

MLFB-Ordering data

6SL3120-1TE24-5AC0



Client order no. :

Order no. : Offer no. :

Remarks :

ltem no. : Consignment no. : Project :

Rated data		Ambient conditions	
DC link voltage	DC 510 720 V		
Electronics power supply	DC 24 V -15 % / +20 %	Installation altitude (without derating)	1000 m (3281 ft)
Current demand, max.	0.90 A	Cooling ⁸⁾	Internal air cooling
DC-link current I _d ¹⁾	54.0 A	Cooling air requirement	0.023 m³/s
Output current		Ambient temperature	
Rated value I _N	45.0 A	During operation	0 40 °C (32 104 °F)
Base load current I _H	38.0 A	Connections	
For S6 duty (40%) I _{s6}	60.0 A	Motor end	
I _{max}	90.0 A	Version	M6 bolt (X1)
Type rating ²⁾		Conductor cross-section	3 50 mm ² (14 1 AWG)
Based on _{IN}	24.0 kW	PE connection	M6 screw
Based on _{IH}	21.0 kW		NO SCIEW
Rated pulse frequency	4.00 kHz	Max. motor cable length	
Current carrying capacity		- Shielded	100 m (328 ft)
DC link busbars	200 A	Unshielded	150 m (492 ft)
24 V busbars ⁴⁾	20 A		
DC link capacitance	1230 µF	Standards	
Output frequency for servo control ⁵⁾	650 Hz	Compliance with standards	CE, cULus
Output frequency for V/f control ⁶⁾	600 Hz	Safety Integrated	SIL 2 acc. to IEC 61508, PL d acc. to EN ISO 13849-1, Category 3 acc. to EN ISO 13849-1
Output frequency for vector control ⁷⁾	300 Hz		



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Mechanical data		General te	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.

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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