Control unit, CU240E-2 DP, Profibus - SP3005102807

SINAMICS Control unit CU240E-2 DP
Article No.: 6SL3244-0BB12-1PA1

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet for SINAMICS Control unit CU240E-2 DP

Article No. : 6SL3244-0BB12-1PA1

Figure similar

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

Item no. :
Consignment no. :
Project :

Electrical data

Operating voltage via	
The Power Module	DC 24 V
External power supply	DC 20 ... 29 V
Max. power consumption	0.50 A
Power loss	5.50 W

Communication

Communication	PROFIBUS DP

Inputs / outputs

Standard digital inputs	
Number	6
Switching level: 0→1	11 V
Switching level: 1→0	5 V
Fail-safe digital inputs	
Number	1 (Use of 2 × DI Standard)
Digital outputs	
as relay changer	
Number	2
Analog / digital inputs	
Number	2 (Differential input)
Analog outputs	
Number	2 (Non-isolated output)

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

Ambient conditions

Ambient temperature	
Operation	-10 ... 55 °C (14 ... 131 °F)
Storage	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	
Max. operation	95 %

Connections

Signal cable	
Conductor cross-section	0.05 ... 1.50 mm² (AWG 28 ... AWG 16)

Mechanical data

Degree of protection	IP20 / UL open type
Net weight	0.49 kg (1.08 lb)
Dimensions	
Width	73.0 mm (2.87 in)
Height	199.0 mm (7.83 in)
Depth	46.0 mm (1.81 in)

Standards

Compliance with standards	CE, UL, cUL, RCM, SEMI F47
CE marking	Low-voltage directive 2014/35/EC

SITOP PSU8200/3AC/24 V DC/40 A - SP3005102214

SITOP PSU8200/3AC/24VDC/40A
SITOP PSU8200 24 V/40 A stabilized power supply
input: 400-500 V 3 AC output:24 V DC/40 A
Article No.: 6EP3437-8SB00-0AY0

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet 6EP3437-8SB00-0AY0

SITOP PSU8200/3AC/24VDC/40A

SITOP PSU8200 24 V/40 A stabilized power supply input: 400-500 V 3 AC output: 24 V DC/40 A *Ex approval no longer available*

Input	
type of the power supply network	3-phase AC
supply voltage at AC	
● minimum rated value	400 V
● maximum rated value	500 V
● initial value	320 V
● full-scale value	575 V
design of input wide range input	Yes
operating condition of the mains buffering	at Vin = 400 V
buffering time for rated value of the output current in the event of power failure minimum	10 ms
operating condition of the mains buffering	at Vin = 400 V
line frequency	
● 1 rated value	50 Hz
● 2 rated value	60 Hz
line frequency	45 ... 65 Hz
input current	
● at rated input voltage 400 V	2.1 A
● at rated input voltage 500 V	1.7 A
current limitation of inrush current at 25 °C maximum	13 A
I2t value maximum	2.24 A²·s
fuse protection type	none
● in the feeder	Required: 3-pole connected miniature circuit breaker 10 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
● at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
● on slow fluctuation of input voltage	0.1 %
● on slow fluctuation of ohm loading	0.2 %
residual ripple	
● maximum	100 mV
voltage peak	
● maximum	240 mV
adjustable output voltage	24 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer; max. 960 W
display version for normal operation	Green LED for 24 V OK

type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
behavior of the output voltage when switching on	minimal overshooting (< 2 %)
response delay maximum	0.1 s
voltage increase time of the output voltage	
● maximum	100 ms
output current	
● rated value	40 A
● rated range	0 ... 40 A; +60 ... +70 °C: Derating 4%/K
supplied active power typical	960 W
short-term overload current	
● at short-circuit during operation typical	120 A
duration of overloading capability for excess current	
● at short-circuit during operation	25 ms
constant overload current	
● on short-circuiting during the start-up typical	44 A
product feature	
● bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	94 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	66 W
● during no-load operation maximum	4 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	3 %
setting time	
● maximum	10 ms
Protection and monitoring	
design of the overvoltage protection	< 31.8 V
● typical	44 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 44 A or latching shutdown
enduring short circuit current RMS value	
● typical	50 A
overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
Safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
● maximum	1 mA
● typical	0.6 mA
protection class IP	IP20
Approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
● CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
● NEC Class 2	No
● EAC approval	Yes
● Regulatory Compliance Mark (RCM)	Yes
type of certification	
● BIS	Yes; R-41183539
● CB-certificate	Yes

