## **SIEMENS**

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

Article No.: 6SL3223-0DE21-1AG1

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





Figure simila

| Rated data                          |                 |             |
|-------------------------------------|-----------------|-------------|
| Input                               |                 |             |
| Number of phases                    | 3 AC            |             |
| Line voltage                        | 380 480 V ±10 % |             |
| Line frequency                      | 47 63 Hz        |             |
| Rated current (LO)                  | 3.20 A          |             |
| Rated current (HO)                  | 2.30 A          |             |
| Output                              |                 |             |
| Number of phases                    | 3 AC            |             |
| Rated voltage                       | 400V IEC        | 480V NEC 1) |
| Rated power (LO)                    | 1.10 kW         | 1.50 hp     |
| Rated power (HO)                    | 0.75 kW         | 1.00 hp     |
| Rated current (LO)                  | 3.10 A          |             |
| Rated current (HO)                  | 2.20 A          |             |
| Max. output current                 | 4.70 A          |             |
| Pulse frequency                     | 4 kHz           |             |
| Output frequency for vector control | 0 200 Hz        |             |
| Output frequency for V/f control    | 0 550 Hz        |             |
| Overload capability                 |                 |             |

## 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                 | 0.94    |  |
| Sound pressure level (1m)    | 62 dB   |  |
| Power loss                   | 0.07 kW |  |
| Filter class (integrated)    | Class A |  |

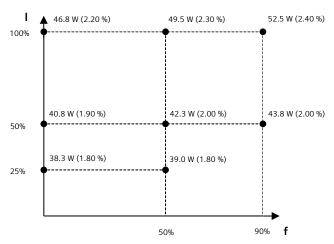
| Ambient   | conditions  |  |
|---|---|--|
| Cooling   | Internal air cooling  |  |
| Cooling air requirement   | 0.007 m <sup>3</sup> /s (0.247 ft <sup>3</sup> /s)  |  |
| Installation altitude   | 1,000 m (3,280.84 ft)   |  |
| Ambient temperature   |   |  |
| Operation LO  | -10 40 °C (14 104 °F)   |  |
| 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   |   |  |
| Max. motor cable length Shielded  | 25 m (82.02 ft)   |  |
| -   | 25 m (82.02 ft)<br>100 m (328.08 ft)  |  |
| Shielded<br>Unshielded  |   |  |
| Shielded<br>Unshielded  | 100 m (328.08 ft)   |  |
| Shielded Unshielded  Mechan   | 100 m (328.08 ft)   |  |
| Shielded Unshielded  Mechan Degree of protection  | 100 m (328.08 ft)  nical data  IP55 / UL type 12  |  |
| Shielded Unshielded  Mechan  Degree of protection  Frame size   | 100 m (328.08 ft)  nical data  IP55 / UL type 12  FSA   |  |
| Shielded Unshielded  Mechan Degree of protection Frame size Net weight                                      | 100 m (328.08 ft)  nical data  IP55 / UL type 12  FSA   |  |
| Shielded Unshielded  Mechan  Degree of protection  Frame size  Net weight  Dimensions                       | 100 m (328.08 ft)  nical data  IP55 / UL type 12  FSA  4.30 kg (9.48 lb)  |  |
| Shielded Unshielded  Mechan  Degree of protection  Frame size  Net weight  Dimensions  Width                | 100 m (328.08 ft)  nical data  IP55 / UL type 12  FSA  4.30 kg (9.48 lb)  154 mm (6.06 in)                                      |  |
| Shielded Unshielded  Mechan  Degree of protection  Frame size  Net weight  Dimensions  Width  Height  Depth | 100 m (328.08 ft)  nical data  IP55 / UL type 12  FSA  4.30 kg (9.48 lb)  154 mm (6.06 in)  460 mm (18.11 in)                   |  |
| Shielded Unshielded  Mechan  Degree of protection  Frame size  Net weight  Dimensions  Width  Height  Depth | 100 m (328.08 ft)  nical data  IP55 / UL type 12  FSA  4.30 kg (9.48 lb)  154 mm (6.06 in)  460 mm (18.11 in)  249 mm (9.80 in) |  |



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| Converter losses to IEC61800-9-2*                    |         |
|--|---------|
| Efficiency class                                     | IE2     |
| Comparison with the reference converter (90% / 100%) | 29.80 % |



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 440V-480V