

MLFB-Ordering data

6SL3210-1KE21-3UF1



Client order no.: Item no.:
Order no.: Consignment no.:
Offer no.: Project:
Remarks:

| Rated data | | General tec | h. specifications |
|---|-----------------------|---|--|
| Input | | Power factor λ | 0.70 0.85 |
| Number of phases | 3 AC | Offset factor cos φ | 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) | 16.50 A | Power loss | 0.18 kW |
| Rated current (HO) | 12.80 A | Filter class (integrated) | Unfiltered |
| Output | | _ | |
| Number of phases | 3 AC | Ambient conditions | |
| Rated voltage | 400 V | Cooling | Air cooling using an integrated fan |
| Rated power IEC 400V (LO) | 5.50 kW | | 0.000 31 (0.040 (31) |
| Rated power NEC 480V (LO) | 7.50 hp | Cooling air requirement | 0.009 m³/s (0.318 ft³/s) |
| Rated power IEC 400V (HO) | 4.00 kW | Installation altitude | 1000 m (3280.84 ft) |
| Rated power NEC 480V (HO) | 5.00 hp | Ambient temperature | |
| Rated current (LO) | 12.50 A | Operation | -10 40 °C (14 104 °F) |
| Rated current (HO) | 8.80 A | Transport | -40 70 °C (-40 158 °F) |
| Rated current (IN) | 13.00 A | Storage | -40 70 °C (-40 158 °F) |
| Max. output current | 17.60 A | Relative humidity | |
| Pulse frequency | 4 kHz | | 95 % At 40 °C (104 °F), condensation and icing not permissible |
| | | Mux. operation | and terny not permissione |
| Output frequency for vector control | 0 240 Hz | Closed-loop control techniques | |
| Output frequency for V/f control | 0 550 Hz | V/f linear / square-law / parameterizable Yes | |
| | | V/f with flux current control (FC | CC) Yes |
| Overload capability | | V/f ECO linear / square-law | Yes |
| Low Overload (LO) | | Sensorless vector control | Yes |
| 150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time | | Vector control, with sensor | No |
| | | Encodorloss torque control | No |

200 % base load current IH for 3 s, followed by 150 % base load current IH for 57 s in a

High Overload (HO)

300 s cycle time

No

No

Encoderless torque control

Torque control, with encoder



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| Mechanical data | | Con | Communication | |
|------------------------------------|------------------------|--|---|--|
| Degree of protection | IP20 / UL open type | Communication | PROFINET, EtherNet/IP | |
| Size | FSB | Co | Connections | |
| Net weight | 2.30 kg (5.07 lb) | Signal cable | | |
| Width | 100 mm (3.94 in) | Conductor cross-section | 0.15 1.50 mm² (AWG 24 | |
| Height | 196 mm (7.72 in) | Line side | | |
| Depth | 208 mm (8.19 in) | Version | Plug-in screw terminals | |
| Inputs / outputs | | Conductor cross-section | 4.00 6.00 mm² (AWG 12 | |
| Standard digital inputs | | Motor end | | |
| Number | 6 | Version | Plug-in screw terminals | |
| Switching level: 0→1 | 11 V | Conductor cross-section | 4.00 6.00 mm² (AWG 12 | |
| Switching level: 1→0 | 5 V | DC link (for braking resisto | r) | |
| Max. inrush current | 15 mA | Version | Plug-in screw terminals | |
| ail-safe digital inputs | | Conductor cross-section | 4.00 6.00 mm² (AWG 12 | |
| Number | 1 | Line length, max. | 15 m (49.21 ft) | |
| Digital outputs | | - | | |
| Number as relay changeover contact | 1 | PE connection Max. motor cable length | On housing with M4 screw | |
| Output (resistive load) | DC 30 V, 0.5 A | Shielded | 50 m (164.04 ft) | |
| Number as transistor | 1 | Unshielded | 150 m (492.13 ft) | |
| Output (resistive load) | DC 30 V, 0.5 A | 9 | Standards | |
| Analog / digital inputs | | Compliance with standards | UL, cUL, CE, C-Tick (RCM) | |
| Number | 1 (Differential input) | | | |
| Resolution | 10 bit | CE marking | EMC Directive 2004/108/EC, Lo Directive 2006/95/EC | |
| Switching threshold as digital in | put | | | |
| 0→1 | 4 V | | | |
| | | | | |

Analog outputs

1 → 0

Number 1 (Non-isolated output)

PTC/ KTY interface

1 motor temperature sensor input, sensors that can be connected: PTC, KTY and Thermo-Click, accuracy $\pm 5~^\circ\text{C}$

1.6 V



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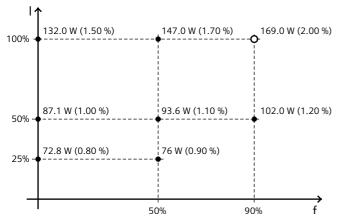
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Figure similar

Converter losses to IEC61800-9-2*

| Efficiency class | IE2 |
|--|---------|
| Comparison with the reference converter (90% / 100%) | 33.40 % |



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