

# Servo controllers and accessories



## Table of contents: Servo controllers

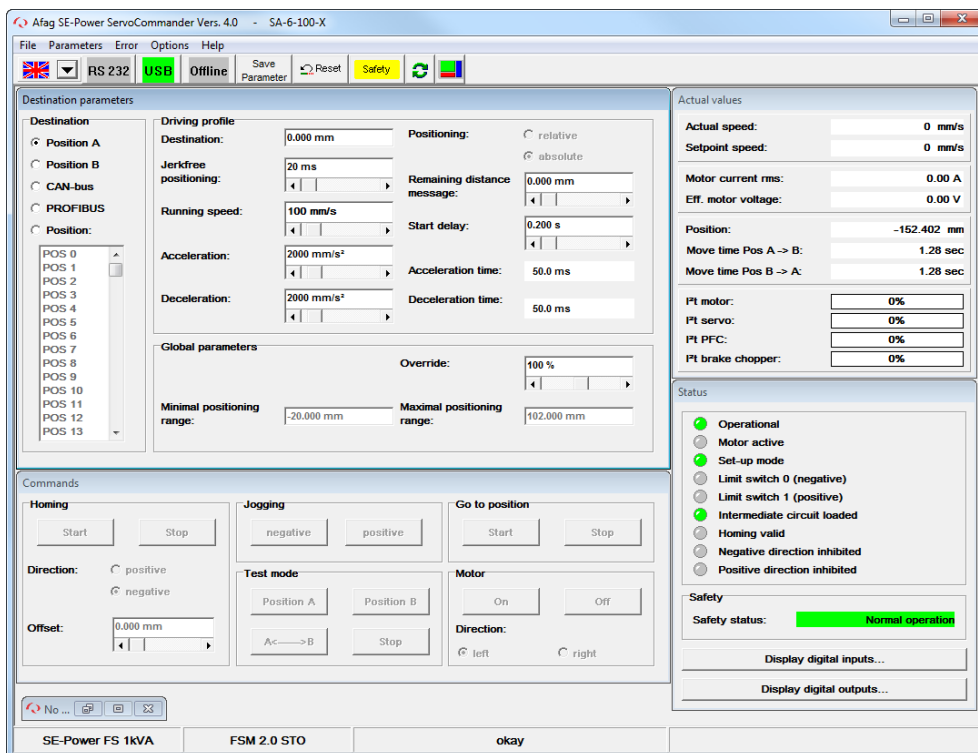
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Modules	SE-24	SE-Power 1kVA	SE-Power 3kVA	SE-Power 6kVA	C11xx	C12xx	E12xx	E14xx	Third party controllers
<b>Catalogue HT linear</b>									
ES8					Standard	Alternative	Alternative	Alternative	Alternative
ES12					Standard	Alternative	Alternative	Alternative	Alternative
ES20					Standard	Alternative	Alternative	Alternative	Alternative
ES30					Standard	Alternative	Alternative	Alternative	Alternative
ES40/-HP					Standard	Alternative	Alternative	Alternative	Alternative
SA-1/-FL		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
SA-3/-FL		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
SA-6/-FL		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
OZ-50		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
OZ-60		Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-52		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-65		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-80		Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-100		Alternative	Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative
PDZ-128		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PDZ-160		Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PDZ-200		Alternative	Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative
PEL20/-SL					Standard	Alternative	Alternative	Alternative	Alternative
PDL30					Standard	Alternative	Alternative	Alternative	Alternative
PDL40/-HP					Standard	Alternative	Alternative	Alternative	Alternative
LE-50		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
LE-60		Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
LE-70			Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative
<b>Catalogue HT gripping &amp; turning</b>									
RE-50		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
RE-50 18-100V	Alternative	Alternative	Alternative	Alternative	Standard	Alternative	Alternative	Alternative	Alternative
RE-75		Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
RE-75 18-100V A		Alternative	Alternative	Alternative	Standard	Alternative	Alternative	Alternative	Alternative
SE20					Standard	Alternative	Alternative	Alternative	Alternative
SE30					Standard	Alternative	Alternative	Alternative	Alternative
RA-40					Standard	Alternative	Alternative	Alternative	Alternative
SG-50	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
SG-50-ABq					Standard	Alternative	Alternative	Alternative	Alternative

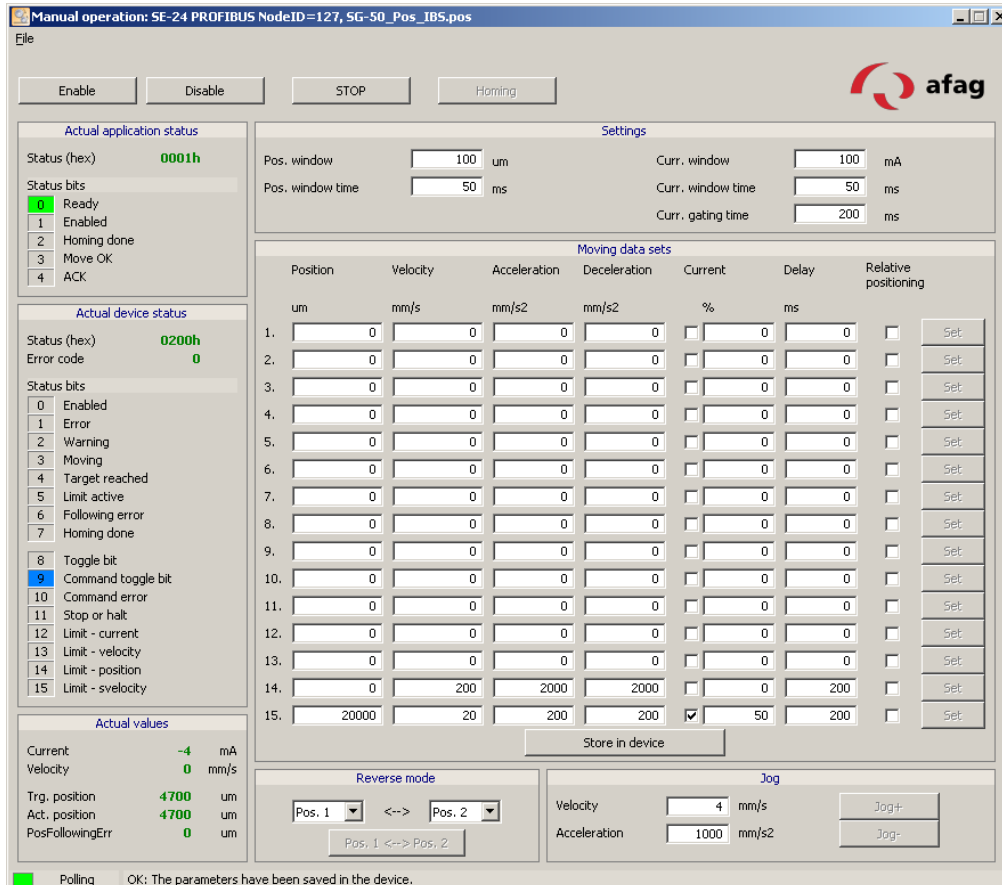
The servo controllers (except the third party controllers) are servo position controllers that are specifically tailored to all Afag modules and axes. They provide you, the user, with extremely short commissioning times and simple, practical handling. The effort required for system integration is reduced to a minimum because all modules and axes are parametrised ex works, and processed to ensure optimal operation.

