



Figure similar

### MLFB-Ordering data

6SL3210-1KE21-7UB1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data		General tech. specifications	
Input		Power factor $\lambda$ 0.70 ... 0.85	
Number of phases	3 AC	Offset factor $\cos \varphi$ 0.95	
Line voltage	380 ... 480 V +10 % -20 %	Efficiency $\eta$ 0.97	
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	
		V/f with flux current control (FCC)Yes	
		V/f ECO linear / square-lawYes	
		Sensorless vector controlYes	
		Vector control, with sensorNo	
		Encoderless torque controlNo	
		Torque control, with encoderNo	
Overload capability		Communication	
Low Overload (LO)		CommunicationRS485	
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			



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Mechanical data		Connections	
Degree of protection	IP20 / UL open type	Signal cable	
Size	FSB	Conductor cross-section	0.15 ... 1.50 mm <sup>2</sup> (AWG 24 ... AWG 16)
Net weight	2.30 kg (5.07 lb)	Line side	
Width	100 mm (3.94 in)	Version	Plug-in screw terminals
Height	196 mm (7.72 in)	Conductor cross-section	4.00 ... 6.00 mm <sup>2</sup> (AWG 12 ... AWG 10)
Depth	203 mm (7.99 in)	Motor end	
Inputs / outputs		Version	Plug-in screw terminals
Standard digital inputs		Conductor cross-section	4.00 ... 6.00 mm <sup>2</sup> (AWG 12 ... AWG 10)
Number	6	DC link (for braking resistor)	
Switching level: 0→1	11 V	Version	Plug-in screw terminals
Switching level: 1→0	5 V	Conductor cross-section	4.00 ... 6.00 mm <sup>2</sup> (AWG 12 ... AWG 10)
Max. inrush current	15 mA	Line length, max.	15 m (49.21 ft)
Fail-safe digital inputs		PE connection	On housing with M4 screw
Number	1	Max. motor cable length	
Digital outputs		Shielded	150 m (492.13 ft)
Number as relay changeover contact	1	Unshielded	150 m (492.13 ft)
Output (resistive load)	DC 30 V, 0.5 A	Standards	
Number as transistor	1	Compliance with standards	UL, cUL, CE, C-Tick (RCM)
Output (resistive load)	DC 30 V, 0.5 A	CE marking	
Analog / digital inputs		EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC	
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)		
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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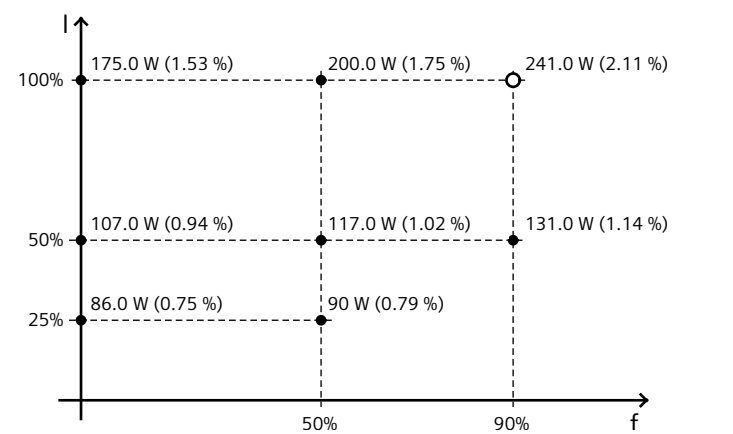
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Converter losses to EN 50598-2\*

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