

## Data sheet for SINAMICS Power module PM240-2

Article No. : 6SL3210-1PE32-1AL0



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) | 198.00 A                 |
| Rated current (HO) | 189.00 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)                    | 110.00 kW       | 150.00 hp                     |
| Rated power (HO)                    | 90.00 kW        | 125.00 hp                     |
| Rated current (LO)                  | 205.00 A        |                               |
| Rated current (HO)                  | 178.00 A        |                               |
| Max. output current                 | 356.00 A        |                               |
| Pulse frequency                     | 2 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 $\lambda$       | 0.95    |
| Offset factor $\cos \varphi$ | 0.99    |
| Efficiency $\eta$            | 0.99    |
| Sound pressure level (1m)    | 68 dB   |
| Power loss                   | 2.17 kW |
| Filter class (integrated)    | Class A |

### Ambient conditions

|                            |  |
|----------------------------|--|
| Cooling                    | Internal air cooling                               |
| Cooling air requirement    | 0.153 m <sup>3</sup> /s (5.403 ft <sup>3</sup> /s) |
| Installation altitude      | 1,000 m (3,280.84 ft)                              |
| <b>Ambient temperature</b> |  |
| Operation LO               | -20 ... 40 °C (-4 ... 104 °F)                      |
| Operation HO               | -20 ... 50 °C (-4 ... 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                 | M10 bolt   |
| Conductor cross-section | 35.00 ... 120.00 mm <sup>2</sup><br>(AWG 2 ... AWG -3) |

#### Motor end

|                         |  |
|-------------------------|--|
| Version                 | M10 bolt   |
| Conductor cross-section | 35.00 ... 120.00 mm <sup>2</sup><br>(AWG 2 ... AWG -3) |

#### DC link (for braking resistor)

|                         |   |
|-------------------------|---|
| Version                 | Screw-type terminals                                  |
| Conductor cross-section | 25.00 ... 70.00 mm <sup>2</sup><br>(AWG 4 ... AWG -1) |
| Cable length            | 10 m (32.81 ft)                                       |
| PE connection           | M10 screw studs                                       |

#### Max. motor cable length

|            |                     |
|------------|---------------------|
| Shielded   | 300 m (984.25 ft)   |
| Unshielded | 450 m (1,476.38 ft) |

### Mechanical data

|                      |                      |
|----------------------|----------------------|
| Degree of protection | IP20 / UL open type  |
| Frame size           | FSF                  |
| Net weight           | 65.00 kg (143.30 lb) |
| <b>Dimensions</b>    |                      |
| Width                | 305 mm (12.01 in)    |
| Height               | 708 mm (27.87 in)    |
| Depth                | 357 mm (14.06 in)    |

### Standards

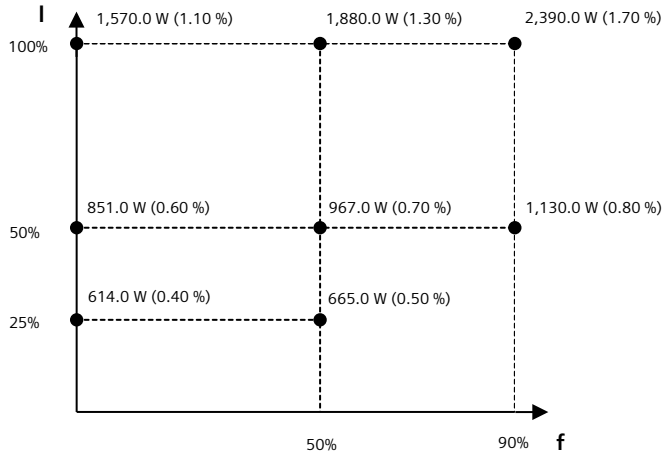
|                           |                                     |
|---------------------------|-------------------------------------|
| Compliance with standards | UL, cUL, CE, C-Tick (RCM), SEMI F47 |
| CE marking                | Low-voltage directive 2006/95/EC    |

## Data sheet for SINAMICS Power module PM240-2

Article No. : 6SL3210-1PE32-1AL0

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

|  |         |
|--|---------|
| Efficiency class                                     | IE2     |
| Comparison with the reference converter (90% / 100%) | 41.00 % |



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