



Figure similar

MLFB-Ordering data

6SL3210-1KE31-1AF1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data		General tech. specifications	
Input		Power factor λ	0.90 ... 0.95
Number of phases	3 AC	Offset factor $\cos \varphi$	0.99
Line voltage	380 ... 480 V +10 % -20 %	Efficiency η	0.98
Line frequency	47 ... 63 Hz	Sound pressure level (1m)	71 dB
Rated current (LO)	96.00 A	Power loss	1.55 kW
Rated current (HO)	85.00 A	Ambient conditions	
Output		Cooling	Air cooling using an integrated fan
Number of phases	3 AC	Cooling air requirement	0.083 m³/s
Rated voltage	400 V	Installation altitude	1000 m
Rated power (LO)	55.00 kW	Ambient temperature	
Rated power (HO)	45.00 kW	Operation	-20 ... 40 °C (-4 ... 104 °F)
Rated current (IN)	103.00 A	Transport	-40 ... 70 °C (-40 ... 158 °F)
Rated current (LO)	103.00 A	Storage	-40 ... 70 °C (-40 ... 158 °F)
Rated current (HO)	83.00 A	Relative humidity	
Max. output current	165.00 A	Max. operation	95 % RH, condensation not permitted
Pulse frequency	4 kHz	Closed-loop control techniques	
Output frequency for vector control	0 ... 240 Hz	V/f linear / square-law / parameterizable	Yes
Output frequency for V/f control	0 ... 550 Hz	V/f with flux current control (FCC)	Yes
Overload capability		V/f ECO linear / square-law	Yes
Low Overload (LO)	150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time		
High Overload (HO)	200 % base load current IH for 3 s, followed by 150 % base load current IH for 57 s in a 300 s cycle time		
		Sensorless vector control	Yes
		Vector control, with sensor	No
		Encoderless torque control	No
		Torque control, with encoder	No
		Communication	
		Communication	PROFINET



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Mechanical data	
Degree of protection	IP20 / UL open type
Size	FSE
Net weight	28.50 kg
Width	275.0 mm
Height	551.0 mm
Depth	237.0 mm
Inputs / outputs	

Standard digital inputs

Number	6
Switching level: 0→1	11 V
Switching level: 1→0	5 V
Max. inrush current	15 mA

Fail-safe digital inputs

Number	1
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Digital outputs

Number as relay changeover contact	1
Output (resistive load)	DC 30 V, 0.5 A
Number as transistor	1
Output (resistive load)	DC 30 V, 0.5 A

Analog / digital inputs

Number	1 (Differential input)
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Analog outputs

Number	1 (Non-isolated output)
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PTC/ KTY interface

1 motor temperature sensor input, sensors that can be connected: PTC, KTY and Thermo-Click, accuracy ±5 °C

Standards	
Compliance with standards	UL, cUL, CE, C-Tick (RCM)

CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC
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Connections	
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Signal cable

Conductor cross-section	0.15 ... 1.50 mm² (28 ... 16 AWG)
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Line side

Version	screw-type terminal
Conductor cross-section	25.00 ... 70.00 mm² (4 ... 4 AWG)

Motor end

Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm² (4 ... 4 AWG)

DC link (for braking resistor)

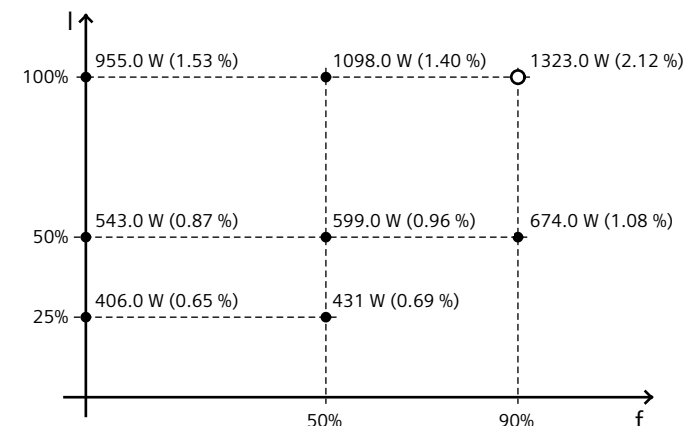
Version	Screw-type terminals
Conductor cross-section	25.00 ... 70.00 mm² (4 ... 4 AWG)
PE connection	Screw-type terminals

Max. motor cable length

Shielded	200 m
Unshielded	300 m

Converter losses to EN 50598-2*	
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Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-55.37 %



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.

*converted values