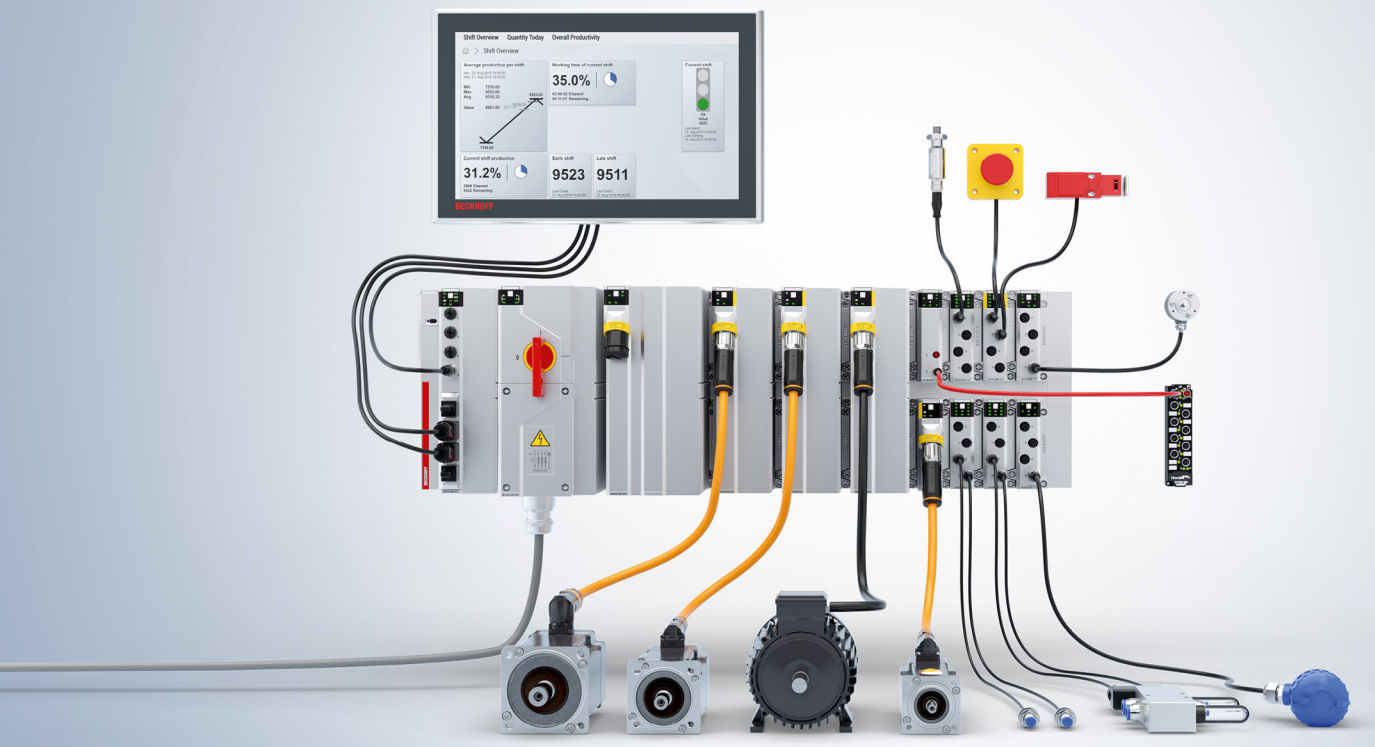
BECKHOFF New Automation Technology

Manual | EN

MS2625-0011-2245

EtherCAT power infeed, EtherCAT, 24 V DC/10 A, 400/480 V AC/25 A, B23



2026-05-22 | Version: 1.0.0

Table of contents

1 Foreword 5
1.1 Notes on the documentation 5
1.2 For your safety 6
1.3 Intended use 7
1.4 Safety sign 7
2 Product overview 8
2.1 Block diagram 11
2.2 Type key 12
2.3 Status display 13
2.4 Dimensions 14
3 Technical data 15
4 Software functions 16
5 Mechanical installation 17
5.1 Preparation 17
5.2 Placement of the module on the baseplate 18
5.3 Mounting the module 19
6 Connection 20
7 Commissioning and operation 21
7.1 Requirements 21
7.2 During operation 21
8 Decommissioning 22
8.1 Disassembly 22
8.2 Disposal 22
9 Appendix 23
9.1 Manual version history 23
9.2 Support and Service 24
9.3 Accessories 25

1 Foreword

1.1 Notes on the documentation

This description is intended exclusively for trained specialists in control and automation technology who are familiar with the applicable national standards.
The documentation and the following notes and explanations must be complied with when installing and commissioning the components.
The trained specialists must always use the current valid documentation.

The trained specialists must ensure that the application and use of the products described is in line with all safety requirements, including all relevant laws, regulations, guidelines, and standards.

Disclaimer

The documentation has been compiled with care. The products described are, however, constantly under development.
We reserve the right to revise and change the documentation at any time and without notice.
Claims to modify products that have already been supplied may not be made on the basis of the data, diagrams, and descriptions in this documentation.

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1.2 For your safety

Safety regulations

Read the following explanations for your safety.
Always observe and follow product-specific safety instructions, which you may find at the appropriate places in this document.

Exclusion of liability

All the components are supplied in particular hardware and software configurations which are appropriate for the application. Modifications to hardware or software configurations other than those described in the documentation are not permitted, and nullify the liability of Beckhoff Automation GmbH & Co. KG.

Personnel qualification

This description is only intended for trained specialists in control, automation, and drive technology who are familiar with the applicable national standards.

Signal words

The signal words used in the documentation are classified below. In order to prevent injury and damage to persons and property, read and follow the safety and warning notices.

Personal injury warnings

⚠ DANGER
Hazard with high risk of death or serious injury.

⚠ WARNING
Hazard with medium risk of death or serious injury.

⚠ CAUTION
There is a low-risk hazard that could result in medium or minor injury.

