

Article No. :

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	380 ... 480 V +10 % -20 %	
Line frequency	47 ... 63 Hz	
Rated voltage	400V IEC	480V NEC
Rated current (LO)	365.00 A	356.00 A
Rated current (HO)	330.00 A	327.00 A
Output		
Number of phases	3 AC	
Rated voltage	400V IEC	480V NEC ¹⁾
Rated power (LO)	200.00 kW	300.00 hp
Rated power (HO)	160.00 kW	250.00 hp
Rated current (LO)	370.00 A	361.00 A
Rated current (HO)	302.00 A	302.00 A
Rated current (IN)	379.00 A	
Max. output current	500.00 A	
Pulse frequency	2 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	0.90 ... 0.95
Offset factor cos φ	0.99
Efficiency η	0.98
Sound pressure level (1m)	74 dB
Power loss ³⁾	4.610 kW
Filter class (integrated)	RFI suppression filter for Category C3
EMC category (with accessories)	Category C3

Ambient conditions	
Standard board coating type	Class 3C2, according to IEC 60721-3-3: 2002
Cooling	Air cooling using an integrated fan
Cooling air requirement	0.210 m³/s (7.416 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation	-20 ... 45 °C (-4 ... 113 °F)
Transport	-40 ... 70 °C (-40 ... 158 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % At 40 °C (104 °F), condensation and icing not permissible
Mechanical data	
Degree of protection	IP20 / UL open type
Size	FSG
Net weight	113 kg (249.12 lb)
Dimensions	
Width	305 mm (12.01 in)
Height	999 mm (39.33 in)
Depth	369 mm (14.53 in)

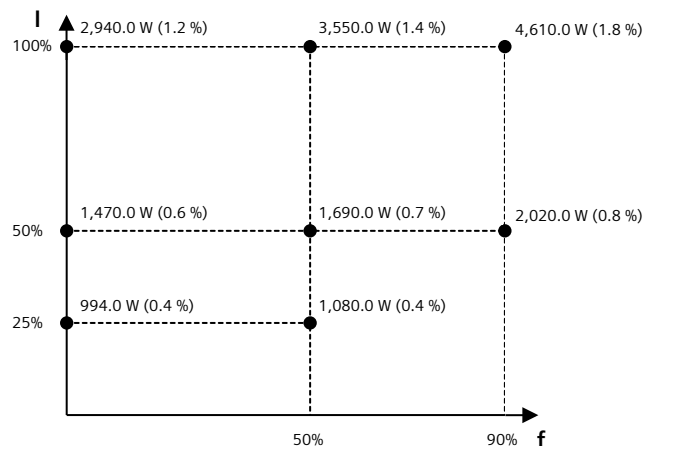
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Inputs / outputs	
Standard digital inputs	
Number	6
Switching level: 0 → 1	11 V
Switching level: 1 → 0	5 V
Max. inrush current	15 mA
Fail-safe digital inputs	
Number	1
Digital outputs	
Number as relay changeover contact	2
Output (resistive load)	DC 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	Yes
Torque control, with encoder	No

Communication	
Communication	PROFIBUS DP

Connections	
Signal cable	
Conductor cross-section	0.15 ... 1.50 mm ² (AWG 24 ... AWG 16)
Line side	
Version	M10 screw
Conductor cross-section	35.00 ... 2 x 185.00 mm ² (AWG 1 ... MCM 2 x 350)
Motor end	
Version	M10 screw
Conductor cross-section	35.00 ... 2 x 185.00 mm ² (AWG 1 ... MCM 2 x 350)
DC link (for braking resistor)	
PE connection	M10 screw
Max. motor cable length	
Shielded	200 m (656.17 ft)
Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	43.9 %



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.

*converted values

Standards	
Compliance with standards	UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH
CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC

¹⁾The output current and HP ratings are valid for the voltage range 440V-480V
³⁾Typical value. More information can be found in the element group "Converter losses to IEC 61800-9-2" in this datasheet.

Data sheet for SINAMICS G120X

Article No. :

Operator panel: Intelligent Operator Panel (IOP-2)

Screen

Display design	LCD color
Screen resolution	320 x 240 Pixel

Mechanical data

Degree of protection	IP55 / UL type 12
Net weight	0.134 kg (0.30 lb)

Dimensions

Width	70.00 mm (2.76 in)
Height	106.85 mm (4.21 in)
Depth	19.65 mm (0.77 in)

Ambient conditions

Ambient temperature

Operation	0 ... 50 °C (32 ... 122 °F) 55 °C only with door mounting kit
Storage	-40 ... 70 °C (-40 ... 158 °F)
Transport	-40 ... 70 °C (-40 ... 158 °F)

Relative humidity at 25°C during

Max. operation	95 %
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Approvals

Certificate of suitability	CE, cULus, EAC, KCC, RCM
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