

## Data sheet for SINAMICS Power module PM240P-2

Article No. : 6SL3210-1RH31-2AL0



Figure similar

Client order no. :  
Order no. :  
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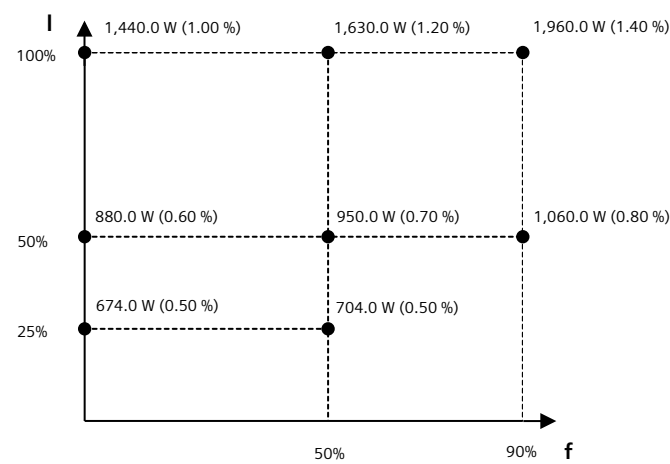
| Rated data                                                                                                                                                                   |  |                     |                        |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------|------------------------|
| Input                                                                                                                                                                        |  |                     |                        |
| Number of phases                                                                                                                                                             |  | 3 AC                |                        |
| Line voltage                                                                                                                                                                 |  | 500 ... 690 V ±10 % |                        |
| Line frequency                                                                                                                                                               |  | 47 ... 63 Hz        |                        |
| Rated current (LO)                                                                                                                                                           |  | 111.00 A            |                        |
| Rated current (HO)                                                                                                                                                           |  | 106.00 A            |                        |
| Output                                                                                                                                                                       |  |                     |                        |
| Number of phases                                                                                                                                                             |  | 3 AC                |                        |
| Rated voltage                                                                                                                                                                |  | 690V IEC            | 600V NEC <sup>1)</sup> |
| Rated power (LO)                                                                                                                                                             |  | 110.00 kW           | 100.00 hp              |
| Rated power (HO)                                                                                                                                                             |  | 90.00 kW            | 100.00 hp              |
| Rated current (LO)                                                                                                                                                           |  | 115.00 A            |                        |
| Rated current (HO)                                                                                                                                                           |  | 100.00 A            |                        |
| Max. output current                                                                                                                                                          |  | 156.00 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<br>1.35 x rated output current (i.e. 135 % 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 60 s with a cycle time of 300 s                                                                                       |  |                     |                        |
| General tech. specifications                                                                                                                                                 |  |                     |                        |
| Power factor λ                                                                                                                                                               |  | 0.90                |                        |
| Offset factor cos φ                                                                                                                                                          |  | 0.99                |                        |
| Efficiency η                                                                                                                                                                 |  | 0.99                |                        |
| Sound pressure level (1m)                                                                                                                                                    |  | 68 dB               |                        |
| Power loss                                                                                                                                                                   |  | 1.97 kW             |                        |
| Filter class (integrated)                                                                                                                                                    |  | Class A             |                        |

| Ambient conditions        |                                            |
|---------------------------|--------------------------------------------|
| Cooling                   | Internal air cooling                       |
| Cooling air requirement   | 0.153 m³/s (5.403 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                   | M10 bolt                                   |
| Conductor cross-section   | 35.00 ... 120.00 mm²<br>(AWG 2 ... AWG -3) |
| Motor end                 |                                            |
| Version                   | M10 bolt                                   |
| Conductor cross-section   | 35.00 ... 120.00 mm²<br>(AWG 2 ... AWG -3) |
| 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                | 64.00 kg (141.10 lb)                       |
| Dimensions                |                                            |
| 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%) | 34.80 % |



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 550V-600V