Note: In order to be connected to third party controllers, all cables are also available with open ends. If you have any questions, please contact your sales partner.

 Standard  
 Alternative

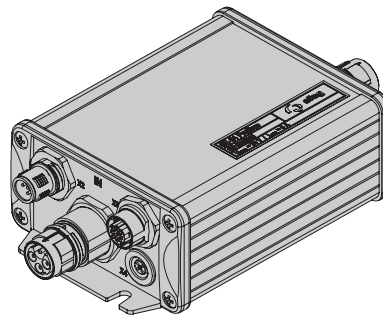
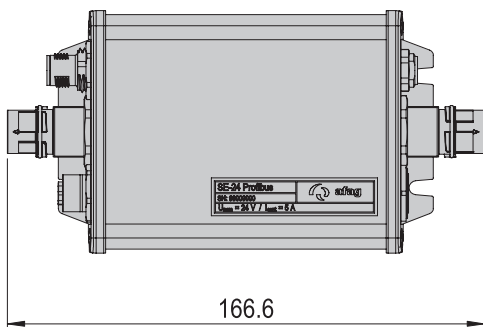
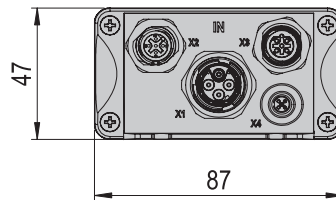
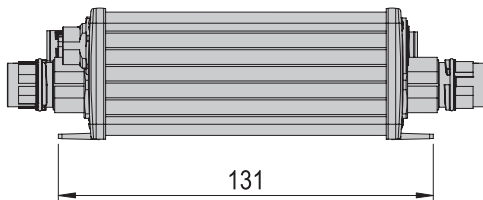
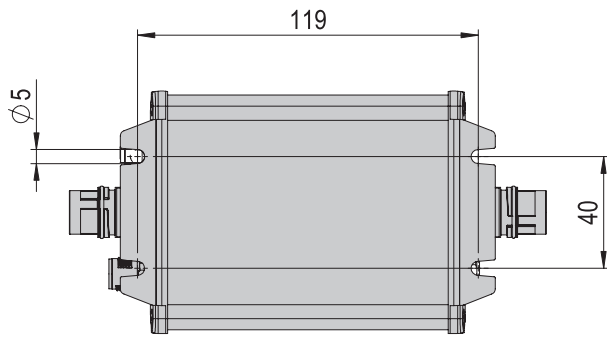


SE-COMMANDER  
SE-Power  
operating interface



AFAG-TOOLS SE-24  
operating interface

Detailed information on the operating software can be found in the handbooks of the corresponding controllers.





SE-24	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	SE-24 I/O	SE-24 Profibus	SE-24 EtherCAT	SE-24 CANopen
<b>Order number</b>	<b>50315434</b>	<b>50315435</b>	<b>50315436</b>	<b>50315437</b>
Net weight	0.49 kg	0.58 kg	0.49 kg	0.56 kg
Dimensions W x H x D	87x47x165 mm	87x47x165 mm	87x47x165 mm	87x47x165 mm
Nominal current	5 A	5 A	5 A	5 A
Supply voltage	9-35 VDC	9-35 VDC	9-35 VDC	9-35 VDC
Control voltage	9-30 VDC	9-30 VDC	9-30 VDC	9-30 VDC
Protection type	IP 65	IP 65	IP 65	IP 65
Intermediate circuit voltage	24 VDC	24 VDC	24 VDC	24 VDC
Output power	120 VA	120 VA	120 VA	120 VA
Programming interface	USB	USB	USB	USB
Number of position data records	15	15	15	15

### Accessories

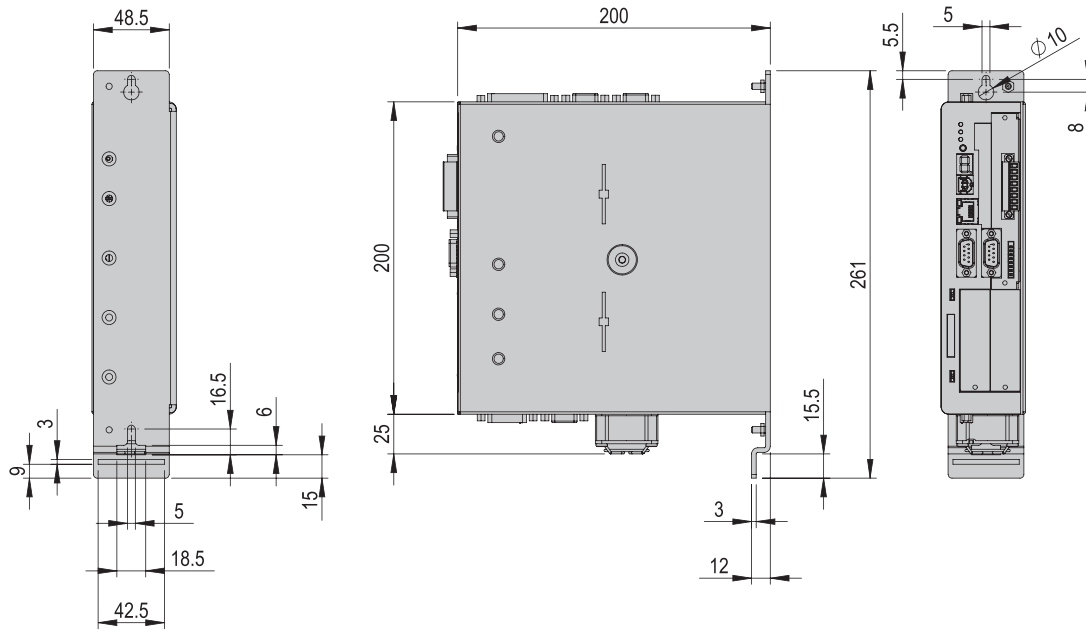
- Programming cable SE-24
- Power cable SE-24
- I/O cable SE-24
- SE-24 Stick

