

SERVOSTAR 600

Safety Guide



Edition: April 2016

Valid for SERVOSTAR 601...620 HWR 05.40

Valid for SERVOSTAR 640...670 HWR 02.20

 Deutsch  English  Français  Italiano  Español

Original Language is German. All other content is translated from the genuine German content.



Keep all manuals as a product component during the life span of the product. Pass all manuals to future users and owners of the product.	
Bewahren Sie alle Anleitungen während der gesamten Nutzungsdauer des Produkts als Produktkomponente auf. Händigen Sie alle Anleitungen künftigen Anwendern/Besitzern des Produkts aus.	Conservare il manuale per l'intera durata del prodotto. In caso di cambio di proprietà il manuale deve essere fornito al nuovo utilizzatore quale parte integrante del prodotto.
Le manuel faisant partie intégrante du produit, conservez-le pendant toute la durée de vie du produit. Remettez le manuel au futur utilisateur ou propriétaire du produit.	Conservar el manual durante toda la vida útil del producto. Entregue el manual a posteriores usuarios o propietarios del producto.

KOLLMORGEN

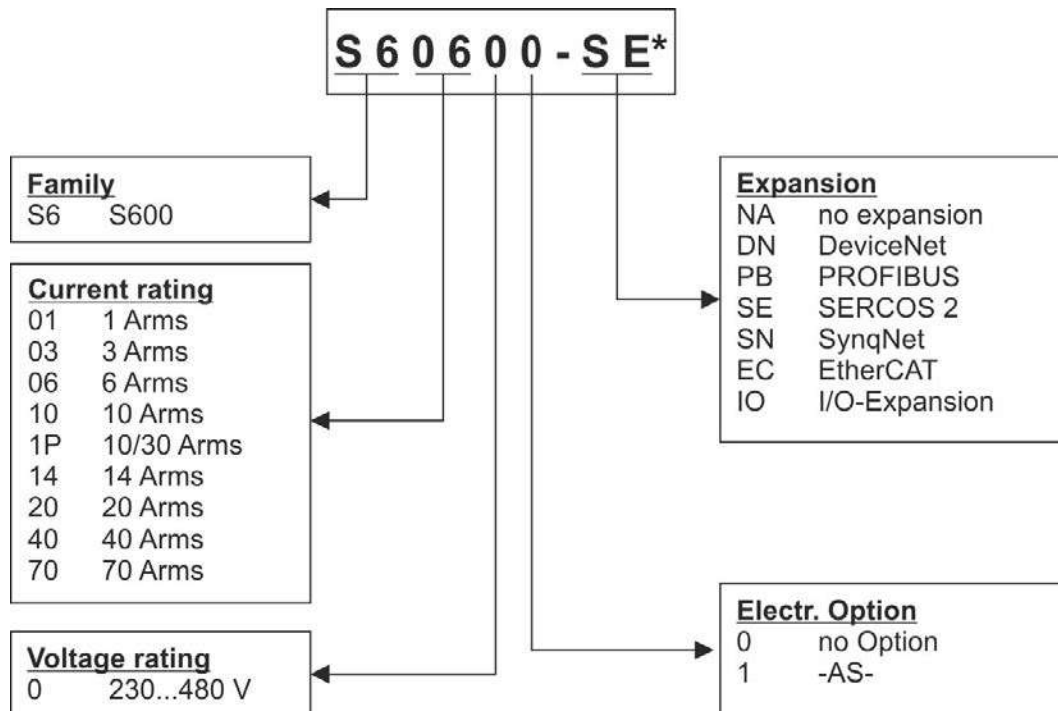
Because Motion Matters™

2.4 Technical description and data

2.4.1 The SERVOSTAR 600 Family of digital servo amplifiers

Part Number Scheme

Use the part number scheme for product identification only, not for the order process, because not all combinations of features are possible, always.



