

Data sheet for SINAMICS G120C

Article No.: 6SL3210-1KE15-8UF2

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





Figure similar

| Rated data | | |
|-------------------------------------|-----------------|-------------|
| Input | • | |
| Number of phases | 3 AC | |
| Line voltage | 380 480 V +10 % | % -20 % |
| Line frequency | 47 63 Hz | |
| Rated current (LO) | 7.40 A | |
| Rated current (HO) | 6.00 A | |
| Output | | |
| Number of phases | 3 AC | |
| Rated voltage | 400V IEC | 480V NEC 1) |
| Rated power (LO) | 2.20 kW | 3.00 hp |
| Rated power (HO) | 1.50 kW | 2.00 hp |
| Rated current (LO) | 5.60 A | |
| Rated current (HO) | 4.10 A | |
| Rated current (IN) | 5.80 A | |
| Max. output current | 8.20 A | |
| Pulse frequency | 4 kHz | |
| Output frequency for vector control | 0 240 Hz | |
| Output frequency for V/f control | 0 550 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 $\cos\phi$ | 0.95 |
| Efficiency η | 0.97 |
| Sound pressure level (1m) | 49 dB |
| Power loss | 73.4 W |
| Filter class (integrated) | Unfiltered |
| Communication | |

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) |
| DTC/VTV interfere | |

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 |



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| Ambient conditions | | |
|-------------------------|--|--|
| Cooling | Air cooling using an integrated fan | |
| Cooling air requirement | 0.005 m ³ /s (0.177 ft ³ /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 mm² (AWG 24 AWG 16) | |
| | | |

| Motor | end |
|-------|-----|

Line side

Version

| Version | Plug-in screw terminals |
|-------------------------|----------------------------------|
| Conductor cross-section | 1.00 2.50 mm² (AWG 18 AWG 14) |

Plug-in screw terminals

1.00 ... 2.50 mm²

(AWG 18 ... AWG 14)

DC link (for braking resistor)

Conductor cross-section

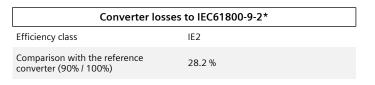
| Version | Plug-in screw terminals |
|-------------------------|--|
| Conductor cross-section | 1.00 2.50 mm ² (AWG 18 AWG 14) |
| Line length, max. | 15 m (49.21 ft) |
| PE connection | On housing with M4 screw |

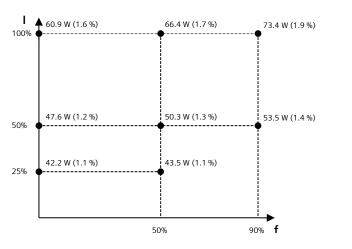
Max. motor cable length

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

| I | Mechanical data | |
|----------------------|---------------------|--|
| Degree of protection | IP20 / UL open type | |
| Frame size | FSAA | |
| Net weight | 1.40 kg (3.09 lb) | |
| Dimensions | | |
| Width | 73 mm (2.87 in) | |
| Height | 173 mm (6.81 in) | |
| Depth | 178 mm (7.01 in) | |
| Standards | | |

| Height | 1/3 mm (6.81 ln) | |
|---------------------------|---------------------------------|--|
| Depth | 178 mm (7.01 in) | |
| Standards | | |
| Compliance with standards | UL, cUL, CE, C-Tick (RCM) | |
| CE marking | EMC Directive 2004/108/EC, Low- | |





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.

Voltage Directive 2006/95/EC

^{*}calculated values

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