certificate of suitability	
● IECEx	No
● ATEX	No
● ULhazloc approval	No
● cCSAus, Class 1, Division 2	No
● FM registration	No
certificate of suitability shipbuilding approval	Yes
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	Yes
● French marine classification society (BV)	No
● Lloyds Register of Shipping (LRS)	No
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	EN 61000-3-2
● for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
● during operation	-25 ... +70 °C; With natural convection
● during transport	-40 ... +85 °C
● during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 … 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
● at input	L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 4 mm² single-core/finely stranded
● at output	+: 2 screw terminals each for 0.5 ... 16 mm²; -: 3 screw terminals each for 0.5 ... 16 mm²
● for auxiliary contacts	13, 14 (alarm signal), 15, 16 (Remote): 1 screw terminal each for 0.05 ... 2.5 mm²
width of the enclosure	135 mm
height of the enclosure	145 mm
depth of the enclosure	150 mm
required spacing	
● top	40 mm
● bottom	40 mm
● left	0 mm
● right	0 mm
net weight	3.3 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x15
electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	517 015 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

Control unit, CU250S-2 DP, Profibus - SP3005102801

SINAMICS Control unit CU250S-2 DP
Article No.: 6SL3246-0BA22-1PA0

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet for SINAMICS Control unit CU250S-2 DP

Article No. : 6SL3246-0BA22-1PA0

Figure similar

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

Item no. :
Consignment no. :
Project :

Electrical data

Operating voltage via	
The Power Module	DC 24 V
External power supply	DC 20 ... 29 V
Max. power consumption	2.00 A
Power loss	12.00 W

Communication

Communication	PROFIBUS DP

Inputs / outputs

Standard digital inputs	
Number	15
Switching level: 0→1	11 V
Switching level: 1→0	5 V
Fail-safe digital inputs	
Number	3 (Use of 2 × DI Standard)
Digital outputs	
as relay changer	
Number	2
Output (resistive load)	DC 30 V, 0.5 A
as relay make contact	
Output (resistive load)	DC 30 V, 0.5 A
Analog / digital inputs	
Number	2 (Differential input)
Analog outputs	
Number	2 (Non-isolated output)

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	Yes
Encoderless torque control	Yes
Torque control, with encoder	Yes

Ambient conditions

Ambient temperature	
Operation	-10 ... 50 °C (14 ... 122 °F)
Storage	-40 ... 70 °C (-40 ... 158 °F)
Relative humidity	
Max. operation	95 %

Connections

Signal cable	
Conductor cross-section	0.05 ... 1.50 mm² (AWG 28 ... AWG 16)

Mechanical data

Degree of protection	IP20 / UL open type
Net weight	0.61 kg (1.34 lb)
Dimensions	
Width	73.0 mm (2.87 in)
Height	199.0 mm (7.83 in)
Depth	67.0 mm (2.64 in)

Standards

Compliance with standards	CE, UL, cUL, RCM, SEMI F47
CE marking	Low-voltage directive 2014/35/EC

PM250-2, 11KW (Heavy Duty rating) - SP3005102976

SINAMICS Power module PM250
Article No.: 6SL3225-0BE31-1AA1

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet for SINAMICS Power module PM250

Article No. : **6SL3225-0BE31-1AA1**

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 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	32.00 A	
Rated current (HO)	26.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	15.00 kW	20.00 hp
Rated power (HO)	11.00 kW	15.00 hp
Rated current (LO)	32.00 A	
Rated current (HO)	26.00 A	
Max. output current	52.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	

Overload capability

Low Overload (LO)

