SIEMENS

Data sheet for SINAMICS S220 Motor Module

Article No. : 6SL5120-1UE31-3AD1

Figure similar

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

Item no. :
Consignment no. :
Project :

Rated data	
Input	
DC link voltage	DC 510 ... 720 V
DC-link current	165.0 A
Output	
Rated power IEC	75.0 kW
Rated power NEC	100.0 hp
Output current	
Rated value I_N	132.0 A
Maximum current I_{max}	264.0 A
For S6 duty (40%) I_{S6}	176.0 A
Rated pulse frequency	4 kHz
Pulse frequency, max.	16 kHz
Current carrying capacity	
DC link busbars [1]	250 A
24 V busbars	20 A
DC link capacitance	2,820 µF
Output frequency for servo control [2]	0 ... 650 Hz
Output frequency for V/f control [3]	0 ... 600 Hz
Output frequency for vector control [4]	0 ... 300 Hz

Electronics power supply	
Voltage	24V (... V) -15% / +20%
Power loss, typ.	0.75 A (External 24 V power supply required)

General tech. specifications	
Efficiency η	0.98
Sound pressure level (1m)	85 dB
Power loss (typical)	1,215.00 W

Inputs / outputs	
Fail-safe digital inputs	
Number	1 (for enable pulse function)
Type	Type 1 and type 3
Design	Optocoupler (up to 60 V)

Ambient conditions	
Cooling	Air cooling using an integrated fan
Cooling air requirement	290 m³/h (2.8 ft³/s)
Installation altitude (without derating)	1,000 m (13,123.00 ft)
Relative humidity	
Operation	5 ... 95%
Transport	5 ... 95%
Storage	5 ... 95%
Ambient temperature	
Operation	-10 ... 55 °C (14 ... 131 °F)
Transport	-25 ... 70 °C (-13 ... 158 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)

Connections	
Signal cable	
Type	push-in connection
Conductor cross-section [5]	0.2 ... 1.5 mm² (23 ... 16 AWG)
Motor end	
Type	Stud terminal; M8; SW13
Conductor cross-section [6]	16.0 ... 150.0 mm² (6 ... 300 kcmil AWG)
Number of connections	1
DC link	
Type	Busbar with DC link adapter M4/TX 20
Number of connections	2
PE connection	
Type [7]	Screw terminal; M8/ SW 13
Conductor cross-section	16.00 ... 25.0 mm² (6 ... 4 AWG)
Holding brake	
Type	Push-in connection, X11; slotted screwdriver 0.5 x 3.5 mm
Conductor cross-section	0.08 ... 2.5 mm² (14 ... 28 AWG)
Number of connections	1
Max. motor cable length	
Shielded	100 m (328.00 ft)
Unshielded	150 m (492.00 ft)

Mechanical data	
Degree of protection	IP20 / UL open type
Frame size	150mm
Net weight	17.2 kg (37.92 lb)
Dimensions	
Width	150 mm (in)
Depth	270 mm (10.63 in)
Height	422 mm (16.61 in)
Height including shield plate	587.5 mm (23.13 in)

Certificates	
Certificate of suitability	CE, KC, cULus (UL 61800-5-1, CSA 22.2 No. 274) , EAC, UKCA
Verification of suitability for fail-safety	SIL 3 according to IEC 61508 and IEC 61800-5-2, PL e according to ISO 13849-1, Category 2 according to ISO 13849-1

[1] Connection via DC link adapter (accessory)

[2] Note the correlation between the max. output frequency, pulse frequency and current derating. The output frequency is currently limited to 550 Hz. The specified value applies to systems with supplementary license.

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

[4] Note the correlation between the max. output frequency, pulse frequency and current derating. The output frequency is currently limited to 550 Hz. The specified value applies to systems with supplementary license.

[5] 0.75 mm² for flexible cables with protective collar

[6] Alternatively, 2 x 16 ... 50 mm²

[7] ?PMD_ACW207_001_000 ?