

# MLFB-Ordering data

## 6SL3210-1KE22-6UF1



Client order no. : Order no. : Item no. : Consignment no. :

Project :

Order no. :
Offer no. :
Remarks :

Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10 % -20 %	
Line frequency	47 63 Hz	
Rated current (LO)	33.00 A	
Rated current (HO)	24.10 A	
Output		
Number of phases	3 AC	
Rated voltage	400 V	
Rated power IEC 400V (LO)	11.00 kW	
Rated power NEC 480V (LO)	15.00 hp	
Rated power IEC 400V (HO)	7.50 kW	
Rated power NEC 480V (HO)	10.00 hp	
Rated current (IN)	26.00 A	
Rated current (LO)	25.00 A	
Rated current (HO)	16.50 A	
Max. output current	33.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 240 Hz	
Output frequency for V/f control	0 550 Hz	

Overload c	apability
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## 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)	66 dB	
Power loss	0.35 kW	
Filter class (integrated)	Unfiltered	

Ambient conditions		
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.018 m³/s (0.636 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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			Figur	
Mechanical data		Com	Communication	
Degree of protection	IP20 / UL open type	Communication	PROFINET, EtherNet/IP	
Size	FSC	Connections		
Net weight	4.40 kg (9.70 lb)	Signal cable		
Width	140 mm (5.51 in)	Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG	
Height	295 mm (11.61 in)	Line side		
Depth	208 mm (8.19 in)	Version	Plug-in screw terminals	
Inputs / out	tputs	Conductor cross-section	6.00 16.00 mm² (AWG 10 AWG	
tandard digital inputs		Motor end		
Number	6	Version	Plug-in screw terminals	
Switching level: 0→1	11 V	Conductor cross-section	6.00 16.00 mm² (AWG 10 AWG	
Switching level: 1→0	5 V	DC link (for braking resistor)	)	
Max. inrush current	15 mA	Version	Plug-in screw terminals	
ail-safe digital inputs		Conductor cross-section	6.00 16.00 mm² (AWG 10 AWG	
Number	1	Line length, max.	15 m (49.21 ft)	
Digital outputs		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	Standards		
nalog / 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-Vo Directive 2006/95/EC	
witching threshold as digital in	out			
0→1	4 V			
1→0	1.6 V			
Analog outputs				

# PTC/ KTY interface

Number

1 motor temperature sensor input, sensors that can be connected: PTC, KTY and Thermo-Click, accuracy  $\pm 5~^\circ\text{C}$ 

1 (Non-isolated output)



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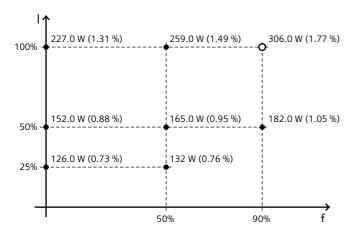
6SL3210-1KE22-6UF1



Figure similar

# Converter losses to EN 50598-2\*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-67.40 %



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