

Data sheet for SINAMICS Power module PM230

Article No. : 6SL3210-1NE21-0UG1

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

Item no. :
Consignment no. :
Project :

[Figure similar](#)



Rated data

Input	
Number of phases	3 AC
Line voltage	380 ... 480 V ±10 %
Line frequency	47 ... 63 Hz
Rated current (LO)	10.50 A
Rated current (HO)	8.00 A

Output	
Number of phases	3 AC
Rated voltage	400V IEC 480V NEC ¹⁾
Rated power (LO)	4.00 kW 5.00 hp
Rated power (HO)	3.00 kW 4.00 hp
Rated current (LO)	10.20 A
Rated current (HO)	7.70 A
Max. output current	15.40 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 × rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s	
High Overload (HO)	
1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s	

General tech. specifications

Power factor λ	0.90
Offset factor cos φ	0.95
Efficiency η	0.97
Sound pressure level (1m)	62 dB
Power loss	0.12 kW
Filter class (integrated)	-

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.009 m³/s (0.318 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	-10 ... 40 °C (14 ... 104 °F)
Operation HO	-10 ... 50 °C (14 ... 122 °F)
Transport	-40 ... 70 °C (-40 ... 158 °F)
Storage	-40 ... 70 °C (-40 ... 158 °F)

Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	Plug-in screw terminals
Conductor cross-section	1.50 ... 6.00 mm² (AWG 16 ... AWG 10)
Motor end	
Version	Plug-in screw terminals
Conductor cross-section	1.50 ... 6.00 mm² (AWG 16 ... AWG 10)

Max. motor cable length	
Shielded	25 m (82.02 ft)
Unshielded	100 m (328.08 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSB
Net weight	6.30 kg (13.89 lb)
Dimensions	
Width	100 mm (3.94 in)
Height	292 mm (11.50 in)
Depth	165 mm (6.50 in)

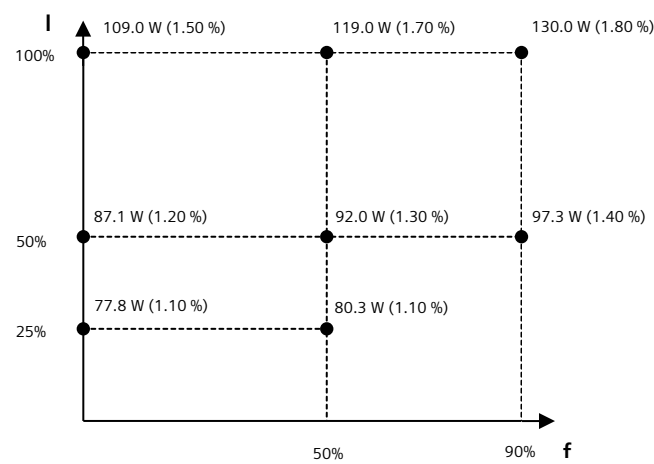
Standards

Compliance with standards	UL, CE, C-Tick (RCM), KCC
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%)	30.50 %



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