Warning of damage to property or environment

NOTICE
The environment, equipment, or data may be damaged.

Information on handling the product



This information includes, for example:
recommendations for action, assistance or further information on the product.

1.3 Intended use

Intended use of an MX-System

Application in machines and systems in industrial environments and exclusively inside buildings.

The electrical wiring must be permanent wiring.

Improper use

Improper use is not permitted and will result in the exclusion of liability on the part of Beckhoff Automation GmbH & Co.

1.4 Safety sign

You will find safety signs on Beckhoff products and packaging. These attached, printed, or laser-engraved safety signs may vary depending on the product. They serve to protect people and to prevent damage to the products. Safety signs must not be removed and must be legible to the user. Refer to the documentation whenever a symbol appears.



High voltage warning

There are areas of the device where dangerous electrical voltage is present. Contacting live electrical parts can result in serious injury or death. Work may only be performed in a de-energized state.



General warning sign

Observe the associated safety notes and instructions. Improper behavior can lead to injuries or property damage.



Fuse replacement

Switch off the supply voltage completely before replacing the fuses. Only use fuses of the same type and with identical nominal values. The device contains fuses that can be replaced if necessary. In the event of a fault, check the fuses and replace them if necessary.



Electronic components

Products marked with a crossed-out waste bin must not be disposed of with general waste. Electronic components and devices are considered as waste electrical and electronic equipment for disposal. Observe the national regulations for the disposal of old electrical and electronic equipment.

Fuse type



Observe the information on the number and type of replaceable fuses. Only use the specified fuse types for replacement.