### Alternative Accessories

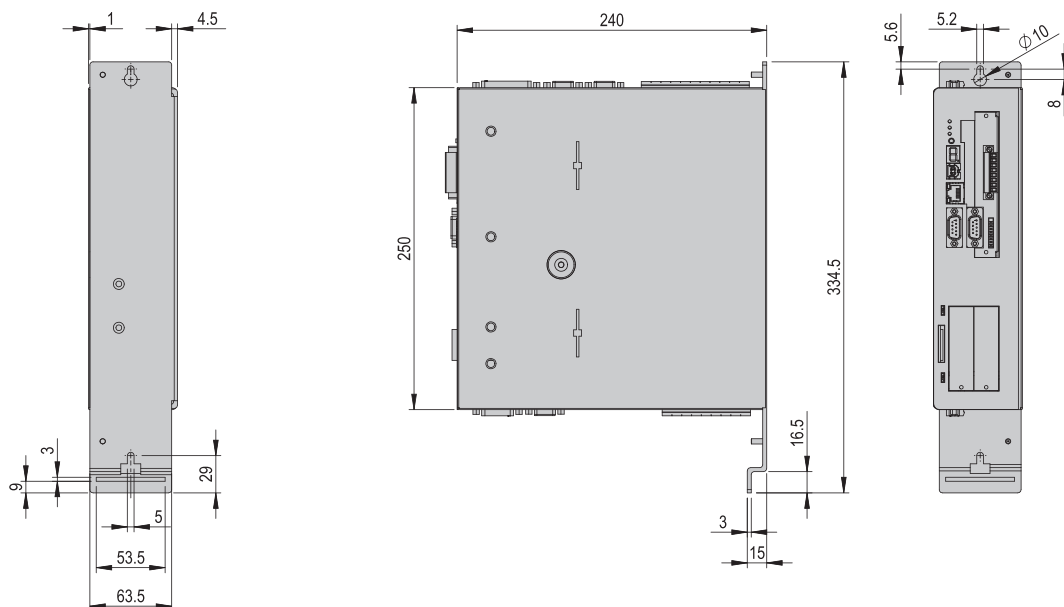
- Additional power and I/O cables

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

SE-Power 1kVA



SE-Power 3kVA / 6kVA





SE-Power	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %
Encoder evaluation	Resolver, incr., SinCos, Hiperface, en Dat

Type	SE-Power 1kVA	SE-Power 3kVA	SE-Power 6kVA
<b>Order number</b>	<b>50036337</b>	<b>50162993</b>	<b>50183996</b>
Net weight	2.1 kg	3.7 kg	3.7 kg
Dimensions W x H x D	54x201x200 mm	69x250x240 mm	69x250x240 mm
Nominal output current	5 A	5 A	10 A
Supply voltage	48 - 230 VAC	3 x 400 VAC	3 x 400 VAC
Voltage supply, alternative	60 - 380 VDC		
Control voltage	24 VDC	24 VDC	24 VDC
Protection type	IP 20	IP 20	IP 20
Intermediate circuit voltage	320 VDC	560 VDC	560 VDC
Output power	1 kVA	3 kVA	6 kVA
Programming interface	USB/RS 232	USB/RS 232	USB/RS 232
Standard interfaces for higher-level control	CANopen DSP 402	CANopen DSP 402	CANopen DSP 402
Number of position data records via Onboard I/Os	16	16	16
Number of position data records with option I/O interface	250	250	250
Analog	+/- 10 V	+/- 10 V	+/- 10 V

### Accessories

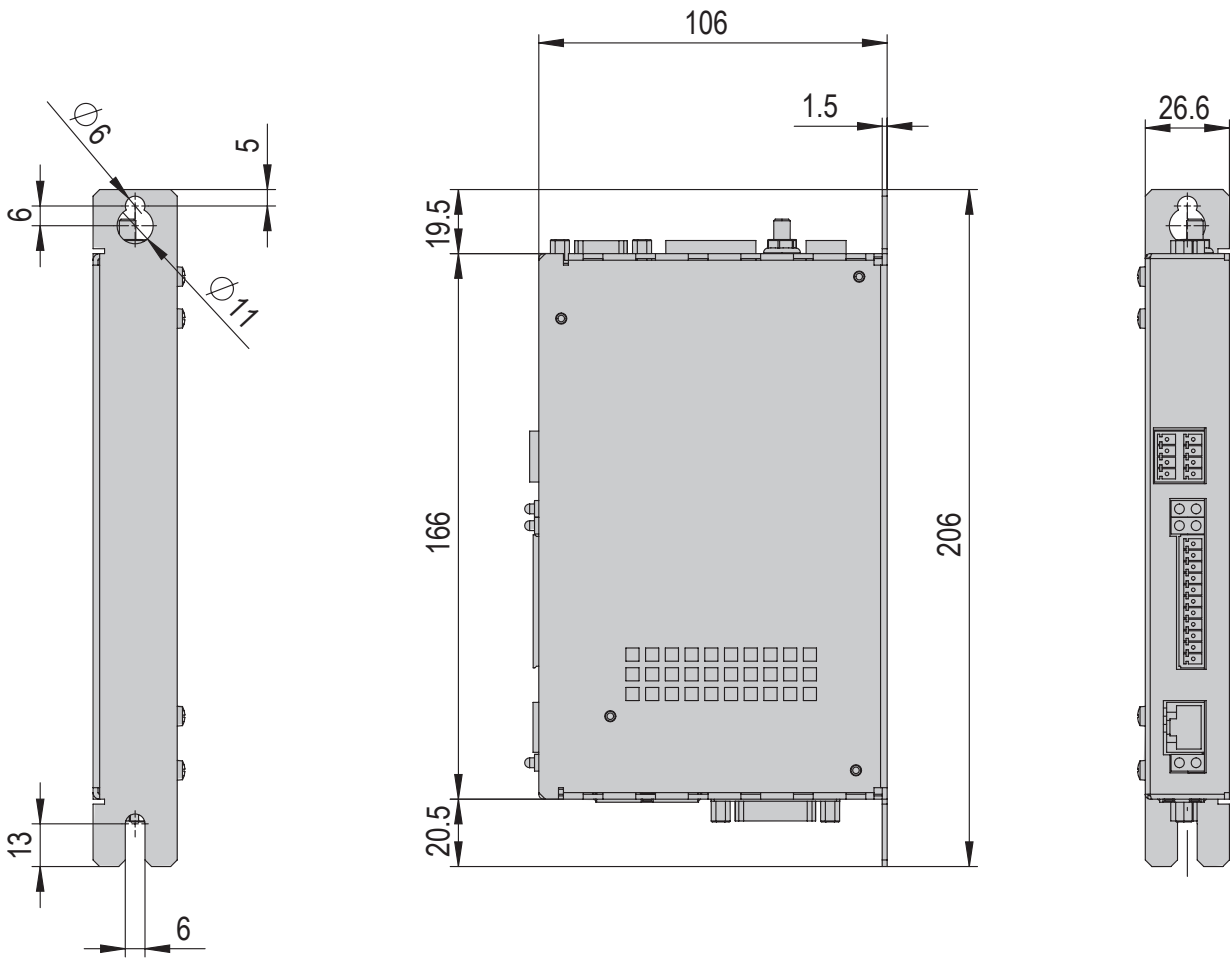
- Programming cable USB SE power FS
- Programming cable RS232 SE power
- I/O Interface
- Profibus Interface
- Profinet Interface
- EtherCAT Interface
- FS Safety Module FSM 2.0

