

Data sheet for SINAMICS G120X

Article No.: 6SL3220-2YE62-0CP0

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

Rated data				
Input				
1	Number of phases	3 AC		
I	ine voltage	380 480 V +10 %	-10 %	
l	ine frequency	47 63 Hz		
ı	Rated voltage	400V IEC	480V NEC	
	Rated current (LO)	850.00 A	687.00 A	
	Rated current (HO)	696.00 A	561.00 A	
Output				
1	Number of phases	3 AC		
ı	Rated voltage	400V IEC	480V NEC 1)	
	Rated power (LO)	450.00 kW	500.00 hp	
	Rated power (HO)	355.00 kW	450.00 hp	
	Rated current (LO)	820.00 A	663.00 A	
	Rated current (HO)	672.00 A	542.00 A	
	Rated current (IN)	840.00 A		
	Max. output current	1,107.00 A		
Pulse frequency		4 kHz		
Output frequency for vector control		0 100 Hz		
Output frequency for V/f control		0 100 Hz		
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Overload	capabi	lity
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Low Overload (LO)

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

High Overload (HO)

Communication

 $150\%\,x$ base load current IH for 60 s within a 300 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)	10.200 kW	
Filter class (integrated)	RFI suppression filter for Category C3	
EMC category (with accessories)	Category C3	
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7- 1500F)	

Communication

Item no. : Consignment no. : Project :

PTC/ KTY interface



Figure simila

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)		

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

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	

PROFIBUS DP



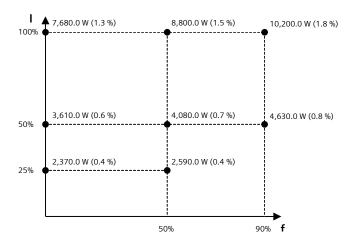
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Ambient conditions		
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002	
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.450 m ³ /s (15.892 ft ³ /s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
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	
Connections		
Signal cable		
Conductor cross-section	0.15 1.50 mm ² (AWG 24 AWG 16)	
Line side		
Version	M12 screw	
Conductor cross-section	6 x 240.00 mm ² (MCM 4 x 500 MCM 6 x 500)	
Motor end		
Version	M12 screw	
Conductor cross-section	6 x 240.00 mm ² (MCM 4 x 500 MCM 8 x 500)	
DC link (for braking resistor)		
PE connection	M12 screw	
Max. motor cable length		
Shielded	150 m (492.13 ft)	

Mechanical data			
Degree of protection	IP20 / UL open type		
Frame size	FSJ		
Net weight	236 kg (520.29 lb)		
Dimensions			
Width	801 mm (31.54 in)		
Height	1,621 mm (63.82 in)		
Depth	393 mm (15.47 in)		
Standards			
Compliance with standards	UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH		
CE marking	EMC Directive 2004/108/EC, Low- Voltage Directive 2006/95/EC		

Converter losses to IEC61800-9-2*		
Efficiency class	IE2	
Comparison with the reference converter (90% / 100%)	43.1 %	



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.

*calculated 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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	el: Basic Operator Panel (BOP-2)		
	Screen		
Display design	LCD, monochrome	Ambient temperature	
	Mechanical data		
Degree of protection	IP55 / UL type 12	Storage	
Net weight	0.140 kg (0.31 lb)	Transport Relative humidity at 25	
Dimensions		Max. operation	
Width	70.00 mm (2.76 in)	wax. operation	
Height	106.85 mm (4.21 in)		
Depth	19.60 mm (0.77 in)	Certificate of suitability	

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			
Max. operation	95 %		
Approvals			
Certificate of suitability CE, cULus, EAC, KCC, RCM			



MLFB-Ordering data

6SL3000-0CE38-7AA0



Figure similar

Client order no. :

Order no.:

Offer no. : Remarks :

Item no.:

Consignment no.:

Project :

Rated data			Connections	
Input				
Number of phases	3 AC			
Line voltage	380 480 V			
Output		Load side		
Rated current 871.0 A		Version	1 x hole for M12	
Mechanical data				
Dimensions				

Difficultions	
Width	350.0 mm (13.8 in)
Height	321.0 mm (12.6 in)
Depth	211.5 mm (8.3 in)
Degree of protection	IP00
Net weight	63.2 kg (139.0 lb)

PE connection

M6 screw Version