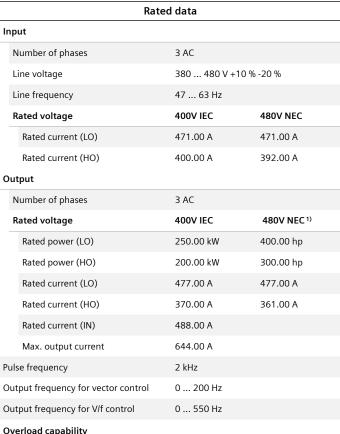


## **Data sheet for SINAMICS G120X**

6SL3220-1YE54-0AF0 Article No.:

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



Overload	capabil	lity
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Low Overload (LO)

110% base load current IL for 60 s in a 300 s cycle time

High Overload (HO)

Communication

150% x base load current IH for 60 s within a 600 s cycle time

specifications
0.90 0.95
0.99
0.98
74 dB
6.170 kW
RFI suppression filter for Category C2
Category C2
without SIRIUS device (e.g. via S7- 1500F)

Communication

Item no.: Consignmen

nt no. :			

Inputs / outputs Standard digital inputs				
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, sen Thermo-Click, accuracy ±5 °C	nsors that can be connected PTC, KTY and			
Closed-loop cor	ntrol techniques			
//f linear / square-law / parameterizable	Yes			
//f with flux current control (FCC)	Yes			
//f ECO linear / square-law	Yes			
Sensorless vector control	Yes			
Sensorless vector control /ector control, with sensor	Yes No			

No

PROFINET, EtherNet/IP

Torque control, with encoder



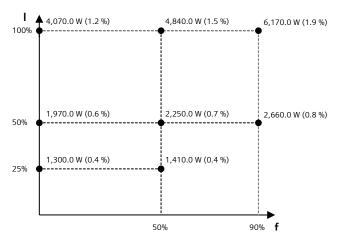
## **Data sheet for SINAMICS G120X**

Article No.: 6SL3220-1YE54-0AF0

Ambient conditions		
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002	
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.210 m <sup>3</sup> /s (7.416 ft <sup>3</sup> /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	
Connections		
Signal cable		
Conductor cross-section	0.15 1.50 mm <sup>2</sup> (AWG 24 AWG 16)	
Line side		
Version	M10 screw	
Conductor cross-section	35.00 2 x 185.00 mm <sup>2</sup> (AWG 1 MCM 2 x 350)	
Motor end		
Version	M10 screw	
Conductor cross-section	35.00 2 x 185.00 mm <sup>2</sup> (AWG 1 MCM 2 x 350)	
DC link (for braking resistor)		
PE connection	M10 screw	
Max. motor cable length		
•		

Mechanical data		
Degree of protection	IP20 / UL open type	
Frame size	FSG	
Net weight	120 kg (264.56 lb)	
Dimensions		
Width	305 mm (12.01 in)	
Height	999 mm (39.33 in)	
Depth	369 mm (14.53 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	





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 440V-480V

<sup>&</sup>lt;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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