

Data sheet for SINAMICS G120X

Article No.: 6SL3220-2YE58-0CP0

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

Rated data				
Inpu	ut			
N	umber of phases	3 AC		
Line voltage		380 480 V +10 %	-10 %	
Li	ne frequency	47 63 Hz		
R	ated voltage	400V IEC	480V NEC	
	Rated current (LO)	654.00 A	525.00 A	
	Rated current (HO)	501.00 A	402.00 A	
Output				
Number of phases		3 AC		
R	ated voltage	400V IEC	480V NEC 1)	
	Rated power (LO)	355.00 kW	450.00 hp	
	Rated power (HO)	250.00 kW	300.00 hp	
	Rated current (LO)	640.00 A	515.00 A	
	Rated current (HO)	491.00 A	394.00 A	
	Rated current (IN)	655.00 A		
	Max. output current	864.00 A		
Puls	e 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 300 s cycle time

General tech. specifications			
0.75 0.93			
0.96			
0.98			
74 dB			
8.020 kW			
RFI suppression filter for Category C3			
Category C3			
without SIRIUS device (e.g. via S7- 1500F)			

Com	mun	icat	tion
COIII	mu	LCU	

CommunicationPROFIBUS DP



Item no. : Consignment no. : Project :

Inputs / outputs				
Standard digital inputs	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, 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		



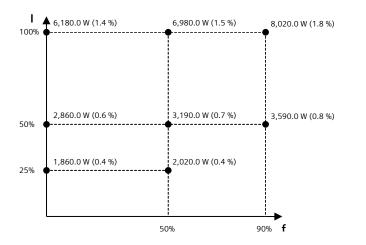
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Ambient conditions				
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002			
Cooling	Air cooling using an integrated fan			
Cooling air requirement	0.362 m³/s (12.784 ft³/s)			
Installation altitude	1,000 m (3,280.84 ft)			
Ambient 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			
Connections				
Signal cable				
Conductor cross-section	0.15 1.50 mm ² (AWG 24 AWG 16)			
Line side				
Version	M12 screw			
Conductor cross-section	4 x 240.00 mm ² (MCM 2 x 500 MCM 4 x 500)			
Motor end				
Version	M12 screw			
Conductor cross-section	4 x 240.00 mm ² (MCM 2 x 500 MCM 4 x 500)			
DC link (for braking resistor)				
PE connection	M12 screw			
Max. motor cable length				
Max. motor cable length Shielded	150 m (492.13 ft)			

Mecha	nical data	
Degree of protection	IP20 / UL open type	
Frame size	FSH	
Net weight	157 kg (346.13 lb)	
Dimensions		
Width	548 mm (21.57 in)	
Height	1,695 mm (66.73 in)	
Depth	393 mm (15.47 in)	
Star	ndards	
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%)	43.2 %	



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 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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	Operator pane	l: Basic Operator Panel (BOP-2)
	Screen	
Display design	LCD, monochrome	Ambient temperature
	Mechanical data	Operation
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

6SL3000-0CE37-7AA0



Figure similar

Client order no. :

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Offer no. :

Remarks :

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Project :

Rated data			Connections	
Input				
Number of phases	3 AC			
Line voltage	380 480 V			
Output		Load side		
Rated current	773.0 A	Version	1 x hole for M12	

Dimensions

Width	300.0 mm (11.8 in)
Height	269.0 mm (10.6 in)
Depth	212.0 mm (8.3 in)
Degree of protection	IP00
Net weight	51.3 kg (113.0 lb)

PE connection

Version M6 screw