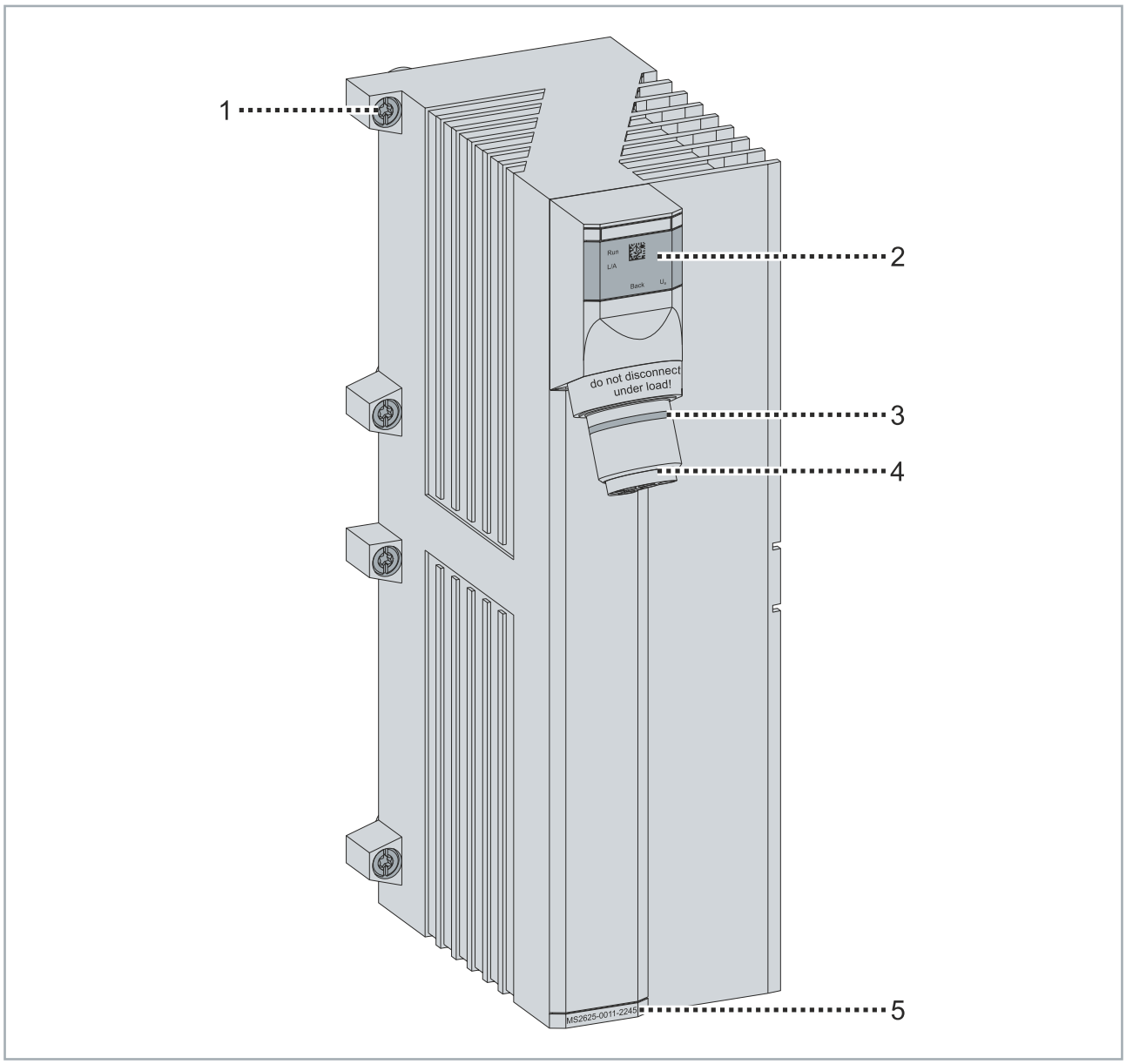


Read the original operating instructions

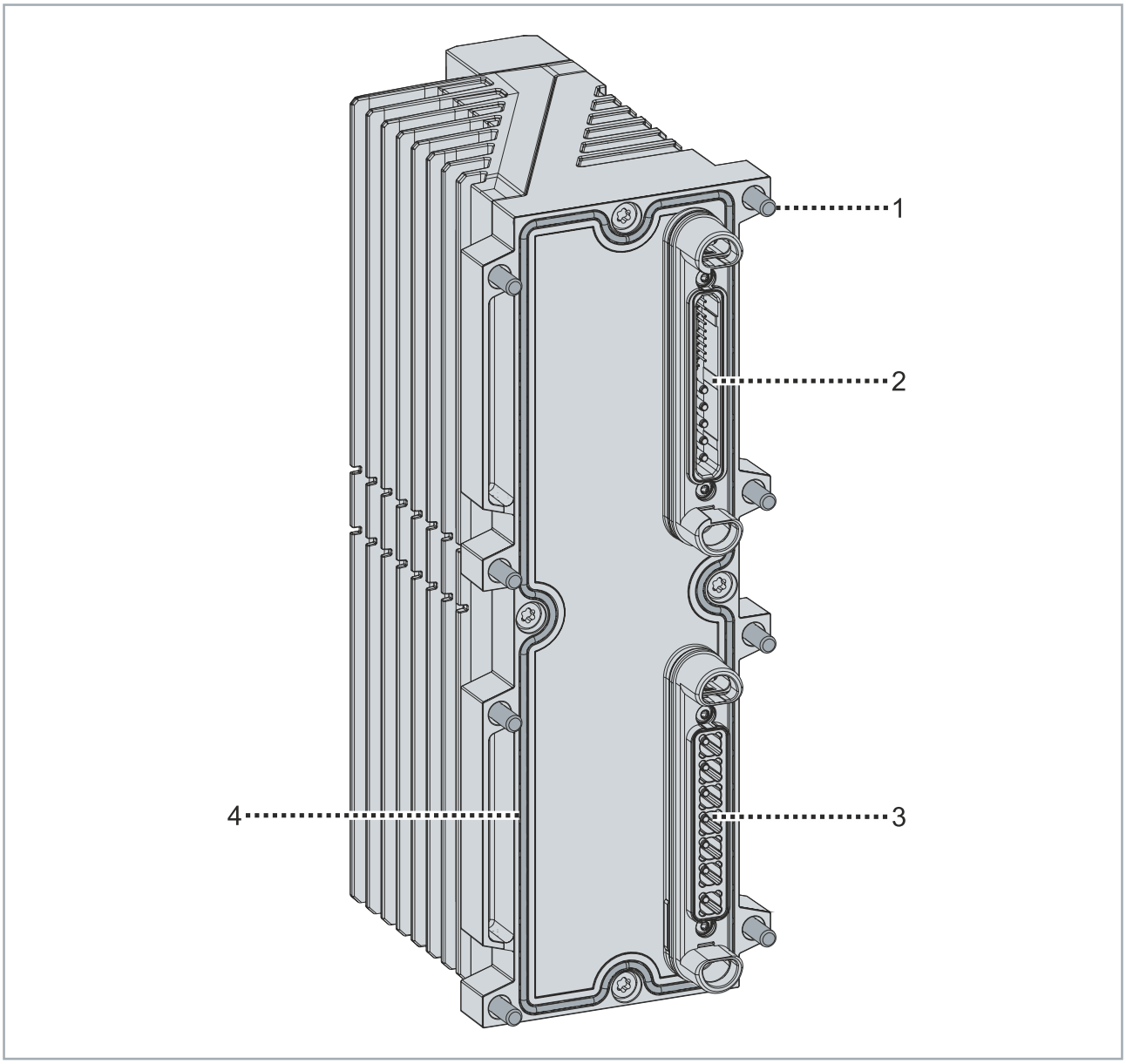
Familiarize yourself with the entire content of the operating instructions before commissioning. Always read the general safety instructions and the warnings in the individual chapters.

2 Product overview

The MS2625-0011-2245 power infeed module provides 400/480 V AC and up to 25 A as well as EtherCAT for the system. The power is supplied via a hybrid connector.

