

Data sheet for SINAMICS G120X

Article No.: 6SL3230-2YC24-0UP0

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

Rated data				
Input	111111111111111111111111111111111111111			
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		
Output				
Number of phases	3 АС			
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			
Pulse 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

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)	

Com	mur	nica	tion
COIII	mu	IICu	CIOII

Communication PROFIBUS DP



Item no. : Consignment no. : Project :

Inputs / outputs		
Standard digital inputs		
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 $\pm 5\,^{\circ}\text{C}$

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	



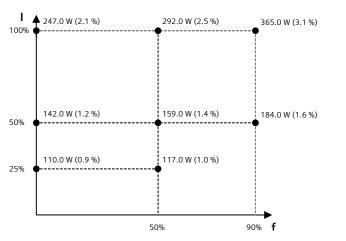
Data sheet for SINAMICS G120X

Article No.: 6SL3230-2YC24-0UP0

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		
D	egree of protection	IP20 / UL open type	
F	rame size	FSC	
N	let weight	7.1 kg (15.65 lb)	
D	imensions		
	Width	140 mm (5.51 in)	
	Height	295 mm (11.61 in)	
	Depth	218 mm (8.58 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	E2	
Comparison with the reference converter (90% / 100%)	57.8 %	



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.



Data sheet for SINAMICS G120X

Article No.: 6SL3230-2YC24-0UP0

	Operator pane	el: Basic Operator Panel (BOP-2)
	Screen	
Display design	LCD, monochrome	Ambient temperature
	Mechanical data	Operation
	Mechanical data	Storage
Degree of protection	IP55 / UL type 12	Transpart
Net weight	0.140 kg (0.31 lb)	Transport
Dimensions	-	Relative humidity at 25
Width	70.00 mm (2.76 in)	Max. 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		
ertificate of suitability	CE, cULus, EAC, KCC, RCM	

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Siemens:

6SL32302YC240UP0