

## Data sheet for SINAMICS Power module PM240-2

Article No. : 6SL3210-1PE24-5AL0



Figure similar

Client order no. :  
Order no. :  
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Remarks :

Item no. :  
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Project :

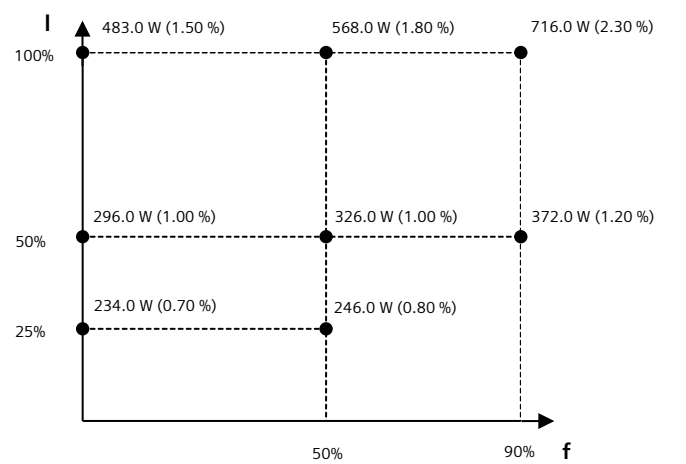
| Rated data                                                                                                                                                                    |                     |                        |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|------------------------|
| Input                                                                                                                                                                         |                     |                        |
| Number of phases                                                                                                                                                              | 3 AC                |                        |
| Line voltage                                                                                                                                                                  | 380 ... 480 V ±10 % |                        |
| Line frequency                                                                                                                                                                | 47 ... 63 Hz        |                        |
| Rated current (LO)                                                                                                                                                            | 42.00 A             |                        |
| Rated current (HO)                                                                                                                                                            | 38.00 A             |                        |
| Output                                                                                                                                                                        |                     |                        |
| Number of phases                                                                                                                                                              | 3 AC                |                        |
| Rated voltage                                                                                                                                                                 | 400V IEC            | 480V NEC <sup>1)</sup> |
| Rated power (LO)                                                                                                                                                              | 22.00 kW            | 30.00 hp               |
| Rated power (HO)                                                                                                                                                              | 18.50 kW            | 25.00 hp               |
| Rated current (LO)                                                                                                                                                            | 45.00 A             |                        |
| Rated current (HO)                                                                                                                                                            | 38.00 A             |                        |
| Max. output current                                                                                                                                                           | 76.00 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<br>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<br>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 φ                                                                                                                                                           | 0.99                |                        |
| Efficiency η                                                                                                                                                                  | 0.98                |                        |
| Sound pressure level (1m)                                                                                                                                                     | 72 dB               |                        |
| Power loss                                                                                                                                                                    | 0.68 kW             |                        |
| Filter class (integrated)                                                                                                                                                     | Class A             |                        |

| Ambient conditions             |                                          |
|--------------------------------|------------------------------------------|
| Cooling                        | Internal air cooling                     |
| Cooling air requirement        | 0.055 m³/s (1.942 ft³/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 mm²<br>(AWG 8 ... AWG 2) |
| Motor end                      |                                          |
| Version                        | Screw-type terminals                     |
| Conductor cross-section        | 10.00 ... 35.00 mm²<br>(AWG 8 ... AWG 2) |
| DC link (for braking resistor) |                                          |
| Version                        | Screw-type terminals                     |
| Conductor cross-section        | 2.50 ... 16.00 mm²<br>(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                     | 17.50 kg (38.58 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%) | 47.20 % |



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

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