

Article No. : 6SL3520-1XA20-3AF0



Figure similar

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

Item no. :  
Consignment no. :  
Project :

### Rated data

Input	
Number of phases	3 AC
Line voltage	380 ... 480 V +10 % -10 %
Line frequency	45 ... 66 Hz
Rated current	1.23 A
Output	
Number of phases	3 AC
Rated voltage	400 V
Rated power IEC 400V (HO)	0.37 kW
Rated power NEC 480V (HO)	0.50 hp
Rated current (HO)	1.30 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

High Overload (HO)  
200% × base load current IH for 3 s, followed by 150% for 57 s within a cycle time of 300s

### Inputs / outputs

#### Standard digital inputs

Number <sup>1)</sup>	4
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 inputs / outputs parameterizable

Number	2
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#### PTC/ KTY interface

1 motor temperature sensor input, possible sensor PTC, KTY, PT1000, thermo click, accuracy ±5 °C

### General tech. specifications

Power factor λ	0.00 ... 0.80
Offset factor cos φ	0.98
Efficiency η	0.95
Power loss	0.034 kW
Filter class (integrated)	RFI suppression filter for Category C2
Brake voltage	180V DC (default)
Integrated braking resistor (continuous braking power P_DB / peak power P_max)	10W / 100W

### Ambient conditions

Cooling	Natural convection cooling
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation	-30 ... 55 °C (-22 ... 131 °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
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### Mechanical data

Degree of protection	IP65/66 / UL type 4X
Frame size	F5A
Net weight	5.75 kg (12.64 lb)
Dimensions	
Width	380 mm (14.96 in)
Height	156 mm (6.14 in)
Depth	129 mm (5.08 in)

### 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	PROFINET, EtherNet/IP
Version	M12

### Control option

Control option	Repair switch
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## Data sheet for SINAMICS G115D

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### Connections

#### Connection type

Version Cable gland

#### 3AC 400V supply

Version Cable gland

Conductor cross-section 1.50 ... 6.00 mm<sup>2</sup>  
(AWG 15 ... AWG 9)

#### 24 V DC power supply

Variants external

Version Cable gland

#### Digital I/O

Version Cable gland

Conductor cross-section 0.20 ... 1.50 mm<sup>2</sup>  
(AWG 24 ... AWG 22)

#### Motor

Version Cable gland

Conductor cross-section 1.50 ... 4.00 mm<sup>2</sup>  
(AWG 16 ... AWG 12)

#### External brake resistor

Version Cable gland (Standard)

#### PE connection

Version On housing with M5 screw

#### Max. motor cable length

Shielded 15 m (49.21 ft)

### Standards

Compliance with standards

UL, cUL, CE, C-Tick (RCM), EAC, KCC, SEMI F47, REACH

CE marking

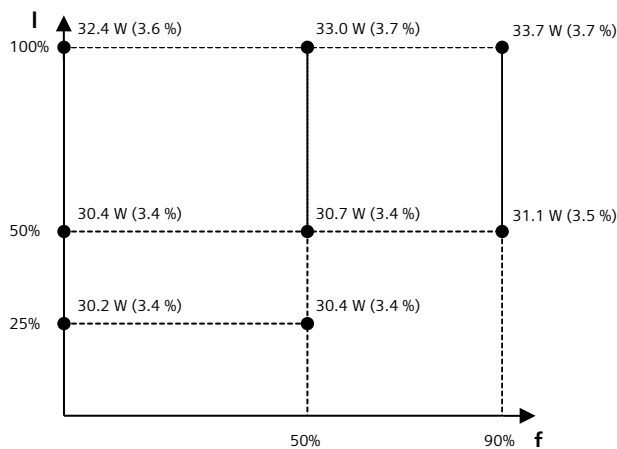
EMC Directive 2014/30/EC, Low-Voltage Directive 2014/35/EC

<sup>1)</sup>4 inputs PNP, not isolated, additional 2x switchable DI/DO

### Converter losses to IEC61800-9-2\*

Efficiency class IE2

Comparison with the reference converter (90% / 100%) 26.15 %



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