# SIEMENS

Data sheet for SINAMICS G120X

#### Article No. :

#### 6SL3230-3YE26-0UP0



Figure similar

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

Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10	0 % -20 %
Line frequency	47 63 Hz	
Rated voltage	400V IEC	480V NEC
Rated current (LO)	24.50 A	21.30 A
Rated current (HO)	18.25 A	14.00 A
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC <sup>1)</sup>
Rated power (LO)	11.00 kW	15.00 hp
Rated power (HO)	7.50 kW	10.00 hp
Rated current (LO)	26.00 A	21.00 A
Rated current (HO)	18.00 A	14.00 A
Rated current (IN)	27.00 A	
Max. output current	35.00 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 $\lambda$	0.70 0.85	
Offset factor $\cos \phi$	0.96	
Efficiency η	0.98	
Sound pressure level (1m)	67 dB	
Power loss <sup>3)</sup>	0.344 kW	
Filter class (integrated)	Unfiltered	
EMC category (with accessories)	without	
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7- 1500F)	
Communication		
Communication	PROFIBUS DP	

ltem 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	0.018 m³/s (0.653 ft³/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	
Co	nnections	
Signal cable		
Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)	
Line side		
Version	screw-type terminal	
Conductor cross-section	1.50 16.00 mm² (AWG 16 AWG 6)	
Motor end		
Version	Screw-type terminals	
Conductor cross-section	1.50 16.00 mm² (AWG 16 AWG 6)	
DC link (for braking resistor)		
PE connection	On housing with M4 screw	
Max. motor cable length		
Shielded	150 m (492.13 ft)	
Unshielded	300 m (984.25 ft)	

Degree of protection	IP20 / UL open	type
rame size	FSC	
let weight	7.14 kg (15.74	lb)
Dimensions		
Width	140 mm (5.51	in)
Height	295 mm (11.61	l in)
Depth	218 mm (8.58	in)
	Standards	
compliance with standards	UL, cUL, CE, C-1 SEMI F47, REAC	Tick (RCM), EAC, KCC, TH
E marking	EMC Directive 2 Voltage Directiv	2004/108/EC, Low- ve 2006/95/EC
Converter	losses to IEC61800-9	9-2*
fficiency class	IE2	
comparison with the reference onverter (90% / 100%)	36.4 %	
I ▲ 229.0 W (1.3 %)	271.0 W (1.5 %)	340.0 W (1.9 %)
00% •	••••	•
0% •	164.0 W (0.9 %)	187.0 W (1.0 %)
120.0 W (0.7 %)	127.0 W (0.7 %)	

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

90% **f** 

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

<sup>1)</sup>The output current and HP ratings are valid for the voltage range 440V-480V

<sup>3)</sup> 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: Intelliger
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	Screen
Display design	LCD color
Screen resolution	320 x 240 Pixel
Mechanical data	
Degree of protection	IP55 / UL type 12
Net weight	0.134 kg (0.30 lb)
Dimensions	
Width	70.00 mm (2.76 in)
Height	106.85 mm (4.21 in)
Depth	19.65 mm (0.77 in)

Operator Panel (IOP-2)		
Ambient conditions Ambient temperature		
	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 duri	ng	
Max. operation	95 %	
	Approvals	
Certificate of suitability	CE, cULus, EAC, KCC, RCM	