

Data sheet for SINAMICS G120X

Article No.: 6SL3220-1YE58-0CP0

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

Rated data			
ln	put		
	Number of phases	3 AC	
	Line voltage	380 480 V +10 %	-10 %
	Line frequency	47 63 Hz	
	Rated voltage	400V IEC	480V NEC
	Rated current (LO)	654.00 A	525.00 A
	Rated current (HO)	501.00 A	402.00 A
0	utput		
	Number of phases	3 AC	
	Rated voltage	400V IEC	480V NEC 1)
	Rated power (LO)	355.00 kW	450.00 hp
	Rated power (HO)	250.00 kW	300.00 hp
	Rated current (LO)	640.00 A	515.00 A
	Rated current (HO)	491.00 A	394.00 A
	Rated current (IN)	655.00 A	
	Max. output current	864.00 A	
Pι	Ilse frequency	4 kHz	
0	utput frequency for vector control	0 100 Hz	
0	tput frequency for V/f control 0 100 Hz		
0	verload capability		

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 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)	8.020 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

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



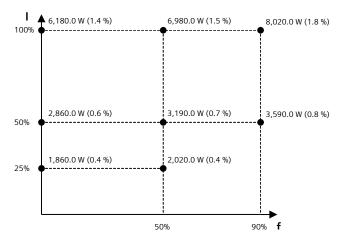
Data sheet for SINAMICS G120X

Article No.: 6SL3220-1YE58-0CP0

	. 15.0		
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	0.362 m ³ /s (12.784 ft ³ /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	4 x 240.00 mm ² (MCM 2 x 500 MCM 4 x 500)		
Motor end			
Version	M12 screw		
Conductor cross-section	4 x 240.00 mm ² (MCM 2 x 500 MCM 4 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	FSH	
Net weight	157 kg (346.13 lb)	
Dimensions		
Width	548 mm (21.57 in)	
Height	1,695 mm (66.73 in)	
Depth	393 mm (15.47 in)	
Sta	andards	
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%)	43.2 %



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.

*calculated 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.



MLFB-Ordering data

6SL3000-0CE37-7AA0



Figure similar

Client order no. : Item no. : Order no. : Consignment no. :

Offer no. : Project :

Remarks :

Rated data			Connections	
nput				
Number of phases	3 AC			
Line voltage	380 480 V			
Output		Load side		
Rated current	773.0 A	Version	1 x hole for M12	
Mech	anical data			
Dimensions				
Width	300.0 mm (11.8 in)	PE connection		
Height	269.0 mm (10.6 in)	Version	M6 screw	
Depth	212.0 mm (8.3 in)			
Degree of protection	IP00			
Net weight	51.3 kg (113.0 lb)			