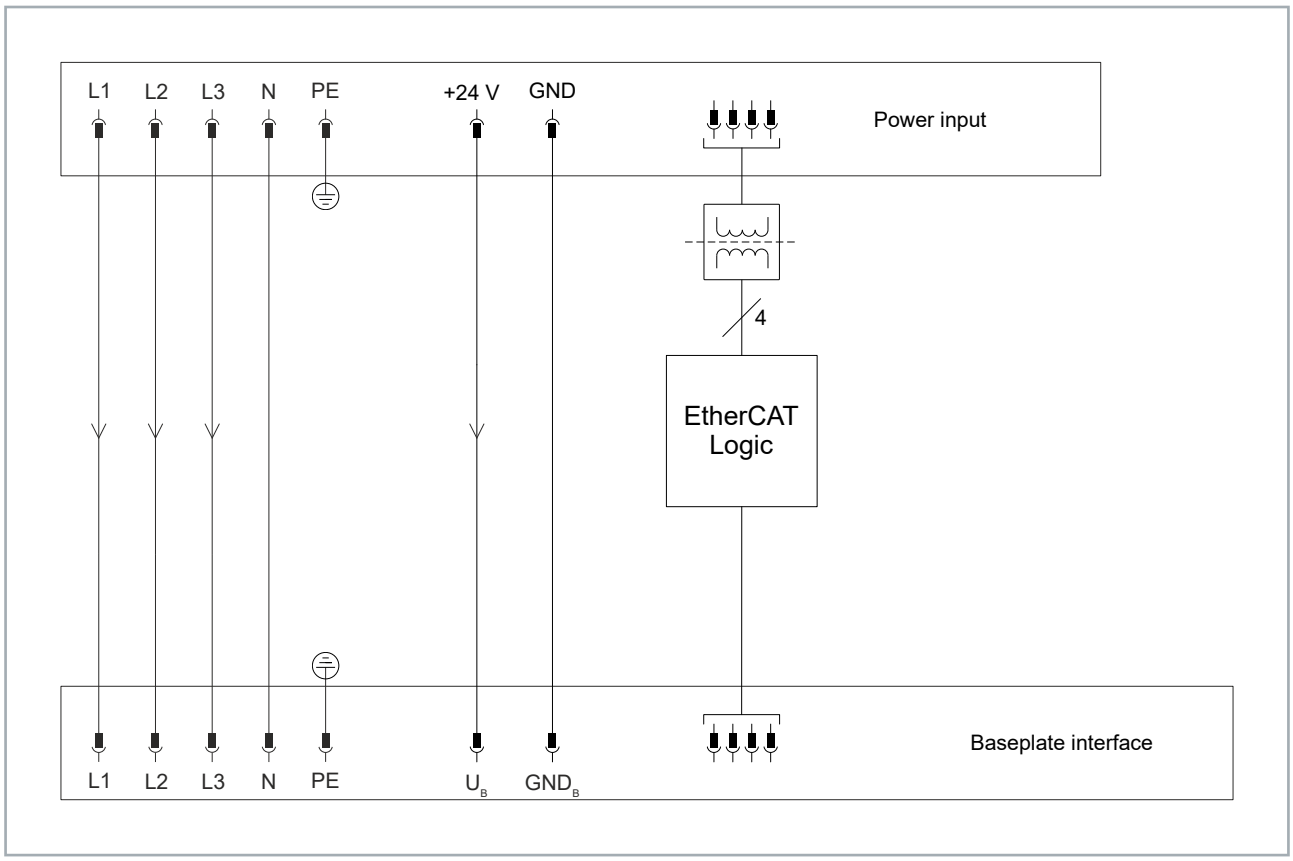


Position	Name
1	Fastening screw, captive, 8 x
2	Status display
3	Seal
4	EtherCAT power infeed
5	Module name

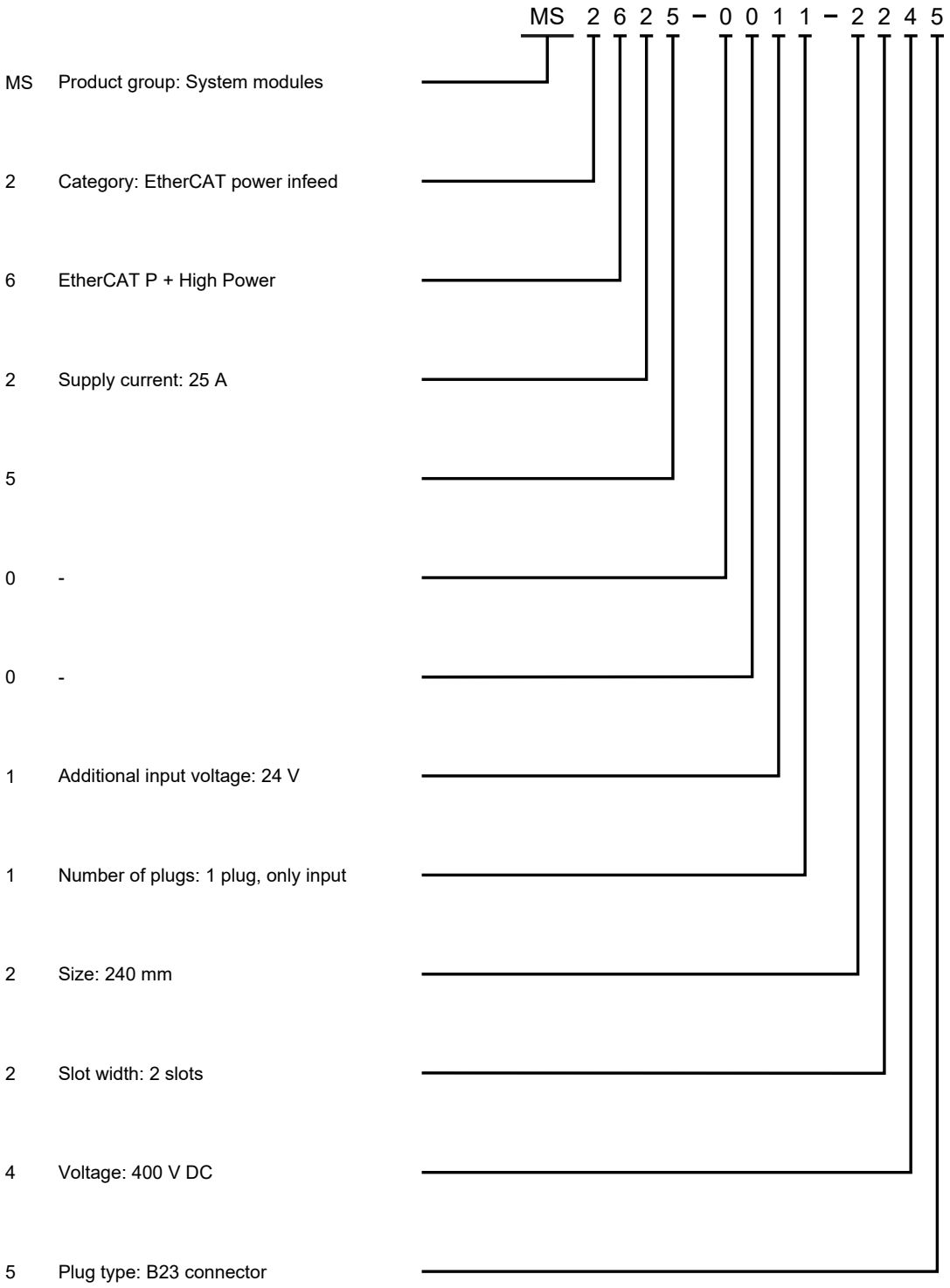


Position	Name
1	Fastening screw, captive, 8 x
2	Data connector
3	Power connector
4	Seal

