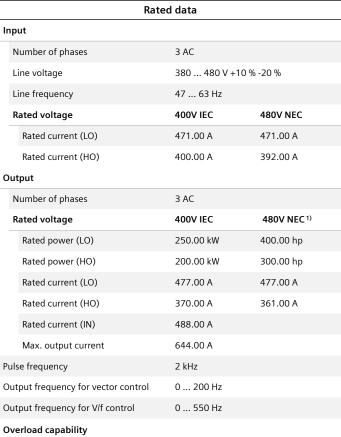


## **Data sheet for SINAMICS G120X**

6SL3230-3YE54-0CP0 Article No.:

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)

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	0.98
Sound pressure level (1m)	74 dB
Power loss 3)	6.170 kW
Filter class (integrated)	RFI suppression filter for Category C3
EMC category (with accessories)	Category C3
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7- 1500F)
Communication	

PROFIBUS DP 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 ±5 °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



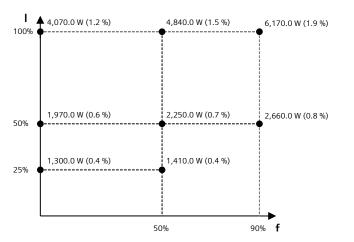
# **Data sheet for SINAMICS G120X**

Article No.: 6SL3230-3YE54-0CP0

Ambie	ent conditions
Standard board coating type	Class 3C3, according to IEC 60721-3-3: 2002
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.210 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)	
DC link (for braking resistor) PE connection	M10 screw
	M10 screw
PE connection	M10 screw 200 m (656.17 ft)

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	

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	45.7 %



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>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.: 6SL3230-3YE54-0CP0

	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°C
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 %	
A		
Approvals		
Certificate of suitability	CE, cULus, EAC, KCC, RCM	