

## **Data sheet for SINAMICS G120X**

Article No.: 6SL3220-3YH24-0UP0

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

Rated data Input 3 АС Number of phases 500 ... 690 V +10 % -20 % Line voltage 47 ... 63 Hz Line frequency Rated voltage 690V IEC 600V NEC Rated current (LO) 11.00 A 11.00 A Rated current (HO) 9.90 A 9.90 A Output Number of phases 3 AC Rated voltage 690V IEC 600V NEC 1) Rated power (LO) 7.50 kW 10.00 hp Rated power (HO) 5.50 kW 7.50 hp Rated current (LO) 11.00 A 11.00 A 9.00 A Rated current (HO) 9.00 A Rated current (IN) 12.00 A Max. output current 15.00 A Pulse frequency 2 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	0.90 0.95
Offset factor $\cos \phi$	0.99
Efficiency η	0.97
Sound pressure level (1m)	70 dB
Power loss 3)	0.306 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

Error: No CAD-Data available for this configuration.

Figure similar

Item no. : Consignment no. : Project :

Innuts /	outnuts	
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	



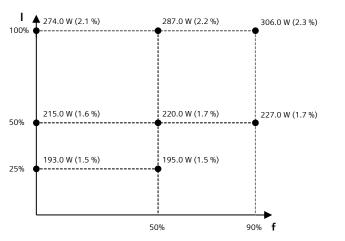
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Class 3C2, according to IEC 60721-3-3: 2002  Air cooling using an integrated fan
5 5 5
0.055 ==31= (1.042 ft31=)
0.055 m³/s (1.942 ft³/s)
1,000 m (3,280.84 ft)
-20 45 °C (-4 113 °F)
-40 70 °C (-40 158 °F)
-25 55 °C (-13 131 °F)
95 % At 40 °C (104 °F), condensation and icing not permissible
ections
0.15 1.50 mm <sup>2</sup> (AWG 24 AWG 16)
screw-type terminal
10.00 35.00 mm <sup>2</sup> (AWG 8 AWG 2)
Screw-type terminals
10.00 35.00 mm <sup>2</sup> (AWG 8 AWG 2)
Screw-type terminals
200 m (656.17 ft)
300 m (984.25 ft)

Мес	chanical data	
Degree 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 (18.58 in)	
Depth	248 mm (9.76 in)	
Standards		
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*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	42.8 %



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

 $<sup>^{1)}\</sup>mbox{The}$  output current and HP ratings are valid for the voltage range 550V-600V

<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: 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		
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	