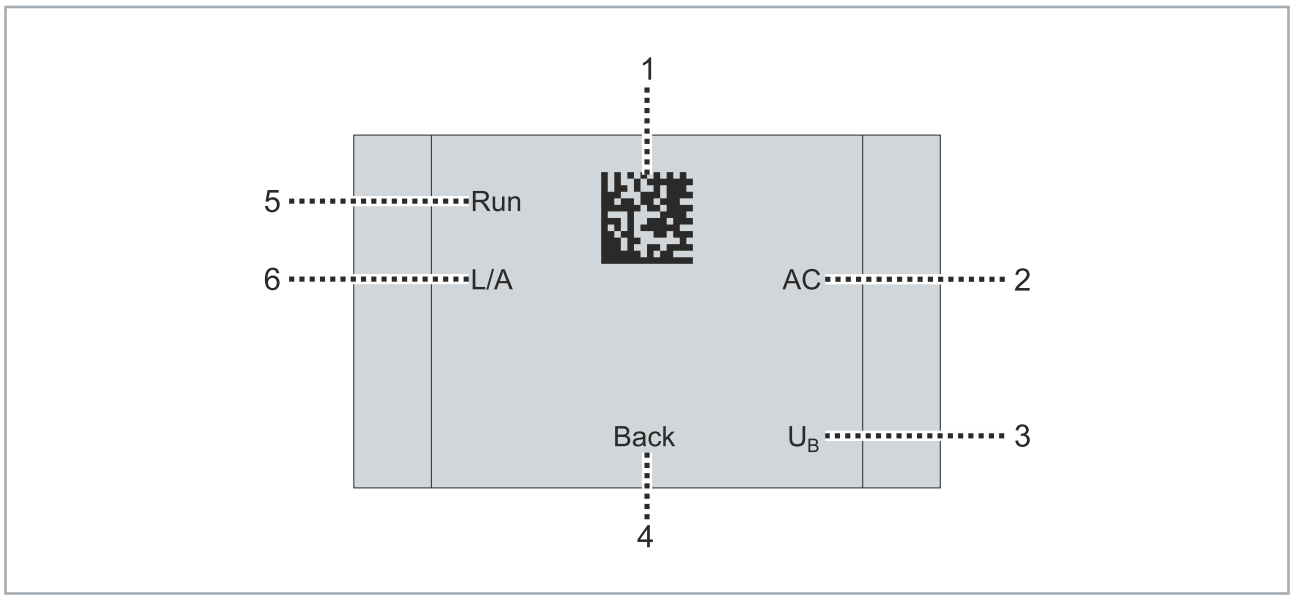
2.1 Block diagram



2.2 Type key


MS 2 6 2 5 – 0 0 1 1 – 2 2 4 5
MS Product group: System modules
2 Category: EtherCAT power infeed
6 EtherCAT P + High Power
2 Supply current: 25 A
5
0 -
0 -
1 Additional input voltage: 24 V
1 Number of plugs: 1 plug, only input
2 Size: 240 mm
2 Slot width: 2 slots
4 Voltage: 400 V DC
5 Plug type: B23 connector

