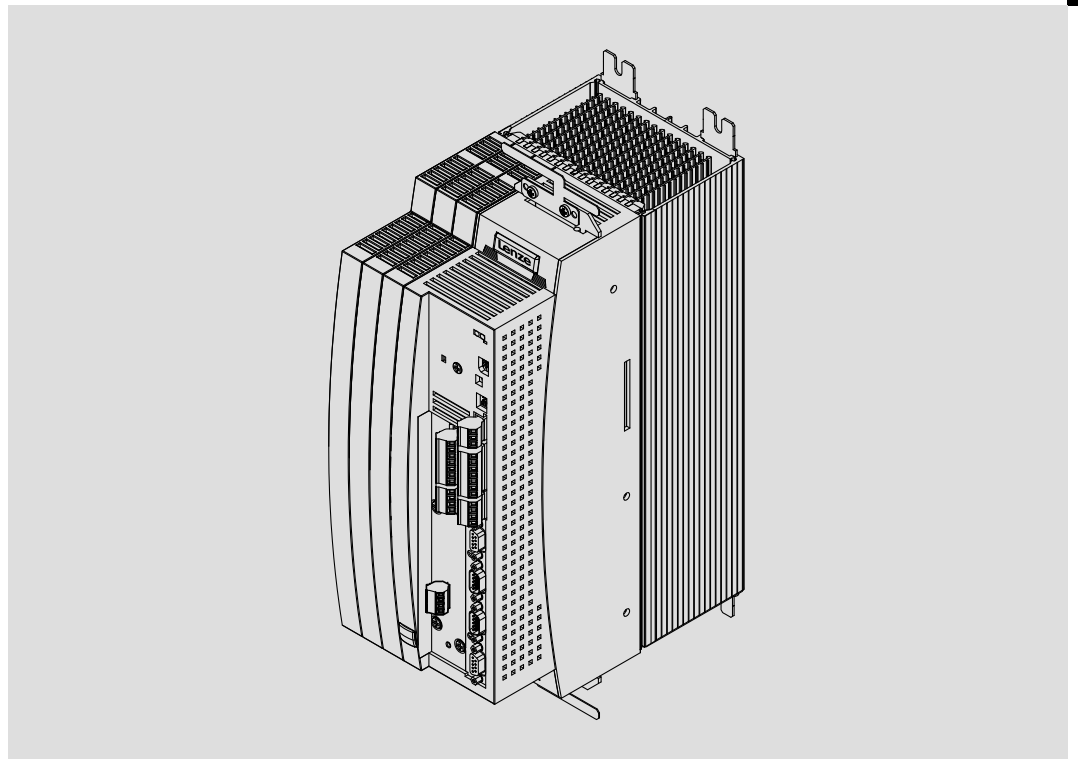


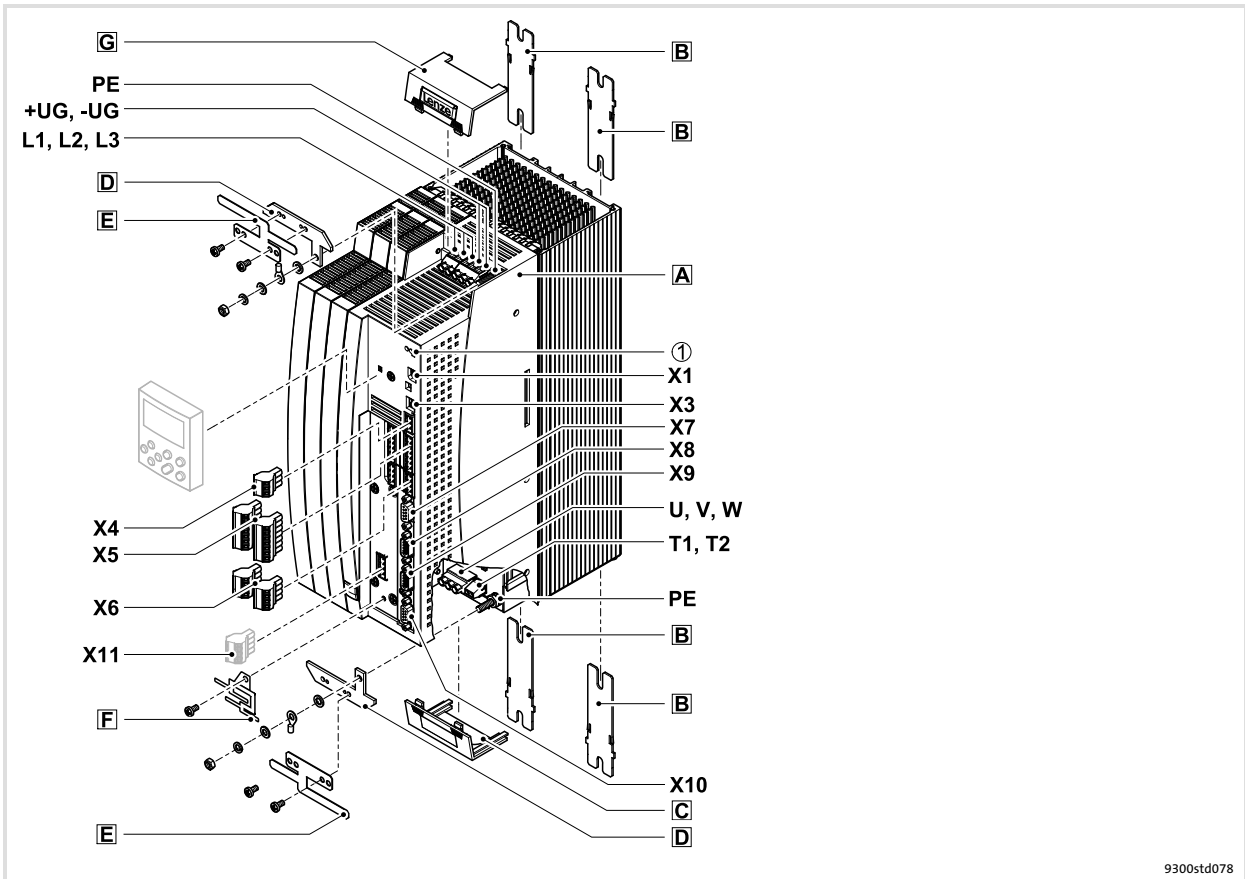
Information for the operator of the machine

