

Data sheet for SINAMICS Power module PM240-2

Article No. : 6SL3210-1PE31-1AL0



Figure similar

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

Item no. :
Consignment no. :
Project :

Rated data

Input		
Number of phases	3 AC	
Line voltage	380 ... 480 V \pm 10 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	104.00 A	
Rated current (HO)	94.00 A	
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC ¹⁾
Rated power (LO)	55.00 kW	75.00 hp
Rated power (HO)	45.00 kW	60.00 hp
Rated current (LO)	110.00 A	
Rated current (HO)	90.00 A	
Max. output current	180.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	

Overload capability

Low Overload (LO)

1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s
1.5 x rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

1.5 x output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s
2 x output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

General tech. specifications

Power factor λ	0.95
Offset factor $\cos \varphi$	0.99
Efficiency η	0.98
Sound pressure level (1m)	71 dB
Power loss	1.55 kW
Filter class (integrated)	Class A

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.083 m ³ /s (2.931 ft ³ /s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side

Version	screw-type terminal
Conductor cross-section	25.00 ... 70.00 mm ² (AWG 4 ... AWG -1)

Motor end

Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm ² (AWG 4 ... AWG -1)

DC link (for braking resistor)

Version	Screw-type terminals
Conductor cross-section	10.00 ... 35.00 mm ² (AWG 8 ... AWG 2)
Cable length	10 m (32.81 ft)
PE connection	Screw-type terminals

Max. motor cable length

Shielded	200 m (656.17 ft)
Unshielded	300 m (984.25 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	F5E
Net weight	28.00 kg (61.73 lb)
Dimensions	
Width	275 mm (10.83 in)
Height	551 mm (21.69 in)
Depth	237 mm (9.33 in)

Standards

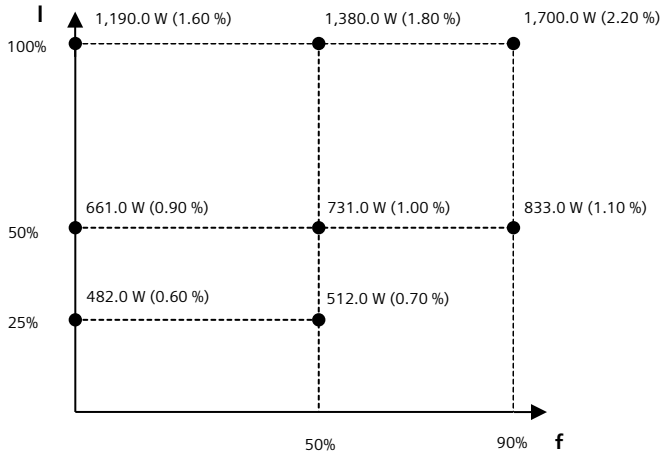
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

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Converter losses to IEC61800-9-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	47.50 %



The percentage values show the losses in relation to the rated apparent power of the converter.

The diagram shows the losses for the points (as per standard IEC61800-9-2) of the relative torque generating current (I) over the relative motor stator frequency (f). The values are valid for the basic version of the converter without options/components.

*calculated values

¹⁾The output current and HP ratings are valid for the voltage range 440V-480V