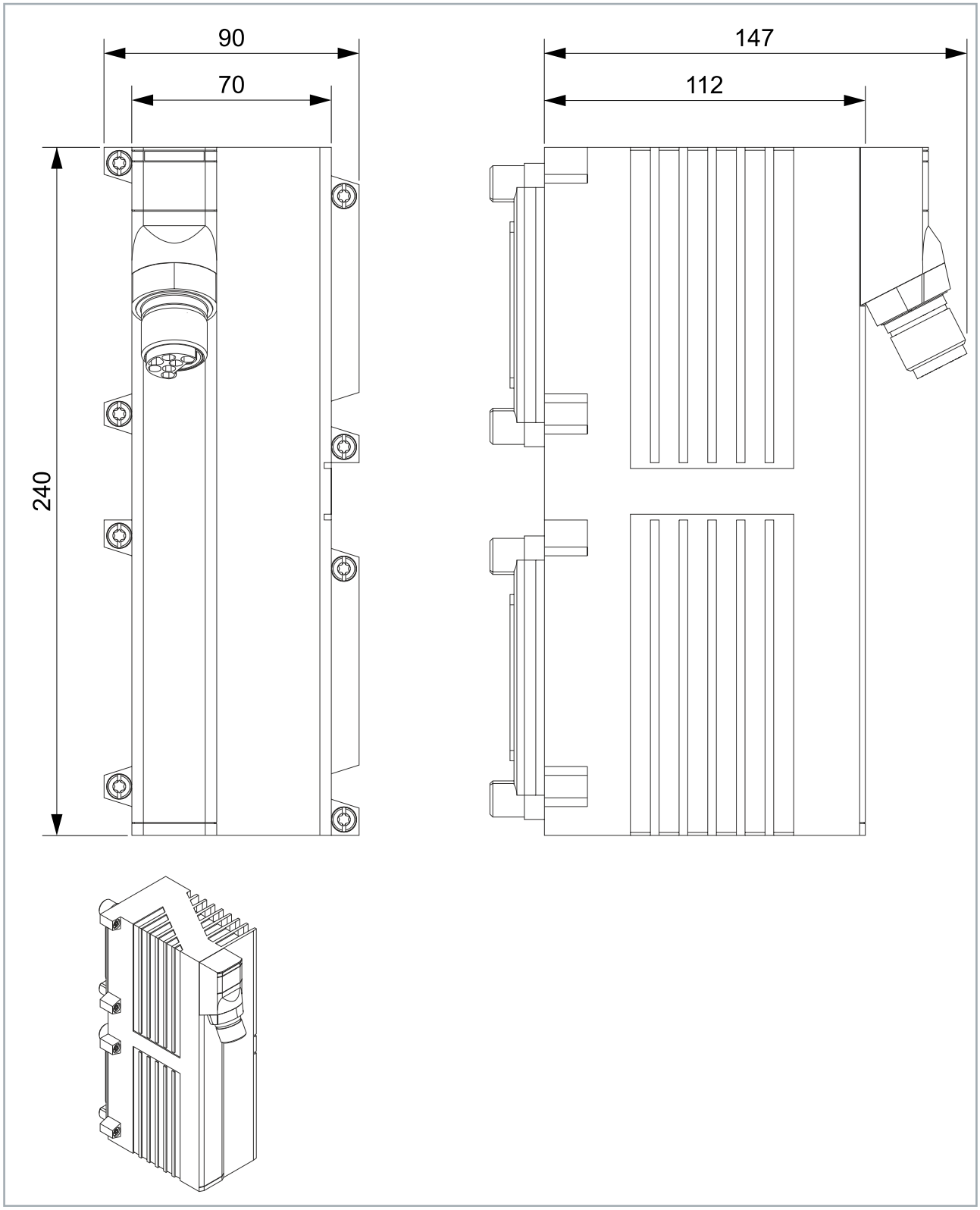
2.3 Status display



Position	Status display	Status	Explanation
1	-	-	Beckhoff Identification Code as DataMatrix code
2	AC	off	No mains voltage available
		green illuminated	Mains voltage available
3	U_B	off	No supply voltage present
		green illuminated	Supply voltage switched on
4	Back	off	EtherCAT State Machine from the ASIC in the module
		green illuminated	EtherCAT State Machine from the ASIC in the module
5	L/A	off	No connection on the incoming EtherCAT segment
		green illuminated	Preceding EtherCAT device connected
		flashing green	Communication with preceding EtherCAT device
6	Run	off	The EtherCAT State Machine of the module is in the initialization state
		flashing green	The EtherCAT State Machine of the module is in the *Pre-Operational* state
		single flash green	The EtherCAT State Machine of the module is in the *Safe-Operational* state
		green illuminated	The EtherCAT State Machine of the module is in the *Operational* state
		flickers green	Firmware is being loaded

2.4 Dimensions

All dimensions in mm



3 Technical data

All values are typical values over the entire temperature range, unless stated otherwise.

Baseplate interface	
Connector	1 data connector 1 power connector
Hot Swap	No
Stromaufnahme 24 V U_B	1 mA
Stromaufnahme 3,3 V U_E	80 mA

Voltage and EtherCAT input X1	
Connection	1 x B23 hybrid connector, 7-pin, coding 3 4-pin data element
Input voltage AC	400…480 V AC (-15 % … +10 %)
Grid frequency AC	50…60 Hz (± 10 %)
Rated output current AC	25 A
Input voltage DC	24 V DC (-15 % … +10 %)
Rated output current DC	10 A
Fieldbus	EtherCAT

Housing data	
Width (slots)	2
Height (rows)	2
Dimensions W × H × D	90 mm × 240 mm × 147 mm 90 mm × 240 mm × 112 mm (housing only)
Material	Zinc die-cast and aluminum die-cast
Cooling	Convection
Weight	-
Installation position	Vertical. See system manual, chapter "Installation conditions".

Environmental conditions	
Operating temperature	0 … 50 °C
Storage temperature	-25 … +60 °C
Air humidity	95 %, no condensation
Protection rating	IP20 as a separate module
	IP65 / IP67 as part of a fully and correctly assembled MX-System
Pollution degree	2
Overvoltage category	III
Maximum installation altitude	2000 m

Standards, approvals	
Device safety	conforms to EN 61010-2-201
EMC immunity/emission	conforms to EN IEC 61000-6-2 / EN IEC 61000-6-4
Vibration/shock resistance	conforms to EN 60068-2-6 / EN 60068-2-27
Approvals	CE, UL in preparation

4 Software functions

Software functions are the functions of a module's firmware that a controller can access via EtherCAT.

Functionality

The following descriptions document the full range of software functions at the time of publication of this manual. The range of functions that can actually be used depends on the firmware version of a module.

The following process data objects are provided by the module:



5 Mechanical installation

Required tools

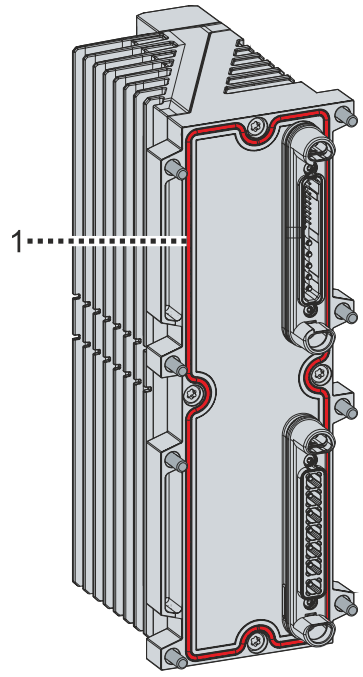
- Torx T25 screwdriver
- Torque wrench 5 Nm

5.1 Preparation

NOTICE

Check the module for damage

If the seal is worn or damaged, liquids and dirt can penetrate and damage the MX-System. The IP65/IP67 protection rating is not met if the seals are worn or damaged.

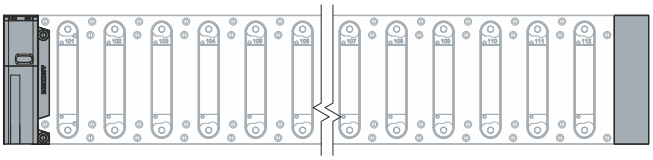


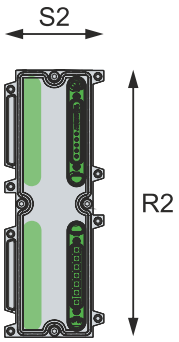
1. Check the seal [1] of the module for wear and damage
2. Replace worn and damaged seals