Standard version

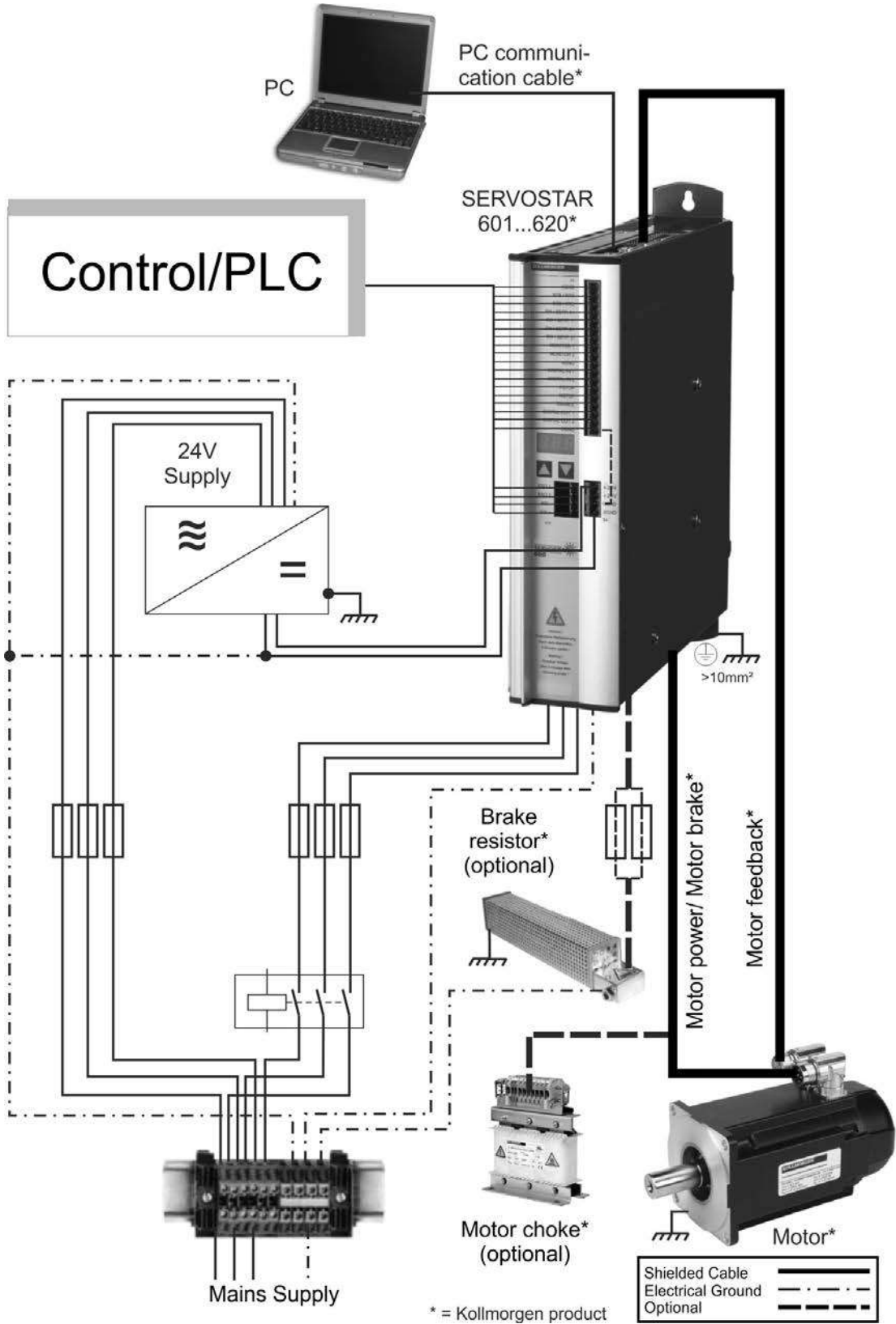
- 8 current ratings (1.5 A , 3 A , 6 A , 10 A , 14 A, 20 A, 40 A, 70 A).
- 4 instrument widths referring to current ratings.
- Wide range of rated voltage (3x208V_{-10%} to 3x480V_{+10%}).
- Overvoltage category III acc. to EN 61800-5-1.
- Shield connection directly at the servo amplifier.
- 2 analog setpoint inputs.
- Integrated CANopen (default 500 kBaud), for integration into CAN bus systems and for setting parameters for several amplifiers via the PC-interface of one amplifier.
- Integrated RS232, electrically isolated, integrated pulse-direction interface.
- Synchronous servomotors, linear motors and asynchronous motors can be used.

