

### MLFB-Ordering data

6SL3210-1KE23-8AB1



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data		General tech. specifications	
<b>Input</b>		<b>Power factor <math>\lambda</math></b>	0.70 ... 0.85
Number of phases	3 AC	<b>Offset factor <math>\cos \varphi</math></b>	0.95
Line voltage	380 ... 480 V +10 % -20 %	<b>Efficiency <math>\eta</math></b>	0.97
Line frequency	47 ... 63 Hz	<b>Sound pressure level (1m)</b>	66 dB
Rated current (LO)	48.20 A	<b>Power loss</b>	0.50 kW
Rated current (HO)	45.20 A	<b>Ambient conditions</b>	
<b>Output</b>		<b>Cooling</b>	Air cooling using an integrated fan
Number of phases	3 AC	<b>Cooling air requirement</b>	0.018 m <sup>3</sup> /s (0.636 ft <sup>3</sup> /s)
Rated voltage	400 V	<b>Installation altitude</b>	1000 m (3280.84 ft)
Rated power IEC 400V (LO)	18.50 kW	<b>Ambient temperature</b>	
Rated power NEC 480V (LO)	25.00 hp	<b>Operation</b>	-10 ... 40 °C (14 ... 104 °F)
Rated power IEC 400V (HO)	15.00 kW	<b>Transport</b>	-40 ... 70 °C (-40 ... 158 °F)
Rated power NEC 480V (HO)	20.00 hp	<b>Storage</b>	-40 ... 70 °C (-40 ... 158 °F)
Rated current (IN)	38.00 A	<b>Relative humidity</b>	
Rated current (LO)	37.00 A	<b>Max. operation</b>	95 % At 40 °C (104 °F), condensation and icing not permissible
Rated current (HO)	31.00 A	<b>Closed-loop control techniques</b>	
Max. output current	62.00 A	<b>V/f linear / square-law / parameterizable</b>	Yes
Pulse frequency	4.000 kHz	<b>V/f with flux current control (FCC)</b>	Yes
Output frequency for vector control	0 ... 240 Hz	<b>V/f ECO linear / square-law</b>	Yes
Output frequency for V/f control	0 ... 550 Hz	<b>Sensorless vector control</b>	Yes
<b>Overload capability</b>		<b>Vector control, with sensor</b>	No
<b>Low Overload (LO)</b>	150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time		
<b>High Overload (HO)</b>	200 % base load current IH for 3 s, followed by 150 % base load current IH for 57 s in a 300 s cycle time		
		<b>Encoderless torque control</b>	No
		<b>Torque control, with encoder</b>	No
<b>Communication</b>			
		<b>Communication</b>	RS485



Figure similar

Mechanical data		Connections	
Degree of protection	IP20 / UL open type	Signal cable	
Size	FSC	Conductor cross-section	0.15 ... 1.50 mm² (AWG 24 ... AWG 16)
Net weight	4.40 kg (9.70 lb)	Line side	
Width	140 mm (5.51 in)	Version	Plug-in screw terminals
Height	295 mm (11.61 in)	Conductor cross-section	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
Depth	203 mm (7.99 in)	Motor end	
Inputs / outputs		Version	Plug-in screw terminals
Standard digital inputs		Conductor cross-section	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
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	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
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			

MLFB-Ordering data

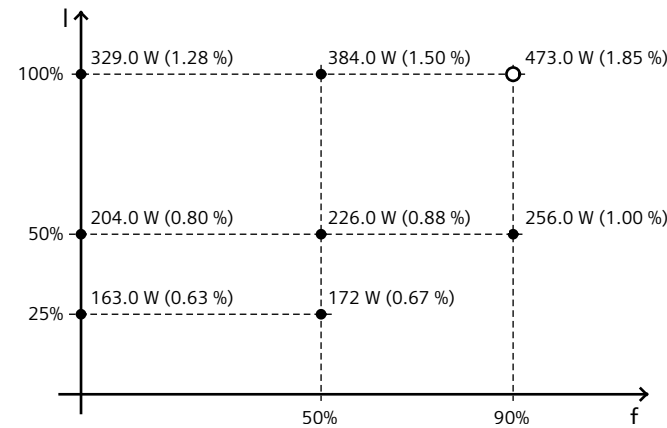
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Figure similar

Converter losses to EN 50598-2\*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-63.37 %



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