SIEMENS

Data sheet for Motor Module



Figure similar

MLFB-Ordering data 6SL3120-1TE21-8AC0

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}	36.0 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)	1000 m (3281 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	2 ... 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

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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