

### MLFB-Ordering data

6SL3210-1KE17-5UB1



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

Item no.: Consignment no. : Project:

Remarks :		
Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10 % -20 %	
Line frequency	47 63 Hz	
Rated current (LO)	9.50 A	
Rated current (HO)	8.20 A	
Output		
Number of phases	3 AC	
Rated voltage	400 V	
Rated power IEC 400V (LO)	3.00 kW	

Output	
Number of phases	3 AC
Rated voltage	400 V
Rated power IEC 400V (LO)	3.00 kW
Rated power NEC 480V (LO)	4.00 hp
Rated power IEC 400V (HO)	2.20 kW
Rated power NEC 480V (HO)	3.00 hp
Rated current (IN)	7.50 A
Rated current (LO)	7.30 A
Rated current (HO)	5.60 A
Max. output current	11.20 A
Pulse frequency	4 kHz
Output frequency for vector control	0 240 Hz
Output frequency for V/f control	0 550 Hz

# Overload capability

### 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

General tech. specifications		
Power factor λ	0.70 0.85	
Offset factor cos φ	0.95	
Efficiency η	0.97	
Sound pressure level (1m)	52 dB	
Power loss	0.14 kW	
Filter class (integrated)	Unfiltered	

Ambient conditions		
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.005 m³/s (0.177 ft³/s)	
Installation altitude	1000 m (3280.84 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		

Closed-loop control techniques		
V/f linear / square-law / parameterizable	Yes	
V/f with flux current control (FCC)	Yes	
V/f ECO linear / square-law	Yes	
Sensorless vector control	Yes	
Vector control, with sensor	No	
Encoderless torque control	No	
Torque control, with encoder	No	



Max. operation

95 % At 40 °C (104 °F), condensation

and icing not permissible



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			Figure similar
Mechanical	data	Com	munication
Degree of protection	IP20 / UL open type	Communication	USS/MODBUS RTU
Size	FSA	Co	nnections
Net weight	1.70 kg (3.75 lb)	Signal cable	
Width	73 mm (2.87 in)	Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)
Height	196 mm (7.72 in)	Line side	
Depth	203 mm (7.99 in)	Version	Plug-in screw terminals
Inputs / out	tputs	Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14)
Standard digital inputs		Motor end	
Number	6	Version	Plug-in screw terminals
Switching level: 0→1	11 V	Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14)
Switching level: 1→0	5 V	DC link (for braking resistor)	
Max. inrush current	15 mA	Version	Plug-in screw terminals
Fail-safe digital inputs		Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14)
Number	1		·
Digital outputs		Line length, max.	15 m (49.21 ft)
		PE connection	On housing with M4 screw
Number as relay changeover contact	1	Max. motor cable length	
Output (resistive load)	DC 30 V, 0.5 A	Shielded	50 m (164.04 ft)
Number as transistor	1	Unshielded	150 m (492.13 ft)
Output (resistive load)	DC 30 V, 0.5 A	St	tandards
Analog / digital inputs		Compliance with standards	UL, cUL, CE, C-Tick (RCM)
Number	1 (Differential input)		
Resolution	10 bit	CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC

## 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  $\pm 5~^\circ\text{C}$ 



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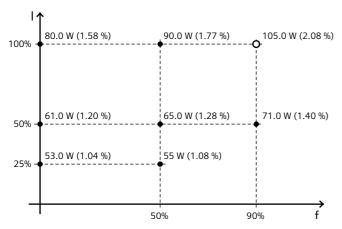
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#### Figure similar

### Converter losses to EN 50598-2\*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-69.05 %



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

