SIEMENS

Data sheet for SINAMICS S220 Motor Module

Article No. : **6SL5120-2UE21-8SD1**



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	22.5 A
Output	
Rated power IEC	7.5 kW
Rated power NEC	10.0 hp
Output current	
Rated value I_N	18.0 A
Maximum current I_{max}	54.0 A
For S6 duty (40%) I_{S6}	24.0 A
Rated pulse frequency	4 kHz
Pulse frequency, max.	16 kHz
Current carrying capacity	
DC link busbars [1]	100 A
24 V busbars	20 A
DC link capacitance	705 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.	1.30 A (External 24 V power supply required)

General tech. specifications

Efficiency η	0.98
Sound pressure level (1m)	75 dB
Power loss (typical)	291.00 W

Inputs / outputs

Fail-safe digital inputs	
Number	2 (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	33 m³/h (0.3 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	Connection plug with screw terminal or push-in
Conductor cross-section	0.8 ... 6.0 mm² (?PMD_ACL443_001_000 18? ... 10 AWG)
Number of connections	2
DC link	
Type	Busbar with DC link adapter M4/TX 20
Number of connections	2
PE connection	
Type [7]	Screw terminal; M5, max. 12 mm wide/ TX 25
Conductor cross-section	0.75 ... 6.0 mm² (18 ... 10 AWG)
Holding brake	
Type	X21/X22 connection plug
Conductor cross-section	0.75 ... 6.0 mm² (10 ... 18 AWG)
Number of connections	2
Max. motor cable length	
Shielded	70 m (230.00 ft)
Unshielded	105 m (344.00 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	50mm
Net weight	5.1 kg (11.24 lb)
Dimensions	
Width	50 mm (in)
Depth	270 mm (10.63 in)
Height	380 mm (14.96 in)
Height including shield plate	419.0 mm (16.50 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] 200 A with 6 mm DC link bridges; connection via DC link adapter (both accessories)

[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

[7] ?PMD_ACW207_001_000 ?