

## Data sheet for SINAMICS Power module PM230

Article No. : 6SL3223-0DE24-0AG1



Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Rated data

|                    |                     |
|--------------------|---------------------|
| <b>Input</b>       |                     |
| Number of phases   | 3 AC                |
| Line voltage       | 380 ... 480 V ±10 % |
| Line frequency     | 47 ... 63 Hz        |
| Rated current (LO) | 11.00 A             |
| Rated current (HO) | 8.00 A              |

|                                     |                                             |
|-------------------------------------|---------------------------------------------|
| <b>Output</b>                       |                                             |
| Number of phases                    | 3 AC                                        |
| <b>Rated voltage</b>                | <b>400V IEC      480V NEC <sup>1)</sup></b> |
| Rated power (LO)                    | 4.00 kW      5.00 hp                        |
| Rated power (HO)                    | 3.00 kW      4.00 hp                        |
| Rated current (LO)                  | 10.20 A                                     |
| Rated current (HO)                  | 7.70 A                                      |
| Max. output current                 | 15.40 A                                     |
| Pulse frequency                     | 4 kHz                                       |
| Output frequency for vector control | 0 ... 200 Hz                                |
| Output frequency for V/f control    | 0 ... 550 Hz                                |

|                                                                                                                                                                               |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <b>Overload capability</b>                                                                                                                                                    |  |
| <b>Low Overload (LO)</b>                                                                                                                                                      |  |
| 1.1 × rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s<br>1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s   |  |
| <b>High Overload (HO)</b>                                                                                                                                                     |  |
| 1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s<br>2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s |  |

|                                     |         |
|-------------------------------------|---------|
| <b>General tech. specifications</b> |         |
| Power factor λ                      | 0.90    |
| Offset factor cos φ                 | 0.95    |
| Efficiency η                        | 0.97    |
| Sound pressure level (1m)           | 63 dB   |
| Power loss                          | 0.14 kW |
| Filter class (integrated)           | Class A |

### Ambient conditions

|                            |                                |
|----------------------------|--------------------------------|
| Cooling                    | Internal air cooling           |
| Cooling air requirement    | 0.009 m³/s (0.318 ft³/s)       |
| Installation altitude      | 1,000 m (3,280.84 ft)          |
| <b>Ambient temperature</b> |                                |
| 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) |

|                          |                                     |
|--------------------------|-------------------------------------|
| <b>Relative humidity</b> |                                     |
| Max. operation           | 95 % RH, condensation not permitted |

### Connections

|                         |                                          |
|-------------------------|------------------------------------------|
| <b>Line side</b>        |                                          |
| Version                 | Plug-in screw terminals                  |
| Conductor cross-section | 2.50 ... 6.00 mm²<br>(AWG 14 ... AWG 10) |
| <b>Motor end</b>        |                                          |
| Version                 | Plug-in screw terminals                  |
| Conductor cross-section | 2.50 ... 6.00 mm²<br>(AWG 14 ... AWG 10) |

|                                |                   |
|--------------------------------|-------------------|
| <b>Max. motor cable length</b> |                   |
| Shielded                       | 25 m (82.02 ft)   |
| Unshielded                     | 100 m (328.08 ft) |

### Mechanical data

|                      |                    |
|----------------------|--------------------|
| Degree of protection | IP55 / UL type 12  |
| Frame size           | FSB                |
| Net weight           | 6.30 kg (13.89 lb) |
| <b>Dimensions</b>    |                    |
| Width                | 180 mm (7.09 in)   |
| Height               | 540 mm (21.26 in)  |
| Depth                | 249 mm (9.80 in)   |

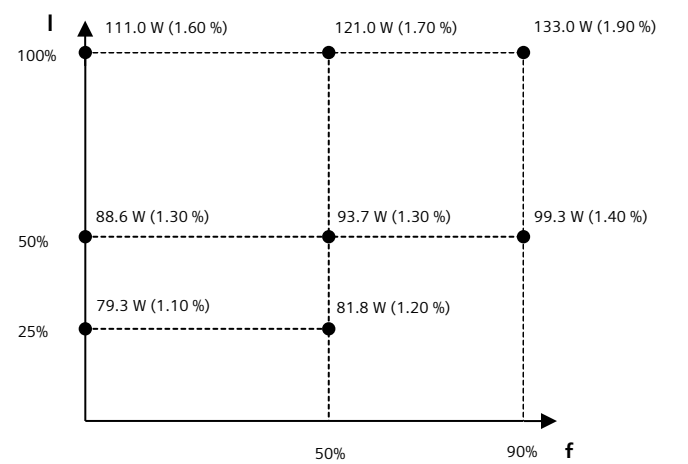
### Standards

|                           |                                  |
|---------------------------|----------------------------------|
| Compliance with standards | UL, CE, C-Tick (RCM)             |
| 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%) | 31.30 % |



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.

\*calculated values

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