

### **Data sheet for SINAMICS G120X**

Article No.: 6SL3220-3YE58-0CB0

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

Rated data				
lnı	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)	654.00 A	525.00 A	
	Rated current (HO)	501.00 A	402.00 A	
Οι	tput			
	Number of phases	3 AC		
	Rated 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		
Pu	lse frequency	4 kHz		
Output frequency for vector control		0 100 Hz		
Output frequency for V/f control		0 100 Hz		
Ov	erload capability			

#### 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
Power factor $\lambda$	0.75 0.93
Offset factor $\cos\phi$	0.96
Efficiency η	0.98
Sound pressure level (1m)	74 dB
Power loss 3)	8.020 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

CommunicationUSS, Modbus RTU, BACnet MS/TP



Item no. : Consignment no. : Project :

Inputs i	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  $\pm 5\,^{\circ}\text{C}$ 

Closed-loop cor	ntrol 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



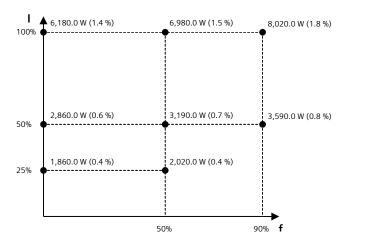
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Ambient conditions			
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002		
Cooling	Air cooling using an integrated fan		
Cooling air requirement	0.362 m³/s (12.784 ft³/s)		
Installation altitude	1,000 m (3,280.84 ft)		
Ambient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

	Mechanical data		
D	egree of protection	IP20 / UL open type	
Frame size		FSH	
Ν	let weight	157 kg (346.13 lb)	
D	imensions		
	Width	548 mm (21.57 in)	
	Height	1,695 mm (66.73 in)	
	Depth	393 mm (15.47 in)	
Standards			
C	ompliance with standards	UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH	
C	E 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

 $<sup>^{1)}</sup>$  The output current and HP ratings are valid for the voltage range 440V-480V

<sup>&</sup>lt;sup>3)</sup>Typical value. More information can be found in the element group "Converter losses to IEC 61800-9-2" in this datasheet.



# **Data sheet for SINAMICS G120X**

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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)	
Height	106.85 mm (4.21 in)	
Depth	19.65 mm (0.77 in)	Certificate of suitability

Ambient conditions  Ambient temperature			
			Operation
	55 °C only with door installation kit		
Storage	-40 70 °C (-40 158 °F)		
Transport	-40 70 °C (-40 158 °F)		
telative humidity at 25°C duri	ng		
Max. operation	95 %		
Approvals			
Certificate of suitability	CE, cULus, EAC, KCC, RCM		



#### **MLFB-Ordering data**

Degree of protection

Net weight

Remarks :

6SL3000-0CE37-7AA0



Figure similar

 Client order no. :
 Item no. :

 Order no. :
 Consignment no. :

 Offer no. :
 Project :

IP00

51.3 kg (113.0 lb)

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)			