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery



# Dimensions and dimension drawings

C11xx





C11xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	C1100 CanOpen STO	C1150 EtherCat STO	C1150 Profinet PN STO
<b>Order number</b>	<b>50419402</b>	<b>50419403</b>	<b>50419404</b>
Net weight	0.7 kg	0.7 kg	0.7 kg
Dimensions W x H x D	26.6x206x106 mm	26.6x206x106 mm	26.6x206x106 mm
Nominal output current	25 A	25 A	25 A
Supply voltage	24 - 72 VDC	24 - 72 VDC	24 - 72VDC
Control voltage	24 VDC	24 VDC	24 VDC
Protection type	IP 20	IP 20	IP 20
Intermediate circuit voltage	24 - 80 VDC	24 - 80 VDC	24 - 80 VDC
Programming interface	RS 232	RS 232	RS 232

### Included in the delivery

- 1x Plug kit for C1xxx-1S

### Accessories

- Power supply S01-72/500, 1-phase
- Motor plug for controller C1x00
- USB-RS232 Converter for controllers

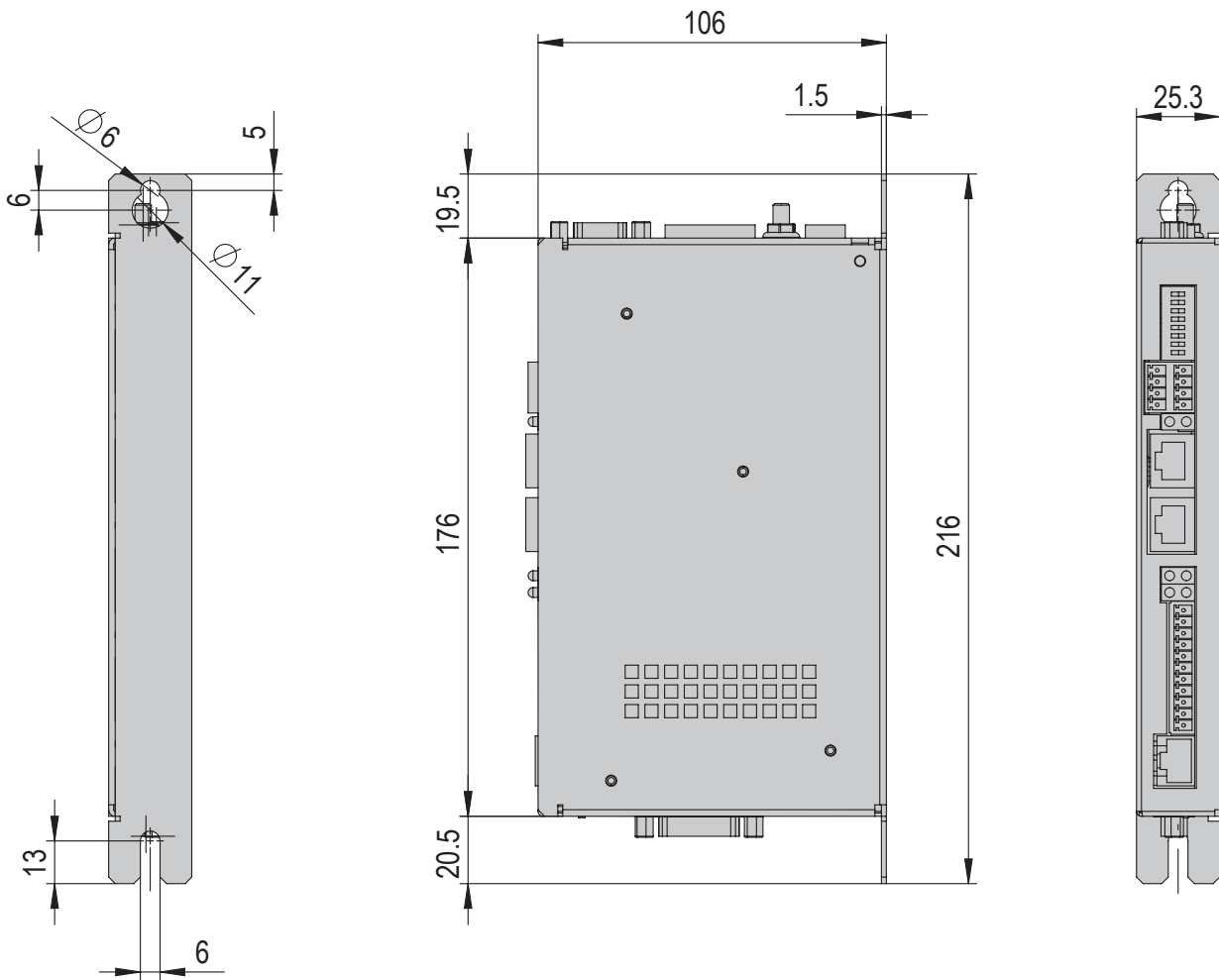
### Alternative Accessories

- Additional power supplies

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Dimensions and dimension drawings

