

Data sheet for SINAMICS G120X

Article No.: 6SL3230-3YE32-0UF0

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

Rated data			
Input			
	Number of phases	3 AC	
	Line voltage	380 480 V +10 % -20 %	
	Line frequency	47 63 Hz	
	Rated voltage	400V IEC	480V NEC
	Rated current (LO)	42.00 A	37.00 A
	Rated current (HO)	38.00 A	35.00 A
Οι	tput		
	Number of phases	3 AC	
	Rated voltage	400V IEC	480V NEC 1)
	Rated power (LO)	22.00 kW	30.00 hp
	Rated power (HO)	18.50 kW	25.00 hp
	Rated current (LO)	45.00 A	40.00 A
	Rated current (HO)	38.00 A	34.00 A
	Rated current (IN)	47.00 A	
	Max. output current	61.00 A	
Pu	lse frequency	4 kHz	
Output frequency for vector control		0 200 Hz	
Output frequency for V/f control		0 550 Hz	
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 600 s cycle time

evice (e.g. via S7-

Communication

Communication PROFINET, 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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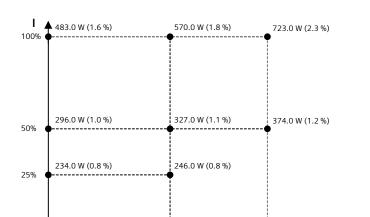
Ambient conditions		
Standard board coating type	Class 3C3, according to IEC 60721-3-3: 2002	
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.055 m ³ /s (1.942 ft ³ /s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
Operation	-20 45 °C (-4 113 °F)	
Transport	-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	
Conr	nections	
Signal cable		
Conductor cross-section	0.15 1.50 mm ² (AWG 24 AWG 16)	
Line side		
Version	screw-type terminal	
Conductor cross-section	10.00 35.00 mm ² (AWG 8 AWG 2)	
Motor end		
Version	Screw-type terminals	
Conductor cross-section	10.00 35.00 mm ² (AWG 8 AWG 2)	
DC link (for braking resistor)		
PE connection	Screw-type terminals	
Max. motor cable length		
Shielded	200 m (656.17 ft)	
Unshielded	300 m (984.25 ft)	

Mechanical data			
Degree of protection		IP20 / UL open type	
Frame size		FSD	
Net weight		17 kg (37.48 lb)	
Dimensions			
	Width	200 mm (7.87 in)	
	Height	472 mm (18.58 in)	
	Depth	248 mm (9.76 in)	
	Stand	dards	
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*

IE2

47.6 %



The percentage values show the losses in relation to the rated apparent power of the converter.

50%

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

Efficiency class

Comparison with the reference converter (90% / 100%)

 $^{^{\}rm 1)} The \ output \ current \ and \ HP \ ratings \ are \ valid \ for \ the \ voltage \ range \ 440 V-480 V$

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

Ambient conditions			
Ambient 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)		
Relative humidity at 25°C during			
Max. operation	95 %		
Approvals			
Certificate of suitability	CE, cULus, EAC, KCC, RCM		

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Siemens:

6SL32303YE320UF0