

## **Data sheet for SINAMICS Power module PM230**

6SL3211-1NE17-7AL1 Article No.:

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

Item no. :  $Consignment\ no.:$ Project:

Figure similar

Error:

No CAD-Data available for this configuration.

Number of phases   3 AC	Rated data		
Line voltage       380 480 V ± 10 %         Line frequency       47 63 Hz         Rated current (LO)       8.00 A         Rated current (HO)       6.10 A         Output         Number of phases       3 AC         Rated voltage       400V IEC       480V NEC ¹)         Rated power (LO)       3.00 kW       4.00 hp         Rated power (HO)       2.20 kW       3.00 hp         Rated current (LO)       7.70 A         Rated current (HO)       5.90 A         Max. output current       11.80 A         Pulse frequency       4 kHz	Input		
Line frequency 47 63 Hz  Rated current (LO) 8.00 A  Rated current (HO) 6.10 A  Output  Number of phases 3 AC  Rated voltage 400V IEC 480V NEC 1)  Rated power (LO) 3.00 kW 4.00 hp  Rated power (HO) 2.20 kW 3.00 hp  Rated current (LO) 7.70 A  Rated current (HO) 5.90 A  Max. output current 11.80 A  Pulse frequency 4 kHz	Number of phases	3 AC	
Rated current (LO)       8.00 A         Rated current (HO)       6.10 A         Output         Number of phases       3 AC         Rated voltage       400V IEC       480V NEC ¹)         Rated power (LO)       3.00 kW       4.00 hp         Rated power (HO)       2.20 kW       3.00 hp         Rated current (LO)       7.70 A         Rated current (HO)       5.90 A         Max. output current       11.80 A         Pulse frequency       4 kHz	Line voltage	380 480 V ±10	%
Rated current (HO) 6.10 A  Output  Number of phases 3 AC  Rated voltage 400V IEC 480V NEC 1)  Rated power (LO) 3.00 kW 4.00 hp  Rated power (HO) 2.20 kW 3.00 hp  Rated current (LO) 7.70 A  Rated current (HO) 5.90 A  Max. output current 11.80 A  Pulse frequency 4 kHz	Line frequency	47 63 Hz	
Output           Number of phases         3 AC           Rated voltage         400V IEC         480V NEC ¹)           Rated power (LO)         3.00 kW         4.00 hp           Rated power (HO)         2.20 kW         3.00 hp           Rated current (LO)         7.70 A           Rated current (HO)         5.90 A           Max. output current         11.80 A           Pulse frequency         4 kHz	Rated current (LO)	8.00 A	
Number of phases 3 AC  Rated voltage 400V IEC 480V NEC 1)  Rated power (LO) 3.00 kW 4.00 hp  Rated power (HO) 2.20 kW 3.00 hp  Rated current (LO) 7.70 A  Rated current (HO) 5.90 A  Max. output current 11.80 A  Pulse frequency 4 kHz	Rated current (HO)	6.10 A	
Rated voltage         400V IEC         480V NEC <sup>1)</sup> Rated power (LO)         3.00 kW         4.00 hp           Rated power (HO)         2.20 kW         3.00 hp           Rated current (LO)         7.70 A           Rated current (HO)         5.90 A           Max. output current         11.80 A           Pulse frequency         4 kHz	Output		
Rated power (LO) 3.00 kW 4.00 hp Rated power (HO) 2.20 kW 3.00 hp Rated current (LO) 7.70 A Rated current (HO) 5.90 A Max. output current 11.80 A Pulse frequency 4 kHz	Number of phases	3 AC	
Rated power (HO)  Rated current (LO)  Rated current (HO)  5.90 A  Max. output current  11.80 A  Pulse frequency  4 kHz	Rated voltage	400V IEC	480V NEC 1)
Rated current (LO) 7.70 A  Rated current (HO) 5.90 A  Max. output current 11.80 A  Pulse frequency 4 kHz	Rated power (LO)	3.00 kW	4.00 hp
Rated current (HO) 5.90 A  Max. output current 11.80 A  Pulse frequency 4 kHz	Rated power (HO)	2.20 kW	3.00 hp
Max. output current 11.80 A Pulse frequency 4 kHz	Rated current (LO)	7.70 A	
Pulse frequency 4 kHz	Rated current (HO)	5.90 A	
, ,	Max. output current	11.80 A	
Output frequency for vector control 0 200 Hz	Pulse frequency	4 kHz	
	Output frequency for vector control	0 200 Hz	
Output frequency for V/f control 0 550 Hz	Output frequency for V/f control	0 550 Hz	
Overload capability	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  $1.5 \times$  rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

 $1.5\times$  output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2  $\times$  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 $\cos\phi$	0.95	
Efficiency η	0.96	
Sound pressure level (1m)	56 dB	
Power loss	0.11 kW	
Filter class (integrated)	Class A	

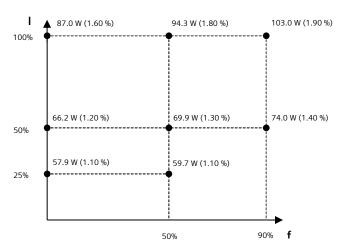
Ambient conditions		
Cooling	Internal air cooling	
Cooling air requirement	0.005 m³/s (0.177 ft³/s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
Operation LO	-10 40 °C (14 104 °F)	
Operation HO	-10 50 °C (14 122 °F)	
Transport	-40 70 °C (-40 158 °F)	
Storage	-40 70 °C (-40 158 °F)	
Relative humidity		
Max. operation	95 % RH, condensation not permitted	
Connections		
Line side		
Version	Plug-in screw terminals	
Conductor cross-section	1.50 2.50 mm <sup>2</sup> (AWG 16 AWG 14)	
Motor end		
Version	Plug-in screw terminals	
Conductor cross-section	1.00 2.50 mm <sup>2</sup> (AWG 18 AWG 14)	
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	FSA	
Net weight	1.60 kg (3.53 lb)	
Dimensions		
Width	126 mm (4.96 in)	
Height	238 mm (9.37 in)	
Depth	171 mm (6.73 in)	
Standards		
Compliance with standards	UL, CE, C-Tick (RCM), KCC	
CE marking	Low-voltage directive 2006/95/EC	



## Data sheet for SINAMICS Power module PM230

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Converter losses to IEC61800-9-2*		
Efficiency class	IE2	
Comparison with the reference converter (90% / 100%)	30.30 %	



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

<sup>&</sup>lt;sup>1)</sup>The output current and HP ratings are valid for the voltage range 440V-480V