SIEMENS

Data sheet for SINAMICS G120C



Ordering data

6SL3210-1KE12-3AB0

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

Item no. :
Consignment no. :
Project :

Rated data

Input

Number of phases	3 AC
Line voltage	380 ... 480 V +10 % -20 %
Line frequency	47 ... 63 Hz
Rated current (LO)	2.90 A
Rated current (HO)	2.50 A

Output

Number of phases	3 AC
Rated voltage	400 V
Rated power (LO)	0.75 kW
Rated power (HO)	0.55 kW
Rated current (IN)	2.50 A
Rated current (LO)	2.20 A
Rated current (HO)	1.70 A
Max. output current	3.40 A
Pulse frequency	4 kHz
Output frequency for vector control	0 ... 240 Hz
Output frequency for V/f control	0 ... 650 Hz

In firmware V4.7 and higher, due to legal requirements, the maximum output frequency is restricted to 550 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)

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 φ	0.95
Efficiency η	0.97
Sound pressure level (1m)	52 dB
Power loss	0.05 kW

Ambient conditions

Cooling	Air cooling using an integrated fan
Cooling air requirement	0.005 m³/s
Installation altitude	1000 m

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

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Mechanical data

Degree of protection	IP20 / UL open type
Size	FSA
Net weight	1.70 kg
Width	73.0 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

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)

Analog outputs

Number	1 (Non-isolated output)

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 mm² (28 ... 16 AWG)

Line side

Version	Plug-in screw-type terminals
Conductor cross-section	1.00 ... 2.50 mm² (16 ... 14 AWG)

Motor end

Version	Plug-in screw terminals
Conductor cross-section	1.00 ... 2.50 mm² (16 ... 14 AWG)

DC link (for braking resistor)

Version	Plug-in screw terminals
Conductor cross-section	1.00 ... 2.50 mm² (16 ... 14 AWG)
PE connection	On housing with M4 screw

Max. motor cable length

Shielded	50 m
Unshielded	100 m

Communication

Communication	RS485

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
CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC