

Data sheet for SINAMICS Power module PM240-2

Article No. : 6SL3210-1PH22-3AL0



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 | 500 ... 690 V \pm 10 % |
| Line frequency | 47 ... 63 Hz |
| Rated current (LO) | 22.00 A |
| Rated current (HO) | 20.00 A |

Output

| | | |
|-------------------------------------|-----------------|-------------------------------|
| Number of phases | 3 AC | |
| Rated voltage | 690V IEC | 600V NEC ¹⁾ |
| Rated power (LO) | 18.50 kW | 20.00 hp |
| Rated power (HO) | 15.00 kW | 15.00 hp |
| Rated current (LO) | 23.00 A | |
| Rated current (HO) | 19.00 A | |
| Max. output current | 38.00 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 λ | 0.90 |
| Offset factor $\cos \varphi$ | 0.99 |
| Efficiency η | 0.98 |
| Sound pressure level (1m) | 72 dB |
| Power loss | 0.48 kW |
| Filter class (integrated) | Class A |

Ambient conditions

| | |
|----------------------------|--|
| Cooling | Internal air cooling |
| Cooling air requirement | 0.055 m ³ /s (1.942 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 | -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 | screw-type terminal |
| Conductor cross-section | 10.00 ... 35.00 mm ² (AWG 8 ... AWG 2) |

Motor end

| | |
|-------------------------|--|
| Version | Screw-type terminals |
| Conductor cross-section | 10.00 ... 35.00 mm ² (AWG 8 ... AWG 2) |

DC link (for braking resistor)

| | |
|-------------------------|--|
| Version | Screw-type terminals |
| Conductor cross-section | 2.50 ... 16.00 mm ² (AWG 14 ... AWG 6) |
| 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 | FSD |
| Net weight | 18.50 kg (40.79 lb) |
| Dimensions | |
| Width | 200 mm (7.87 in) |
| Height | 472 mm (18.58 in) |
| Depth | 237 mm (9.33 in) |

Standards

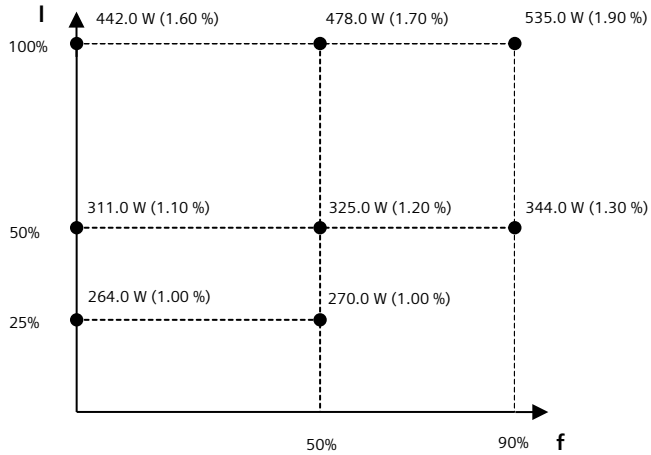
| | |
|---------------------------|-------------------------------------|
| Compliance with standards | UL, cUL, CE, C-Tick (RCM), SEMI F47 |
| CE marking | Low-voltage directive 2006/95/EC |

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Converter losses to IEC61800-9-2*

| | |
|--|---------|
| Efficiency class | IE2 |
| Comparison with the reference converter (90% / 100%) | 39.20 % |



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

¹⁾The output current and HP ratings are valid for the voltage range 550V-600V