

## Data sheet for SINAMICS Power module PM240-2

Article No. : 6SL3210-1PE31-8AL0



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)	172.00 A
Rated current (HO)	154.00 A

#### Output

Number of phases	3 AC
<b>Rated voltage</b>	<b>400V IEC</b> <b>480V NEC <sup>1)</sup></b>
Rated power (LO)	90.00 kW      125.00 hp
Rated power (HO)	75.00 kW      100.00 hp
Rated current (LO)	178.00 A
Rated current (HO)	145.00 A
Max. output current	290.00 A
Pulse frequency	2 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 $\lambda$	0.95
Offset factor $\cos \varphi$	0.99
Efficiency $\eta$	0.98
Sound pressure level (1m)	68 dB
Power loss	2.33 kW
Filter class (integrated)	Class A

### Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.153 m <sup>3</sup> /s (5.403 ft <sup>3</sup> /s)
Installation altitude	1,000 m (3,280.84 ft)
<b>Ambient temperature</b>	
Operation LO	-20 ... 40 °C (-4 ... 104 °F)
Operation HO	-20 ... 50 °C (-4 ... 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
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### Connections

#### Line side

Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm <sup>2</sup> (AWG 2 ... AWG -3)

#### Motor end

Version	M10 bolt
Conductor cross-section	35.00 ... 120.00 mm <sup>2</sup> (AWG 2 ... AWG -3)

#### DC link (for braking resistor)

Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm <sup>2</sup> (AWG 4 ... AWG -1)
Cable length	10 m (32.81 ft)
PE connection	M10 screw studs

#### Max. motor cable length

Shielded	300 m (984.25 ft)
Unshielded	450 m (1,476.38 ft)

### Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSF
Net weight	63.00 kg (138.89 lb)
<b>Dimensions</b>	
Width	305 mm (12.01 in)
Height	708 mm (27.87 in)
Depth	357 mm (14.06 in)

### Standards

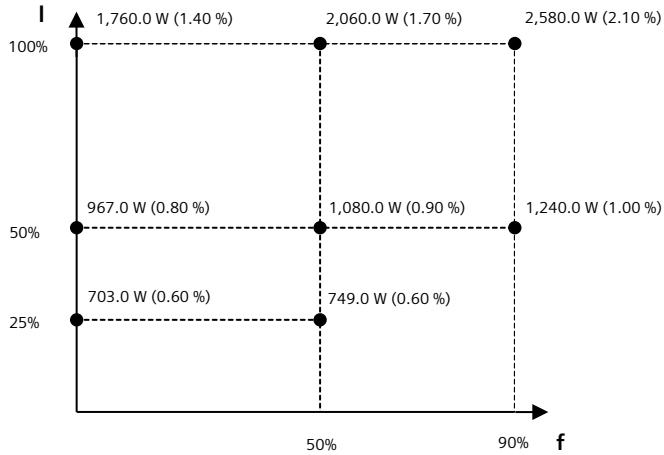
Compliance with standards	UL, cUL, CE, C-Tick (RCM), SEMI F47
CE marking	Low-voltage directive 2006/95/EC

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### Converter losses to IEC61800-9-2\*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	50.90 %



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.

\*converted values

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