1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

General tech. specifications

Power factor λ	0.90
Offset factor cos φ	0.95
Efficiency η	0.95
Sound pressure level (1m)	60 dB
Power loss	0.31 kW
Filter class (integrated)	Class A

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.038 m³/s (1.342 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	0 ... 40 °C (32 ... 104 °F)
Operation HO	0 ... 50 °C (32 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	screw-type terminal
Conductor cross-section	2.50 ... 10.00 mm² (AWG 14 ... AWG 8)
Motor end	
Version	Screw-type terminals
Conductor cross-section	2.50 ... 10.00 mm² (AWG 14 ... AWG 8)
Max. motor cable length	
Shielded	25 m (82.02 ft)
Unshielded	100 m (328.08 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSC
Net weight	7.50 kg (16.53 lb)
Dimensions	
Width	189 mm (7.44 in)
Height	334 mm (13.15 in)
Depth	185 mm (7.28 in)

Standards

Compliance with standards	UL, cUL, CE, C-Tick (RCM)
CE marking	Low-voltage directive 2006/95/EC

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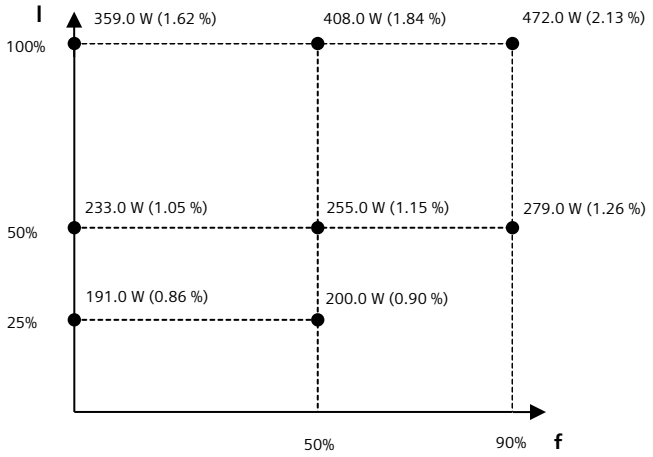
Data sheet for SINAMICS Power module PM250

Article No. : **6SL3225-0BE31-1AA1**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	58.88 %



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

[1] The output current and HP ratings are valid for the voltage range 440V-480V

PM250-2, 37KW (Heavy Duty rating) - SP3005103150

SINAMICS Power module PM250
Article No.: 6SL3225-0BE33-7AA0

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet for SINAMICS Power module PM250

Article No. : **6SL3225-0BE33-7AA0**

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 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	84.00 A	
Rated current (HO)	70.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	45.00 kW	60.00 hp
Rated power (HO)	37.00 kW	50.00 hp
Rated current (LO)	90.00 A	
Rated current (HO)	75.00 A	
Max. output current	150.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		
Low Overload (LO)		
1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s		
High Overload (HO)		
1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s		

General tech. specifications

Power factor λ	0.90
Offset factor cos φ	0.95
Efficiency η	0.97
Sound pressure level (1m)	62 dB
Power loss	1.21 kW
Filter class (integrated)	Class A

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.039 m³/s (1.377 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	0 ... 40 °C (32 ... 104 °F)
Operation HO	0 ... 50 °C (32 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	M6 bolt
Conductor cross-section	10.00 ... 50.00 mm² (AWG 8 ... AWG 1)
Motor end	
Version	M6 bolt
Conductor cross-section	10.00 ... 50.00 mm² (AWG 8 ... AWG 1)
Max. motor cable length	
Shielded	50 m (164.04 ft)
Unshielded	100 m (328.08 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSE
Net weight	21.00 kg (46.30 lb)
Dimensions	
Width	275 mm (10.83 in)
Height	635 mm (25.00 in)
Depth	204 mm (8.03 in)

Standards

Compliance with standards	CE, C-Tick (RCM)
CE marking	Low-voltage directive 2006/95/EC

