

Article No. : 6SL3210-1PE31-5AL0



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 ±10 % |
| Line frequency     | 47 ... 63 Hz        |
| Rated current (LO) | 140.00 A            |
| Rated current (HO) | 117.00 A            |

| Output                              |              |           |
|-------------------------------------|--------------|-----------|
| Number of phases                    | 3 AC         |           |
| Rated voltage                       | 400V IEC     | 480V NEC  |
| Rated power (LO)                    | 75.00 kW     | 100.00 hp |
| Rated power (HO)                    | 55.00 kW     | 75.00 hp  |
| Rated current (LO)                  | 145.00 A     |           |
| Rated current (HO)                  | 110.00 A     |           |
| Max. output current                 | 220.00 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)<br><br>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    |
| High Overload (HO)<br><br>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 |

| General tech. specifications |         |
|------------------------------|---------|
| Power factor λ               | 0.95    |
| Offset factor cos φ          | 0.99    |
| Efficiency η                 | 0.98    |
| Sound pressure level (1m)    | 68 dB   |
| Power loss                   | 1.79 kW |
| Filter class (integrated)    | Class A |

### Ambient conditions

| Cooling                 | Internal air cooling           |
|-------------------------|--------------------------------|
| Cooling air requirement | 0.153 m³/s (5.403 ft³/s)       |
| Installation altitude   | 1,000 m (3,280.84 ft)          |
| Ambient temperature     |                                |
| 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 |

### Mechanical data

| Degree of protection | IP20 / UL open type  |
|----------------------|----------------------|
| Size                 | FSF                  |
| Net weight           | 63.00 kg (138.89 lb) |
| Dimensions           |                      |
| Width                | 305 mm (12.01 in)    |
| Height               | 708 mm (27.87 in)    |
| Depth                | 357 mm (14.06 in)    |

### Connections

| Line side               |                                            |
|-------------------------|--------------------------------------------|
| Version                 | M10 bolt                                   |
| Conductor cross-section | 35.00 ... 120.00 mm²<br>(AWG 2 ... AWG -3) |

| Motor end               |                                            |
|-------------------------|--------------------------------------------|
| Version                 | M10 bolt                                   |
| Conductor cross-section | 35.00 ... 120.00 mm²<br>(AWG 2 ... AWG -3) |

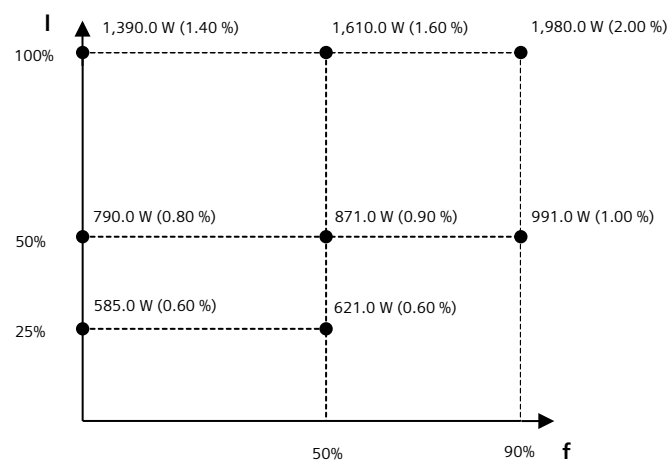
| DC link (for braking resistor) |                                           |
|--------------------------------|-------------------------------------------|
| Version                        | Screw-type terminals                      |
| Conductor cross-section        | 25.00 ... 70.00 mm²<br>(AWG 4 ... 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) |

Data sheet for SINAMICS Power module PM240-2

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| Converter losses to IEC61800-9-2*                    |         |
|------------------------------------------------------|---------|
| Efficiency class                                     | IE2     |
| Comparison with the reference converter (90% / 100%) | 42.30 % |



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.

\*converted values

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