

Data sheet for SINAMICS V20

Article No. : 6SL3210-5BE27-5CV0



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 -15 % +10 % |
| Line frequency | 47 ... 63 Hz |

Output

| | | |
|----------------------|-----------------|-------------------------------|
| Number of phases | 3 AC | |
| Rated voltage | 400V IEC | 480V NEC ¹⁾ |
| Rated power (LO) | 7.50 kW | 10.00 hp |
| Rated power (HO) | 7.50 kW | 10.00 hp |
| Rated current (LO) | 16.50 A | 16.50 A |
| Rated current (HO) | 16.50 A | 16.50 A |
| Rated current (IN) | 16.50 A | |
| Pulse frequency | 4.00 kHz | |
| Output frequency | 0 ... 550 Hz | |

Overload capability

| | |
|--------------------|---|
| Low Overload (LO) | 110 % rated output current for 60 s, cycle time 300 s |
| High Overload (HO) | 150 % rated output current for 60 s, cycle time 300 s |

General tech. specifications

| | |
|------------------------------|---------|
| Power factor λ | 0.72 |
| Offset factor $\cos \varphi$ | 0.95 |
| Efficiency η | 0.98 |
| Filter class (integrated) | Class A |

Communication

| | |
|---------------|-----------------|
| Communication | USS, Modbus RTU |
|---------------|-----------------|

Inputs / outputs

Standard digital inputs

| | |
|--------|---|
| Number | 4 |
|--------|---|

Digital outputs

| | |
|------------------------------------|---|
| Number as relay changeover contact | 1 |
| Number as transistor | 1 |

Analog inputs

| | |
|--------|---|
| Number | 2 (Can be used as additional digital input) |
|--------|---|

Analog outputs

| | |
|--------|---|
| Number | 1 |
|--------|---|

Ambient conditions

| | |
|-----------------------|-----------------------|
| Cooling | External fan |
| Installation altitude | 1,000 m (3,280.84 ft) |

Ambient temperature

| | |
|-------------------------|--------------------------------|
| Operation ²⁾ | -10 ... 60 °C (14 ... 140 °F) |
| Storage | -40 ... 70 °C (-40 ... 158 °F) |

Relative humidity

| | |
|----------------|------|
| Max. operation | 95 % |
|----------------|------|

Connections

Max. motor cable length

| | |
|------------|------------------|
| Shielded | 25 m (82.02 ft) |
| Unshielded | 50 m (164.04 ft) |

Mechanical data

| | |
|----------------------|---|
| Mounting position | Through-hole mounting / wall mounting / side-by-side mounting |
| Degree of protection | IP20 / UL open type |
| Frame size | FSD |
| Net weight | 4.00 kg (8.82 lb) |

Dimensions

| | |
|--------|--------------------|
| Width | 240.0 mm (9.45 in) |
| Height | 206.5 mm (8.13 in) |
| Depth | 172.5 mm (6.79 in) |

Standards

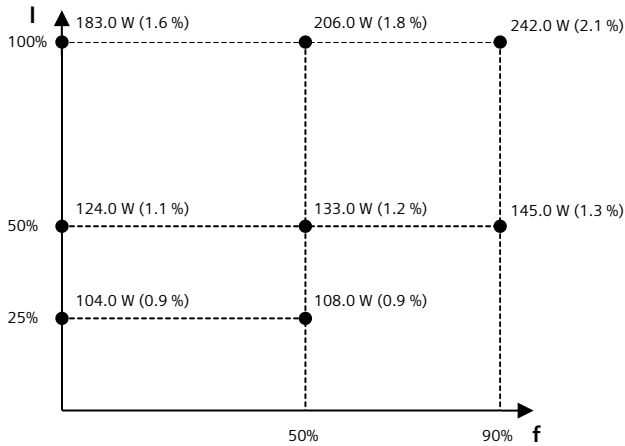
| | |
|---------------------------|--|
| Compliance with standards | CE, cULus, C-Tick (RCM), KC |
| CE marking | EN 61800-5-1 / EN 60204-1 and EN 61800-3 |

Data sheet for SINAMICS V20

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Converter losses to IEC61800-9-2*

| | |
|--|--------|
| Efficiency class | IE2 |
| Comparison with the reference converter (90% / 100%) | 36.3 % |



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

¹⁾The output current and HP ratings are valid for the voltage range 440V-480V

²⁾Please observe derating at temperatures of 40 °C or above