Options/Expansions

- SERVOSTAR 601...620: -AS- Option, built-in restart lock according to EN 954-1, SERVOSTAR 640/670: -AS- standard.
- Expansion Card -I/O-14/08-.
- Expansion Card -PROFIBUS-.
- Expansion Card -SERCOS-.
- Expansion Card -DEVICENET-.
- Expansion Card -EtherCAT-.
- Expansion Card -SYNQNET-.
- Expansion Card -2CAN-.

Details about functionality and connectivity are available in the Instruction manual.

2.4.2 Motion system with SERVOSTAR 601...620



2.4.6 Technical Data SERVOSTAR 601...620

Rated data	DIM	SERVOSTAR						
		601	603	606	610	610-30	614	620
Rated supply voltage (grounded system)	V~	3 x 230V _{-10%} ... 480V ^{+10%} , 50 Hz						
	V~	3 x 208V _{-10%} ... 480V ^{+10%} , 60 Hz						
Rated installed load for continuous operation @480V	kVA	1	2	4	7	7	10	14
Rated DC bus link voltage	V=	290 - 675						
Rated output current (rms value, ± 3%)	A _{rms}	1.5	3	6	10	10	14	20
Peak output current (max. ca. 5s, ± 3%)	A _{rms}	3	6	12	20	30 (2s)	28	40
Clock frequency of the output stage	kHz	8 (16 with VDCmax=400V)						
Brake circuit								
- max. continuous power @480V	kW	0.5	0.5	1.5	1.5	1.5	1.5	1.5
- external brake resistor	Ohm	33	33	33	33	33	33	33
Overvoltage protection threshold	V	450...900						
Quiescent dissipation, output stage disabled	W	15						
Dissipation at rated current (incl. power supply losses, without brake dissipation)	W	30	40	60	90	90	160	200
Inputs/Outputs								
Setpoint 1/2, resolution 14bit/12bit	V	±10						
- Common-mode voltage max.	V	±10						
- Input resistance to AGND	kOhm	20						
Digital inputs		according to IEC 61131						
Digital outputs, open collector		according to IEC 61131						
BTB/RTO output, relay contacts	V	DC max. 30, AC max. 42						
	mA	500						
Aux. power supply, electrically isolated without brake	V	24 (-0% +15%)						
	A	1 (max. 16)						
Aux. power supply, electrically isolated with brake (consider voltage loss!)	V	24 (-0% +15%)						
	A	3 (max. 16)						
Min./max. output current, brake	A	0,15 / 2						
Connections								
Control signals	—	Combicon 5.08 / 18 pole , 2,5mm ²						
Power signals	—	Power Combicon 7.62 / 4x4 + 1x6 pole, 4mm ²						
Resolver input	—	SubD 9 pole (socket)						
Sine-cosine encoder input	—	SubD 15 pole (socket)						
PC-interface, CAN, Encoder emulation, ROD/SSI	—	SubD 9 pole (plug)						
Mechanical								
Weight	kg	4				5	7.5	
Height without connectors	mm	275						
Width	mm	70				100	120	
Depth without connectors	mm	265						





More technical data see *Instructions Manual*.

