

Data sheet for SINAMICS G120C

Article No.: 6SL3210-1KE11-8UC1

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





Figure simila

Rated data	
3 AC	
380 480 V +10 %	6 -20 %
47 63 Hz	
2.30 A	
1.90 A	
3 AC	
400V IEC	480V NEC 1)
0.55 kW	0.75 hp
0.37 kW	0.50 hp
1.70 A	
1.30 A	
1.80 A	
2.60 A	
4 kHz	
0 240 Hz	
0 550 Hz	
	3 AC 380 480 V +10 9 47 63 Hz 2.30 A 1.90 A 3 AC 400V IEC 0.55 kW 0.37 kW 1.70 A 1.30 A 1.80 A 2.60 A 4 kHz 0 240 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)

Communication

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	0.70 0.85
Offset factor $\cos\phi$	0.95
Efficiency η	0.97
Sound pressure level (1m)	52 dB
Power loss	32.7 W
Filter class (integrated)	Unfiltered
Communication	

CANopen

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	

C/ 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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Am	bient conditions	
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.005 m³/s (0.177 ft³/s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
Operation	-10 40 °C (14 104 °F)	
Transport	-40 70 °C (-40 158 °F)	
Storage	-40 70 °C (-40 158 °F)	
Relative humidity		
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible	
Connections		

Signal cable		
Conductor cross-section	0.15 1.50 mm ²	

(AWG 24 ... AWG 16)

Line side

Version	Plug-in screw terminals
Conductor cross-section	1.00 2.50 mm ² (AWG 18 AWG 14)

Motor end

Version	Plug-in screw terminals
Conductor cross-section	1.00 2.50 mm ² (AWG 18 AWG 14)

DC link (for braking resistor)

Conductor cross-section

Version	Plug-in screw terminals
Conductor cross-section	1.00 2.50 mm ² (AWG 18 AWG 14)
Line length, max.	15 m (49.21 ft)
PE connection	On housing with M4 screw

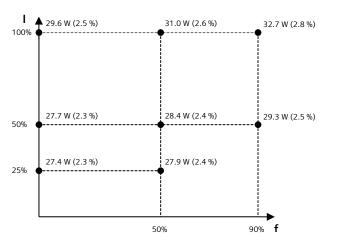
Max. motor cable length

Shielded	150 m (492.13 ft)
Unshielded	150 m (492.13 ft)

IP20 / UL open type
FSA
1.70 kg (3.75 lb)
73 mm (2.87 in)
196 mm (7.72 in)
203 mm (7.99 in)

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

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	25.2 %



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

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.

^{*}calculated values

 $^{^{1)}}$ The output current and HP ratings are valid for the voltage range 440V-480V