 Pcb id 0 Manufacturer date year

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x22
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.8 2C2D:24 Pcb id 0 Hw id Hardware type

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x24
Datatype	BIT6
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.9 2C2D:25 Pcb id 0 Hw id Feature flags

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x25
Datatype	BIT4
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	

Description	Value
Revision	All

1.27.10 2C2D:26 Pcb id 0 Hw id Supplier

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x26
Datatype	BIT4
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.11 2C2D:27 Pcb id 0 Hw id Component type

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x27
Datatype	BIT4
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.12 2C2D:29 Pcb id 0 Hw id Hardware index

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x29
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.13 2C2D:2A Pcb id 0 Hw id Pcb revision

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x2A
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.14 2C2D:2B Pcb id 0 Hw id Pcb type

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x2B
Datatype	BIT4
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.15 2C2D:2C Pcb id 0 Hw id Supported no of channels

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x2C
Datatype	BIT4
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.16 2C2D:2D Pcb id 0 Hw id Firmware index

Internal use only.

Description	Value
Index	0x2C2D (Device)

Description	Value
Subindex	0x2D
Datatype	UINT8
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.17 2C2D:2F Pcb id 0 Serial no

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x2F
Datatype	VISIBLE_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.27.18 2C2D:3F Pcb id 0 Checksum

Internal use only.

Description	Value
Index	0x2C2D (Device)
Subindex	0x3F
Datatype	UINT16
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28 2C2E:x PSM Backup parameters

This object shows the standard parameter of this module

Description	Value
Index	0x2C2E (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	10 (0x0A)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.28.1 2C2E:01 Mains type

This parameter configures the mains type.

Description	Value
Index	0x2C2E (Device)
Subindex	0x01
Datatype	ENUM (UINT8)
Min. Value	
Default	AC 3 phases (0)
Max. Value	
Unit	
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

Enum Value	Description
0 (0x00)	AC 3 phases

1.28.2 2C2E:03 Mains voltage

Connected mains RMS-voltage.

Description	Value
Index	0x2C2E (Device)
Subindex	0x03
Datatype	UINT16
Min. Value	4000 (0x0FA0)
Default	4000 (0x0FA0)
Max. Value	4800 (0x12C0)
Unit	0,1 V
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.3 2C2E:04 Mains voltage max tolerance

Positive tolerance of parametrized mains voltage.

Description	Value
Index	0x2C2E (Device)
Subindex	0x04
Datatype	UINT16
Min. Value	0
Default	10 (0x000A)
Max. Value	50 (0x0032)
Unit	%
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.4 2C2E:05 Mains voltage min tolerance

Negative tolerance of parametrized mains voltage.

Description	Value
Index	0x2C2E (Device)
Subindex	0x05
Datatype	UINT16
Min. Value	0
Default	10 (0x000A)
Max. Value	50 (0x0032)
Unit	%
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.5 2C2E:06 DC link max voltage

Threshold for dc link overvoltage error.

Description	Value
Index	0x2C2E (Device)
Subindex	0x06
Datatype	UINT16
Min. Value	0
Default	8480 (0x2120)
Max. Value	8480 (0x2120)
Unit	0,1 V
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.6 2C2E:07 Device temperature warning threshold

Percentage value of the maximum temperature above which an overtemperature warning is generated.

Description	Value
Index	0x2C2E (Device)
Subindex	0x07
Datatype	UINT16

Description	Value
Min. Value	0
Default	90 (0x005A)
Max. Value	101 (0x0065)
Unit	%
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.7 2C2E:08 Voltage threshold switch on

At this dc link voltage energy recovery is started.

Description	Value
Index	0x2C2E (Device)
Subindex	0x08
Datatype	UINT16
Min. Value	0
Default	7500 (0x1D4C)
Max. Value	8000 (0x1F40)
Unit	0,1 V
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.8 2C2E:09 Voltage threshold max power

At this dc link voltage device will achieve its maximum regenerative current. Above this value the brake chopper becomes active.

