

# **MLFB-Ordering data**

6SL3210-1KE15-8UP2



Figure similar

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

Item no. :
Consignment no. :
Project :

Rated data		General tech. specifications	
nput		Power factor λ	0.70 0.85
Number of phases	3 AC	Offset factor cos φ	0.95
Line voltage	380 480 V +10 % -20 %	Efficiency η	0.97
Line frequency	47 63 Hz	Sound pressure level (1m)	49 dB
Rated current (LO)	7.40 A	Power loss	0.07 kW
Rated current (HO)	6.00 A	Filter class (integrated)	Unfiltered
Output		Ambior	nt conditions
Number of phases	3 AC	Ambier	
Rated voltage	400 V	Cooling	Air cooling using an integrated fan
Rated power IEC 400V (LO)	2.20 kW		0.005 31 (0.177 (31.)
Rated power NEC 480V (LO)	3.00 hp	Cooling air requirement	0.005 m³/s (0.177 ft³/s)
Rated power IEC 400V (HO)	1.50 kW	Installation altitude	1000 m (3280.84 ft)
Rated power NEC 480V (HO)	2.00 hp	Ambient temperature	
Rated current (IN)	5.80 A	Operation	-10 40 °C (14 104 °F)
Rated current (LO)	5.60 A	Transport	-40 70 °C (-40 158 °F)
Rated current (HO)	4.10 A	Storage	-40 70 °C (-40 158 °F)
Max. output current	8.20 A	Relative humidity	
Pulse frequency	4 kHz	Max. operation	95 % At 40 °C (104 °F), condensatior and icing not permissible
Output frequency for vector control	0 240 Hz		
		Closed-loop o	control techniques
Output frequency for V/f control	0 550 Hz	V/f linear / square-law / parame	t <b>erizable</b> Yes
		V/f with flux current control (FC	CC) Yes
Overload capability		V/f ECO linear / square-law	Yes
Low Overload (LO)		Sensorless vector control	Yes
150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a		Vector control, with sensor	No

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

Technical data are subject to change! There may be discrepancies between calculated and rating plate values.

