

Data sheet for SINAMICS G120X

Article No.: 6SL3220-3YE60-0CB0

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

	Rated data				
Inp	Input				
1	Number of phases	3 AC			
I	ine voltage	380 480 V +10 % -10 %			
I	ine frequency	47 63 Hz			
ı	Rated voltage	400V IEC	480V NEC		
	Rated current (LO)	735.00 A	602.00 A		
	Rated current (HO)	562.00 A	461.00 A		
Ou	tput				
1	Number of phases	3 AC			
ı	Rated voltage	400V IEC	480V NEC 1)		
	Rated power (LO)	400.00 kW	500.00 hp		
	Rated power (HO)	315.00 kW	350.00 hp		
	Rated current (LO)	720.00 A	590.00 A		
	Rated current (HO)	551.00 A	452.00 A		
	Rated current (IN)	735.00 A			
	Max. output current	972.00 A			
Pul	se frequency	4 kHz			
Ou	tput frequency for vector control	0 100 Hz			
Ou	tput frequency for V/f control	0 100 Hz			
Ov	erload capability				

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)

150% x base load current IH for 60 s within a 300 s cycle time

.93	
I	
RFI suppression filter for Category C3	
C3	
SIRIUS device (e.g. via S7-	

Communication

CommunicationUSS, Modbus RTU, BACnet MS/TP



Item 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, sensors that can be connected PTC, KTY and Thermo-Click, accuracy ±5 °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	



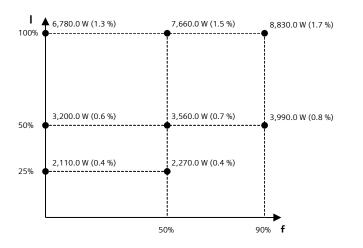
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Ambient conditions			
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002		
Cooling	Air cooling using an integrated fan		
Cooling air requirement	0.362 m ³ /s (12.784 ft ³ /s)		
Installation altitude	1,000 m (3,280.84 ft)		
Ambient 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		
Со	onnections		
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			
Shielded	150 m (492.13 ft)		

	Mechanical data			
Degree of protection		IP20 / UL open type		
Frame size		FSH		
Net weight		159 kg (350.54 lb)		
D	imensions			
	Width	548 mm (21.57 in)		
	Height	1,695 mm (66.73 in)		
	Depth	393 mm (15.47 in)		
	Stand	dards		
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%)	42.5 %	



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 panel: I	ntelligent Operator Panel (IOP-2
	Screen	
Display design	LCD color	Ambient temperature
Screen resolution	320 x 240 Pixel	Operation
	Mechanical data	Storage
Degree of protection	IP55 / UL type 12	Transport
Net weight	0.134 kg (0.30 lb)	Relative humidity at 25
Dimensions		Max. operation
Width	70.00 mm (2.76 in)	shi eperation
Height	106.85 mm (4.21 in)	
Depth	19.65 mm (0.77 in)	Certificate of suitability

Ambient conditions			
Ambient temperature			
Operation	0 50 °C (32 122 °F)		
	55 $^{\circ}\text{C}$ only with door installation kit		
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. :
 Item no. :

 Order no. :
 Consignment no. :

 Offer no. :
 Project :

Kemarks	

Net weight

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	
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	IP00			

51.3 kg (113.0 lb)