

SIEMENS

Data sheet for SINAMICS G120C



Ordering data

6SL3210-1KE21-7AB1

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	Ambient conditions	
Output		Cooling	Air cooling using an integrated fan
Number of phases	3 AC	Cooling air requirement	0.009 m ³ /s
Rated voltage	400 V	Installation altitude	1000 m
Rated power (LO)	7.50 kW	Ambient temperature	
Rated power (HO)	5.50 kW	Operation	-10 ... 40 °C (14 ... 104 °F)
Rated current (IN)	18.20 A	Transport	-40 ... 70 °C (-40 ... 158 °F)
Rated current (LO)	16.50 A	Storage	-40 ... 70 °C (-40 ... 158 °F)
Rated current (HO)	12.50 A	Relative humidity	
Max. output current	25.00 A	Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
Pulse frequency	4 kHz		
Output frequency for vector control	0 ... 240 Hz		
Output frequency for V/f control	0 ... 650 Hz		
<p>In firmware V4.7 and higher, due to legal requirements, the maximum output frequency is restricted to 550 Hz.</p>			

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)

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
Width	100.0 mm
Height	196.0 mm
Depth	203.0 mm

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, 1 A
Number as transistor	1
Output (resistive load)	DC 30 V, 1 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, connectable PTC, KTY, and Thermo-Click sensors, accuracy ±5°C

Connections

Signal cable

Conductor cross-section	0.15 ... 1.50 mm ² (28 ... 16 AWG)
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Line side

Version	Plug-in screw-type terminals
Conductor cross-section	4.00 ... 6.00 mm ² (12 ... 10 AWG)

Motor end

Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm ² (12 ... 10 AWG)

DC link (for braking resistor)

Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm ² (12 ... 10 AWG)
PE connection	On housing with M4 screw

Max. motor cable length

Shielded	50 m
Unshielded	100 m

Communication

Communication	RS485
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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

Standards

Compliance with standards	CE, cULus, c-tick
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CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC
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