

Article No. : 6SL3220-2YC20-1UP0

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

Item no. :
Consignment no. :
Project :

Figure similar



Rated data		
Input		
Number of phases	3 AC	
Line voltage	200 ... 240 V +10 % -20 %	
Line frequency	47 ... 63 Hz	
Rated voltage	200V IEC	240V NEC
Rated current (LO)	16.30 A	16.30 A
Rated current (HO)	12.70 A	12.70 A
Output		
Number of phases	3 AC	
Rated voltage	200V IEC	240V NEC ¹⁾
Rated power (LO)	4.00 kW	5.00 hp
Rated power (HO)	3.00 kW	4.00 hp
Rated current (LO)	17.50 A	17.50 A
Rated current (HO)	13.60 A	13.60 A
Rated current (IN)	18.10 A	
Max. output current	23.70 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		
Low Overload (LO)		
110% base load current IL for 60 s in a 300 s cycle time		
High Overload (HO)		
150% x base load current IH for 60 s within a 600 s cycle time		
General tech. specifications		
Power factor λ	0.70 ... 0.85	
Offset factor cos φ	0.96	
Efficiency η	0.96	
Sound pressure level (1m)	63 dB	
Power loss ³⁾	0.223 kW	
Filter class (integrated)	Unfiltered	
EMC category (with accessories)	without	
Safety function "Safe Torque Off"	without SIRIUS device (e.g. via S7-1500F)	
Communication		
Communication	PROFIBUS DP	

Inputs / outputs	
Standard digital inputs	
Number	6
Switching level: 0 → 1	11 V
Switching level: 1 → 0	5 V
Max. inrush current	15 mA
Fail-safe digital inputs	
Number	1
Digital outputs	
Number as relay changeover contact	2
Output (resistive load)	DC 30 V, 5.0 A
Number as transistor	0
Analog / digital inputs	
Number	2 (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 ±5 °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



Data sheet for SINAMICS G120X

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Operator panel: Basic Operator Panel (BOP-2)	
Screen	
Display design	LCD, monochrome
Mechanical data	
Degree of protection	IP55 / UL type 12
Net weight	0.140 kg (0.31 lb)
Dimensions	
Width	70.00 mm (2.76 in)
Height	106.85 mm (4.21 in)
Depth	19.60 mm (0.77 in)
Ambient conditions	
Ambient temperature	
Operation	0 ... 50 °C (32 ... 122 °F)
Storage	-40 ... 70 °C (-40 ... 158 °F)
Transport	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity at 25°C during	
Max. operation	95 %
Approvals	
Certificate of suitability	CE, cULus, EAC, KCC, RCM

Data sheet for SINAMICS G120X

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I/O Extension Module

Inputs / outputs

Digital inputs

Number of digital inputs ¹⁾	2
Conductor cross-section	0.5 ... 1.5 mm ² (AWG 21 ... AWG 16) Alternatively 2 x 0.5 mm ²
Input voltage (0→1)	11 V
Input voltage (1→0)	5 V
Input voltage, max.	30 V

Digital outputs

Number of digital outputs	4
Conductor cross-section	1.5 mm ² (AWG 16)
Output current ²⁾	2 A

Analog inputs

Number of analog inputs ³⁾	2
Conductor cross-section	0.5 ... 1.5 mm ² (AWG 21 ... AWG 16) alternatively 2*0.5 mm ²
Current	0 ... 20 mA

Analog outputs

Number of analog outputs	2
Type of analog outputs ⁴⁾	Non-isolated output
Conductor cross-section	0.5 ... 1.5 mm ² (AWG 21 ... AWG 16) Alternatively 2 x 0.5 mm ²
Output voltage	0 ... 10 V
Output current	0 ... 20 mA

Mechanical data

Dimensions

Width	71 mm (2.80 in)
Height	117 mm (4.61 in)
Depth	27 mm (1.06 in)

¹⁾DI 6: digital input; DI 7: P or M switch; DI COM: Input for Control Unit interface (24 V out, max. 250 mA)

²⁾The max. current depends on the temperature and the size of the connected converted. It varies between 2 A and 3 A at 30 V DC.

³⁾2 analog inputs for the connection of Pt1000/Ni1000 temperature sensors. One of which can be optionally used as analog input.

⁴⁾Switchable between voltage (0 ... 10 V) and current (0 ... 20 mA) using a parameter