Description	Value
Index	0x2C2E (Device)
Subindex	0x09
Datatype	UINT16
Min. Value	0
Default	8000 (0x1F40)
Max. Value	8000 (0x1F40)
Unit	0,1 V
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.28.9 2C2E:0A Power derating

Power derating for operation at higher ambient temperatures or at higher installation heights.

Description	Value
Index	0x2C2E (Device)
Subindex	0x0A
Datatype	UINT16
Min. Value	0
Default	0

Description	Value
Max. Value	100 (0x0064)
Unit	%
Access / EtherCAT-State	Rw / PreOp
PDO Mapping	
Revision	All

1.29 2C30:x PSM Command

With this command object different commands can be performed.

Description	Value
Index	0x2C30 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	3 (0x03)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.29.1 2C30:01 Command

Byte 0-1: Command ID Byte 2-3: Reserved Byte 4-n: Service request data A write access to this object will execute the command.

Description	Value
Index	0x2C30 (Device)
Subindex	0x01
Datatype	OCTET_STRING
Min. Value	
Default	00 00
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

1.29.2 2C30:02 Status

0: last command completed, no errors, no response data 1: last command completed, no errors, response data available 2: last command completed, error, no response data 3: last command completed, error, response data available 255: command is executing

Description	Value
Index	0x2C30 (Device)
Subindex	0x02
Datatype	ENUM (UINT8)
Min. Value	
Default	eCoeCmdStatus_CmdCompletedNoErrorNoRespData (0)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

Enum Value	Description
4 (0x04)	eCoeCmdStatus_CmdIsExecuting
3 (0x03)	eCoeCmdStatus_CmdCompletedErrorRespDataAvailable
2 (0x02)	eCoeCmdStatus_CmdCompletedErrorNoRespData
1 (0x01)	eCoeCmdStatus_CmdCompletedNoErrorRespDataAvailable
0 (0x00)	eCoeCmdStatus_CmdCompletedNoErrorNoRespData

1.29.3 2C30:03 Response

Byte 0: see SubIndex 2 Byte 1: unused Byte 2-n: Service Response Data

Description	Value
Index	0x2C30 (Device)
Subindex	0x03
Datatype	OCTET_STRING
Min. Value	
Default	00 00
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.30 2C31:x PSM Command parameters

This object contains different command parameter.

Description	Value
Index	0x2C31 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	2 (0x02)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.30.1 2C31:01 Data state

Data state of the displayed "User Data".

Description	Value
Index	0x2C31 (Device)
Subindex	0x01
Datatype	ENUM (UINT8)
Min. Value	
Default	eDataState_Invalid (0)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

Enum Value	Description
1 (0x01)	eDataState_Valid
0 (0x00)	eDataState_Invalid

1.30.2 2C31:02 User data

The user data string stored in the device memory.

Description	Value
Index	0x2C31 (Device)
Subindex	0x02
Datatype	VISIBLE_STRING
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.31 F000:x Modular Device Profile

Description	Value
Index	0xF000 (Device)
Subindex	0x00
Datatype	UINT8
Min. Value	
Default	2 (0x02)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.31.1 F000:01 Index distance

Description	Value
Index	0xF000 (Device)
Subindex	0x01
Datatype	UINT16
Min. Value	
Default	16 (0x0010)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.31.2 F000:02 Maximum number of modules

Description	Value
Index	0xF000 (Device)
Subindex	0x02
Datatype	UINT16
Min. Value	
Default	1 (0x0001)
Max. Value	
Unit	
Access / EtherCAT-State	Ro
PDO Mapping	
Revision	All

1.32 F008 Code word

Description	Value
Index	0xF008 (Device)
Subindex	0x00
Datatype	UINT32
Min. Value	
Default	
Max. Value	
Unit	
Access / EtherCAT-State	Rw
PDO Mapping	
Revision	All

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