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Data sheet for SINAMICS G120X

Article No. :

6SL3220-2YE56-0CF0



Figure simila

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

Rated data			
Input			
Number of phases	3 AC		
Line voltage	380 480 V +10 %	6 -10 %	
Line frequency	47 63 Hz		
Rated voltage	400V IEC	480V NEC	
Rated current (LO)	585.00 A	486.00 A	
Rated current (HO)	477.00 A	397.00 A	
Output			
Number of phases	3 AC		
Rated voltage	400V IEC	480V NEC ¹⁾	
Rated power (LO)	315.00 kW	400.00 hp	
Rated power (HO)	250.00 kW	300.00 hp	
Rated current (LO)	570.00 A	477.00 A	
Rated current (HO)	477.00 A	390.00 A	
Rated current (IN)	585.00 A		
Max. output current	770.00 A		
Pulse frequency	4 kHz		
Output frequency for vector control	0 100 Hz		
Output frequency for V/f control	0 100 Hz		

Overload capability

Low Overload (LO)

110% base load current IL for 60 s in a 300 s cycle time

High Overload (HO)

150% x base load current IH for 60 s within a 600 s cycle time

General tech. specifications		
Power factor λ	0.75 0.93	
Offset factor $\cos \phi$	0.96	
Efficiency η	0.98	
Sound pressure level (1m)	74 dB	
Power loss ³⁾	6.830 kW	
Filter class (integrated)	RFI suppression filter for Category C3	
EMC category (with accessories)	Category C3	
Safety function "Safe Torque Off"	without	

Communication

Communication

PROFINET, EtherNet/IP

ltem no. : Consignment no. : Project :

Inputs / outputs			
Standard digital inputs			
Number	6		
Switching level: $0 \rightarrow 1$	11 V		
Switching level: $1 \rightarrow 0$	5 V		
Max. inrush current	15 mA		
Fail-safe digital inputs			
Number	1		
Digital outputs			
Number as relay changeover contact	2		
Output (resistive load)	DC 30 V, 5.0 A		
Number as transistor	0		
Analog / digital inputs			
Number	2 (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, see Thermo-Click, accuracy $\pm 5~^\circ\mathrm{C}$	nsors that can be connected PTC, KTY and		

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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Ambient conditions			
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002		
Cooling	Air cooling using an integrated fan		
Cooling air requirement	0.362 m³/s (12.784 ft³/s)		
Installation altitude	1,000 m (3,280.84 ft)		
Ambient temperature			
Operation	0 45 °C (32 113 °F)		
Transport	-40 70 °C (-40 158 °F)		
Storage	-25 55 °C (-13 131 °F)		
Relative humidity			
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible		
Co	onnections		
Signal cable			
Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)		
Line side			
Version	M12 screw		
Conductor cross-section	4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)		
Motor end			
Version	M12 screw		
Conductor cross-section	4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)		
DC link (for braking resistor)			
PE connection	M12 screw		
Max. motor cable length			
Shielded	150 m (492.13 ft)		

5	of protection	IP20 / UL open type	
Frame s			
	size	FSH	
Net wei	ight	151 kg (332.90 lb)	
Dimens	sions		
Width	ı	548 mm (21.57 in)	
Heigł	nt	1,695 mm (66.73 in)	
Dept	h	393 mm (15.47 in)	
		Standards	
Complia	ance with standards	UL, cUL, CE, C-Tick (RCM), EAC, KC SEMI F47, REACH	C,
CE marl	king	EMC Directive 2004/108/EC, Low- Voltage Directive 2006/95/EC	
	Converter lo	osses to IEC61800-9-2*	
Efficien	cy class	IE2	
	rison with the reference er (90% / 100%)	41.2 %	
I 100% ●	5,270.0 W (1.3 %)	5,960.0 W (1.5 %) 6,830.0 W (1.7 %)
50% ቀ	2,490.0 W (0.6 %)	2,780.0 W (0.7 %) 3,120.0 W (0.8 %)
25% ●	1,640.0 W (0.4 %)	1,780.0 W (0.4 %)	

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 IEC61800-9-2) 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

¹⁾The output current and HP ratings are valid for the voltage range 440V-480V

³⁾ Typical value. More information can be found in the element group "Converter losses to IEC 61800-9-2" in this datasheet.

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Operator panel: Basic Operator Panel (BOP-2)

Screen			
Display design	LCD, monochrome		
Mechanical data			
Degree of protection	IP55 / UL type 12		
Net weight	0.140 kg (0.31 lb)		
Dimensions			
Width	70.00 mm (2.76 in)		
Height	106.85 mm (4.21 in)		
Depth	19.60 mm (0.77 in)		

Ambient conditions		
Ambient temperature		
Operation	0 50 °C (32 122 °F)	
Storage	-40 70 °C (-40 158 °F)	
Transport	-40 70 °C (-40 158 °F)	
Relative humidity at 25°C during	I	
Max. operation	95 %	
Approvals		
Certificate of suitability	CE, cULus, EAC, KCC, RCM	



MLFB-Ordering data

6SL3000-0CE36-3AA0



Figure similar

Client order no. :		Item no. :		
Order no. :		Consignment no. :		
Offer no. :		Project :		
Remarks :				
Rated data			Connections	
Input				
Number of phases	3 AC			
Line voltage	380 480 V			
Output		Load side		
Rated current	628.0 A	Version	1 x hole for M12	
Mechanical data				
Dimensions				
Width	300.0 mm (11.8 in)	PE connection		
Height	269.0 mm (10.6 in)	Version	M6 screw	
Depth	212.0 mm (8.3 in)			
Degree of protection	IPOO			
Net weight	41.4 kg (91.3 lb)			