

SIEMENS

Data sheet for SINAMICS G120C



Figure similar

MLFB-Ordering data

6SL3210-1KE21-7UC1

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	Filter class (integrated) Unfiltered
Output	Ambient conditions
Number of phases 3 AC	Cooling Air cooling using an integrated fan
Rated voltage 400 V	Cooling air requirement 0.009 m ³ /s (0.318 ft ³ /s)
Rated power IEC 400V (LO) 7.50 kW	Installation altitude 1000 m (3280.84 ft)
Rated power NEC 480V (LO) 10.00 hp	Ambient temperature
Rated power IEC 400V (HO) 5.50 kW	Operation -10 ... 40 °C (14 ... 104 °F)
Rated power NEC 480V (HO) 7.50 hp	Transport -40 ... 70 °C (-40 ... 158 °F)
Rated current (IN) 17.00 A	Storage -40 ... 70 °C (-40 ... 158 °F)
Rated current (LO) 16.50 A	Relative humidity
Rated current (HO) 12.50 A	Max. operation 95 % At 40 °C (104 °F), condensation and icing not permissible
Max. output current 25.00 A	Closed-loop control techniques
Pulse frequency 4 kHz	V/f linear / square-law / parameterizable Yes
Output frequency for vector control 0 ... 240 Hz	V/f with flux current control (FCC) Yes
Output frequency for V/f control 0 ... 550 Hz	V/f ECO linear / square-law Yes
Overload capability	Sensorless vector control Yes
Low Overload (LO)	Vector control, with sensor No
150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time	Encoderless torque control No
High Overload (HO)	Torque control, with encoder No
200 % base load current IH for 3 s, followed by 150 % base load current IH for 57 s in a 300 s cycle time	



Figure similar

Mechanical data

Degree of protection IP20 / UL open type

Size FSB

Net weight 2.30 kg (5.07 lb)

Width 100 mm (3.94 in)

Height 196 mm (7.72 in)

Depth 203 mm (7.99 in)

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 ±5 °C

Communication

Communication CANopen

Connections

Signal cable

Conductor cross-section 0.15 ... 1.50 mm² (AWG 24 ... AWG 16)

Line side

Version Plug-in screw terminals

Conductor cross-section 4.00 ... 6.00 mm² (AWG 12 ... AWG 10)

Motor end

Version Plug-in screw terminals

Conductor cross-section 4.00 ... 6.00 mm² (AWG 12 ... AWG 10)

DC link (for braking resistor)

Version Plug-in screw terminals

Conductor cross-section 4.00 ... 6.00 mm² (AWG 12 ... AWG 10)

Line length, max. 15 m (49.21 ft)

PE connection On housing with M4 screw

Max. motor cable length

Shielded 50 m (164.04 ft)

Unshielded 150 m (492.13 ft)

Standards

Compliance with standards UL, cUL, CE, C-Tick (RCM)

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

MLFB-Ordering data

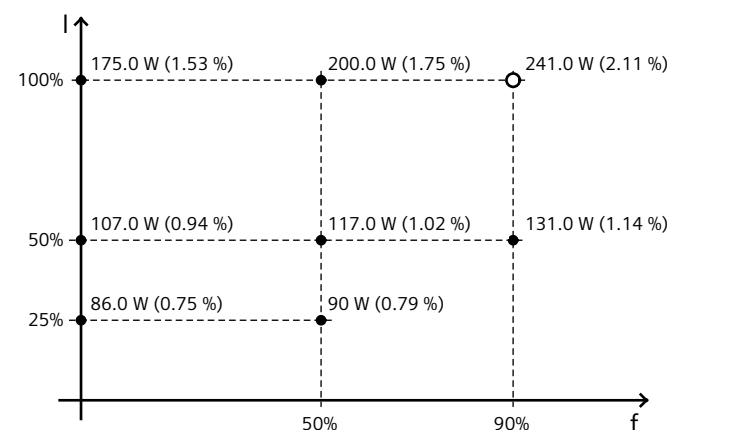
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Figure similar

Converter losses to EN 50598-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-63.87 %



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