

SINAMICS Power Module PM240-2

SINAMICS G120 | Air-cooled Power Module, blocksize format

Article Number	6SL3210-1PH22-7AL0	Frame Size FSD · IP20
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22.0 kW Rated power (LO)	18.5 kW Rated power (HO)	500-690 V Line voltage, 3 AC	27.0 A Rated output current (LO)	0-550 Hz Output frequency (V/f)
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SINAMICS G120 Power Module PM240-2 with built-in Class A line filter and integrated braking chopper. 3 AC 500-690 V +10/-20 %, 47-63 Hz. Output High Overload: 18.5 kW for 200 % 3 s, 150 % 57 s, 100 % 240 s, ambient temperature -20 to +50 °C (HO). Output Low Overload: 22 kW for 150 % 3 s, 110 % 57 s, 100 % 240 s, ambient temperature -20 to +40 °C (LO). Dimensions 472 × 200 × 237 mm (H×W×D), frame size FSD, degree of protection IP20. Delivered without control unit and operator panel; approved for CU firmware version V4.7 HF8 and later.

Rated Data — Input	
Number of phases	3 AC
Line voltage	500 ... 690 V ±10 %
Line frequency	47 ... 63 Hz
Rated current (LO)	25.00 A
Rated current (HO)	24.00 A

Rated Data — Output	
Number of phases	3 AC
Rated voltage	690 V IEC / 600 V NEC
Rated power (LO)	22.00 kW (25.00 hp)
Rated power (HO)	18.50 kW (20.00 hp)
Rated current (LO)	27.00 A
Rated current (HO)	23.00 A
Max. output current	46.00 A
Pulse frequency	2 kHz
Output frequency, vector control	0 ... 200 Hz
Output frequency, V/f control	0 ... 550 Hz

Overload Capability	
Low Overload (LO)	110 % (1.1 × rated current) for 57 s; 150 % (1.5 × rated current) for 3 s; cycle time 300 s
High Overload (HO)	150 % (1.5 × rated current) for 57 s; 200 % (2.0 × rated current) for 3 s; cycle time 300 s

General Technical Specifications	
Power factor λ	0.90
Offset factor $\cos \phi$	0.99
Efficiency η	0.98
Efficiency class (IEC 61800-9-2)	IE2
Sound pressure level (1 m)	72 dB
Power loss	0.56 kW
Integrated line filter	Class A

Ambient Conditions

Cooling	Internal air cooling
Cooling air requirement	0.055 m³/s (1.94 ft³/s)
Installation altitude	≤ 1,000 m (3,281 ft)
Ambient temperature, operation (LO)	-20 ... +40 °C (-4 ... +104 °F)
Ambient temperature, operation (HO)	-20 ... +50 °C (-4 ... +122 °F)
Ambient temperature, transport / storage	-25 ... +55 °C (-13 ... +131 °F)
Relative humidity, max. operation	95 % RH, condensation not permitted

Connections

Line side	Screw-type terminals, 10 ... 35 mm² (AWG 8 ... AWG 2)
Motor end	Screw-type terminals, 10 ... 35 mm² (AWG 8 ... AWG 2)
DC link (braking resistor)	Screw-type terminals, 2.5 ... 16 mm² (AWG 14 ... AWG 6)
DC link cable length	10 m (32.8 ft)
PE connection	Screw-type terminals
Max. motor cable length, shielded	200 m (656 ft)
Max. motor cable length, unshielded	300 m (984 ft)

Mechanical Data

Degree of protection	IP20 / UL open type
Frame size	FSD
Net weight	18.50 kg (40.79 lb)
Width	200 mm (7.87 in)
Height	472 mm (18.58 in)
Depth	237 mm (9.33 in)

Standards & Approvals

Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-Voltage Directive 2006/95/EC

Product Highlights

- Built-in Class A line filter for reduced electromagnetic interference
- Integrated braking chopper for dynamic braking with external resistor
- High overload capability up to 200 % for demanding drive applications
- Wide input voltage range 500-690 V for high-voltage industrial networks
- Extended ambient temperature range from -20 °C for harsh environments
- Modular G120 system design, combinable with CU240/CU250 control units
- Energy efficiency class IE2 according to IEC 61800-9-2

Technical data are subject to change. There may be discrepancies between calculated and rating-plate values. Compiled from the official Siemens technical data sheet for article 6SL3210-1PH22-7AL0.