



Figure similar

### MLFB-Ordering data

6SL3210-1PE28-8UL0

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

| Rated data                                 |                          | General tech. specifications                   |                                                    |
|--------------------------------------------|--------------------------|------------------------------------------------|----------------------------------------------------|
| <b>Input</b>                               |                          | <b>Power factor <math>\lambda</math></b>       | 0.95                                               |
| <b>Number of phases</b>                    | 3 AC                     | <b>Offset factor <math>\cos \varphi</math></b> | 0.99                                               |
| <b>Line voltage</b>                        | 380 ... 480 V $\pm 10$ % | <b>Efficiency <math>\eta</math></b>            | 0.98                                               |
| <b>Line frequency</b>                      | 47 ... 63 Hz             | <b>Sound pressure level (1m)</b>               | 71 dB                                              |
| <b>Rated current (LO)</b>                  | 86.00 A                  | <b>Power loss</b>                              | 1.19 kW                                            |
| <b>Rated current (HO)</b>                  | 78.00 A                  | <b>Filter class (integrated)</b>               | -                                                  |
| <b>Output</b>                              |                          | <b>Ambient conditions</b>                      |                                                    |
| <b>Number of phases</b>                    | 3 AC                     | <b>Cooling</b>                                 | Internal air cooling                               |
| <b>Rated voltage</b>                       | 400 V                    | <b>Cooling air requirement</b>                 | 0.083 m <sup>3</sup> /s (2.931 ft <sup>3</sup> /s) |
| <b>Rated current (LO)</b>                  | 90.00 A                  | <b>Installation altitude</b>                   | 1000 m (3280.84 ft)                                |
| <b>Rated current (HO)</b>                  | 75.00 A                  | <b>Ambient temperature</b>                     |                                                    |
| <b>Max. output current</b>                 | 150.00 A                 | <b>Operation LO</b>                            | -20 ... 40 °C (-4 ... 104 °F)                      |
| <b>Rated power IEC 400V (LO)</b>           | 45.00 kW                 | <b>Operation HO</b>                            | -20 ... 50 °C (-4 ... 122 °F)                      |
| <b>Rated power NEC 480V (LO)</b>           | 60.00 hp                 | <b>Transport</b>                               | -40 ... 70 °C (-40 ... 158 °F)                     |
| <b>Rated power IEC 400V (HO)</b>           | 37.00 kW                 | <b>Storage</b>                                 | -40 ... 70 °C (-40 ... 158 °F)                     |
| <b>Rated power NEC 480V (HO)</b>           | 50.00 hp                 | <b>Relative humidity</b>                       |                                                    |
| <b>Pulse frequency</b>                     | 4 kHz                    | <b>Max. operation</b>                          | 95 % RH, condensation not permitted                |
| <b>Output frequency for vector control</b> | 0 ... 200 Hz             |                                                |                                                    |
| <b>Output frequency for V/f control</b>    | 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

SIEMENS

Data sheet for SINAMICS Power Module PM240-2



Figure similar

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| Mechanical data      |                     | Connections             |                                        |
|----------------------|---------------------|-------------------------|----------------------------------------|
| Degree of protection | IP20 / UL open type | Line side               |                                        |
| Size                 | FSE                 | Version                 | screw-type terminal                    |
| Net weight           | 26.00 kg (57.32 lb) | Conductor cross-section | 25.00 ... 70.00 mm² (AWG 4 ... AWG -1) |
| Width                | 275 mm (10.83 in)   | Motor end               |                                        |
| Height               | 551 mm (21.69 in)   | Version                 | Screw-type terminals                   |
| Depth                | 237 mm (9.33 in)    | Conductor cross-section | 25.00 ... 70.00 mm² (AWG 4 ... AWG -1) |

| Converter losses to EN 50598-2*                      |          |
|------------------------------------------------------|----------|
| Efficiency class                                     | IE2      |
| Comparison with the reference converter (90% / 100%) | -55.58 % |

| Relative Torque (I) | Relative Frequency (f) | Losses (W) | Losses (%) |
|---------------------|------------------------|------------|------------|
| 100%                | 50%                    | 955.0      | 1.53 %     |
| 100%                | 90%                    | 1092.0     | 1.75 %     |
| 100%                | 90%                    | 1317.0     | 2.11 %     |
| 50%                 | 50%                    | 543.0      | 0.87 %     |
| 50%                 | 90%                    | 599.0      | 0.96 %     |
| 50%                 | 90%                    | 674.0      | 1.08 %     |
| 25%                 | 50%                    | 406.0      | 0.65 %     |
| 25%                 | 90%                    | 424        | 0.68 %     |

The percentage values show the losses in relation to the rated apparent power of the converter.

| DC link (for braking resistor) |                                       |
|--------------------------------|---------------------------------------|
| Version                        | Screw-type terminals                  |
| Conductor cross-section        | 10.00 ... 35.00 mm² (AWG 8 ... AWG 2) |
| Cable length                   | 10 m (32.81 ft)                       |
| PE connection                  | Screw-type terminals                  |

| Max. motor cable length |                   |
|-------------------------|-------------------|
| Shielded                | 200 m (656.17 ft) |
| Unshielded              | 300 m (984.25 ft) |

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

The diagram shows the losses for the points (as per standard EN 50598) 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