MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Amikon cover with selected official Siemens pages

SINAMICS S120 BOOKSIZE DRIVE SYSTEM

6SL3120-1TE31-3AA3

S120 SINGLE MOTOR MODULE

OFFICIAL SOURCES

Siemens official product data sheet. Selected pages retain their original content, color and aspect ratio.

SIEMENS

Data sheet for Motor Module



Figure similar

Article No. : **6SL3120-1TE31-3AA3**

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.	1.50 A
DC-link current I_d	158.0 A
Output current	
Rated value I_N	132.0 A
Base load current I_H	105.0 A
For S6 duty (40%) I_{S6}	150.0 A
I_{max}	210.0 A
Type rating [2]	
Based on $_{IN}$	71.0 kW
Based on $_{IH}$	57.0 kW
Rated pulse frequency	4.00 kHz
Current carrying capacity	
DC link busbars	200 A
24 V busbars	20 A
DC link capacitance	2,820 µF
Output frequency for servo control [5]	0 ... 650 Hz
Output frequency for V/f control [6]	0 ... 600 Hz
Output frequency for vector control [7]	0 ... 300 Hz

Ambient conditions	
Installation altitude (without derating)	1,000 m (3,281 ft)
Cooling [8]	Internal air cooling
Cooling air requirement	0.144 m³/s
Ambient temperature	
During operation	0 ... 40 °C (32 ... 104 °F)

Connections	
Motor end	
Version	M8 bolt (X1)
Conductor cross-section	2.5 ... 120 mm² (14 ... -3 AWG)
PE connection	M8 Screw
Max. motor cable length	
Shielded	100 m (328 ft)
Unshielded	150 m (492 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	300.00 mm (11.81 in)
Height	629.00 mm (24.76 in)
Depth	270.00 mm (10.63 in)
Degree of protection	IP20 / UL open type
Type of construction	Booksize
Net weight	21.0 kg (46.30 lb)

General tech. specifications	
Sound pressure level (1m)	73.0 dB
Power loss, typ./max. [9]	1.26 kW / 1.29 kW

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

[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