

Data sheet for SINAMICS G120X

Article No.: 6SL3220-2YE64-0CB0

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

Rated data			
Input			
Number of phases	3 AC		
Line voltage	380 480 V +10 % -10 %		
Line frequency	47 63 Hz		
Rated voltage	400V IEC	480V NEC	
Rated current (LO)	924.00 A	751.00 A	
Rated current (HO)	756.00 A	614.00 A	
Output			
Number of phases	3 AC		
Rated voltage	400V IEC	480V NEC 1)	
Rated power (LO)	500.00 kW	600.00 hp	
Rated power (HO)	400.00 kW	500.00 hp	
Rated current (LO)	890.00 A	724.00 A	
Rated current (HO)	728.00 A	591.00 A	
Rated current (IN)	910.00 A		
Max. output current	1,202.00 A		
Pulse frequency	4 kHz		
Output frequency for vector control	0 100 Hz		
Output frequency for V/f control	0 100 Hz		
Overload capability			

Overload	capability
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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

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

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		
Analog / digital inputs Number	2 (Differential input)	
<u> </u>	2 (Differential input) 10 bit	
Number		
Number Resolution		
Number Resolution Switching threshold as digital input	10 bit	
Number Resolution Switching threshold as digital input 0 → 1	10 bit 4 V	
Number Resolution Switching threshold as digital input $0 \rightarrow 1$ $1 \rightarrow 0$	10 bit 4 V	

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



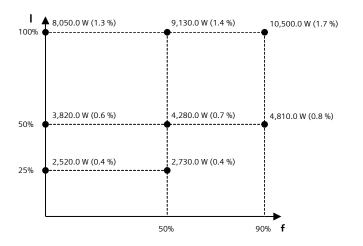
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Ambie	ent conditions
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.450 m ³ /s (15.892 ft ³ /s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
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
Со	onnections
Signal cable	
Conductor cross-section	0.15 1.50 mm² (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	250 kg (551.16 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, KC 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%)	40.7 %



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	el: 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)	Max. Operation
Height	106.85 mm (4.21 in)	
Depth	19.60 mm (0.77 in)	Certificate of suitability

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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

6SL3000-0CE41-0AA0



Figure similar

Client order no. : Item no.: Order no.: Consignment no.: Offer no. : Project :

_	
	Rated data

Connections

In	put	
•••	put	

Remarks :

Number of phases 3 AC

Output

Load side

Rated current 1060.0 A Version 1 x hole for M12

Mechanical data

380 ... 480 V

Dimensions

Line voltage

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	69.6 kg (153.0 lb)

PE connection

Version M6 screw