

Data sheet for SINAMICS V20

Article No. : 6SL3210-5BE31-8CV0

Client order no. :
Order no. :
Offer no. :
Remarks :

Item no. :
Consignment no. :
Project :



Figure similar

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)	22.00 kW	30.00 hp
Rated power (HO)	18.50 kW	25.00 hp
Rated current (LO)	45.00 A	40.00 A
Rated current (HO)	38.00 A	34.00 A
Rated current (IN)	45.00 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
With integrated braking chopper	Yes

Communication

Communication	USS, Modbus RTU
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Inputs / outputs

Standard digital inputs

Number	4
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Digital outputs

Number as relay changeover contact	1
Number as transistor	1

Analog inputs

Number	2 (Can be used as additional digital input)
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Analog outputs

Number	1
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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 %
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Connections

Max. motor cable length

Shielded	50 m (164.04 ft)
Unshielded	100 m (328.08 ft)

Mechanical data

Mounting position	Through-hole mounting / wall mounting / side-by-side mounting
Degree of protection	IP20 / UL open type
Frame size	FSE
Net weight	6.79 kg (14.97 lb)

Dimensions

Width	245.0 mm (9.65 in)
Height	264.5 mm (10.41 in)
Depth	209.0 mm (8.23 in)

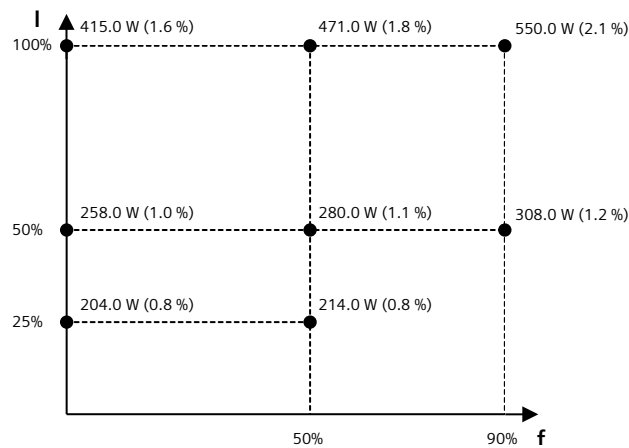
Standards

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

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Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	41.4 %



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.

*calculated 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