

MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

SIEMENS

6SL3210-1KE22-6UB1

COMPACT THREE PHASE FREQUENCY CONVERTER

Used with the applicable SINAMICS G120C configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Siemens SINAMICS G120C technical documentation

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Data sheet for SINAMICS G120C



Ordering data

6SL3210-1KE22-6UB1

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data		General tech. specifications	
Input		Power factor λ	0.70 ... 0.85
Number of phases	3 AC	Offset factor $\cos \varphi$	0.95
Line voltage	380 ... 480 V +10 % -20 %	Efficiency η	0.97
Line frequency	47 ... 63 Hz	Sound pressure level (1m)	66 dB
Rated current (LO)	33.00 A	Power loss	0.35 kW
Rated current (HO)	24.10 A	Ambient conditions	
Output		Cooling	Air cooling using an integrated fan
Number of phases	3 AC	Cooling air requirement	0.018 m ³ /s
Rated voltage	400 V	Installation altitude	1000 m
Rated power (LO)	11.00 kW	Ambient temperature	
Rated power (HO)	7.50 kW	Operation	-10 ... 40 °C (14 ... 104 °F)
Rated current (IN)	24.10 A	Transport	-40 ... 70 °C (-40 ... 158 °F)
Rated current (LO)	25.00 A	Storage	-40 ... 70 °C (-40 ... 158 °F)
Rated current (HO)	16.50 A	Relative humidity	
Max. output current	33.00 A	Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
Pulse frequency	4 kHz		
Output frequency for vector control	0 ... 240 Hz		
Output frequency for V/f control	0 ... 650 Hz		
In firmware V4.7 and higher, due to legal requirements, the maximum output frequency is restricted to 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

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Ordering data

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Mechanical data		Connections	
Degree of protection	IP20 / UL open type	Signal cable	
Size	FSC	Conductor cross-section	0.15 ... 1.50 mm ² (28 ... 16 AWG)
Net weight	4.40 kg	Line side	
Width	140.0 mm	Version	Plug-in screw-type terminals
Height	295.0 mm	Conductor cross-section	6.00 ... 16.00 mm ² (10 ... 5 AWG)
Depth	203.0 mm	Motor end	
Inputs/ outputs		Version	Plug-in screw terminals
Standard digital inputs		Conductor cross-section	6.00 ... 16.00 mm ² (10 ... 5 AWG)
Number	6	DC link (for braking resistor)	
Switching level: 0→1	11 V	Version	Plug-in screw terminals
Switching level: 1→0	5 V	Conductor cross-section	6.00 ... 16.00 mm ² (10 ... 5 AWG)
Max. inrush current	15 mA	PE connection	On housing with M4 screw
Fail-safe digital inputs		Max. motor cable length	
Number	1	Shielded	50 m
Digital outputs		Unshielded	100 m
Number as relay changeover contact	1	Communication	
Output (resistive load)	DC 30 V, 1 A	Communication	RS485
Number as transistor	1	Closed-loop control techniques	
Output (resistive load)	DC 30 V, 1 A	V/f linear / square-law / parameterizable	Yes
Analog/ digital inputs		V/f with flux current control (FCC)	Yes
Number	1 (Differential input)	V/f ECO linear / square-law	Yes
Analog outputs		Sensorless vector control	Yes
Number	1 (Non-isolated output)	Vector control, with sensor	No
PTC/ KTY interface		Encoderless torque control	No
1 motor temperature sensor input, connectable PTC, KTY, and Thermo-Click sensors, accuracy ±5°C		Torque control, with encoder	No
		Standards	
		Compliance with standards	CE, cULus, c-tick
		CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC