

Article No. : 6SL3210-1KE14-3UP1



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	3 AC	Number	6	
Line voltage	380 ... 480 V +10 % -20 %	Switching level: 0→1	11 V	
Line frequency	47 ... 63 Hz	Switching level: 1→0	5 V	
Rated current (LO)	5.50 A	Max. inrush current	15 mA	
Rated current (HO)	4.50 A	Fail-safe digital inputs		
Output		Number	1	
Number of phases	3 AC	Digital outputs		
Rated voltage	400V IEC	480V NEC¹⁾	Number as relay changeover contact	1
Rated power (LO)	1.50 kW	Output (resistive load)	DC 30 V, 0.5 A	
Rated power (HO)	1.10 kW	Number as transistor	1	
Rated current (LO)	4.10 A	Output (resistive load)	DC 30 V, 0.5 A	
Rated current (HO)	3.10 A	Analog / digital inputs		
Rated current (IN)	4.30 A	Number	1 (Differential input)	
Max. output current	6.20 A	Resolution	10 bit	
Pulse frequency	4 kHz	Switching threshold as digital input		
Output frequency for vector control	0 ... 240 Hz	0→1	4 V	
Output frequency for V/f control	0 ... 550 Hz	1→0	1.6 V	
Overload capability		Analog outputs		
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	Number	1 (Non-isolated output)	
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	PTC/ KTY interface		
1 motor temperature sensor input, sensors that can be connected PTC, KTY and Thermo-Click, accuracy $\pm 5^{\circ}\text{C}$		Closed-loop control techniques		
General tech. specifications		V/f linear / square-law / parameterizable	Yes	
Power factor λ	0.70 ... 0.85	V/f with flux current control (FCC)	Yes	
Offset factor $\cos \phi$	0.95	V/f ECO linear / square-law	Yes	
Efficiency η	0.97	Sensorless vector control	Yes	
Sound pressure level (1m)	52 dB	Vector control, with sensor	No	
Power loss	56.0 W	Encoderless torque control	No	
Filter class (integrated)	Unfiltered	Torque control, with encoder	No	
Communication				
Communication	PROFIBUS DP			

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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	-40 ... 70 °C (-40 ... 158 °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	50 m (164.04 ft)
Unshielded	150 m (492.13 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSA
Net weight	1.70 kg (3.75 lb)

Dimensions

Width	73 mm (2.87 in)
Height	196 mm (7.72 in)
Depth	203 mm (7.99 in)

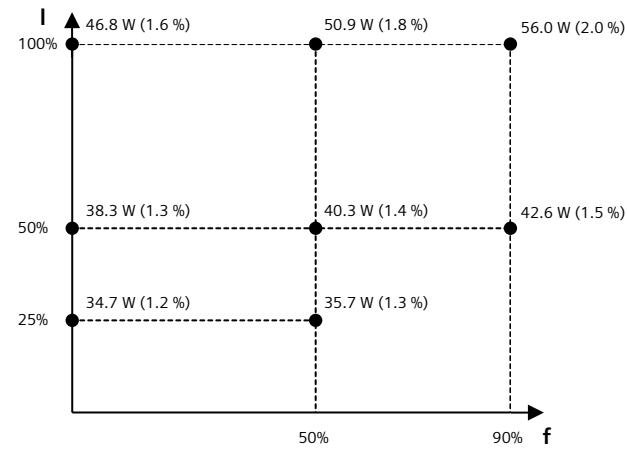
Standards

Compliance with standards	UL, cUL, CE, 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%)	27.4 %
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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.

*converted values

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