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Data sheet for SINAMICS G120C

Article No. :

6SL3210-1KE11-8UB1



Figure similar

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

Rated data				
Input				
Number of phases	3 AC			
Line voltage	380 480 V +10 9	% -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)	52 dB	
Power loss	32.7 W	
Filter class (integrated)	Unfiltered	
Communication		

Communication

USS/MODBUS RTU

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

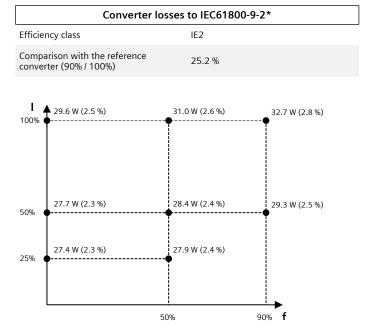
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Ambie	ent conditions
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.005 m³/s (0.177 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation	-10 40 °C (14 104 °F)
Transport	-40 70 °C (-40 158 °F)
Storage	-40 70 °C (-40 158 °F)
Relative humidity	
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
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	1.00 2.50 mm² (AWG 18 AWG 14)
Motor end	
Version	Plug-in screw terminals
Conductor cross-section	1.00 2.50 mm ² (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	150 m (492.13 ft)
Unshielded	150 m (492.13 ft)
Мес	hanical data
Degree of protection	IP20 / UL open type
Frame size	FSA
Net weight	1.70 kg (3.75 lb)
Dimensions	
Width	73 mm (2.87 in)
Height	196 mm (7.72 in)
Depth	203 mm (7.99 in)
S	itandards
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