C12xx





C12xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	C1250 EtherCat STO	C1250 Profinet PN STO
<b>Order number</b>	<b>50419400</b>	<b>50419401</b>
Net weight	0.7 kg	0.7 kg
Dimensions W x H x D	25.3x216x106 mm	25.3x216x106 mm
Nominal output current	25 A	25 A
Supply voltage	24 - 72 VDC	24 - 72 VDC
Control voltage	24 VDC	24 VDC
Protection type	IP 20	IP 20
Intermediate circuit voltage	24 - 80 VDC	24 - 80 VDC
Programming interface	RS 232	RS 232

### Included in the delivery

- 1x Plug kit for C1xxx-1S

### Accessories

- Power supply S01-72/500, 1-phase
- Motor plug for controller C1x00
- USB-RS232 Converter for controllers

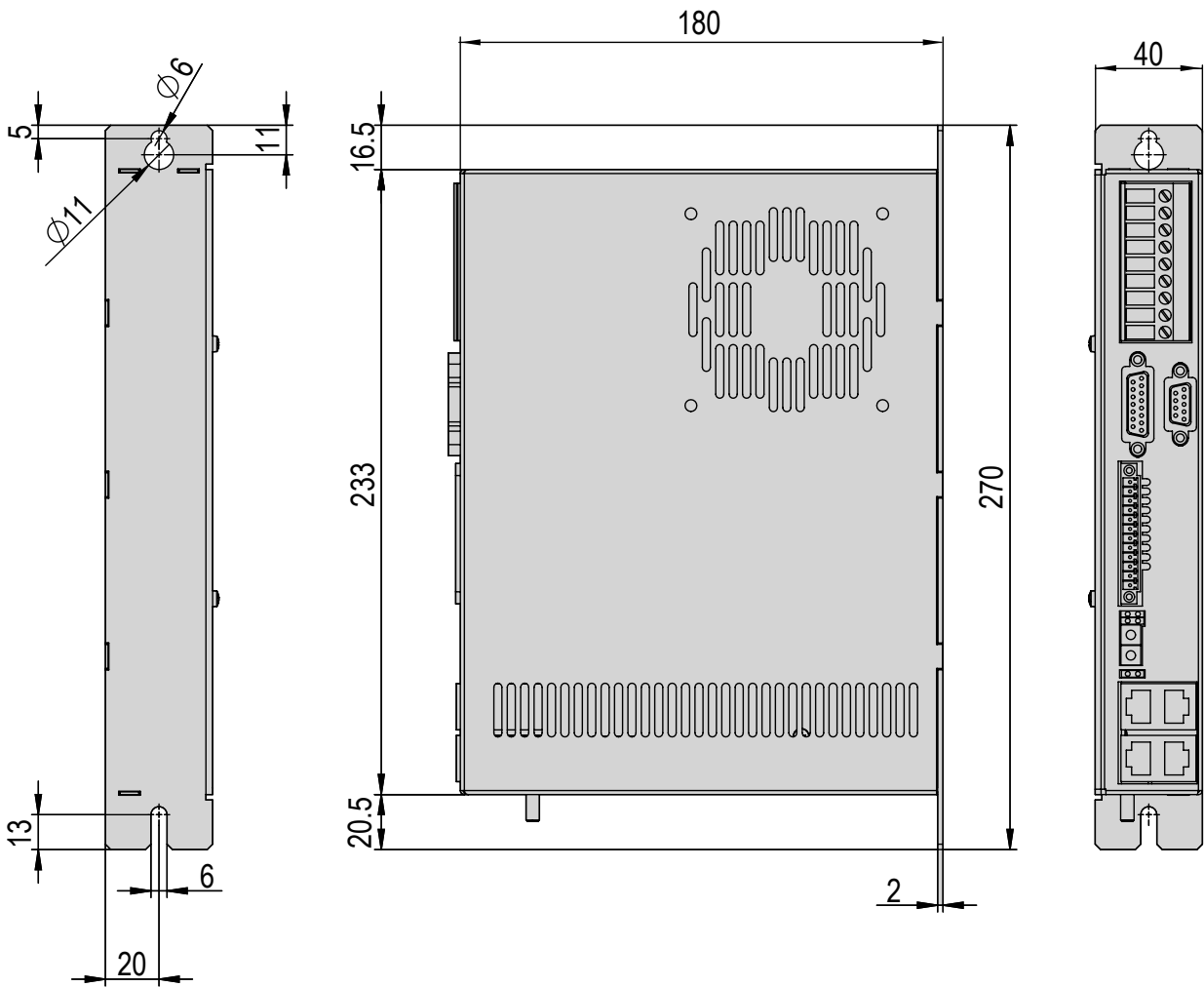
### Alternative Accessories

- Additional power supplies

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Dimensions and dimension drawings

E12xx





E12xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 40 °C
Humidity	< 90 %

Type	E1250 Powerlink PL-UC	E1250 Ethernet IP-UC	E1250 Ethercat SoE SE-UC	E1250 Sercos III SC-UC
<b>Order number</b>	<b>50465787</b>	<b>50465792</b>	<b>50465793</b>	<b>50465794</b>
Net weight	1 kg	1 kg	1 kg	1 kg
Dimensions W x H x D	40x270x180 mm	40x270x180 mm	40x270x180 mm	40x270x180 mm
Nominal output current	32 A	32 A	32 A	32 A
Supply voltage	24 - 72 VDC	24 - 72 VDC	24 - 72 VDC	24 - 72 VDC
Control voltage	24 VDC	24 VDC	24 VDC	24 VDC
Protection type	IP 20	IP 20	IP 20	IP 20
Intermediate circuit voltage	max. 91 VDC	max. 91 VDC	max. 91 VDC	max. 91 VDC
Programming interface	RS 232 + Ethernet	RS 232 + Ethernet	RS 232 + Ethernet	RS 232 + Ethernet

