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Data sheet for SINAMICS G120C

Article No. :

6SL3210-1KE22-6UF1



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)	33.00 A	
Rated current (HO)	24.10 A	
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC ¹⁾
Rated power (LO)	11.00 kW	15.00 hp
Rated power (HO)	7.50 kW	10.00 hp
Rated current (LO)	25.00 A	
Rated current (HO)	16.50 A	
Rated current (IN)	26.00 A	
Max. output current	33.00 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	0.70 0.85	
Offset factor $\cos \phi$	0.95	
Efficiency η	0.97	
Sound pressure level (1m)	66 dB	
Power loss	292.0 W	
Filter class (integrated)	Unfiltered	
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			

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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

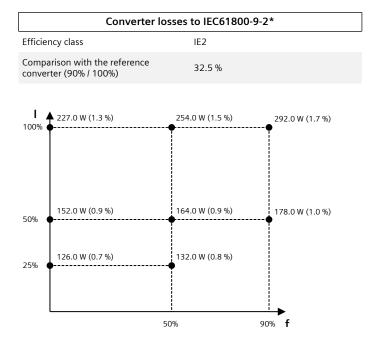
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Ambient conditions		
Cooling	Air cooling using an integrated fan	
Cooling air requirement	0.018 m³/s (0.636 ft³/s)	
Installation altitude	1,000 m (3,280.84 ft)	
Ambient temperature		
Operation	-10 40 °C (14 104 °F)	
Transport	-40 70 °C (-40 158 °F)	
Storage	-40 70 °C (-40 158 °F)	
Relative humidity		
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible	
Co	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	6.00 16.00 mm² (AWG 10 AWG 6)	
Motor end		
Version	Plug-in screw terminals	
Conductor cross-section	6.00 16.00 mm² (AWG 10 AWG 6)	
DC link (for braking resistor)		
Version	Plug-in screw terminals	
Conductor cross-section	6.00 16.00 mm² (AWG 10 AWG 6)	
Line length, max.	15 m (49.21 ft)	
PE connection	On housing with M4 screw	
Max. motor cable length		
Shielded	150 m (492.13 ft)	
Unshielded	150 m (492.13 ft)	
Mechanical data		
Degree of protection	IP20 / UL open type	
Frame size	FSC	
Net weight	4.40 kg (9.70 lb)	
Dimensions		
Width	140 mm (5.51 in)	
Height	295 mm (11.61 in)	
Depth	205 mm (8.19 in)	
c	Standards	
Compliance with standards	UL, cUL, CE, C-Tick (RCM)	
	EMC Directive 2004/108/EC, Low-	
CE marking	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⁾The output current and HP ratings are valid for the voltage range 440V-480V