

## **Data sheet for SINAMICS G120X**

Article No.: 6SL3220-2YE64-0CF0

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

Rated data				
Input				
Number of phases		3 AC		
Line voltage	Line voltage		-10 %	
Line frequency		47 63 Hz		
Rated voltage		400V IEC	480V NEC	
Rated current (LC	))	924.00 A	751.00 A	
Rated current (HC	O)	756.00 A	614.00 A	
Output				
Number of phases		3 AC		
Rated voltage		400V IEC	480V NEC 1)	
Rated power (LO)	)	500.00 kW	600.00 hp	
Rated power (HO	)	400.00 kW	500.00 hp	
Rated current (LC	))	890.00 A	724.00 A	
Rated current (HC	O)	728.00 A	591.00 A	
Rated current (IN	)	910.00 A		
Max. output curre	ent	1,202.00 A		
Pulse frequency		4 kHz		
Output frequency for vector control		0 100 Hz		
Output frequency for V/f control		0 100 Hz		
Overload canability				

Overload	capabi	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)

 $150\%\,x$  base load current IH for 60 s within a 300 s cycle time

General tech. specifications			
Power factor λ	0.75 0.93		
Offset factor $\cos\phi$	0.96		
Efficiency η	0.98		
Sound pressure level (1m)	74 dB		
Power loss 3)	10.500 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

Communication PROFINET, EtherNet/IP



Item no. : Consignment no. : Project :

Inputs i	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		

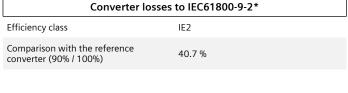


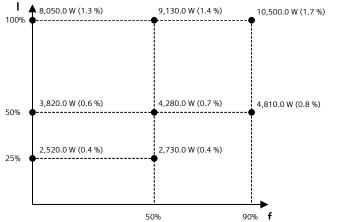
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A LL COMPANIE				
Ambie	ent conditions			
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002			
Cooling	Air cooling using an integrated fan			
Cooling air requirement	0.450 m <sup>3</sup> /s (15.892 ft <sup>3</sup> /s)			
Installation altitude	1,000 m (3,280.84 ft)			
Ambient temperature				
Operation	0 45 °C (32 113 °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 mm² (AWG 24 AWG 16)			
Line side				
Version	M12 screw			
Conductor cross-section	6 x 240.00 mm <sup>2</sup> (MCM 4 x 500 MCM 6 x 500)			
Motor end				
Version	M12 screw			
Conductor cross-section	6 x 240.00 mm <sup>2</sup> (MCM 4 x 500 MCM 8 x 500)			
DC link (for braking resistor)				
PE connection	M12 screw			
Max. motor cable length				
Shielded	150 m (492.13 ft)			

	Mechanical data				
Degree of protection		IP20 / UL open type			
Frame size		FSJ			
Net weight		250 kg (551.16 lb)			
Dimensions					
	Width	801 mm (31.54 in)			
	Height	1,621 mm (63.82 in)			
	Depth	393 mm (15.47 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.

\*calculated 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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Article No.: 6SL3220-2YE64-0CF0

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

Ambiant and disiana			
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			



### **MLFB-Ordering data**

6SL3000-0CE41-0AA0



Figure similar

Client order no. :

Order no. :

Offer no. : Remarks : Item no.:

Consignment no.:

Project :

Rated data			Connections	
nput				
Number of phases	3 AC			
Line voltage	380 480 V			
Output		Load side		
Rated current	1060.0 A	Version	1 x hole for M12	
Mec	hanical data			

350.0 mm (13.8 in)

**Height** 321.0 mm (12.6 in)

**Depth** 211.5 mm (8.3 in)

Degree of protection IP00

**Net weight** 69.6 kg (153.0 lb)

### PE connection

Version M6 screw