### Accessories

- Power supply S01-72/500, 1-phase
- USB-RS232 Converter for controllers

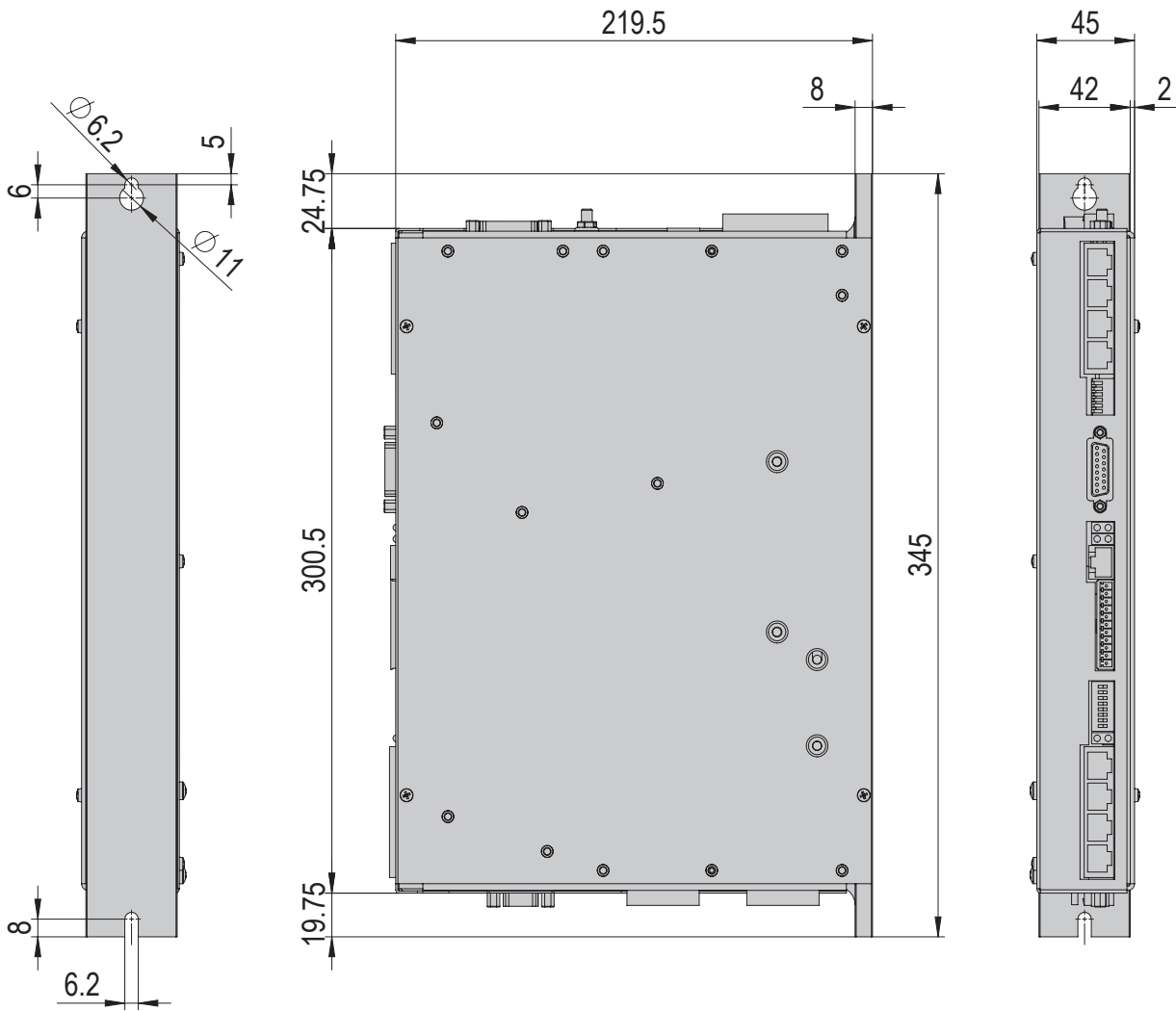
### Alternative Accessories

- Additional power supplies

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Dimensions and dimension drawings

E14xx





E14xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	E1450 Ethercat EC STO	E1450 Profinet PN STO
<b>Order number</b>	<b>50436475</b>	<b>50421487</b>
Net weight	1.5 kg	1.5 kg
Dimensions W x H x D	45x345x219,5 mm	45x345x219,5 mm
Nominal output current	28 A	28 A
Supply voltage	400 VAC	400 VAC
Control voltage	24 VDC VDC	24 VDC VDC
Protection type	IP 20	IP 20
Intermediate circuit voltage	400 VAC	400 VAC
Programming interface	RS 232	RS 232

### Accessories

- Motor plug for controller E1400
- Plug kit for controller E1400-1S
- USB-RS232 Converter for controllers

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery



# Accessories Servo controllers

## Accessories SE-24

SE-24 Stick	
<b>Order number</b>	<b>50315432</b>
Net weight	0.008 kg

## Programming cables

Programming cable SE-24	
<b>Order number</b>	<b>50315431</b>
Net weight	0.06 kg
Cable Ø	4 mm
Material	PVC
Length	3 m

Programming cable RS232 SE-Power	
<b>Order number</b>	<b>50038526</b>
Net weight	0.2 kg
Cable Ø	4.8 mm
Material	PVC
Length	3 m

Programming cable USB SE-Power FS	
<b>Order number</b>	<b>50395197</b>
Net weight	0.1 kg
Length	3 m

# Transformers

## Accessories SE-Power

SE-Power I/O Interface	
<b>Order number</b>	<b>50112458</b>
Net weight	0.15 kg

SE-Power EtherCAT Interface	
<b>Order number</b>	<b>50038777</b>
Net weight	0.15 kg

SE-Power FS Safety Module FSM 2.0 STO	
<b>Order number</b>	<b>50393463</b>
Net weight	0.075 kg

SE-Power Profibus Interface	
<b>Order number</b>	<b>50036340</b>
Net weight	0.1 kg

