

### MLFB-Ordering data

6SL3220-3YE24-0AF0



Figure similar

Client order no. :

Order no. :

Offer no. :

Remarks :

Item no. :

Consignment no. :

Project :

Rated data			General tech. specifications	
<b>Input</b>			<b>Power factor <math>\lambda</math></b>	0.70 ... 0.85
Number of phases	3 AC		<b>Offset factor <math>\cos \varphi</math></b>	0.96
Line voltage	380 ... 480 V +10 % -20 %		<b>Efficiency <math>\eta</math></b>	0.98
Line frequency	47 ... 63 Hz		<b>Sound pressure level (1m)</b>	63 dB
Rated voltage	400V IEC	480V NEC	<b>Power loss</b>	0.245 kW
Rated current (LO)	17.00 A	17.00 A	<b>Filter class (integrated)</b>	RFI suppression filter for Category C2
Rated current (HO)	12.47 A	13.25 A	<b>Ambient conditions</b>	
<b>Output</b>			<b>Cooling</b>	Air cooling using an integrated fan
Number of phases	3 AC		<b>Cooling air requirement</b>	0.009 m³/s (0.325 ft³/s)
Rated voltage	400V IEC	480V NEC	<b>Installation altitude</b>	1000 m (3280.84 ft)
Rated power (LO)	7.50 kW	10.00 hp	<b>Ambient temperature</b>	
Rated power (HO)	5.50 kW	7.50 hp	<b>Operation</b>	-20 ... 45 °C (-4 ... 113 °F)
Rated current (LO)	18.00 A	14.00 A	<b>Transport</b>	-40 ... 70 °C (-40 ... 158 °F)
Rated current (HO)	13.20 A	11.00 A	<b>Storage</b>	-25 ... 55 °C (-13 ... 131 °F)
Rated current (IN)	18.50 A		<b>Relative humidity</b>	
Max. output current	24.00 A		<b>Max. operation</b>	95 % At 40 °C (104 °F), condensation and icing not permissible
Pulse frequency	4 kHz		<b>Closed-loop control techniques</b>	
Output frequency for vector control	0 ... 200 Hz		<b>V/f linear / square-law / parameterizable</b>	Yes
Output frequency for V/f control	0 ... 550 Hz		<b>V/f with flux current control (FCC)</b>	Yes
			<b>V/f ECO linear / square-law</b>	Yes
			<b>Sensorless vector control</b>	Yes
			<b>Vector control, with sensor</b>	No
			<b>Encoderless torque control</b>	Yes
			<b>Torque control, with encoder</b>	No

### 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



Figure similar

Mechanical data	
Degree of protection	IP20 / UL open type
Size	FSB
Net weight	6 kg (13.58 lb)
Width	100 mm (3.94 in)
Height	275 mm (10.83 in)
Depth	209 mm (8.23 in)
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
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### 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)
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### PTC/ KTY interface

1 motor temperature sensor input, sensors that can be connected: PTC, KTY and Thermo-Click, accuracy ±5 °C
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Communication	
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Communication	PROFINET / EtherNet/IP
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Connections	
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### Signal cable

Conductor cross-section	0.15 ... 1.50 mm² (AWG 24 ... AWG 16)
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### Line side

Version	screw-type terminal
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Conductor cross-section	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
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### Motor end

Version	Screw-type terminals
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Conductor cross-section	6.00 ... 16.00 mm² (AWG 10 ... AWG 6)
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### DC link (for braking resistor)

PE connection	On housing with M4 screw
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### Max. motor cable length

Shielded	200 m (656.17 ft)
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Unshielded	300 m (984.25 ft)
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Standards	
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Compliance with standards	UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH
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CE marking	EMC Directive 2004/108/EC, Low-Voltage Directive 2006/95/EC
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# SIEMENS

## Data sheet for SINAMICS G120X

MLFB-Ordering data

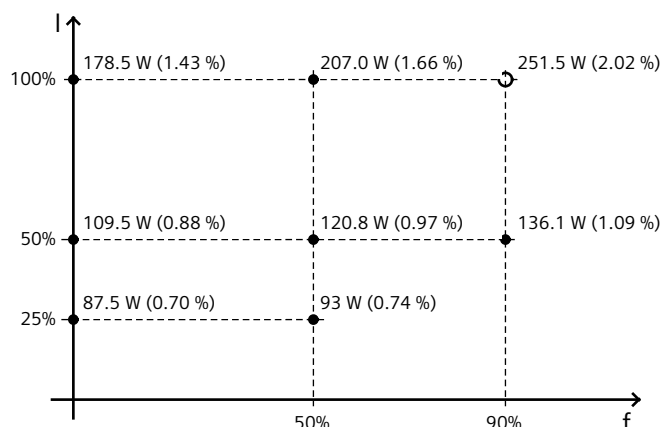
6SL3220-3YE24-0AF0



Figure similar

### Converter losses to EN 50598-2\*

Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	-37.10 %



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 EN 50598) 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

### Operator panel: Intelligent Operator Panel (IOP-2)

#### Screen

Display design	LCD colors
Screen resolution	320 x 240 Pixel

#### Ambient conditions

##### Ambient temperature during

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

Degree of protection	IP55 / UL type 12
Net weight	0.13 kg (0.30 lb)
Width	70.0 mm (2.76 in)
Height	106.85 mm (4.21 in)
Depth	19.65 mm (0.77 in)

##### 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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