

SIEMENS

Data sheet for SINAMICS G120C



Figure similar

MLFB-Ordering data

6SL3210-1KE13-2UP2

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	
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 (IN) 3.20 A	Storage -40 ... 70 °C (-40 ... 158 °F)
Rated current (LO) 3.10 A	Relative humidity
Rated current (HO) 2.20 A	Max. operation 95 % At 40 °C (104 °F), condensation and icing not permissible
Max. output current 4.40 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 PROFIBUS DP
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	

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.



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Mechanical data		Connections	
Degree of protection	IP20 / UL open type	Signal cable	
Size	FSAA	Conductor cross-section	0.15 ... 1.50 mm ² (AWG 24 ... AWG 16)
Net weight	1.40 kg (3.09 lb)	Line side	
Width	73 mm (2.87 in)	Version	Plug-in screw terminals
Height	173 mm (6.81 in)	Conductor cross-section	1.00 ... 2.50 mm ² (AWG 18 ... AWG 14)
Depth	155 mm (6.10 in)	Motor end	
Inputs / outputs		Version	Plug-in screw terminals
Standard digital inputs		Conductor cross-section	1.00 ... 2.50 mm ² (AWG 18 ... AWG 14)
Number	6	DC link (for braking resistor)	
Switching level: 0→1	11 V	Version	Plug-in screw terminals
Switching level: 1→0	5 V	Conductor cross-section	1.00 ... 2.50 mm ² (AWG 18 ... AWG 14)
Max. inrush current	15 mA	Line length, max.	15 m (49.21 ft)
Fail-safe digital inputs		PE connection	On housing with M4 screw
Number	1	Max. motor cable length	
Digital outputs		Shielded	50 m (164.04 ft)
Number as relay changeover contact	1	Unshielded	100 m (328.08 ft)
Output (resistive load)	DC 30 V, 0.5 A	Standards	
Number as transistor	1	Compliance with standards	UL, cUL, CE, C-Tick (RCM)
Output (resistive load)	DC 30 V, 0.5 A	CE marking	
Analog / digital inputs		EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC	
Number	1 (Differential input)		
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 ±5 °C			



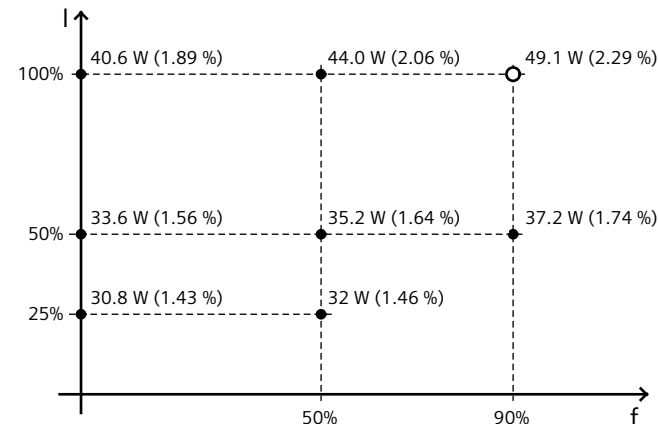
Figure similar

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Converter losses to EN 50598-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-77.61 %



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