SIEMENS

# Data sheet for SINAMICS Power Module PM230



## Ordering data

**6SL3210-1NE24-5UL0**

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)** | 42.00 A |
| **Rated current (HO)** | 36.00 A |

### Output

| | |
|---|---|
| **Number of phases** | 3 AC |
| **Rated voltage** | 400 V |
| **Rated power (LO)** | 22.00 kW |
| **Rated power (HO)** | 18.50 kW |
| **Rated current (LO)** | 45.00 A |
| **Rated current (HO)** | 38.00 A |
| **Max. output current** | 57.00 A |
| **Pulse frequency** | 4 kHz |
| **Output frequency for vector control** | 0 ... 200 Hz |
| **Output frequency for V/f control** | 0 ... 550 Hz |

## General tech. specifications

| | |
|---|---|
| **Power factor λ** | 0.90 |
| **Offset factor cos φ** | 0.95 |
| **Efficiency η** | 0.98 |
| **Sound pressure level (1m)** | 60 dB |
| **Power loss** | 0.52 kW |

## Ambient conditions

| | |
|---|---|
| **Cooling** | Internal air cooling |
| **Cooling air requirement** | 0.080 m³/s |
| **Installation altitude** | 1000 m |

### Ambient temperature

| | |
|---|---|
| **Operation LO** | 0 ... 40 °C (32 ... 104 °F) |
| **Operation HO** | 0 ... 50 °C (32 ... 122 °F) |
| **Transport** | -40 ... 70 °C (-40 ... 158 °F) |
| **Storage** | -25 ... 55 °C (-13 ... 131 °F) |

### Relative humidity

| | |
|---|---|
| **Max. operation** | 95 % RH, condensation not permitted |

### Overload capability

**Low Overload (LO)**

1.1 × output current rating (i.e., 110 % overload) for 57 s with a cycle time of 300 s 1.5 × output current rating (i.e., 150 % overload) for 3 s with a cycle time of 300 s

**High Overload (HO)**

1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

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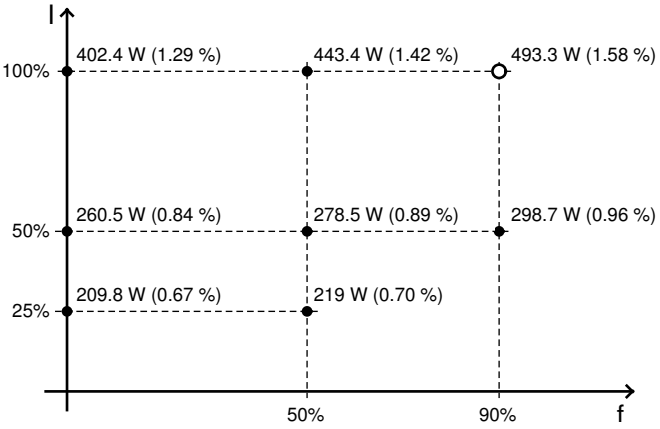
## Mechanical data

| | |
|---|---|
| **Degree of protection** | IP20 |
| **Size** | FSD |
| **Net weight** | 11.00 kg |
| **Width** | 275.0 mm |
| **Height** | 419.0 mm |
| **Depth** | 204.0 mm |

## Converter losses to EN 50598-2*

| | |
|---|---|
| Efficiency class | IE2 |
| Comparison with the reference converter (90% / 100%) | -68.34 % |




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 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.

*calculated values; increased by 10% according to the standard

## Connections

### Line side

| | |
|---|---|
| **Version** | M6 bolt |
| **Conductor cross-section** | 16.00 ... 35.00 mm² |

### Motor end

| | |
|---|---|
| **Version** | M6 bolt |
| **Conductor cross-section** | 16.00 ... 35.00 mm² |

### Max. motor cable length

| | |
|---|---|
| **Shielded** | 25 m |
| **Unshielded** | 100 m |

## Standards

| | |
|---|---|
| **Compliance with standards** | CE |
| **CE marking** | According to low-voltage directive 2006/95/EC |