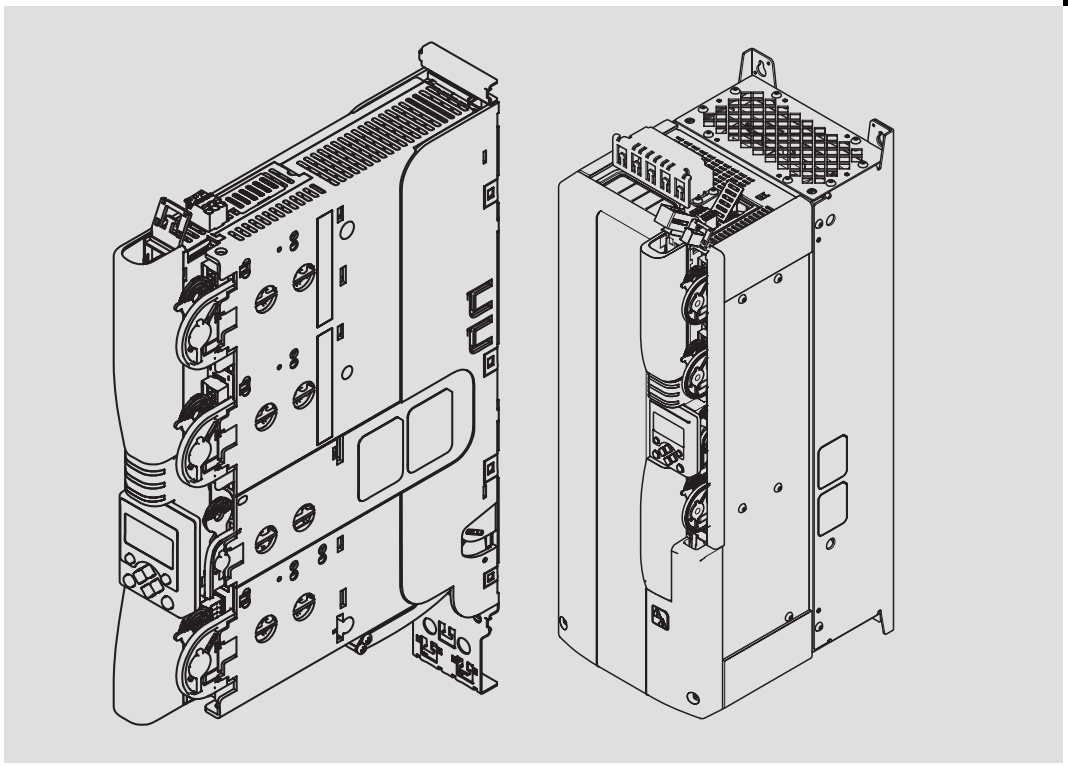
EDS94SPP101
13335141

L-force *Drives*

Hardware Manual

9400

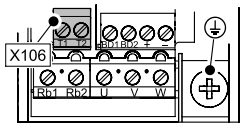


E94A...

Servo Drives 9400

Lenze

Motor temperature monitoring

Terminal X106	Labelling	Description
 SSP940X106	T1 T2	Motor temperature monitoring with PTC element (type-A sensor, switching performance according to EN 60947-8 for type-A tripping units) or thermostat (NC contact).

Terminal data					
	Max. conductor cross-section		Tightening torque		
	[mm²]	[AWG]	[Nm]	[lb-in]	
Flexible With wire end ferrule	2.5	12	0.5 ... 0.6	4.5 ... 6.2	PZ0

Motor brake control (optional)

Note!

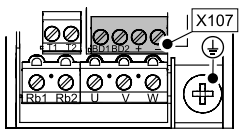
When the 24 V supply voltages (at X2) are applied and a motor holding brake is available, the devices respond as follows:

- ► SingleDrive without mains or DC-bus voltage: The motor holding brake **cannot** be released.
- ► MultiDrive without DC-bus voltage: The motor holding brake can be released.

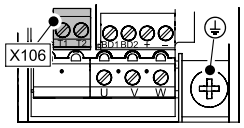
Tip!

For detailed information on the motor holding brake control modules, please see the chapter Accessories (📖 419).

For information on the E94AZHX0051 motor holding brake control module optionally contained in the installation backplane, please see the chapter Accessories starting on page 420.

Terminal X107	Labelling	Description
 SSP940X107	BD1 BD2	Connection of the motor holding brake + (Lenze: WH) - (Lenze: BN) E94AZHX0051: 24 V DC, max. 2.5 A Observe correct polarity!
	+ / -	Supply voltage for the motor holding brake (18 ... 30 V DC) Observe correct polarity!

Motor temperature monitoring

Terminal X106	Labelling	Description
 SSP940X106	T1 T2	Motor temperature monitoring with PTC element (type-A sensor, switching performance according to EN 60947-8 for type-A tripping units) or thermostat (NC contact).

