

SIEMENS

Data sheet for Motor Module



MLFB-Ordering data 6SL3120-1TE24-5AC0

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

Item no. :
Consignment no. :
Project :

Rated data		Ambient conditions	
DC link voltage	DC 510 ... 720 V	Installation altitude (without derating)	1000 m (3281 ft)
Electronics power supply	DC 24 V -15 % / +20 %	Cooling ⁸⁾	Internal air cooling
Current demand, max.	0.90 A	Cooling air requirement	0.023 m³/s
DC-link current I _d ¹⁾	54.0 A	Ambient temperature	
Output current		During operation	0 ... 40 °C (32 ... 104 °F)
Rated value I _N	45.0 A	Connections	
Base load current I _H	38.0 A	Motor end	
For S6 duty (40%) I _{S6}	60.0 A	Version	M6 bolt (X1)
I _{max}	90.0 A	Conductor cross-section	3 ... 50 mm² (14 ... 1 AWG)
Type rating ²⁾		PE connection	M6 screw
Based on I _N	24.0 kW	Max. motor cable length	
Based on I _H	21.0 kW	Shielded	100 m (328 ft)
Rated pulse frequency	4.00 kHz	Unshielded	150 m (492 ft)
Current carrying capacity		Standards	
DC link busbars	200 A	Compliance with standards	CE, cULus
24 V busbars ⁴⁾	20 A	Safety Integrated	SIL 2 acc. to IEC 61508, PL d acc. to EN ISO 13849-1, Category 3 acc. to EN ISO 13849-1
DC link capacitance	1230 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		



Figure similar

Mechanical data		General tech. specifications	
Line side		Sound pressure level (1m)	71.0 dB
Width	100.00 mm (3.94 in)	Power loss, typ./max. ⁹⁾	0.34 kW / 0.35 kW
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	8.5 kg (18.74 lb)		

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