

Data sheet for SINAMICS G120X

Article No.: 6SL3230-3YC24-0UF0

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

Rated data			
Input			
	Number of phases	3 AC	
	Line voltage	200 240 V +10 %	-20 %
	Line frequency	47 63 Hz	
	Rated voltage	200V IEC	240V NEC
	Rated current (LO)	26.30 A	26.30 A
	Rated current (HO)	20.80 A	20.80 A
Οι	itput		
	Number of phases	3 AC	
	Rated voltage	200V IEC	240V NEC 1)
	Rated power (LO)	7.50 kW	10.00 hp
	Rated power (HO)	5.50 kW	7.50 hp
	Rated current (LO)	28.00 A	28.00 A
	Rated current (HO)	22.00 A	22.00 A
	Rated current (IN)	29.00 A	
	Max. output current	37.80 A	
Pu	lse frequency	4 kHz	
Output frequency for vector control		0 200 Hz	
Output frequency for V/f control		0 550 Hz	
٥٧	erload capability		
	Lave Overland (LO)		

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 600 s cycle time

General tech. specifications		
Power factor λ	0.70 0.85	
Offset factor $\cos\phi$	0.96	
Efficiency η	0.96	
Sound pressure level (1m)	67 dB	
Power loss ³⁾	0.365 kW	
Filter class (integrated)	Unfiltered	
EMC category (with accessories)	without	
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7- 1500F)	

Communication

CommunicationPROFINET, EtherNet/IP



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 $\pm 5~^\circ\text{C}$

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	



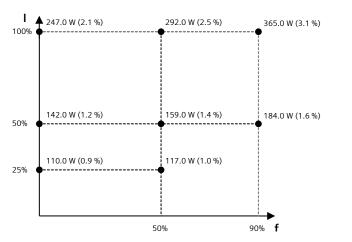
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Ambient	Ambient conditions		
Standard board coating type	Class 3C3, according to IEC 60721-3-3: 2002		
Cooling	Air cooling using an integrated fan		
Cooling air requirement	0.018 m ³ /s (0.653 ft ³ /s)		
Installation altitude	1,000 m (3,280.84 ft)		
Ambient temperature			
Operation	-20 45 °C (-4 113 °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		
Conn	ections		
Signal cable			
Conductor cross-section	0.15 1.50 mm ² (AWG 24 AWG 16)		
Line side			
Version	screw-type terminal		
Conductor cross-section	1.50 16.00 mm ² (AWG 16 AWG 6)		
Motor end			
Version	Screw-type terminals		
Conductor cross-section	1.50 16.00 mm ² (AWG 16 AWG 6)		
DC link (for braking resistor)			
PE connection	On housing with M4 screw		
Max. motor cable length			
Max. motor cable length Shielded	150 m (492.13 ft)		

Mechanical data		
Degree of protection	IP20 / UL open type	
Frame size	FSC	
Net weight	7.1 kg (15.65 lb)	
Dimensions		
Width	140 mm (5.51 in)	
Height	295 mm (11.61 in)	
Depth	218 mm (8.58 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	





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.

*converted values

 $^{^{1)}}$ The output current and HP ratings are valid for the voltage range 220V-240V

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°0
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		
	55 $^{\circ}\text{C}$ 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	

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Siemens:

6SL32303YC240UF0