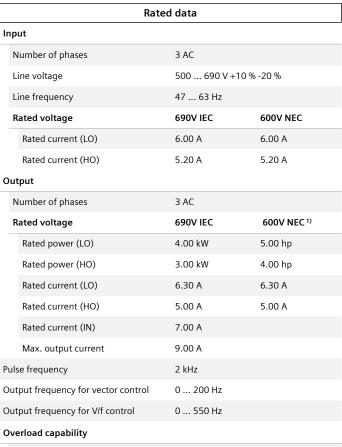


## **Data sheet for SINAMICS G120X**

Article No.: 6SL3230-2YH20-0AP0

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)	0.191 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		



Item 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	

PROFIBUS DP



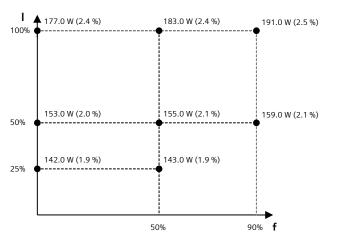
## **Data sheet for SINAMICS G120X**

Article No.: 6SL3230-2YH20-0AP0

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 <sup>2</sup> (AWG 24 AWG 16)	
Line side		
Version	screw-type terminal	
Conductor cross-section	10.00 35.00 mm <sup>2</sup> (AWG 8 AWG 2)	
Motor end		
Version	Screw-type terminals	
Conductor cross-section	10.00 35.00 mm <sup>2</sup> (AWG 8 AWG 2)	
DC link (for braking resistor)		
DC link (for braking resistor)  PE connection	Screw-type terminals	
	Screw-type terminals	

	Mechanical data			
D	egree of protection	IP20 / UL open type		
Frame size		FSD		
Net weight		18.3 kg (40.34 lb)		
Dimensions				
	Width	200 mm (7.87 in)		
	Height	472 mm (18.58 in)		
	Depth	248 mm (9.76 in)		
Standards				
C	ompliance 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 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.



## **Data sheet for SINAMICS G120X**

Article No.: 6SL3230-2YH20-0AP0

	Operator pane	el: Basic Operator Panel (BOP-2)
	Screen	
Display design	LCD, monochrome	Ambient temperature
	Mechanical data	Operation
	wechanical data	Storage
Degree of protection	IP55 / UL type 12	Transport
Net weight	0.140 kg (0.31 lb)	
Dimensions		Relative humidity at 25
Width	70.00 mm (2.76 in)	Max. operation
Height	106.85 mm (4.21 in)	
Depth	19.60 mm (0.77 in)	Certificate of suitability

Ambient conditions			
Ambient temperature			
Operation	0 50 °C (32 122 °F)		
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		