

SIEMENS

Data sheet for SINAMICS G120C



Figure similar

MLFB-Ordering data

6SL3210-1KE21-7AF1

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) 63 dB
Rated current (LO) 21.50 A	Power loss 0.24 kW
Rated current (HO) 18.20 A	
Output	Ambient conditions
Number of phases 3 AC	Cooling Air cooling using an integrated fan
Rated voltage 400 V	Cooling air requirement 0.009 m ³ /s (0.318 ft ³ /s)
Rated power IEC 400V (LO) 7.50 kW	Installation altitude 1000 m (3280.84 ft)
Rated power NEC 480V (LO) 10.00 hp	Ambient temperature
Rated power IEC 400V (HO) 5.50 kW	Operation -10 ... 40 °C (14 ... 104 °F)
Rated power NEC 480V (HO) 7.50 hp	Transport -40 ... 70 °C (-40 ... 158 °F)
Rated current (IN) 17.00 A	Storage -40 ... 70 °C (-40 ... 158 °F)
Rated current (LO) 16.50 A	Relative humidity
Rated current (HO) 12.50 A	Max. operation 95 % At 40 °C (104 °F), condensation and icing not permissible
Max. output current 25.00 A	
Pulse frequency 4.000 kHz	Closed-loop control techniques
Output frequency for vector control 0 ... 240 Hz	V/f linear / square-law / parameterizable Yes
Output frequency for V/f control 0 ... 550 Hz	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
Overload capability	Communication
Low Overload (LO)	Communication PROFINET / EtherNet/IP
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	



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Mechanical data	
Degree of protection	IP20 / UL open type
Size	FSB
Net weight	2.30 kg (5.07 lb)
Width	100 mm (3.94 in)
Height	196 mm (7.72 in)
Depth	225 mm (8.86 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)
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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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Connections	
Signal cable	
Conductor cross-section	0.15 ... 1.50 mm² (AWG 24 ... AWG 16)
Line side	
Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm² (AWG 12 ... AWG 10)
Motor end	
Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm² (AWG 12 ... AWG 10)
DC link (for braking resistor)	
Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm² (AWG 12 ... AWG 10)
Line length, max.	15 m (49.21 ft)
PE connection	On housing with M4 screw
Max. motor cable length	
Shielded	150 m (492.13 ft)
Unshielded	150 m (492.13 ft)

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

MLFB-Ordering data

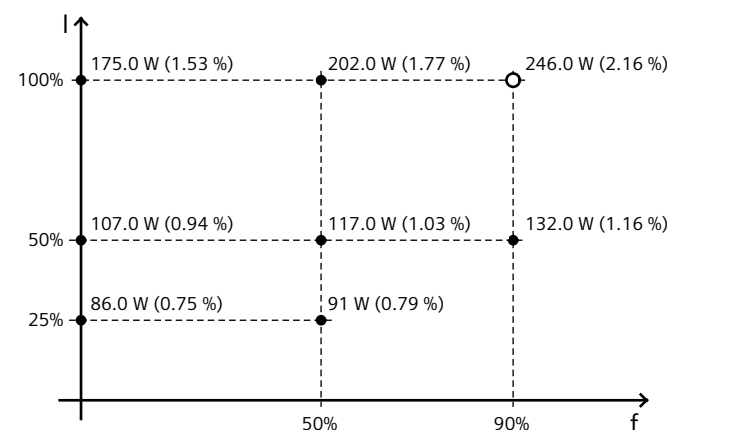
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Figure similar

Converter losses to EN 50598-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-63.01 %



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 EN 50598) 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