

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

Article No.: 6SL3211-1NE23-8UL1

Client order no. : Order no. : Offer no. : Remarks : Item no. : Consignment no. : Project :

Error:

No CAD-Data available for this configuration.

| Rated data                          |              |             |
|-------------------------------------|--------------|-------------|
| Input                               |              |             |
| Number of phases                    | 3 AC         |             |
| Line voltage                        | 380 480 V ±1 | 0 %         |
| Line frequency                      | 47 63 Hz     |             |
| Rated current (LO)                  | 39.20 A      |             |
| Rated current (HO)                  | 33.00 A      |             |
| Output                              |              |             |
| Number of phases                    | 3 AC         |             |
| Rated voltage                       | 400V IEC     | 480V NEC 1) |
| Rated power (LO)                    | 18.50 kW     | 25.00 hp    |
| Rated power (HO)                    | 15.00 kW     | 20.00 hp    |
| Rated current (LO)                  | 38.00 A      |             |
| Rated current (HO)                  | 32.00 A      |             |
| Max. output current                 | 64.00 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 1.5 x rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

 $1.5\times$  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                 | 0.98    |  |
| Sound pressure level (1m)    | 65 dB   |  |
| Power loss                   | 0.45 kW |  |
| Filter class (integrated)    | -       |  |

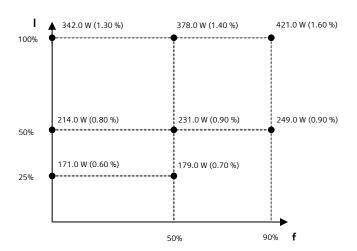
| Ambient conditions        |  |  |
|---------------------------|--|--|
| Cooling                   | Internal air cooling                               |  |
| Cooling air requirement   | 0.019 m <sup>3</sup> /s (0.671 ft <sup>3</sup> /s) |  |
| Installation altitude     | 1,000 m (3,280.84 ft)                              |  |
| 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   | 6.00 16.00 mm <sup>2</sup><br>(AWG 10 AWG 6)       |  |
| Motor end                 |  |  |
| Version                   | Plug-in screw terminals                            |  |
| Conductor cross-section   | 10.00 16.00 mm <sup>2</sup><br>(AWG 8 AWG 6)       |  |
| Max. motor cable length   |  |  |
| Shielded                  | 25 m (82.02 ft)                                    |  |
| Unshielded                | 100 m (328.08 ft)                                  |  |
| Me                        | chanical data                                      |  |
| Degree of protection      | IP20 / UL open type                                |  |
| Frame size                | FSC  |  |
| Net weight                | 5.40 kg (11.90 lb)                                 |  |
| Dimensions                |  |  |
| Width                     | 200 mm (7.87 in)                                   |  |
| Height                    | 411 mm (16.18 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                   |  |
|                           |  |  |



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| Converter losses to IEC61800-9-2*                    |         |  |
|--|---------|--|
| Efficiency class                                     | IE2     |  |
| Comparison with the reference converter (90% / 100%) | 32.20 % |  |



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.

\*calculated values

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