

Data sheet for SINAMICS G120X

Article No.: 6SL3220-3YE62-0CB0

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

	Rated	d data	
Inp	put		
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)	850.00 A	687.00 A
	Rated current (HO)	696.00 A	561.00 A
Ou	tput		
1	Number of phases	3 AC	
ı	Rated voltage	400V IEC	480V NEC 1)
	Rated power (LO)	450.00 kW	500.00 hp
	Rated power (HO)	355.00 kW	450.00 hp
	Rated current (LO)	820.00 A	663.00 A
	Rated current (HO)	672.00 A	542.00 A
	Rated current (IN)	840.00 A	
	Max. output current	1,107.00 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	

Overload	capabi	litv

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 tec	h. 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)	10.200 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)
Comm	nunication

Communication L

USS, 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)
DTC/VTV interface	

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



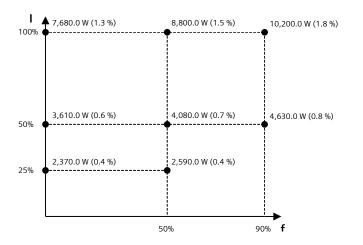
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Ambien	t conditions
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.450 m ³ /s (15.892 ft ³ /s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
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
Con	nections
Signal cable	
Conductor cross-section	0.15 1.50 mm ² (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	

Mech	nanical data
Degree of protection	IP20 / UL open type
Frame size	FSJ
Net weight	236 kg (520.29 lb)
Dimensions	
Width	801 mm (31.54 in)
Height	1,621 mm (63.82 in)
Depth	393 mm (15.47 in)
St	andards
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
	cos to IEC61900 0 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 panel:	Intelligent 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°C
Dimensions		Max. operation
Width	70.00 mm (2.76 in)	operation
Height	106.85 mm (4.21 in)	
Depth	19.65 mm (0.77 in)	Certificate of suitability

Am	nbient conditions
mbient temperature	
Operation	0 50 °C (32 122 °F)
	55 °C only with door installation kit
Storage	-40 70 °C (-40 158 °F)
Transport	-40 70 °C (-40 158 °F)
elative humidity at 25°C durir	ng
Max. operation	95 %
	Approvals
ertificate of suitability	CE, cULus, EAC, KCC, RCM



MLFB-Ordering data

6SL3000-0CE38-7AA0

63.2 kg (139.0 lb)



Figure similar

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 Item no. :

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 Consignment no. :

 Offer no. :
 Project :

Remarks:

Net weight

Load side Version	1 x hole for M12
Load side	1 x hole for M12
Load side	1 x hole for M12
	1 x hole for M12
Version	1 x hole for M12
PE connection	n
Version	M6 screw
3.3 in)	
(8	(8.3 in)