SIEMENS

# Data sheet for Motor Module



Figure similar

**Article No. :** **6SL3120-1TE21-8AD0**

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

Item no. :
Consignment no. :
Project :

| Rated data | |
|---|---|
| DC link voltage | DC 510 ... 720 V |
| Electronics power supply | DC 24 V -15 % / +20 % |
| Current demand, max. | 0.75 A |
| DC-link current $I_d$ [1] | 22.0 A |
| **Output current** | |
| Rated value $I_N$ | 18.0 A |
| Base load current $I_H$ | 15.3 A |
| For S6 duty (40%) $I_{S6}$ | 24.0 A |
| $I_{max}$ | 54.0 A |
| **Type rating** [2] | |
| Based on $_{IN}$ | 9.7 kW |
| Based on $_{IH}$ | 8.2 kW |
| Rated pulse frequency | 4.00 kHz |
| **Current carrying capacity** | |
| DC link busbars | 100 A |
| 24 V busbars [4] | 20 A |
| DC link capacitance | 220 µF |
| Output frequency for servo control [5] | 650 Hz |
| Output frequency for V/f control [6] | 600 Hz |
| Output frequency for vector control [7] | 300 Hz |

| Ambient conditions | |
|---|---|
| Installation altitude (without derating) | 1,000 m (3,281 ft) |
| Cooling [8] | Internal air cooling |
| Cooling air requirement | 0.009 m³/s |
| **Ambient temperature** | |
| During operation | 0 ... 40 °C (32 ... 104 °F) |

| Connections | |
|---|---|
| **Motor end** | |
| Version | connector (X1) |
| Conductor cross-section | 1.5 ... 6 mm² (16 ... 10 AWG) |
| PE connection | M5 screw |
| **Max. motor cable length** | |
| Shielded | 70 m (230 ft) |
| Unshielded | 100 m (328 ft) |

| Standards | |
|---|---|
| Compliance with standards | CE, cULus |
| Safety Integrated | SIL 2 acc. to IEC 61508, PL d acc. to EN ISO 13849-1, Category 3 acc. to EN ISO 13849-1 |

| Mechanical data | |
|---|---|
| **Line side** | |
| Width | 50.00 mm (1.97 in) |
| Height | 380.00 mm (14.96 in) |
| Depth | 270.00 mm (10.63 in) |
| Degree of protection | IP20 / UL open type |
| Type of construction | Booksize |
| Net weight | 4.6 kg (10.14 lb) |

| General tech. specifications | |
|---|---|
| Sound pressure level (1m) | 60.0 dB |
| Power loss, typ./max. [9] | 0.14 kW / 0.19 kW |

[1] Rated dc link current for dimensioning an external DC connection

[2] Rated output of a typical standard asynchronous motor at 400 V 3 AC

[4] If, when connecting several Line Modules and Motor Modules in series, the current carrying capacity exceeds 20 A, another 24 V DC connection is required using a 24 V terminal adapter (max. connectable cross-section 6 mm2, max. protection 20 A).

[5] With rated output current (max. output frequency 1300 Hz at a current controller cycle of 62.5 µs, pulse frequency 8 kHz, 60 % permissible output current). Observe the dependency between max. output frequency and current derating. At present, the output frequency is limited to 550 Hz, the values stated apply with the high output frequency license.

[6] Observe the dependency between max. output frequency and current derating. At present, the output frequency is limited to 550 Hz, the values stated apply with the high output frequency license.

[7] Observe the dependency between max. output frequency and current derating.

[8] Power units with intensified air cooling thanks to integrated fan

[9] Power loss of the Motor Module with rated power including losses of the 24 V DC electronics power supply

Subject to change. Calculated values may differ from nameplate ratings. © Copyright Siemens