5.2 Placement of the module on the baseplate

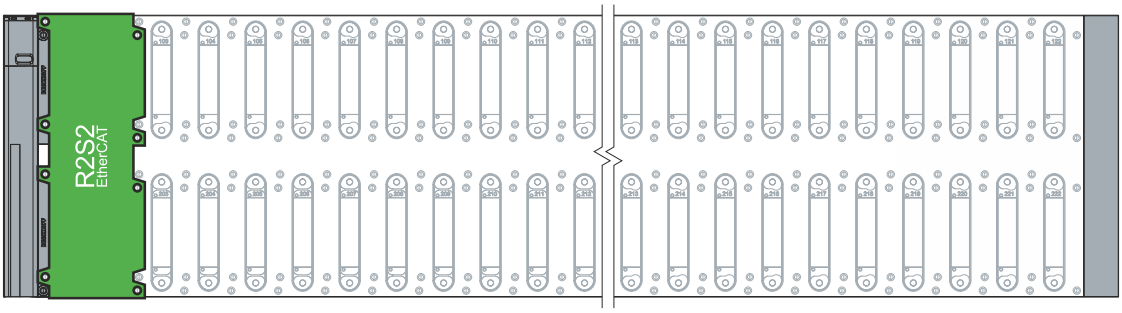
The module can be plugged into the following areas marked in green:

MB11xx-0000-0000





MB21xx-0000-0000

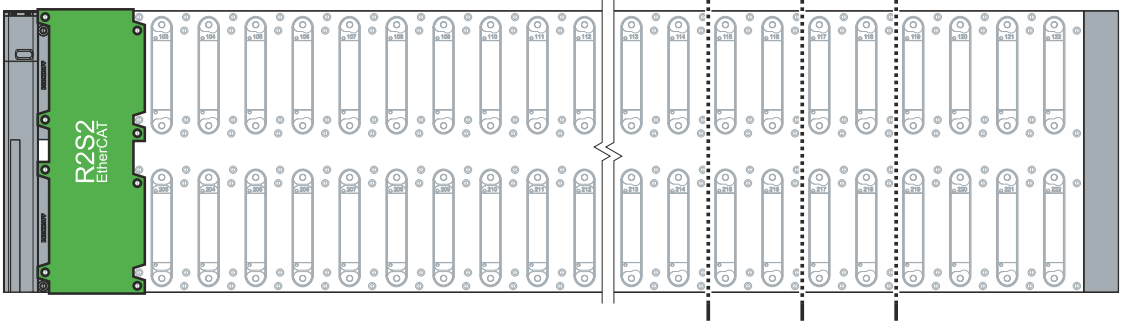


MB21xx-0000-x000

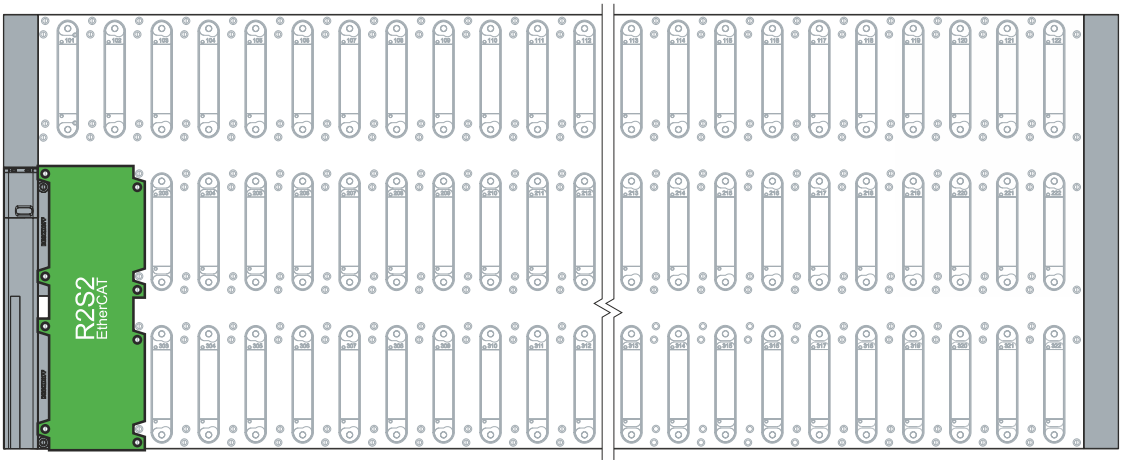
MB21xx-0000-4000

MB21xx-0000-6000

MB21xx-0000-8000



MB31xx-0000-0000



5.3 Mounting the module

⚠ CAUTION

Danger due to the high weight of an equipped baseplate

First mount the baseplate and then the modules to the baseplate. If you mount the modules on the baseplate first, the total weight of the MX-System will increase. Another person is required to transport and assemble an equipped baseplate.

- Wear personal protective equipment.
- The equipped baseplate must be transported and mounted by two people.

NOTICE

Ensure correct installation

If the module is not installed correctly, liquids and dirt may enter and damage the MX-System. The IP65/IP67 protection rating is not met if the installation is incorrect.

NOTICE

Limited number of mating cycles

The module may be plugged in a maximum of 25 times to attach it to the baseplate. If the module is plugged into the baseplate more than 25 times, a secure connection between the module and the baseplate cannot be guaranteed.

- Observe the permissible number of mating cycles.
- Replace the module if the number of mating cycles is exceeded.
- Replace the baseplate if the number of mating cycles is exceeded.

The module must be plugged into data slot *101* and the power slot *201* below it on a baseplate. Depending on the design, data slot *102* and power slot *202* are also required.

1. Plug the module on the baseplate
2. Tighten all screws
3. Observe tightening torques:

Components	Tightening torque [Nm]
Screws	5

Further information on installation can be found in the system manual in the "Mounting" chapter.

