

Data sheet for SINAMICS G120C

Article No.: 6SL3210-1KE26-0AF1

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





Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10 %	b -20 %
Line frequency	47 63 Hz	
Rated current (LO)	53.00 A	
Rated current (HO)	44.00 A	
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC 1)
Rated power (LO)	30.00 kW	30.00 hp
Rated power (HO)	22.00 kW	25.00 hp
Rated current (LO)	58.00 A	
Rated current (HO)	43.00 A	
Rated current (IN)	58.00 A	
Max. output current	87.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 240 Hz	
Output frequency for V/f control	0 550 Hz	

Overload	capability
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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	0.90 0.95
Offset factor $\cos\phi$	0.99
Efficiency η	0.98
Sound pressure level (1m)	72 dB
Power loss	1,040.0 W
Filter class (integrated)	Class A
Communication	

PROFINET	EtherNet/IP

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



Data sheet for SINAMICS G120C

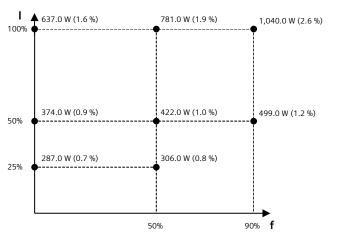
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Air cooling using an integrated fan Cooling air requirement 0.055 m³/s (1.942 ft³/s) Installation altitude Ambient temperature Operation -20 40 °C (-4 104 °F) Transport -40 70 °C (-40 158 °F) Storage -40 70 °C (-40 158 °F) Relative humidity Max. operation 95 % RH, condensation not permitte Connections Signal cable Conductor cross-section Screw-type terminals Conductor cross-section Conductor cross-section Conductor cross-section Screw-type terminals Conductor cross-section Conductor cross-section Conductor cross-section Screw-type terminals Conductor cross-section Conductor cross-section Screw-type terminals Conductor cross-section Conductor cross-section Screw-type terminals Conductor cross-section Condu	Ambie	ent conditions
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Ambient temperature Operation	Cooling air requirement	0.055 m³/s (1.942 ft³/s)
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Transport -40 70 °C (-40 158 °F) Storage -40 70 °C (-40 158 °F) Relative humidity Max. operation 95 % RH, condensation not permitte 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 mm² (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) Line length, max. 10 m (32.81 ft) PE connection Screw-type terminals Max. motor cable length	Ambient temperature	
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PE connection Screw-type terminals Max. motor cable length	Conductor cross-section	
Max. motor cable length	Line length, max.	10 m (32.81 ft)
•	PE connection	Screw-type terminals
Shielded 200 m (656.17 ft)	Max. motor cable length	
	Shielded	200 m (656.17 ft)
Unshielded 300 m (984.25 ft)	Unshielded	300 m (984.25 ft)

Mechanical data	
Degree of protection	IP20 / UL open type
Frame size	FSD
Net weight	18.80 kg (41.45 lb)
Dimensions	
Width	200 mm (7.87 in)
Height	472 mm (18.58 in)
Depth	237 mm (9.33 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%)	54.1 %



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

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