

## **Data sheet for SINAMICS G120C**

Article No.: 6SL3210-1KE27-0AF1

Client order no. : Order no. : Offer no. : Remarks :





Figure simila

Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10 %	% -20 <b>%</b>
Line frequency	47 63 Hz	
Rated current (LO)	64.00 A	
Rated current (HO)	61.00 A	
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC 1)
Rated power (LO)	37.00 kW	40.00 hp
Rated power (HO)	30.00 kW	30.00 hp
Rated current (LO)	68.00 A	
Rated current (HO)	58.00 A	
Rated current (IN)	68.00 A	
Max. output current	116.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 240 Hz	
Output frequency for V/f control	0 550 Hz	

## Overload capability

Low Overload (LO)

 $150\,\%$  base load current IL for 3 s, followed by  $110\,\%$  base load current IL for 57 s in a 300 s cycle time

High Overload (HO)

200% base load current IH for 3 s, followed by 150% base load current IH for 57 s in a 300 s cycle time  $\,$ 

General tech. specifications	
Power factor λ	0.90 0.95
Offset factor $\cos\phi$	0.99
Efficiency η	0.98
Sound pressure level (1m)	72 dB
Power loss	1,090.0 W
Filter class (integrated)	Class A
Communication	

Communication PR	OFINET, EtherNet/IP
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Inputs / outputs		
Standard digital inputs		
Number	6	
Switching level: 0→1	11 V	
Switching level: 1→0	5 V	
Max. inrush current	15 mA	
Fail-safe digital inputs		
Number	1	
Digital outputs		
Number as relay changeover contact	1	
Output (resistive load)	DC 30 V, 0.5 A	
Number as transistor	1	
Output (resistive load)	DC 30 V, 0.5 A	
Analog / digital inputs		
Number	1 (Differential input)	
Resolution	10 bit	
Switching threshold as digital input		
0→1	4 V	
1→0	1.6 V	
Analog outputs		
Number	1 (Non-isolated output)	

## PTC/ KTY interface

1 motor temperature sensor input, sensors that can be connected PTC, KTY and Thermo-Click, accuracy  $\pm 5\,^{\circ}\text{C}$ 

Closed-loop control techniques	
V/f linear / square-law / parameterizable	Yes
V/f with flux current control (FCC)	Yes
V/f ECO linear / square-law	Yes
Sensorless vector control	Yes
Vector control, with sensor	No
Encoderless torque control	No
Torque control, with encoder	No



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Ambient conditions		
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.055 m³/s (1.942 ft³/s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
Operation	-20 40 °C (-4 104 °F)	
Transport	-40 70 °C (-40 158 °F)	
Storage	-25 55 °C (-13 131 °F)	
Relative humidity		
Max. operation	95 % RH, condensation not permitted	
Connections		
Signal cable		
Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)	
Line side		
Version	screw-type terminal	
Conductor cross-section	10.00 35.00 mm² (AWG 8 AWG 2)	
Motor end		
Version	Screw-type terminals	
Conductor cross-section	10.00 35.00 mm <sup>2</sup> (AWG 8 AWG 2)	
DC link (for braking resistor)		
Version	Screw-type terminals	
Conductor cross-section	10.00 35.00 mm² (AWG 8 AWG 2)	
	10 m (32.81 ft)	
Line length, max.	10 111 (32.01 11)	
Line length, max. PE connection	Screw-type terminals	

Mechanical data		
Degree of protection	IP20 / UL open type	
Frame size	FSD	
Net weight	19.50 kg (42.99 lb)	
Dimensions		
Width	200 mm (7.87 in)	
Height	472 mm (18.58 in)	
Depth	237 mm (9.33 in)	
Standards		

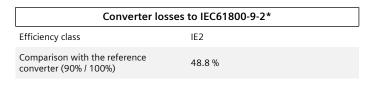
200 m (656.17 ft)

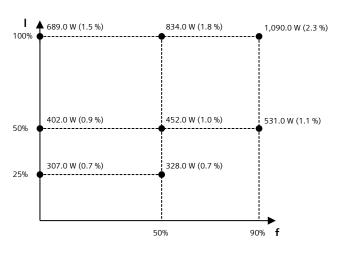
300 m (984.25 ft)

Shielded

Unshielded

Standards	
Compliance with standards	CE, cUL, UL, KC, EAC, C-Tick (RCM)
CE marking	EMC Directive 2004/108/EC, Low- Voltage Directive 2006/95/EC





The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

<sup>\*</sup>calculated values

<sup>1)</sup> The output current and HP ratings are valid for the voltage range 440V-480V