

Thyristor Controllers SGP 160 - 2,5 ... 16 5.05

Features:

- ❑ for motors with external and permanent excitation
- ❑ one-quadrant operation
- ❑ control range with armature voltage control 1:30
- ❑ control range with tachometer control 1:100
- ❑ degree of protection IP00



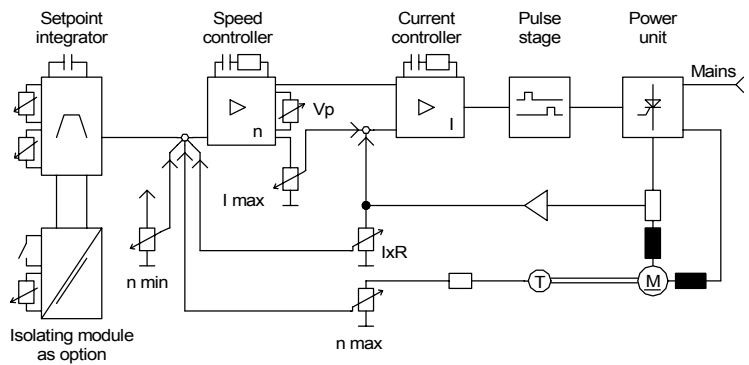
**Thyristor Controllers
SGP 160 - 2,5 ... 16**
CE

Function:

- ❑ half-controlled symmetrical bridge circuit with excitation voltage source
- ❑ adjustable current controller and thus very suitable for permanently excited motors
- ❑ Options:
 - “P” with isolating module
 - “ST” pluggable with pin connector DIN 41617
 - “ST/P” pluggable with isolating module

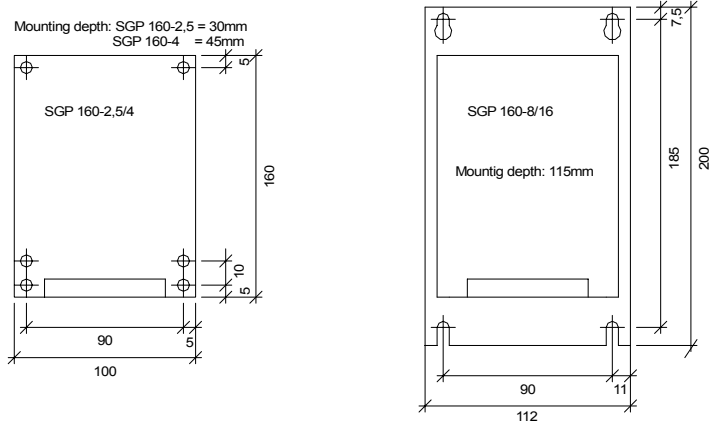
Typical Applications:

- conveying systems
- printing machines
- pumps
- rotary table drives
- welding wire feed mechanisms
- packaging machinery



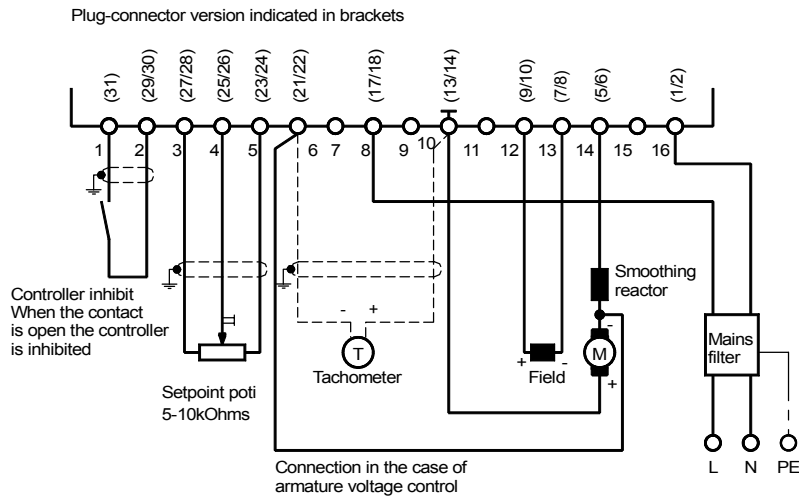
Technical Data	SGP			
	160-2,5	160-4	160-8P	160-16P
Operating voltage	230V ± 15% 50/60Hz			
max. Motor shaft power	0,25kW	0,37kW	0,9kW	1,8kW
Armature voltage	0 ... 180VDC			
eff. Armature current	2,5A	4A	8A	16A
Excitation voltage / current	200V / 0,5A		200V / 1A	
Control characteristics with I x R compensation	1 : 30 / ±3%			
with tachometer control	1 : 100 / ±1%			
Setpoint input	0 - 10VDC 5 - 10kΩ potentiometer			
Actual value input	12 - 300VDC depending on adaptation factory-adapted to 160V armature voltage			
Ambient / Storage temperature	0 ... 45°C not subject. to moisture condensation / -25°C ... 75°C			
Cooling	convection			
Temperature-dependent power reduction	2% / °C above 45°C max. 55°C			
Connection	16-pole terminal strip, 1,5mm ²		control unit: 6-pole terminal strip, 1,5mm ² power unit: 6-pole terminal strip, 1,5mm ²	
	Version „ST“ 31-pole Plug-connector DIN41617		-	
Weight / kg	0,25	0,3	1,1	1,3
Order number	22300. 22002	22300. 22004	22311. 22008	22311. 22016
Recommended Mains filter	27000. 25003	27000. 25006	27000. 25010	27000. 25020

Dimensions:

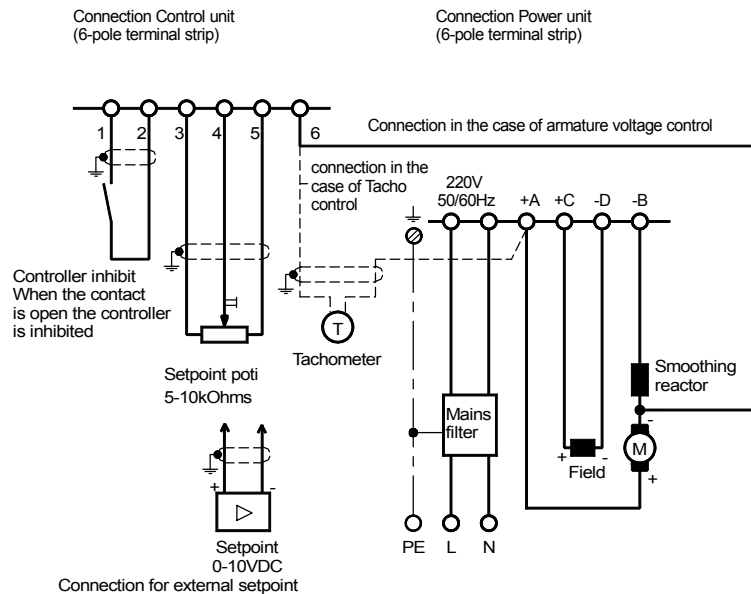


Connection Diagrams:

SGP 160 - 2,5/4



SGP 160 – 8P/16P



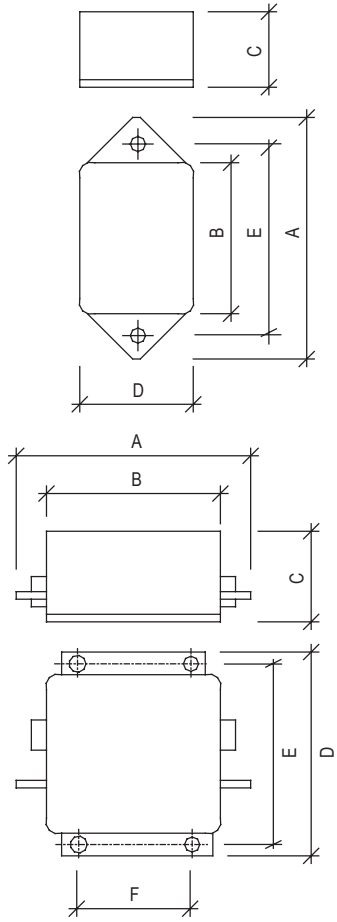
To ensure a good commutation and a long service life of the carbon brushes, we recommend to use a smoothing reactor in the case of thyristor controllers.

Subject to change without notice.

Mains filter

Technical Data	NF			
	250/3	250/6	250/10	250/20
Area required	85x54mm	114x58mm	156x58mm	139x105mm
Leakage current	0,4mA	0,4mA	0,4mA	5,0mA
Type of connection	flat pin 6,3	flat pin 6,3	flat pin 6,3	screw terminal
for Motor shaft power	-0,25kW	-0,55kW	-1,0kW	-2,2kW
Nominal current	3A	6A	10A	20A
Order number	27000.25003	27000.25006	27000.25010	27000.25020

Dimensions:



	Dimensions (mm)						Weight (kg)
	A	B	C	D	E	F	
NF 250/3	85,0	64,8	40,3	54,0	75,0	-	0,25
NF 250/6	113,5	94,0	45,4	57,5	103,0	-	0,45
NF 250/10	156,0	130,5	45,4	57,5	143,0	-	0,73

	Dimensions (mm)						Weight (kg)
	A	B	C	D	E	F	
NF 250/20	139,0	99,0	57,0	105,0	95,0	51,0	1,0

Smoothing Reactors

Type	Nominal current in A	Inductance in mH	Dimensions in mm (WxHxD)	Order number
SGP 5-96	2 - 4	90 - 135	80 x 78 x 112	23000.09604
SGP 5-106	3 - 6	45 - 60	86 x 100 x 120	23000.10606
SGP 5-135A-12	6 - 12	35 - 40	115 x 120 x 145	23000.13512
SGP 5-135A-16	8 - 16	25 - 35	115 x 120 x 145	23000.13516

Housing Designs

with power switch and potentiometer in CE-conforming design

Type	Housing IP54	Smoothing reactor integrated	Dimensions in mm (WxHxD)	Order number
SGP 160-2,5GF	plastics	no	170 x 220 x 130	22311.22002
SGP 160-4GF	plastics	no	170 x 220 x 130	22313.22004
SGP 160-2,5GFD	metal	yes	200 x 300 x 150	22329.22002
SGP 160-4GFD	metal	yes	200 x 300 x 150	22312.22004
SGP 160-8GFD	metal	yes	300 x 400 x 200	22302.22008
SGP 160-16GFD	metal	yes	300 x 400 x 200	22302.22016

Further special designs upon request.

Reversing Cards

Type	Nominal current	Suitable for	Dimensions in mm (WxHxD)	Order number
RK 8	up to 8A	SGP 160-2,5 ... 8	160 x 100 x 30	29000.22302
RK 8/ST	up to 8A	SGP 160-2,5 ... 8	160 x 100 x 30	29000.22303
RK 16	up to 16A	SGP 160-16	160 x 100 x 50	29000.22304

General Accessories

	Order number
Potentiometer in VDE-design 10k Ω	41750.01103
Socket connector DIN 41617 / 31-pole	53231.00003