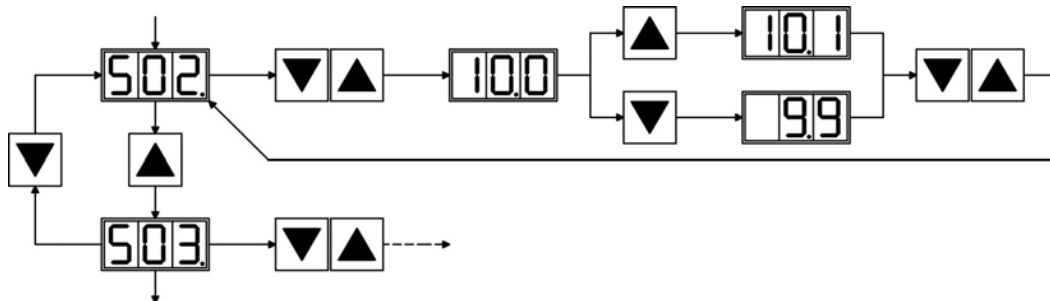
2.7.2 Key operation / LED display

NOTE The description of the available menu structures can be found in the *Instructions Manual*.

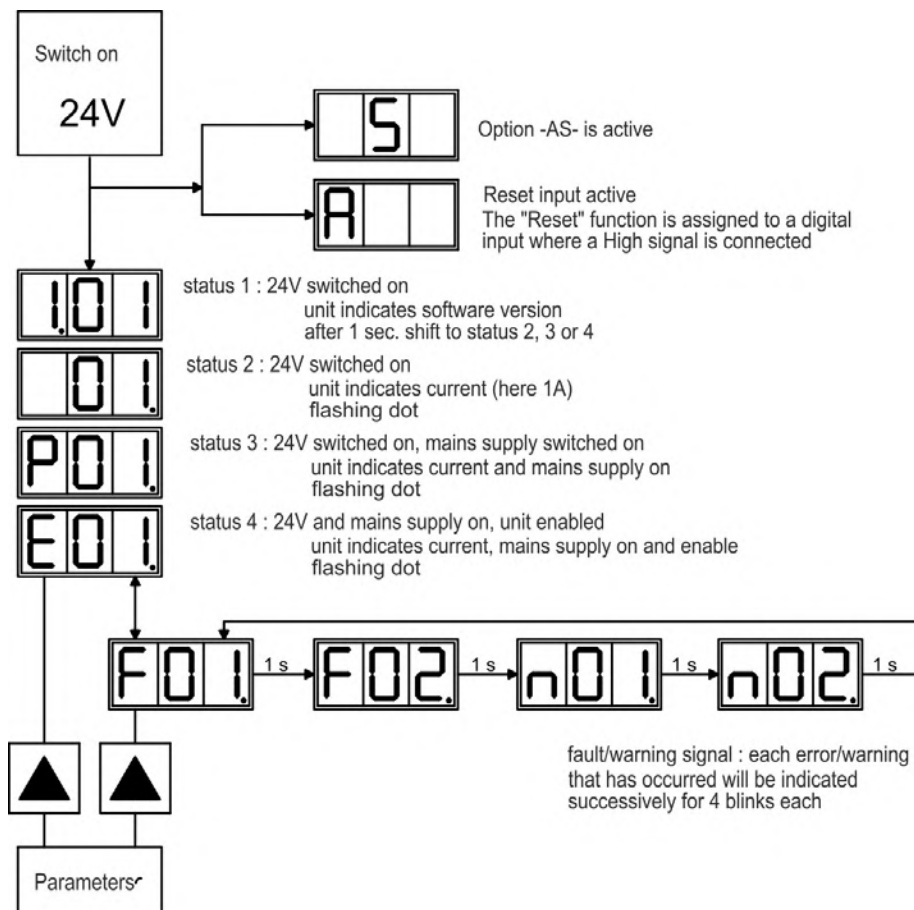
2.7.2.1 Key operation

The two keys can be used to perform the following functions:

Key symbol	Functions
	press once : go up one menu item, increase number by one press twice in rapid succession : increase number by ten
	press once : go down one menu item, decrease number by one press twice in rapid succession : decrease number by ten
 	press and hold right key, then press left key as well : enter a number, return function name



2.7.2.2 Status display



2.7.3.3 Minimum Wiring for Drive Test SERVOSTAR 601...620 without load

NOTE This wiring does not fulfill any requirements to safety or functionality of your application, it just shows the required wiring for drive testing without load.

