## **SIEMENS**

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

6SL3223-0DE21-5AG1 Article No.:

Client order no. : Order no. : Offer no.: Remarks :





| Rated data                  |                    |             |
|-----------------------------|--------------------|-------------|
| Input                       |                    |             |
| Number of phases            | 3 AC               |             |
| Line voltage                | 380 480 V ±        | -10 %       |
| Line frequency              | 47 63 Hz           |             |
| Rated current (LO)          | 4.20 A             |             |
| Rated current (HO)          | 3.20 A             |             |
| Output                      |                    |             |
| Number of phases            | 3 AC               |             |
| Rated voltage               | 400V IEC           | 480V NEC 1) |
| Rated power (LO)            | 1.50 kW            | 2.00 hp     |
| Rated power (HO)            | 1.10 kW            | 1.50 hp     |
| Rated current (LO)          | 4.10 A             |             |
| Rated current (HO)          | 3.10 A             |             |
| Max. output current         | 6.20 A             |             |
| Pulse frequency             | 4 kHz              |             |
| Output frequency for vecto  | r control 0 200 Hz |             |
| Output frequency for V/f co | ontrol 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  $\times$  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                 | 0.95    |  |
| Sound pressure level (1m)    | 62 dB   |  |
| Power loss                   | 0.08 kW |  |
| Filter class (integrated)    | Class A |  |

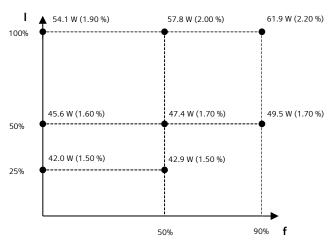
| Ambient conditions        |  |  |
|---------------------------|--|--|
| Cooling                   | Internal air cooling                               |  |
| Cooling air requirement   | 0.007 m <sup>3</sup> /s (0.247 ft <sup>3</sup> /s) |  |
| Installation altitude     | 1,000 m (3,280.84 ft)                              |  |
| Ambient temperature       |  |  |
| Operation LO              | -10 40 °C (14 104 °F)                              |  |
| Operation HO              | -10 50 °C (14 122 °F)                              |  |
| Transport                 | -25 55 °C (-13 131 °F)                             |  |
| Storage                   | -25 55 °C (-13 131 °F)                             |  |
| Relative humidity         |  |  |
| Max. operation            | 95 % RH, condensation not permitted                |  |
| Connections               |  |  |
| Line side                 |  |  |
| Version                   | Plug-in screw terminals                            |  |
| Conductor cross-section   | 1.00 2.50 mm <sup>2</sup><br>(AWG 18 AWG 14)       |  |
| Motor end                 |  |  |
| Version                   | Plug-in screw terminals                            |  |
| Conductor cross-section   | 1.00 2.50 mm <sup>2</sup><br>(AWG 18 AWG 14)       |  |
| Max. motor cable length   |  |  |
| Shielded                  | 25 m (82.02 ft)                                    |  |
| Unshielded                | 100 m (328.08 ft)                                  |  |
|                           | Mechanical data                                    |  |
| Degree of protection      | IP55 / UL type 12                                  |  |
| Frame size                | FSA  |  |
| Net weight                | 4.30 kg (9.48 lb)                                  |  |
| Dimensions                |  |  |
| Width                     | 154 mm (6.06 in)                                   |  |
| Height                    | 460 mm (18.11 in)                                  |  |
| Depth                     | 249 mm (9.80 in)                                   |  |
| Standards                 |  |  |
| Compliance with standards | UL, CE, C-Tick (RCM)                               |  |
| CE marking                | Low-voltage directive 2006/95/EC                   |  |



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

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| Converter losses to IEC61800-9-2*                    |         |  |
|--|---------|--|
| Efficiency class                                     | IE2     |  |
| Comparison with the reference converter (90% / 100%) | 30.30 % |  |



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