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Data sheet for SINAMICS G115D

Article No. : 6SL3521-1XA23-0AF0



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	6.76 A

Output

Number of phases	3 AC
Rated voltage	400 V
Rated power IEC 400V (HO)	3.00 kW
Rated power NEC 480V (HO)	4.00 hp
Rated current (HO)	7.70 A
Max. output current	15.40 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 [1)]	4
Switching level: 0 → 1	11 V
Switching level: 1 → 0	5 V
Max. inrush current	15 mA

Fail-safe digital inputs

Number	1

Digital inputs / outputs parameterizable

Number	2

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 ... 0.86
Offset factor cos φ	0.99
Efficiency η	0.97
Power loss	0.126 kW
Filter class (integrated)	RFI suppression filter for Category C2
Brake voltage	400V AC
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

Mechanical data

Degree of protection	IP65/66 / UL type 4X
Frame size	FSB
Net weight	7.33 kg (16.12 lb)

Dimensions

Width	425 mm (16.73 in)
Height	180 mm (7.09 in)
Depth	134 mm (5.28 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

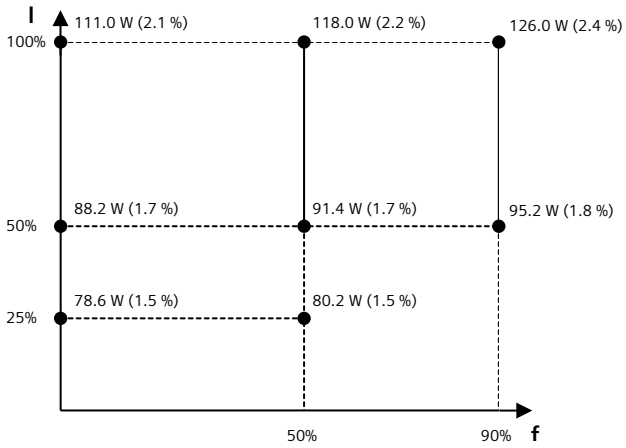
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Connections	
Connection type	
Version	Cable gland
3AC 400V supply	
Version	Cable gland
Conductor cross-section	2.50 ... 6.00 mm² (AWG 13 ... AWG 9)
24 V DC power supply	
Variant	external
Version	Cable gland
Digital I/O	
Version	Cable gland
Conductor cross-section	0.20 ... 1.50 mm² (AWG 24 ... AWG 22)
Motor	
Version	Cable gland
Conductor cross-section	2.50 ... 4.00 mm² (AWG 14 ... AWG 10)
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)

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	33.64 %



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.

*calculated values

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

[1] 4 inputs PNP, not isolated, additional 2x switcheable DI/DO