

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

Article No.: 6SL3220-2YE60-0CB0

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

Rated data			
Inp	out		
1	Number of phases	3 AC	
Line voltage		380 480 V +10 % -10 %	
l	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
Output			
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	
Pulse frequency		4 kHz	
Ou	tput frequency for vector control	0 100 Hz	
Ou	tput frequency for V/f control	0 100 Hz	
Overload 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)

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)	8.830 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 :

Inputs / outputs			
Standard digital inputs			
<u> </u>	,		
Number	6		
Switching level: 0 → 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		

USS, Modbus RTU, BACnet MS/TP



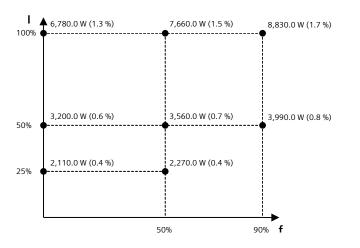
## **Data sheet for SINAMICS G120X**

Article No.: 6SL3220-2YE60-0CB0

Standard board coating type  Class 3C2, according to IEC 60721-3 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)	3-3:		
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)			
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Storage -25 55 °C (-13 131 °F)			
Polotivo humidity			
Relative humidity			
Max. operation 95 % At 40 °C (104 °F), condensation and icing not permissible	n		
Connections			
Signal cable			
Conductor cross-section 0.15 1.50 mm <sup>2</sup> (AWG 24 AWG 16)			
Line side			
Version M12 screw			
Version M12 screw  Conductor cross-section 4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)			
Conductor cross-section 4 x 240.00 mm <sup>2</sup>			
Conductor cross-section 4 x 240.00 mm <sup>2</sup> (MCM 2 x 500 MCM 4 x 500)			
Conductor cross-section 4 x 240.00 mm <sup>2</sup> (MCM 2 x 500 MCM 4 x 500)  Motor end			
Conductor cross-section         4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)           Motor end         Wersion         M12 screw           Conductor cross-section         4 x 240.00 mm²			
Conductor cross-section         4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)           Motor end         Version         M12 screw           Conductor cross-section         4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)			
Conductor cross-section         4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)           Motor end         Version         M12 screw           Conductor cross-section         4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)           DC link (for braking resistor)         4 x 240.00 mm² (MCM 2 x 500 MCM 4 x 500)			

Mechanical data			
Degree of protection	IP20 / UL open type		
Frame size	FSH		
Net weight	159 kg (350.54 lb)		
Dimensions			
Width	548 mm (21.57 in)		
Height	1,695 mm (66.73 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%)	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

 $<sup>^{1)}</sup>$  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**

Article No.: 6SL3220-2YE60-0CB0

	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)	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. :

Order no. :

Offer no. : Remarks : Item no.:

Consignment no. :

Project :

Rated data			Connections	
nput				
Number of phases	3 AC			
Line voltage	380 480 V			
Output		Load side		
Rated current	773.0 A	Version	1 x hole for M12	
Mech	nanical data			
Dimensions				
Width	300.0 mm (11.8 in)	PE connection		
		Version	M6 scrow	

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

Version M6 screw