Encoderless torque control

Torque control, with encoder

No

No



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Figure similar

is FSAA weight 1.40 kg (3.09 lb) th 1.40 kg (3.09 lb) T3 mm (2.87 in) ht 173 mm (6.81 in) 173 mm (6.81 in) 173 mm (6.81 in) 155 mm (6.10 in) the form (6.10 in) 155 mm (6.10 in) 1000 1000 1000 11 V 1000 11 V 10 V	Mechanical data			Communication	
weight1.40 kg (3.09 lb)th73 mm (2.87 in)ht173 mm (6.81 in)th155 mm (6.10 in)th155 mm (6.10 in)th1th57 mm (6.10 in)ther6ther11 Vther5 Vthig level: 0-110 Vthig level: 1-05 Vthig level: 1-010 mAther10 mAafe digital inputs10 mAa	Degree of protection	IP20 / UL open type		Communication	
h 373 mm (2.87 in) ht 173 mm (6.81 in) 155 mm (6.10 in) Inputs / outputs ber of digital inputs ber of digital inputs ching level: 0-1 11V ching level: 1-0 5V ching level: 1-0 5V ching level: 1-0 15 mA afe digital inputs ber of digital inputs digital inputs	Size	FSAA		Connections	
ht173 mm (6.81 in)Iinputs / outputs155 mm (6.10 in)Iinputs / outputsIIinputs / outputsIIing level: 0→111 VIching level: 1→05 VIching level: 1→05 VIinrush current15 mAIafe digital inputsIIafe digital inputsIIafe digital inputsDC 30 V, 0.5 AIout (resistive load)DC 30 V, 0.5 AIout (resistive load)DC 30 V, 0.5 AIout (resistive load)10 bitIout (resistive load)10 bitI <td>Net weight</td> <td>1.40 kg (3.09 lb)</td> <td>9</td> <td>Signal cable</td>	Net weight	1.40 kg (3.09 lb)	9	Signal cable	
th 155 mm (6.10 in) Inputs / out Jard digital inputs ber 0 5 √ inglevel: 1 → 0 7 7 % inglevel: 1 → 0 % inglev	Width	73 mm (2.87 in)		Conductor cross-section	
Inputs / outputs dard digital inputs dard digital inputs ching level: 0→1 1 V ching level: 1→0 5 V ching level: 1→0 5 V ching level: 1→0 15 mA dafe digital inputs dafe digital inputs date as relay changeover contact 1 cher as transistor 2 cher as transistor 2	Height	173 mm (6.81 in)		Line side	
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inrush current     15 mA     Version       afe digital inputs     Conductor crosses       inber     1     Line length, max.       al outputs     PE connection       aber as relay changeover contact     1       but (resistive load)     DC 30 V, 0.5 A       but (resistive load)     1 (Differential input)       but (resistive load)     Line length, max.       but (resistive load)     1 (Dit       but (resistive load)     Line length, max.       but (resistive load)     1 (Dit       but (resistive load)     Line length, max.       but (resistive load)	Switching level: 0→1	11 V	Conductor cross-s	section	
afe digital inputs     Version       aber     1       al outputs     1       aber as relay changeover contact     1       aber as relay changeover contact     1       aber as relay changeover contact     0C 30 V, 0.5 A       aber as transistor     0C 30 V, 0.5 A       aber as transistor     0C 30 V, 0.5 A       aber as transistor     1       aber as transistor     1       bat (resistive load)     DC 30 V, 0.5 A       bat (resistive load)     I (Differential input)       bat (resistive load)     I (Differential input)       ching (resistive load)     I (A V       bat (resistive load)     I (Non-isolated output)	Switching level: 1→0	5 V	DC link (for braking	ı resistor)	
al outputs       1       Line length, max.         al outputs       PE connection         aber as relay changeover contact       1       Max. motor cable length         but (resistive load)       DC 30 V, 0.5 A       Shielded         but (resistive load)       DC 30 V, 0.5 A       Image: Compliance with star         but (resistive load)       DC 30 V, 0.5 A       Compliance with star         but (resistive load)       DC 30 V, 0.5 A       Compliance with star         but (resistive load)       1 (Differential input)       Compliance with star         but (resistive load)       10 bit       Ce marking         but (resistive load)       1.6 V       Ce marking         but of threshold as digital inputs       1 (Non-isolated output)       Vertice outputs	Max. inrush current	15 mA	Version		
al outputs Line length, max.   aber as relay changeover contact 1   but (resistive load) DC 30 V, 0.5 A   but (resistive load) 10 bit   but (resistive load) Line length, max.   but (resistive load) Line length, max.   but (resistive load) DC 30 V, 0.5 A   but (resistive load) 10 bit   compliance with star   but (resistive load) Line length, max.	ail-safe digital inputs		Conductor cross-sectio	n	
PE connection         aber as relay changeover contact       1         but (resistive load)       DC 30 V, 0.5 A         but (resistive load)       10 bit         compliance with state       4 V         but (resistive load)       1.6 V         but (resistive load)       1 (Non-isolated output)	Number	1	Line length, max.		
but (resistive load) DC 30 V, 0.5 A Shielded Unshielded Unshielded Unshielded Unshielded Unshielded Compliance with star poor of the star poor	Digital outputs		PE connection		
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ber 1 (Differential input)   obtion 10 bit   cting threshold as digital input   4 V   1.6 V   op outputs   aber   1 (Non-isolated output)	Number as transistor	1	Unshielded		
thing threshold as digital input 4 V 5 g outputs ther 1 (Differential input) 10 bit CE marking CE marking	Output (resistive load)	DC 30 V, 0.5 A		S	
Aution10 bitCE markingthing threshold as digital input4 V1.6 Vog outputsther1 (Non-isolated output)	Analog / digital inputs		Compliance with standar	rds	
thing threshold as digital input 4 V 1.6 V ber 1 (Non-isolated output)	Number	1 (Differential input)			
4 V 1.6 V ber 1 (Non-isolated output)	Resolution	10 bit	CE marking		
ber 1.6 V 1 (Non-isolated output)	Switching threshold as digital in	put			
ber 1 (Non-isolated output)	0→1	4 V			
ber 1 (Non-isolated output)	1→0	1.6 V			
	Analog outputs				
<ty interface<="" td=""><td>Number</td><td>1 (Non-isolated output)</td><td></td><td></td></ty>	Number	1 (Non-isolated output)			
	PTC/ KTY interface				

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





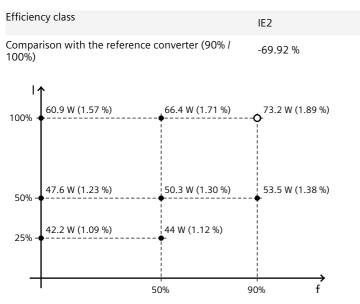
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Figure similar

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



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