9300 *0.37 ... 11 kW*



EVS9321-xx ... EVS9326-xx

Servo controller



Key for overview

Position	Description
A	Controller
B	Fixing rails for standard mounting
C	Cover for the motor connection
D	Shield connection support with fixing screws (2 items) 1 support for the shield sheet for the supply connections 1 support for the shield sheet for the motor cable
E	EMC shield sheet with fixing screws (2 items) 1 shield sheet for the supply connections 1 shield sheet for the motor cable and the feed cable for the motor temperature monitoring with PTC thermistor or thermal contact (NC contact)
F	EMC shield sheet with fixing screws for shielded control cables
G	Cover for the supply connections

Connections and interfaces

Position	Description
L1, L2, L3, PE	Mains connection
+UG, -UG	DC supply
U, V, W, PE	Motor connection
T1, T2	Connection of PTC thermistor or thermal contact (NC contact) of the motor
X1	AIF interface (automation interface) Slot for communication module (e. g. XT EMZ9371BC keypad)
X3	Jumper for setting analog input signal at X6/1, X6/2
X4	System bus (CAN) connection
X5	Connection of digital inputs and outputs
X6	Connection of analog inputs and outputs
X7	Connection of resolver and KTY temperature sensor of the motor
X8	Connection of incremental encoder with TTL level or SinCos encoder and KTY temperature sensor of the motor
X9	Connection of digital frequency input signal
X10	Connection of digital frequency output signal
X11	Connection of K _{SR} relay output for "safe standstill" (for variants V004 and V104 only)

Status displays

Position	LED red	LED green	Operating status
①	Off	On	Controller enabled
	On	On	Mains is switched on and automatic start is inhibited
	Off	Blinking slowly	Controller inhibited
	Blinking quickly	Off	Undervoltage or overvoltage
	Blinking slowly	Off	Active fault

1	About this documentation	5
1.1	Document history	5
1.2	Target group	5
1.3	Validity information	6
1.4	Conventions used	7
1.5	Notes used	8
2	Safety instructions	9
2.1	General safety and application notes for Lenze controllers	9
2.2	Thermal motor monitoring	13
2.2.1	Forced ventilated or naturally ventilated motors	14
2.2.2	Self-ventilated motors	15
2.3	Residual hazards	17
2.4	Safety instructions for the installation according to UL	18
3	Parameter setting	19
3.1	Parameter setting with the XT EMZ9371BC keypad	19
3.1.1	General data and operating conditions	19
3.1.2	Installation and commissioning	20
3.1.3	Display elements and function keys	21
3.1.4	Changing and saving parameters	23
3.1.5	Loading a parameter set	25
3.1.6	Transferring parameters to other standard devices	26
3.1.7	Activating password protection	28
3.1.8	Diagnostics	29
3.1.9	Menu structure	30
4	Troubleshooting and fault elimination	32
4.1	Display of operating data, diagnostics	32
4.2	Troubleshooting	33
4.2.1	Status display via controller LEDs	33
4.2.2	Fault analysis with the history buffer	34
4.2.3	Fault analysis via LECOM status words (C0150/C0155)	35
4.3	System error messages	36
4.3.1	General error messages	36
4.3.2	Resetting system error messages	45

1 About this documentation



Note!

