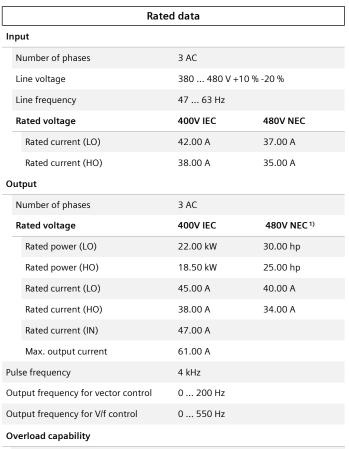


Data sheet for SINAMICS G120X

Article No.: 6SL3230-1YE32-0AP0

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



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

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)	0.732 kW	
Filter class (integrated)	RFI suppression filter for Category C2	
EMC category (with accessories)	Category C2	
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7- 1500F)	
Communication		

Communication



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	

PROFIBUS DP



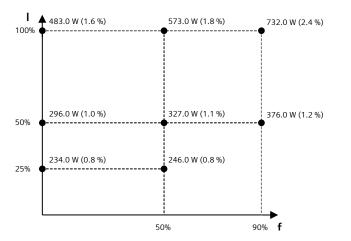
Data sheet for SINAMICS G120X

Article No.: 6SL3230-1YE32-0AP0

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	0.055 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			
Connections				
Signal cable				
Conductor cross-section	0.15 1.50 mm ² (AWG 24 AWG 16)			
Line side				
Version	screw-type terminal			
Conductor cross-section	10.00 35.00 mm ² (AWG 8 AWG 2)			
Motor end				
Version	Screw-type terminals			
Conductor cross-section	10.00 35.00 mm ² (AWG 8 AWG 2)			
DC link (for braking resistor)				
PE connection	Screw-type terminals			
Max. motor cable length				
Max. motor cable length Shielded	150 m (492.13 ft)			

Mechanical data				
Degree of protection		IP20 / UL open type		
Frame size		FSD		
Net weight		18 kg (39.68 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%)	48.2 %	



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 440V-480V

³⁾Typical value. More information can be found in the element group "Converter losses to IEC 61800-9-2" in this datasheet.