# SIEMENS

Data sheet for SINAMICS G120X

#### Article No. :

#### 6SL3220-3YC26-0UF0



Figure similar

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

Rated data		
Input		
Number of phases	3 AC	
Line voltage	200 240 V +10	0 % -20 %
Line frequency	47 63 Hz	
Rated voltage	200V IEC	240V NEC
Rated current (LO)	40.00 A	40.00 A
Rated current (HO)	26.30 A	26.30 A
Output		
Number of phases	3 AC	
Rated voltage	200V IEC	240V 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)	42.00 A	42.00 A
Rated current (HO)	28.00 A	28.00 A
Rated current (IN)	43.00 A	
Max. output current	57.00 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 $\lambda$	0.90 0.95	
Offset factor $\cos \phi$	0.99	
Efficiency η	0.97	
Sound pressure level (1m)	70 dB	
Power loss <sup>3)</sup>	0.463 kW	
Filter class (integrated)	Unfiltered	
EMC category (with accessories)	without	
Safety function "Safe Torque Off"	without	
Communication		

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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Ambie	nt conditions
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.055 m³/s (1.942 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
Cor	nnections
Signal cable	
Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)
Line side	
Version	screw-type terminal
Conductor cross-section	10.00 35.00 mm² (AWG 8 AWG 2)
Motor end	
Version	Screw-type terminals
Conductor cross-section	10.00 35.00 mm² (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)

N	lechanical data	
Degree of protection	ee of protection IP20 / UL open type	
Frame size	FSD	
Net weight	16.6 kg (36.60	) lb)
Dimensions		
Width	200 mm (7.87	'in)
Height	472 mm (18.5	8 in)
Depth	248 mm (9.76 in)	
	Standards	
Compliance with standards	UL, cUL, CE, C- SEMI F47, REA	Tick (RCM), EAC, KCC, CH
CE marking		2004/108/EC, Low- ive 2006/95/EC
Converter	losses to IEC61800-	9-2*
Efficiency class	IE2	
Comparison with the reference converter (90% / 100%)	51.2 %	
■ 321.0 W (1.8 %)	378.0 W (2.2 %)	463.0 W (2.7 %)
		Ī
199.0 W (1.1 %)	222.0 W (1.3 %)	252.0 W (1.4 %)
50% •	••••	•
158.0 W (0.9 %)	168.0 W (1.0 %)	

50% 90% f 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

<sup>1)</sup>The output current and HP ratings are valid for the voltage range 220V-240V

<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:	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 o
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		
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	