6 Connection

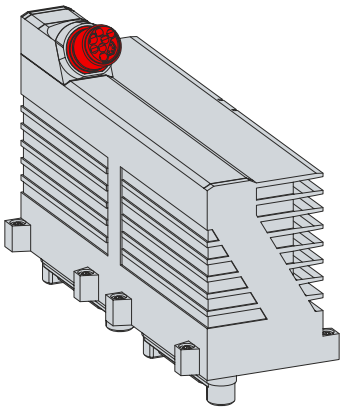
NOTICE

Defect caused by hot plug

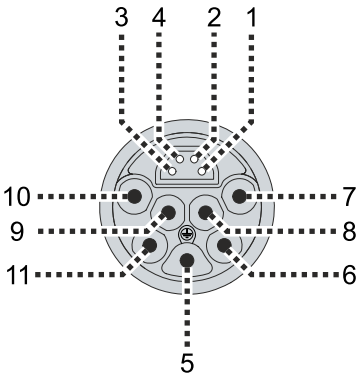
If cables are connected or disconnected during operation, damage to property is possible.

- Only connect or disconnect cables when all supply voltages have been shutdown.

Power input



The power input is a 7-pin B23 connector with coding 3 and a 4-pin data element.

B23 connector	Pin	Signal	Function
	1	TX+	EtherCAT data line
	2	RX+	EtherCAT data line
	3	RX-	EtherCAT data line
	4	TX-	EtherCAT data line
	5	PE	Protective earth
	6	24 V	U_B 24 V DC input
	7	0 V	GND to pin 6
	8	N	U_D 400 V AC input N
	9	L1	U_D 400 V AC input L1
	10	L2	U_D 400 V AC input L2
	11	L3	U_D 400 V AC input L3

7 Commissioning and operation

7.1 Requirements

- Components show no signs of damage
- Screw connections of the components are correctly tightened
- Wiring and cables are installed correctly

7.2 During operation

- Observe information for environment and operation
- Observe maintenance intervals
- Switch off the system if
  - unusual noise occurs
  - smoke develops
  - an atypical temperature development occurs

8 Decommissioning

8.1 Disassembly

Disassembly may only be carried out by qualified and trained technical personnel.

✓ The supply voltage is shut down.

1. Remove cables.
2. Loosen all mounting screws of the module.
3. Take the module off the baseplate.

⇨ The module has been removed correctly.

8.2 Disposal



Products marked with a crossed-out wheeled bin shall not be discarded with the normal waste stream. The device is considered as waste electrical and electronic equipment. The national regulations for the disposal of waste electrical and electronic equipment must be observed.

9 Appendix

9.1 Manual version history

The following table shows the version history of this manual.

Version	Comment
1.0.0	• First release

9.2 Support and Service

Beckhoff and their partners around the world offer comprehensive support and service, making available fast and competent assistance with all questions related to Beckhoff products and system solutions.

Download finder

Our download finder contains all the files that we offer you for downloading. You will find application reports, technical documentation, technical drawings, configuration files and much more.

The downloads are available in various formats.

Beckhoff's branch offices and representatives

Please contact your Beckhoff branch office or representative for local support and service on Beckhoff products!

The addresses of Beckhoff's branch offices and representatives round the world can be found on our internet page: www.beckhoff.com

You will also find further documentation for Beckhoff components there.

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- support
- design, programming and commissioning of complex automation systems
- and extensive training program for Beckhoff system components

Hotline:	+49 5246 963-157
e-mail:	support@beckhoff.com

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The Beckhoff Service Center supports you in all matters of after-sales service:

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- repair service
- spare parts service
- hotline service

Hotline:	+49 5246 963-460
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9.3 Accessories

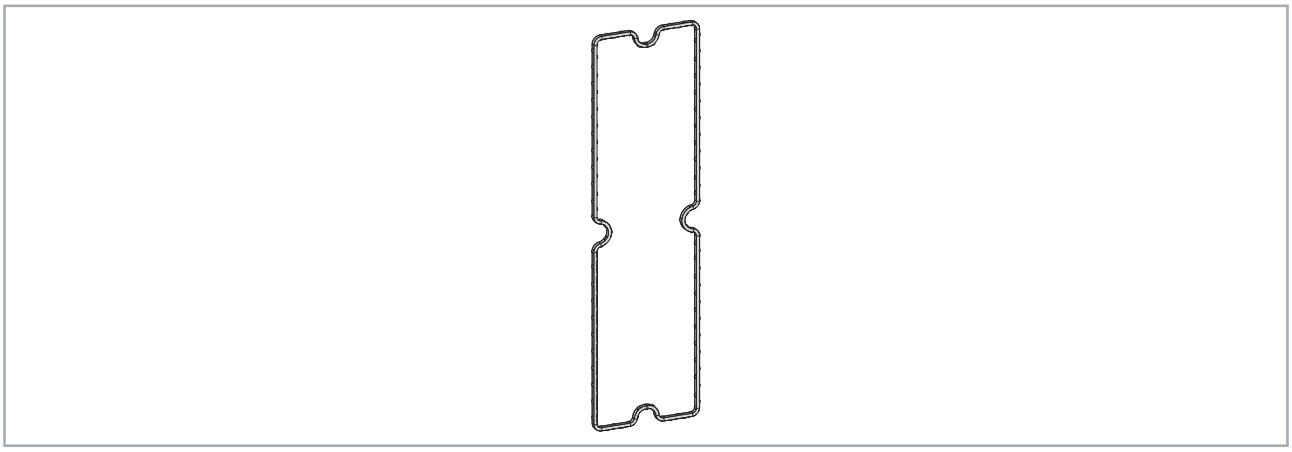
Suitable accessories can be found on the product website:

www.beckhoff.com/ms2625-0011-2245

Product	Description
ZMX1000-0010	M5x17.5 combi-TX25 replacement screws for module fastening (PU = 10 pcs.)
ZMX3001-0012	1-row, 2-slot replacement seal for module base
ZMX4001-0001	Replacement cover for potential equalization for 1-row baseplate with Beckhoff logo
ZMX4001-0002	Replacement cover for potential equalization for 2- and 3-row baseplate with Beckhoff logo

The following items are also available for replacing worn parts:

MX seal S2R2



The S2R2 seal is available to replace worn and damaged seals on a 2-row MX module with two slots.

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