

SIEMENS

Data sheet for SINAMICS G120C



Figure similar

MLFB-Ordering data

6SL3210-1KE13-2AF2

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data	General tech. specifications
Input	Power factor λ 0.70 ... 0.85
Number of phases 3 AC	Offset factor $\cos \varphi$ 0.95
Line voltage 380 ... 480 V +10 % -20 %	Efficiency η 0.97
Line frequency 47 ... 63 Hz	Sound pressure level (1m) 49 dB
Rated current (LO) 4.10 A	Power loss 0.05 kW
Rated current (HO) 3.20 A	Filter class (integrated) Class A
Output	Ambient conditions
Number of phases 3 AC	Cooling Air cooling using an integrated fan
Rated voltage 400 V	Cooling air requirement 0.005 m ³ /s (0.177 ft ³ /s)
Rated power IEC 400V (LO) 1.10 kW	Installation altitude 1000 m (3280.84 ft)
Rated power NEC 480V (LO) 1.50 hp	Ambient temperature
Rated power IEC 400V (HO) 0.75 kW	Operation -10 ... 40 °C (14 ... 104 °F)
Rated power NEC 480V (HO) 1.00 hp	Transport -40 ... 70 °C (-40 ... 158 °F)
Rated current (LO) 3.10 A	Storage -40 ... 70 °C (-40 ... 158 °F)
Rated current (HO) 2.20 A	Relative humidity
Rated current (IN) 3.20 A	Max. operation 95 % At 40 °C (104 °F), condensation and icing not permissible
Max. output current 4.40 A	Closed-loop control techniques
Pulse frequency 4 kHz	V/f linear / square-law / parameterizable Yes
Output frequency for vector control 0 ... 240 Hz	V/f with flux current control (FCC) Yes
Output frequency for V/f control 0 ... 550 Hz	V/f ECO linear / square-law Yes
Overload capability	Sensorless vector control Yes
Low Overload (LO)	Vector control, with sensor No
150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time	Encoderless torque control No
High Overload (HO)	Torque control, with encoder No
200 % base load current IH for 3 s, followed by 150 % base load current IH for 57 s in a 300 s cycle time	



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Mechanical data	
Degree of protection	IP20 / UL open type
Size	FSAA
Net weight	1.40 kg (3.09 lb)
Width	73 mm (2.87 in)
Height	173 mm (6.81 in)
Depth	160 mm (6.30 in)
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
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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)
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PTC/ KTY interface

1 motor temperature sensor input, sensors that can be connected: PTC, KTY and Thermo-Click, accuracy ±5 °C
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Communication	
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Communication	PROFINET, EtherNet/IP
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Connections	
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Signal cable

Conductor cross-section	0.15 ... 1.50 mm² (AWG 24 ... AWG 16)
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Line side

Version	Plug-in screw terminals
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Conductor cross-section	1.00 ... 2.50 mm² (AWG 18 ... AWG 14)
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Motor end

Version	Plug-in screw terminals
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Conductor cross-section	1.00 ... 2.50 mm² (AWG 18 ... AWG 14)
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DC link (for braking resistor)

Version	Plug-in screw terminals
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Conductor cross-section	1.00 ... 2.50 mm² (AWG 18 ... AWG 14)
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Line length, max.	15 m (49.21 ft)
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PE connection	On housing with M4 screw
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Max. motor cable length

Shielded	50 m (164.04 ft)
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Unshielded	100 m (328.08 ft)
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Standards	
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Compliance with standards	UL, cUL, CE, C-Tick (RCM)
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CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC
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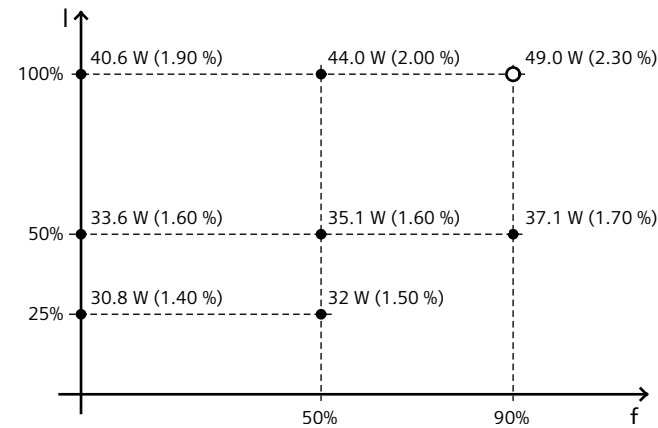
Figure similar

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Converter losses to IEC61800-9-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	27.80 %



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.

*converted values