

## Data sheet for SINAMICS G115D

Article No. : 6SL3521-1XN00-7AF0

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

Item no. :  
Consignment no. :  
Project :

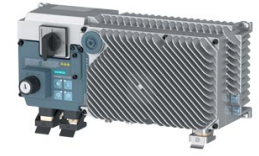


Figure similar

### Rated data

#### Input

|                  |                           |
|------------------|---------------------------|
| Number of phases | 3 AC                      |
| Line voltage     | 380 ... 480 V +10 % -10 % |
| Line frequency   | 45 ... 66 Hz              |
| Rated current    | 1.99 A                    |

#### Output

|                                     |              |
|-------------------------------------|--------------|
| Number of phases                    | 3 AC         |
| Rated voltage                       | 400 V        |
| Rated power IEC 400V (HO)           | 0.75 kW      |
| Rated power NEC 480V (HO)           | 1.00 hp      |
| Rated current (HO)                  | 2.20 A       |
| Max. output current                 | 4.40 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 <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 |
|--------|---|

#### 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 ... 0.87                          |
| Offset factor cos φ                                                            | 0.99                                   |
| Efficiency η                                                                   | 0.96                                   |
| Power loss                                                                     | 0.043 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           | FSA                  |
| Net weight           | 6.6 kg (14.51 lb)    |
| <b>Dimensions</b>    |                      |
| Width                | 380 mm (14.96 in)    |
| Height               | 216 mm (8.50 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

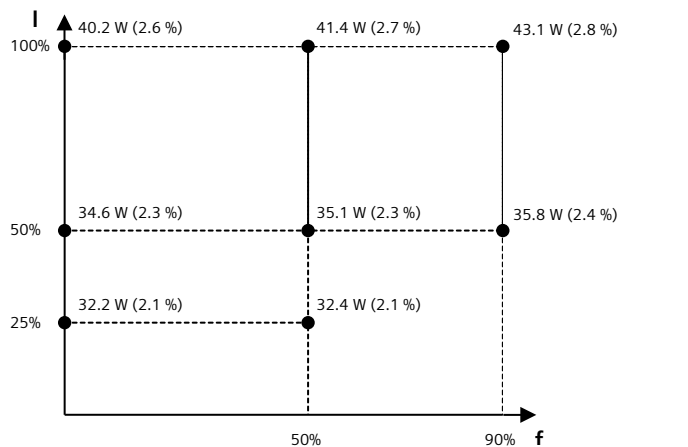
|                |               |
|----------------|---------------|
| Control option | Repair switch |
|----------------|---------------|

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| Connections             |                            |
|-------------------------|----------------------------|
| Connection type         |                            |
| Version                 | Connector with daisy chain |
| 3AC 400V supply         |                            |
| Version                 | 2x Q4/2                    |
| 24 V DC power supply    |                            |
| Variant                 | integrated                 |
| Version                 | integrated                 |
| Digital I/O             |                            |
| Version                 | M12                        |
| Motor                   |                            |
| Version                 | Q8/0                       |
| 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%) | 26.44 % |



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 |

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