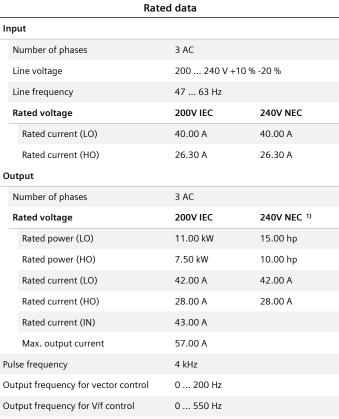


Data sheet for SINAMICS G120X

Article No.: 6SL3220-3YC26-0UF0

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



Overload capability

Low Overload (LO)

110% base load current IL for 60 s in a 300 s cycle time

High Overload (HO)

150% x base load current IH for 60 s within a 600 s cycle time

| General tech. specifications | |
|---------------------------------|------------|
| Power factor λ | 0.90 0.95 |
| Offset factor $\cos \phi$ | 0.99 |
| Efficiency η | 0.97 |
| Sound pressure level (1m) | 70 dB |
| Power loss 3) | 0.463 kW |
| Filter class (integrated) | Unfiltered |
| EMC category (with accessories) | without |



Item no. : Consignment no. : Project :

Width

Height

Depth

| Ambien | t conditions |
|-----------------------------|--|
| Standard board coating type | Class 3C2, according to IEC 60721-3-3: 2002 |
| Cooling | Air cooling using an integrated fan |
| Cooling air requirement | 0.055 m³/s (1.942 ft³/s) |
| Installation altitude | 1,000 m (3,280.84 ft) |
| Ambient temperature | |
| Operation | -20 45 °C (-4 113 °F) |
| Transport | -40 70 °C (-40 158 °F) |
| Storage | -25 55 °C (-13 131 °F) |
| Relative humidity | |
| Max. operation | 95 % At 40 °C (104 °F), condensation and icing not permissible |
| Mechanical data | |
| Degree of protection | IP20 / UL open type |
| Size | FSD |
| Net weight | 16.6 kg (36.60 lb) |
| Dimensions | |

200 mm (7.87 in)

472 mm (18.58 in)

248 mm (9.76 in)



Data sheet for SINAMICS G120X

Article No.: 6SL3220-3YC26-0UF0

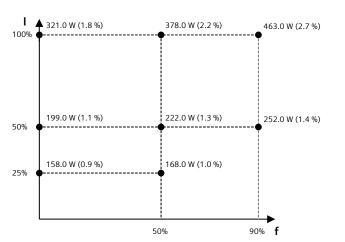
| Inputs / outputs | | |
|--------------------------------------|-------------------------|--|
| Standard digital inputs | | |
| Number | 6 | |
| Switching level: $0 \rightarrow 1$ | 11 V | |
| Switching level: $1 \rightarrow 0$ | 5 V | |
| Max. inrush current | 15 mA | |
| Fail-safe digital inputs | | |
| Number | 1 | |
| Digital outputs | | |
| Number as relay changeover contact | 2 | |
| Output (resistive load) | DC 30 V, 5.0 A | |
| Number as transistor | 0 | |
| Analog / digital inputs | | |
| Number | 2 (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 | Yes |
| Torque control, with encoder | No |

| Communication | |
|---------------|-----------------------|
| Communication | PROFINET, EtherNet/IP |

| _ | | |
|--|--|--|
| Connections | | |
| Signal cable | | |
| Conductor cross-section | 0.15 1.50 mm ² (AWG 24 AWG 16) | |
| Line side | | |
| Version | screw-type terminal | |
| Conductor cross-section | 10.00 35.00 mm ² (AWG 8 AWG 2) | |
| Motor end | | |
| Version | Screw-type terminals | |
| Conductor cross-section | 10.00 35.00 mm ² (AWG 8 AWG 2) | |
| DC link (for braking resistor) | | |
| PE connection | Screw-type terminals | |
| Max. motor cable length | | |
| Shielded | 200 m (656.17 ft) | |
| Unshielded | 300 m (984.25 ft) | |
| | | |
| Converter losses to IEC61800-9-2* | | |
| Efficiency class | IE2 | |
| Comparison with the reference converter (90% / 100%) | 51.2 % | |



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

| Standards | |
|---------------------------|---|
| Compliance with standards | UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH |
| CE marking | EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC |

 $^{^{1)}\}mbox{The}$ output current and HP ratings are valid for the voltage range 220V-240V

³⁾Typical value. More information can be found in the element group "Converter losses to IEC 61800-9-2" in this datasheet.



Data sheet for SINAMICS G120X

Article No.: 6SL3220-3YC26-0UF0

| | Operator panel: I | ntelligent Operator Panel (IOP-2) |
|----------------------|---------------------|-----------------------------------|
| | Screen | |
| Display design | LCD color | Ambient temperature |
| Screen resolution | 320 x 240 Pixel | Operation |
| | Mechanical data | Storage |
| Degree of protection | IP55 / UL type 12 | Transport |
| Net weight | 0.134 kg (0.30 lb) | Relative humidity at 25°0 |
| Dimensions | | Max. operation |
| Width | 70.00 mm (2.76 in) | |
| Height | 106.85 mm (4.21 in) | |
| Depth | 19.65 mm (0.77 in) | Certificate of suitability |

| Ambient conditions | | |
|----------------------------------|-----------------------------------|--|
| Ambient temperature | | |
| Operation | 0 50 °C (32 122 °F) | |
| | 55 °C only with door mounting kit | |
| Storage | -40 70 °C (-40 158 °F) | |
| Transport | -40 70 °C (-40 158 °F) | |
| Relative humidity at 25°C during | | |
| Max. operation | 95 % | |
| | | |
| Approvals | | |
| Certificate of suitability | CE, cULus, EAC, KCC, RCM | |