SIEMENS

Data sheet for SINAMICS G120C

Article No. :

6SL3210-1KE27-0AF1



Figure similar

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

Rated data		
Input		
Number of phases	3 AC	
Line voltage	380 480 V +10 % -20 %	
Line frequency	47 63 Hz	
Rated current (LO)	64.00 A	
Rated current (HO)	61.00 A	
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC ¹⁾
Rated power (LO)	37.00 kW	40.00 hp
Rated power (HO)	30.00 kW	30.00 hp
Rated current (LO)	68.00 A	
Rated current (HO)	58.00 A	
Rated current (IN)	68.00 A	
Max. output current	116.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 240 Hz	
Output frequency for V/f control	0 550 Hz	

Overload capability

Low Overload (LO)

150 % base load current IL for 3 s, followed by 110 % base load current IL for 57 s in a 300 s cycle time

High Overload (HO)

200% base load current IH for 3 s, followed by 150% base load current IH for 57 s in a 300 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)	72 dB		
Power loss	1,090.0 W		
Filter class (integrated)	Class A		
Communication			

Communication

PROFINET, EtherNet/IP

ltem 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	1			
Output (resistive load)	DC 30 V, 0.5 A			
Number as transistor	1			
Output (resistive load)	DC 30 V, 0.5 A			
Analog / digital inputs				
Number	1 (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

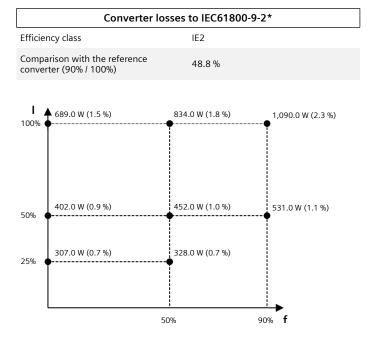
SIEMENS

Data sheet for SINAMICS G120C

Article No. :

6SL3210-1KE27-0AF1

Amb	ient conditions			
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 40 °C (-4 104 °F)			
Transport	-40 70 °C (-40 158 °F)			
Storage	-40 70 °C (-40 158 °F)			
Relative humidity				
Max. operation	95 % RH, condensation not permitted			
(Connections			
Signal cable				
Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)			
Line side				
Version	screw-type terminal			
Conductor cross-section	$10.00 \dots 35.00 \text{ mm}^2$			
Motor end	(AWG 8 AWG 2)			
Version	Screw-type terminals			
Conductor cross-section	10.00 35.00 mm² (AWG 8 AWG 2)			
DC link (for braking resistor)				
Version	Screw-type terminals			
Conductor cross-section	10.00 35.00 mm² (AWG 8 AWG 2)			
Line length, max.	10 m (32.81 ft)			
PE connection	Screw-type terminals			
Max. motor cable length				
Shielded	200 m (656.17 ft)			
Unshielded	300 m (984.25 ft)			
Me	echanical data			
Degree of protection	IP20 / UL open type			
Frame size	FSD			
Net weight	19.50 kg (42.99 lb)			
Dimensions				
Width	200 mm (7.87 in)			
Height	472 mm (18.58 in)			
Depth	237 mm (9.33 in)			
	Standards			
Compliance with standards	UL, cUL, CE, C-Tick (RCM)			
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

 $^{1)}\mbox{The}$ output current and HP ratings are valid for the voltage range 440V-480V