SE-Power Profinet Interface	
<b>Order number</b>	<b>50445640</b>
Net weight	0.15 kg

SE-Power FS Safety Module MOV	
<b>Order number</b>	<b>50418506</b>
Net weight	0.12 kg

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## Accessories C1xxx

Motor plug for controller C1xxx	
<b>Order number</b>	<b>50426481</b>
Net weight	0.01 kg

Plug kit for controller C1xxx-1S	
<b>Order number</b>	<b>50426471</b>
Net weight	0.02 kg

USB-RS232 Converter for controllers	
<b>Order number</b>	<b>50426494</b>
Net weight	0.07 kg

Plug X3 for controller C1xxx	
<b>Order number</b>	<b>50530603</b>
Net weight	0.02 kg

## Accessories E14xx

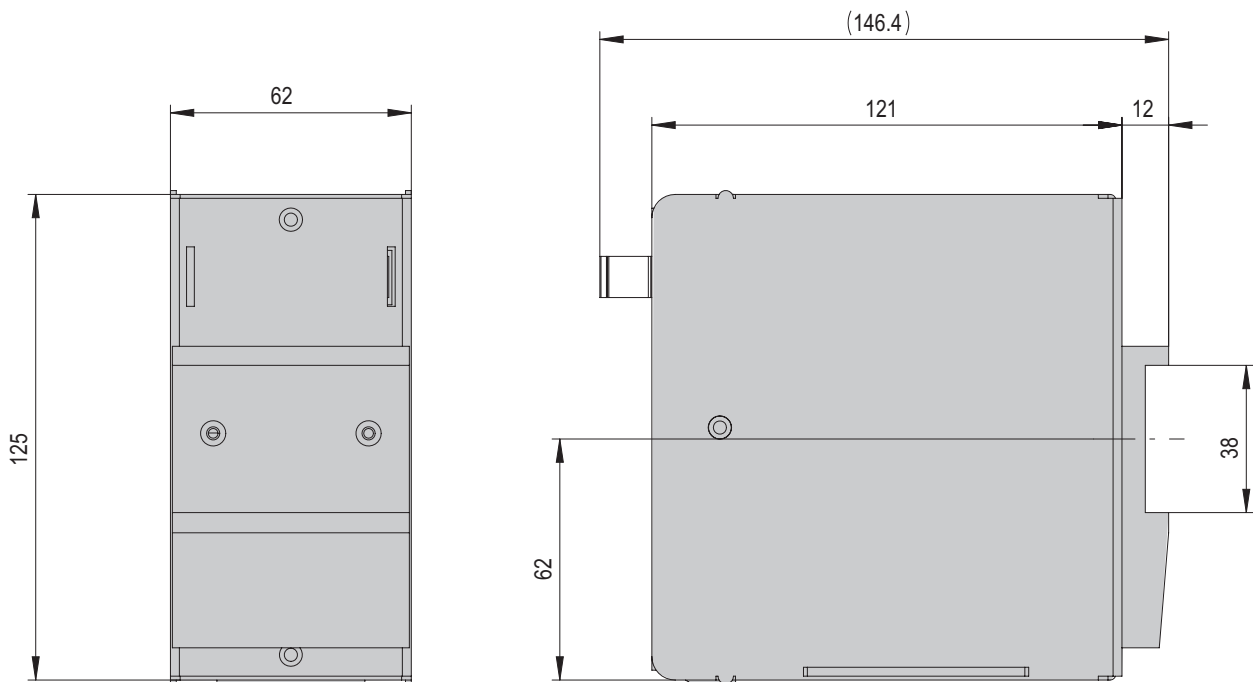
Motor plug for controller E1400	
<b>Order number</b>	<b>50426480</b>
Net weight	0.03 kg

Plug kit for controller E1400-1S	
<b>Order number</b>	<b>50426476</b>
Net weight	0.05 kg

# Transformers

Power supply S01-72/500, 1 phase	
Operating temperature	-25 - 70 °C

Type	Power supply S01-72/500, 1-phase
<b>Order number</b>	<b>50439465</b>
Net weight	1 kg
Protection rating	IP 20
Output power	480 W
Primar voltage	90 - 132 VAC, 50/60 Hz oder 180 - 264 VAC, 50/60 Hz
Secondary voltage	54 - 80 VDC adjustable
Nominal output current	10 A
External fuse	6 A (C, D, K Typ)

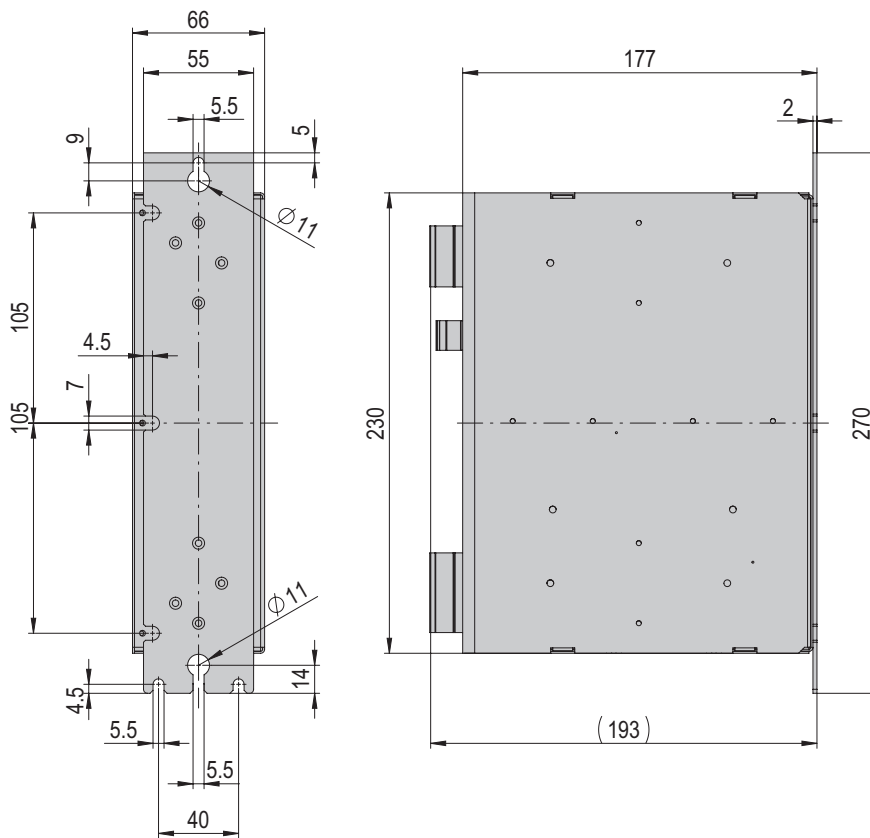


# Transformers

Power supply S01-72/1000, 3 phase	
Operating temperature	-25 - 70 °C

Type	Power supply S01-72/1000, 3-phase
<b>Order number</b>	<b>50439466</b>
Net weight	2 kg
Protection rating	IP 20
Output power	960 W
Primar voltage	3x 340 - 550 VAC, 50/60 Hz
Secondary voltage	54 - 80 VDC adjustable
Nominal output current	27 A
External fuse	16-32 A (C, D, K Typ)

