



Figure similar

MLFB-Ordering data

6SL3210-1KE21-7UP1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data		General tech. specifications	
Input		Power factor λ0.70 ... 0.85	
Number of phases	3 AC	Offset factor cos φ0.95	
Line voltage	380 ... 480 V +10 % -20 %	Efficiency η0.97	
Line frequency	47 ... 63 Hz	Sound pressure level (1m)63 dB	
Rated current (LO)	21.50 A	Power loss0.24 kW	
Rated current (HO)	18.20 A		
Output		Ambient conditions	
Number of phases	3 AC	CoolingAir cooling using an integrated fan	
Rated voltage	400 V	Cooling air requirement0.009 m³/s (0.318 ft³/s)	
Rated power IEC 400V (LO)	7.50 kW	Installation altitude1000 m (3280.84 ft)	
Rated power NEC 480V (LO)	10.00 hp	Ambient temperature	
Rated power IEC 400V (HO)	5.50 kW	Operation-10 ... 40 °C (14 ... 104 °F)	
Rated power NEC 480V (HO)	7.50 hp	Transport-40 ... 70 °C (-40 ... 158 °F)	
Rated current (IN)	17.00 A	Storage-40 ... 70 °C (-40 ... 158 °F)	
Rated current (LO)	16.50 A	Relative humidity	
Rated current (HO)	12.50 A	Max. operation95 % At 40 °C (104 °F), condensation and icing not permissible	
Max. output current	25.00 A		
Pulse frequency	4.000 kHz		
Output frequency for vector control	0 ... 240 Hz	Closed-loop control techniques	
Output frequency for V/f control	0 ... 550 Hz	V/f linear / square-law / parameterizableYes	
Overload capability		V/f with flux current control (FCC)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	V/f ECO linear / square-lawYes	
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 controlYes	
		Vector control, with sensorNo	
		Encoderless torque controlNo	
		Torque control, with encoderNo	
		Communication	
		Communication	PROFIBUS DP



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Mechanical data	
Degree of protection	IP20 / UL open type
Size	FSB
Net weight	2.30 kg (5.07 lb)
Width	100 mm (3.94 in)
Height	196 mm (7.72 in)
Depth	203 mm (7.99 in)
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)
Resolution	10 bit

Switching threshold as digital input

0→1	4 V
1→0	1.6 V

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
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Connections	
Signal cable	
Conductor cross-section	0.15 ... 1.50 mm² (AWG 24 ... AWG 16)
Line side	
Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm² (AWG 12 ... AWG 10)
Motor end	
Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm² (AWG 12 ... AWG 10)
DC link (for braking resistor)	
Version	Plug-in screw terminals
Conductor cross-section	4.00 ... 6.00 mm² (AWG 12 ... AWG 10)
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)

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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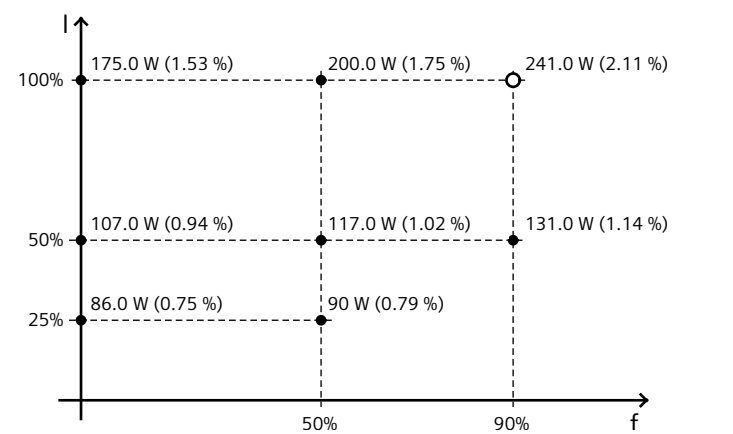
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Figure similar

Converter losses to EN 50598-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-63.87 %



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