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Data sheet for SINAMICS G120C

Article No. :

6SL3210-1KE11-8AF2



Figure similar

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

Rated data			
Input			
Number of phases	3 AC		
Line voltage	380 480 V +10 %	6 -20 %	
Line frequency	47 63 Hz		
Rated current (LO)	2.30 A		
Rated current (HO)	1.90 A		
Output			
Number of phases	3 AC		
Rated voltage	400V IEC	480V NEC ¹⁾	
Rated power (LO)	0.55 kW	0.75 hp	
Rated power (HO)	0.37 kW	0.50 hp	
Rated current (LO)	1.70 A		
Rated current (HO)	1.30 A		
Rated current (IN)	1.80 A		
Max. output current	2.60 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	0.70 0.85	
Offset factor $\cos \phi$	0.95	
Efficiency η	0.97	
Sound pressure level (1m)	49 dB	
Power loss	33.8 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			

Yes

No

Vector control, with sensor No Encoderless torque control No

Sensorless vector control

Torque control, with encoder

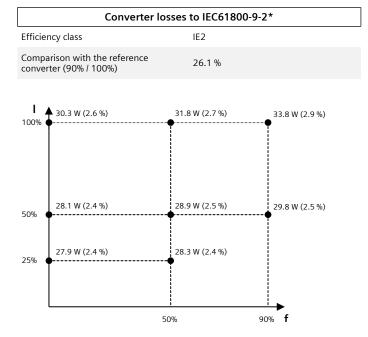
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Ambient conditions		
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.005 m³/s (0.177 ft³/s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
Operation	-10 40 °C (14 104 °F)	
Transport	-40 70 °C (-40 158 °F)	
Storage	-40 70 °C (-40 158 °F)	
Relative humidity		
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible	
Ca	onnections	
Signal cable		
Conductor cross-section	0.15 1.50 mm² (AWG 24 AWG 16)	
Line side		
Version	Plug-in screw terminals	
Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14)	
Motor end		
Version	Plug-in screw terminals	
Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14)	
DC link (for braking resistor)		
Version	Plug-in screw terminals	
Conductor cross-section	1.00 2.50 mm² (AWG 18 AWG 14)	
Line length, max.	15 m (49.21 ft)	
PE connection	On housing with M4 screw	
Max. motor cable length		
Shielded	50 m (164.04 ft)	
Unshielded	100 m (328.08 ft)	
Мес	hanical data	
Degree of protection	IP20 / UL open type	
Frame size	FSAA	
Net weight	1.40 kg (3.09 lb)	
Dimensions		
Width	73 mm (2.87 in)	
Height	173 mm (6.81 in)	
Depth	178 mm (7.01 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

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