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# Transformers

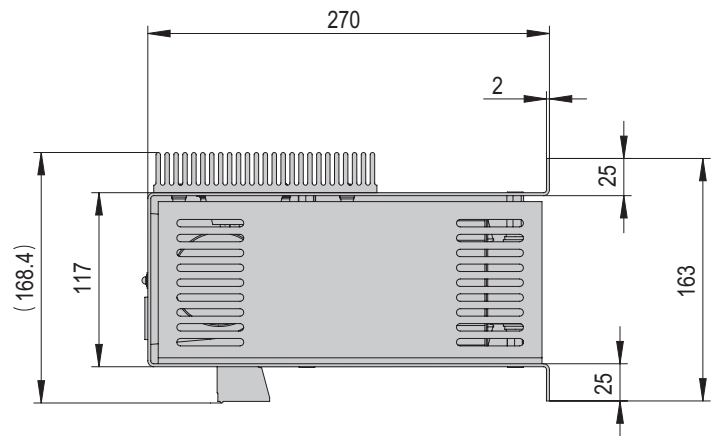
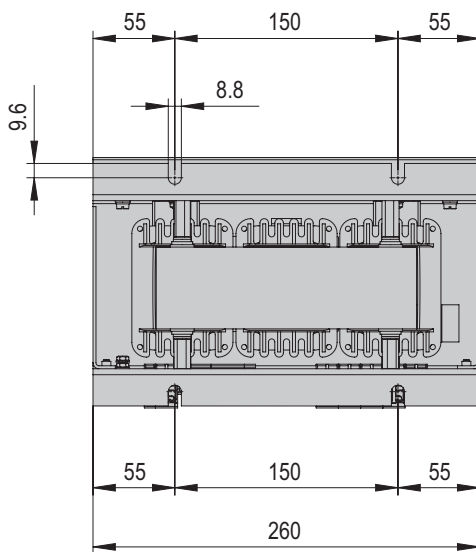
## Power supply T01-72/1500 multi, 3-phases

Operating temperature 0 - 40 °C

## Type Power supply T01-72/1500 Multi, 3-phase

**Order number 50438369**

Net weight	17 kg
Output power	IP 20
Protection rating	1500 W
Primar voltage	3x 230/400/480 VAC, 50/60 Hz
Secondary voltage	72 VDC
Nominal output current	50 A
External fuse	8 A (C, D, K Typ)





- Power cable SE-24, 5 m
- Power cable SE-24, 10 m
- I/O-cable SE-24, 5 m
- I/O-cable SE-24, 10 m
- Programming cable SE-24, 3 m
- SE-24 Stick



	M	G	R
RE-50 18-100V	M15	G12	R2
SG-50	M14		

**SE-24**



- Programming cable SE-Power, 3 m



	M	G	R
SA-1	M10	G6	R8
SA-3	M10	G6	R1
SA-6	M5	G5	R1
OZ-50/60	M5	G5	R1
LE-50/60/70	M13	G11	
RE-50/RE-75	M12	G10	R1
PEZ/PDZ	M5	G5	R1

**SE-Power**



USB-RS232  
converter  
for Linmot  
controller



**C11xx & C12xx**

	M			G	R	Motor connector	Plug X3	Adapter
	...-X	...-1	...-2	...-1	...-1			
ES8	M16	M16	M16					50455642
ES12	M16	M16	M16					50455642
ES20	M16	M16	M16					
ES30	M23	M17						
ES40	M23	M17						
SA-1		M10		G14	R8	50426481	50530603	
SA-3		M10		G14	R1	50426481	50530603	
SA-6		M18		G16	R1	50426481	50530603	
PEZ-52		M18		G16	R1	50426481	50530603	
PEZ-65		M18		G16	R1	50426481	50530603	
PDZ-128		M18		G16	R1	50426481	50530603	
PEL20	M16	M16	M16					
PDL30	M23	M17						
PDL40	M23	M17						
RE-50 18-100V		M12		G14	R1	50426481	R1	
RE-75 18-100V A		M27		G14	R1	50426481	R1	
RA-40	M16	M16	M16					
SE20	M16	M16	M16					
SE30	M23	M17						
SG-50-Abq		M19				50426481		



USB-RS232  
converter for  
Linmot controller



**E12xx**

	M			G	R	Adapter
	...-X	...-1	...-2	...-1	...-1	
ES8	M20	M20				50455642
ES12	M20	M20				50455642
ES20	M20	M20				
ES30	M24	M22	M22			
ES40	M24	M22	M22			
SA-1		M10		G14	R8	
SA-3		M10		G14	R1	
SA-6		M18		G16	R1	
PEZ-52		M18		G16	R1	
PEZ-65		M18		G16	R1	
PDZ-128		M18		G16	R1	
PEL20	M20	M20				
PDL30	M24	M22	M22			
PDL40	M24	M22	M22			
RE-50 18-100V		M12		G14	R1	
RE-75 18-100V A		M27		G14	R1	
RA-40	M20	M20				
SE20	M20	M20				
SE30	M24	M22	M22			



USB-RS232  
converter for  
Linmot controller



**E14xx**

	M			G	R	Motor connector	Brake connector
	...-X	...-1	...-2	...-1	...-1		
OZ-50/60		M18		G16	R1	50426480	50474519*
LE-50/60/70		M13		G17		50426480	
PEZ/PDZ		M18		G16	R1	50426480	50474519*

\* Only required for motor with brake