

Article No. : **6SL3210-1KE12-3UF2**



Figure similar

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

Item no. :
Consignment no. :
Project :

Rated data		Inputs / outputs	
Input		Standard digital inputs	
Number of phases		Number	6
Line voltage		Switching level: 0→1	11 V
Line frequency		Switching level: 1→0	5 V
Rated current (LO)		Max. inrush current	15 mA
Rated current (HO)		Fail-safe digital inputs	
Number of phases		Number	1
Rated voltage		Digital outputs	
Rated power (LO)		Number as relay changeover contact	1
Rated power (HO)		Output (resistive load)	DC 30 V, 0.5 A
Rated current (LO)		Number as transistor	1
Rated current (HO)		Output (resistive load)	DC 30 V, 0.5 A
Rated current (IN)		Analog / digital inputs	
Max. output current		Number	1 (Differential input)
Pulse frequency		Resolution	10 bit
Output frequency for vector control		Switching threshold as digital input	
Output frequency for V/f control		0→1	4 V
Overload capability		1→0	1.6 V
Low Overload (LO)		Analog outputs	
150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time		Number	1 (Non-isolated output)
High Overload (HO)		PTC/ KTY interface	
200% base load current IH for 3 s, followed by 150% base load current IH for 57 s in a 300 s cycle time		1 motor temperature sensor input, sensors that can be connected PTC, KTY and Thermo-Click, accuracy ± 5 °C	
General tech. specifications		Closed-loop control techniques	
Power factor λ	0.70 ... 0.85	V/f linear / square-law / parameterizable	Yes
Offset factor $\cos \varphi$	0.95	V/f with flux current control (FCC)	Yes
Efficiency η	0.97	V/f ECO linear / square-law	Yes
Sound pressure level (1m)	49 dB	Sensorless vector control	Yes
Power loss	38.6 W	Vector control, with sensor	No
Filter class (integrated)	Unfiltered	Encoderless torque control	No
Communication		Torque control, with encoder	No
Communication	PROFINET, EtherNet/IP		

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Ambient conditions

Cooling	Air cooling using an integrated fan
Cooling air requirement	0.005 m ³ /s (0.177 ft ³ /s)
Installation altitude	1,000 m (3,280.84 ft)

Ambient temperature

Operation	-10 ... 40 °C (14 ... 104 °F)
Transport	-40 ... 70 °C (-40 ... 158 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)

Relative humidity

Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
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Connections

Signal cable

Conductor cross-section	0.15 ... 1.50 mm ² (AWG 24 ... AWG 16)
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Line side

Version	Plug-in screw terminals
Conductor cross-section	1.00 ... 2.50 mm ² (AWG 18 ... AWG 14)

Motor end

Version	Plug-in screw terminals
Conductor cross-section	1.00 ... 2.50 mm ² (AWG 18 ... AWG 14)

DC link (for braking resistor)

Version	Plug-in screw terminals
Conductor cross-section	1.00 ... 2.50 mm ² (AWG 18 ... AWG 14)
Line length, max.	15 m (49.21 ft)
PE connection	On housing with M4 screw

Max. motor cable length

Shielded	150 m (492.13 ft)
Unshielded	150 m (492.13 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSAA

Net weight	1.40 kg (3.09 lb)
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Dimensions

Width	73 mm (2.87 in)
Height	173 mm (6.81 in)
Depth	160 mm (7.01 in)

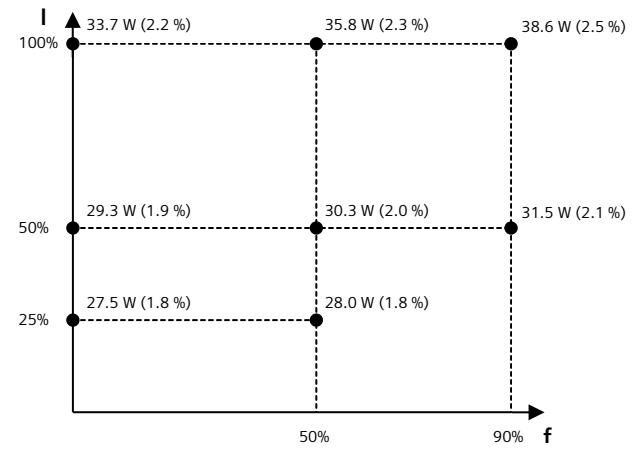
Standards

Compliance with standards	CE, cUL, UL, KC, EAC, C-Tick (RCM)
CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC

Converter losses to IEC61800-9-2*

Efficiency class	IE2
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Comparison with the reference converter (90% / 100%)	26.6 %
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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