



Figure similar

MLFB-Ordering data

6SL3210-1KE21-3UP1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data		General tech. specifications	
Input		Power factor λ	0.70 ... 0.85
Number of phases	3 AC	Offset factor $\cos \varphi$	0.95
Line voltage	380 ... 480 V +10 % -20 %	Efficiency η	0.97
Line frequency	47 ... 63 Hz	Sound pressure level (1m)	63 dB
Rated current (LO)	16.50 A	Power loss	0.18 kW
Rated current (HO)	12.80 A	Ambient conditions	
Output		Cooling	Air cooling using an integrated fan
Number of phases	3 AC	Cooling air requirement	0.009 m ³ /s (0.318 ft ³ /s)
Rated voltage	400 V	Installation altitude	1000 m (3280.84 ft)
Rated power IEC 400V (LO)	5.50 kW	Ambient temperature	
Rated power NEC 480V (LO)	7.50 hp	Operation	-10 ... 40 °C (14 ... 104 °F)
Rated power IEC 400V (HO)	4.00 kW	Transport	-40 ... 70 °C (-40 ... 158 °F)
Rated power NEC 480V (HO)	5.00 hp	Storage	-40 ... 70 °C (-40 ... 158 °F)
Rated current (IN)	13.00 A	Relative humidity	
Rated current (LO)	12.50 A	Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
Rated current (HO)	8.80 A	Closed-loop control techniques	
Max. output current	17.60 A	V/f linear / square-law / parameterizable	Yes
Pulse frequency	4.000 kHz	V/f with flux current control (FCC)	Yes
Output frequency for vector control	0 ... 240 Hz	V/f ECO linear / square-law	Yes
Output frequency for V/f control	0 ... 550 Hz	Sensorless vector control	Yes
Overload capability		Vector control, with sensor	No
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		
		Encoderless torque control	No
		Torque control, with encoder	No
Communication			
Communication		PROFIBUS DP	



Figure similar

Mechanical data		Connections	
Degree of protection	IP20 / UL open type	Signal cable	
Size	FSB	Conductor cross-section	0.15 ... 1.50 mm ² (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 ² (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 ² (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 ² (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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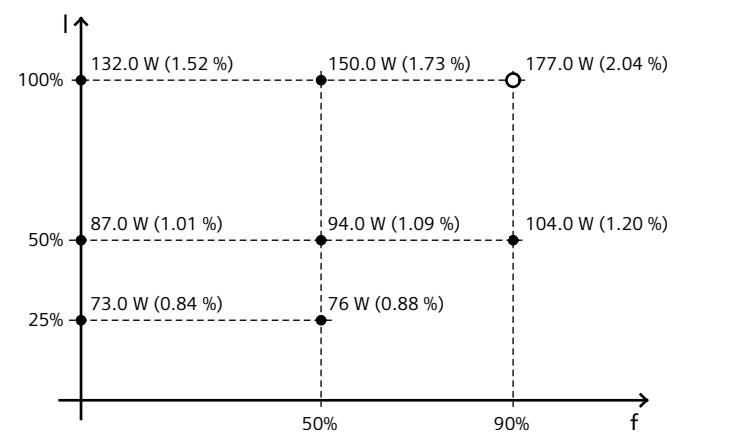
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Figure similar

Converter losses to EN 50598-2*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-66.06 %



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