Terminal data					
	Max. conductor cross-section		Tightening torque		
	[mm²]	[AWG]	[Nm]	[lb-in]	
Flexible With wire end ferrule	2.5	12	0.5 ... 0.6	4.5 ... 6.2	PZ0

Motor brake control (optional)

Note!

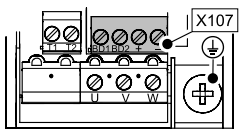
When the 24 V supply voltages (at X2) are applied and a motor holding brake is available, the devices respond as follows:

- ► SingleDrive without mains or DC-bus voltage: The motor holding brake **cannot** be released.
- ► MultiDrive without DC-bus voltage: The motor holding brake can be released.

Tip!

For detailed information on the motor holding brake control modules, please see the chapter Accessories (📖 419).

For information on the E94AZHX0051 motor holding brake control module optionally contained in the installation backplane, please see the chapter Accessories starting on page 420.

Terminal X107	Labelling	Description
 SSP940X107	BD1 BD2	Connection of the motor holding brake + (Lenze: WH) - (Lenze: BN) E94AZHX0051: 24 V DC, max. 2.5 A Observe correct polarity!
	+ / -	Supply voltage for the motor holding brake (18 ... 30 V DC) Observe correct polarity!

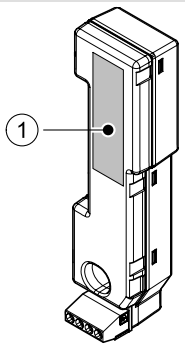
9 Accessories (overview)

Note!

You can find additional information on the accessories in the catalogue to this product series.

9.7.1 Motor holding brake control module E94AZHX0051

Identification

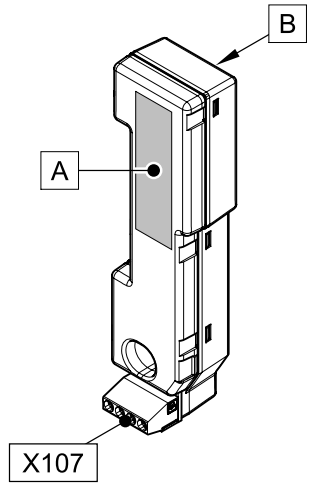


E94AZH002

Type code	①					
	E94	A	Z	H	x	005	1

Product series
Device generation
Accessories
Motor brake control type
Rated current
005 = 2.5 A
Voltage class
1 = 24 V

Scope of supply



E94AZH001

Pos.	Description
	Motor brake control E94AZHX0051
	Mounting Instructions

Elements of the motor brake control

Pos.	Description
A	Nameplate
B	Connection of the installation backplane
X107	Connection of supply and brake

Standards

Conformity	CE	Low-Voltage Directive
Approvals	UL (only for use with E94 series)	UL508, Industrial Control Equipment, Underwriter Laboratories (File No. E232497) for USA and Canada

Operating conditions

The operating conditions correspond to the operating conditions for the standard device to which the DC-feeding point is connected.

General electrical data

Operating frequency	Max. 6/min
Operating times	Can be ignored compared to the delay time of the brake. See documentation of the brake.
Service life	> 10 millions of cycles
Protection against	
Overload	No
Short circuit of the terminals	Yes
Polarity reversal at the input	Yes
Insulation [1]	Double insulation (EN61800-5-1: V_{rated} = 300 V AC), Separation (UL: V_{rated} = 500 V AC)

[1] Brake connection against control card of the controller

Rated data

Type	Voltage U_{DC} [V]	Current I_{DC} [A]	Power P_{DC} [W]	Breaking energy E [Ws]
E94AZHX0051	18 ... 30	0.3 ... 2.5	max. 55	max. 5

Safety instructions

During installation the notes given in the documentation for the standard device must be observed!

Stop!

The motor brake control includes an electronic switch which can control a 24 V motor holding brake.

The motor brake control may only be connected with motor holding brakes which correspond to the permissible data mentioned in the technical data. (If required, the holding brake without motor brake control must be controlled via a digital output and a coupling relay).

If the permissible data mentioned in the technical data are not complied with:

► the motor brake control can be destroyed.

► a safe operation of the motor holding brake cannot be guaranteed.

Further notes in the documentation of the standard device must be observed!

Stop!

Requirements concerning the brake cable (connection BD1/BD2):

► The brake cables must be shielded if they are incorporated in the motor cable.
  – Operation with unshielded brake cables can destroy the motor brake control.
  – We recommend the use of Lenze system cables (motor cable with separately shielded additional cores).

► When using a permanent magnet holding brake, ensure the correct polarity of the brake cable.
  – If the terminals are reversed, the brake does not release. Since the motor runs against the closed brake, the brake can be destroyed.

► Connect the shield on both sides of PE.

Requirements concerning the supply voltage U_{DC} (connection +/-):

► The motor brake control must always be supplied with a separate 24 V supply.
  – A common supply of the motor brake control and the control card of the controller is not permissible since otherwise the double insulation between both components would be reduced.

► Set U_{DC} so that the operating voltage of the brake is within the admissible range and the maximum supply voltage of the motor brake control will not be exceeded.