

## Data sheet for SINAMICS Power module PM250

Article No. : 6SL3225-0BE33-7UA0



Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Rated data

| Input                               |                          |                               |
|-------------------------------------|--------------------------|-------------------------------|
| Number of phases                    | 3 AC                     |                               |
| Line voltage                        | 380 ... 480 V $\pm$ 10 % |                               |
| Line frequency                      | 47 ... 63 Hz             |                               |
| Rated current (LO)                  | 84.00 A                  |                               |
| Rated current (HO)                  | 70.00 A                  |                               |
| Output                              |                          |                               |
| Number of phases                    | 3 AC                     |                               |
| <b>Rated voltage</b>                | <b>400V IEC</b>          | <b>480V NEC <sup>1)</sup></b> |
| Rated power (LO)                    | 45.00 kW                 | 60.00 hp                      |
| Rated power (HO)                    | 37.00 kW                 | 50.00 hp                      |
| Rated current (LO)                  | 90.00 A                  |                               |
| Rated current (HO)                  | 75.00 A                  |                               |
| Max. output current                 | 150.00 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 x output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s  
2 x output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

### General tech. specifications

|                              |         |
|------------------------------|---------|
| Power factor $\lambda$       | 0.90    |
| Offset factor $\cos \varphi$ | 0.95    |
| Efficiency $\eta$            | 0.97    |
| Sound pressure level (1m)    | 62 dB   |
| Power loss                   | 1.21 kW |
| Filter class (integrated)    | -       |

### Ambient conditions

| Cooling                 | Internal air cooling                               |
|-------------------------|----------------------------------------------------|
| Cooling air requirement | 0.039 m <sup>3</sup> /s (1.377 ft <sup>3</sup> /s) |
| Installation altitude   | 1,000 m (3,280.84 ft)                              |
| Ambient temperature     |                                                    |
| Operation LO            | 0 ... 40 °C (32 ... 104 °F)                        |
| Operation HO            | 0 ... 50 °C (32 ... 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                 | M6 bolt                                              |
| Conductor cross-section | 10.00 ... 50.00 mm <sup>2</sup><br>(AWG 8 ... AWG 1) |

#### Motor end

|                         |                                                      |
|-------------------------|------------------------------------------------------|
| Version                 | M6 bolt                                              |
| Conductor cross-section | 10.00 ... 50.00 mm <sup>2</sup><br>(AWG 8 ... AWG 1) |

#### Max. motor cable length

|            |                   |
|------------|-------------------|
| Shielded   | 50 m (164.04 ft)  |
| Unshielded | 100 m (328.08 ft) |

### Mechanical data

| Degree of protection | IP20 / UL open type |
|----------------------|---------------------|
| Frame size           | FSE                 |
| Net weight           | 14.00 kg (30.86 lb) |
| Dimensions           |                     |
| Width                | 275 mm (10.83 in)   |
| Height               | 499 mm (19.65 in)   |
| Depth                | 204 mm (8.03 in)    |

### Standards

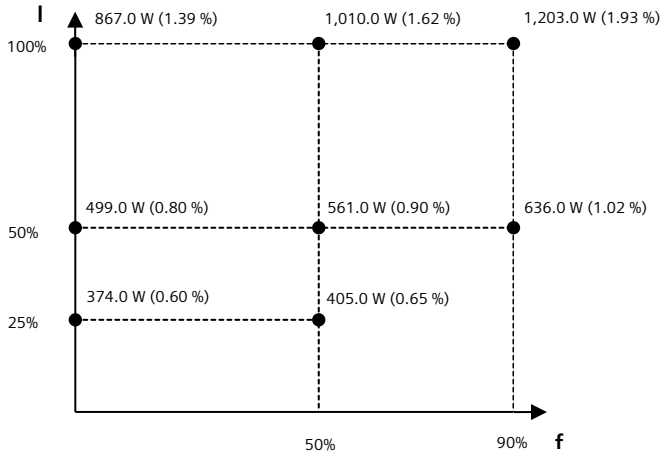
|                           |                                  |
|---------------------------|----------------------------------|
| Compliance with standards | CE, C-Tick (RCM)                 |
| CE marking                | Low-voltage directive 2006/95/EC |

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### Converter losses to IEC61800-9-2\*

|                                                      |         |
|------------------------------------------------------|---------|
| Efficiency class                                     | IE2     |
| Comparison with the reference converter (90% / 100%) | 59.37 % |



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