

# MLFB-Ordering data

6SL3210-1KE12-3AF2



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

Item no.: Consignment no. : Project:

Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10 % -20 %	
Line frequency	47 63 Hz	
Rated current (LO)	2.90 A	
Rated current (HO)	2.50 A	
Output		
Number of phases	3 AC	
Rated voltage	400 V	
Rated power IEC 400V (LO)	0.75 kW	
Rated power NEC 480V (LO)	1.00 hp	
Rated power IEC 400V (HO)	0.55 kW	
Rated power NEC 480V (HO)	0.75 hp	
Rated current (IN)	2.30 A	
Rated current (LO)	2.20 A	
Rated current (HO)	1.70 A	
Max. output current	3.40 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		
	0.70 0.05	
Power factor λ	0.70 0.85	
Offset factor cos φ	0.95	
Efficiency η	0.97	
Sound pressure level (1m)	49 dB	
Power loss	0.04 kW	
Filter class (integrated)	Class A	

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	



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#### 6SL3210-1KE12-3AF2



			Figure sin
Mechanical data		Con	nmunication
Degree of protection	IP20 / UL open type	Communication	PROFINET, EtherNet/IP
Size	FSAA	Connections	
Net weight	1.40 kg (3.09 lb)	Signal cable	
Width	73 mm (2.87 in)	Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16
Height	173 mm (6.81 in)	Line side	
Depth	160 mm (6.30 in)	Version	Plug-in screw terminals
Inputs / out	tputs	Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14
tandard 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
ail-safe digital inputs		Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14
Number	1	Line length, max.	15 m (49.21 ft)
igital outputs		PE connection	On housing with M4 screw
Number as relay changeover contact	1	Max. motor cable length	<b>y</b>
Output (resistive load)	DC 30 V, 0.5 A	Shielded	50 m (164.04 ft)
Number as transistor	1	Unshielded	100 m (328.08 ft)
Output (resistive load)	DC 30 V, 0.5 A	S	 Standards
nalog / digital inputs		Compliance with standards	UL, cUL, CE, C-Tick (RCM)
Number	1 (Differential input)		01, 001, 01, 0 Hak (Hall)
Resolution	10 bit	CE marking	EMC Directive 2004/108/EC, Low-Volta Directive 2006/95/EC
witching threshold as digital in	put		
0→1	4 V		
1→0	1.6 V		
nalog 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)



### MLFB-Ordering data

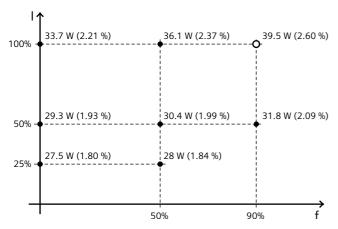
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Figure similar

# Converter losses to EN 50598-2\*

Efficiency class	IE2
Comparison with the reference converter (90% /	-81.03 %



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