This documentation contains all necessary information for the machine operator to be able to operate the servo controllers of the 9300 series installed in your machine/plant.

You can make further use of all information in this documentation without consulting Lenze if you do not make any changes to the contents.

1.1 Document history

What is new / what has changed?

Material number	Version			Description
13440647	3.0	07/2013	TD06	Error corrections
13330541	2.1	03/2010	TD23	Change of the company's address
13330541	2.0	03/2010	TD14	New edition due to reorganisation of the company UL-warnings updated Revision for software version 8x
13231631	1.0	11/2007	TD34	First edition



Tip!

Information and auxiliary devices related to the Lenze products can be found in the download area at

<http://www.Lenze.com>

1.2 Target group

This documentation is directed at qualified skilled personnel according to IEC 60364.

Qualified skilled personnel are persons who have the required qualifications to carry out all activities involved in installing, mounting, commissioning, and operating the product.

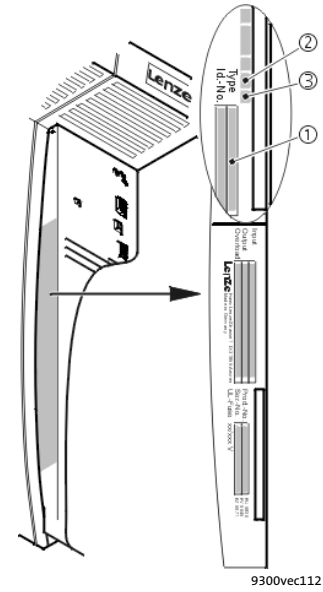
1 About this documentation

Validity information

1.3 Validity information







... 9300 servo controllers as of nameplate data:

	①	②	③	Nameplate																					
	EVS	93xx	- x x	Vxxx 1x 8x																					
Product series	EVS = Servo controller																								
Type no. / rated power	<table border="1"> <thead> <tr> <th></th> <th>400 V</th> <th>480 V</th> </tr> </thead> <tbody> <tr> <td>9321 =</td> <td>0.37 kW</td> <td>0.37 kW</td> </tr> <tr> <td>9322 =</td> <td>0.75 kW</td> <td>0.75 kW</td> </tr> <tr> <td>9323 =</td> <td>1.5 kW</td> <td>1.5 kW</td> </tr> <tr> <td>9324 =</td> <td>3.0 kW</td> <td>3.0 kW</td> </tr> <tr> <td>9325 =</td> <td>5.5 kW</td> <td>5.5 kW</td> </tr> <tr> <td>9326 =</td> <td>11 kW</td> <td>11 kW</td> </tr> </tbody> </table>					400 V	480 V	9321 =	0.37 kW	0.37 kW	9322 =	0.75 kW	0.75 kW	9323 =	1.5 kW	1.5 kW	9324 =	3.0 kW	3.0 kW	9325 =	5.5 kW	5.5 kW	9326 =	11 kW	11 kW
	400 V	480 V																							
9321 =	0.37 kW	0.37 kW																							
9322 =	0.75 kW	0.75 kW																							
9323 =	1.5 kW	1.5 kW																							
9324 =	3.0 kW	3.0 kW																							
9325 =	5.5 kW	5.5 kW																							
9326 =	11 kW	11 kW																							
Type	E = Panel-mounted unit C = Built-in unit in "cold plate" technique																								
Design	I = Servo PLC K = Servo cam P = Servo position controller R = Register controller S = Servo inverter T = Servo PLC technology																								
Variant	- Standard V003 = In "cold plate" technique V004 = With "safe standstill" function V100 = For IT mains V104 = With "safe standstill" function and for IT mains																								
Hardware version																									
Software version																									



1.4 Conventions used

This documentation uses the following conventions to distinguish between different types of information:

Type of information	Identification	Examples/notes
Spelling of numbers		
Decimal separator	language-dependent	In each case, the signs typical for the target language are used as decimal separators. For example: 1234.56 or 1234,56
Warnings		
UL warnings		Are only given in English.
UR warnings		
Text		
Program name	» «	PC software For example: »Engineer«, »Global Drive Control« (GDC)
Icons		
Page reference		Reference to another page with additional information For instance:  16 = see page 16
Documentation reference		Reference to another documentation with additional information For example:  EDKxxx = see documentation EDKxxx