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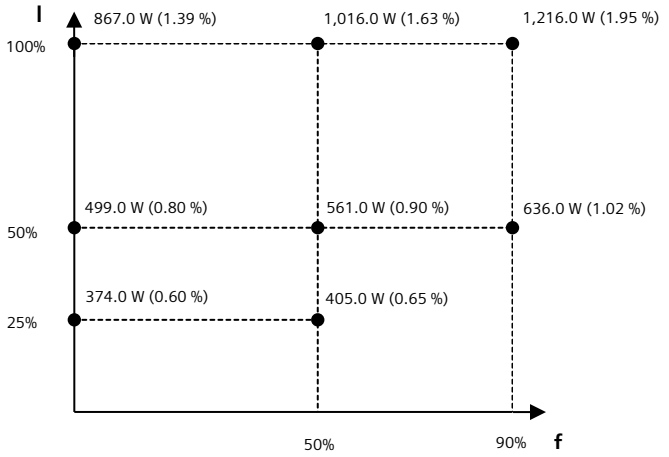
Data sheet for SINAMICS Power module PM250

Article No. : **6SL3225-0BE33-7AA0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	58.95 %



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

[1] The output current and HP ratings are valid for the voltage range 440V-480V

PM250-2, 75KW (Heavy Duty rating) - SP3005103160

SINAMICS Power module PM250
Article No.: 6SL3225-0BE37-5AA0

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet for SINAMICS Power module PM250

Article No. : **6SL3225-0BE37-5AA0**

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 %	
Line frequency	47 ... 63 Hz	
Rated current (LO)	166.00 A	
Rated current (HO)	135.00 A	
Output		
Number of phases	3 AC	
Rated voltage	**400V IEC**	**480V NEC [1)]**
Rated power (LO)	90.00 kW	125.00 hp
Rated power (HO)	75.00 kW	100.00 hp
Rated current (LO)	178.00 A	
Rated current (HO)	145.00 A	
Max. output current	290.00 A	
Pulse frequency	4 kHz	
Output frequency for vector control	0 ... 200 Hz	
Output frequency for V/f control	0 ... 550 Hz	
Overload capability		

Low Overload (LO)

1.1 x rated output current (i.e. 110 % overload) for 57 s with a cycle time of 300 s 1.5 × rated output current (i.e. 150 % overload) for 3 s with a cycle time of 300 s

High Overload (HO)

1.5 × output current rating (i.e., 150 % overload) for 57 s with a cycle time of 300 s 2 × output current rating (i.e., 200 % overload) for 3 s with a cycle time of 300 s

General tech. specifications

Power factor λ	0.90
Offset factor cos φ	0.95
Efficiency η	0.97
Sound pressure level (1m)	65 dB
Power loss	2.31 kW
Filter class (integrated)	Class A

Ambient conditions

Cooling	Internal air cooling
Cooling air requirement	0.117 m³/s (4.132 ft³/s)
Installation altitude	1,000 m (3,280.84 ft)
Ambient temperature	
Operation LO	0 ... 40 °C (32 ... 104 °F)
Operation HO	0 ... 50 °C (32 ... 122 °F)
Transport	-25 ... 55 °C (-13 ... 131 °F)
Storage	-25 ... 55 °C (-13 ... 131 °F)
Relative humidity	
Max. operation	95 % RH, condensation not permitted

Connections

Line side	
Version	M8 bolt
Conductor cross-section	25.00 ... 120.00 mm² (AWG 4 ... AWG -3)
Motor end	
Version	M8 bolt
Conductor cross-section	25.00 ... 120.00 mm² (AWG 4 ... AWG -3)
Max. motor cable length	
Shielded	50 m (164.04 ft)
Unshielded	100 m (328.08 ft)

Mechanical data

Degree of protection	IP20 / UL open type
Frame size	FSF
Net weight	51.00 kg (112.44 lb)
Dimensions	
Width	350 mm (13.78 in)
Height	934 mm (36.77 in)
Depth	316 mm (12.44 in)

Standards

Compliance with standards	CE, C-Tick (RCM)
CE marking	Low-voltage directive 2006/95/EC

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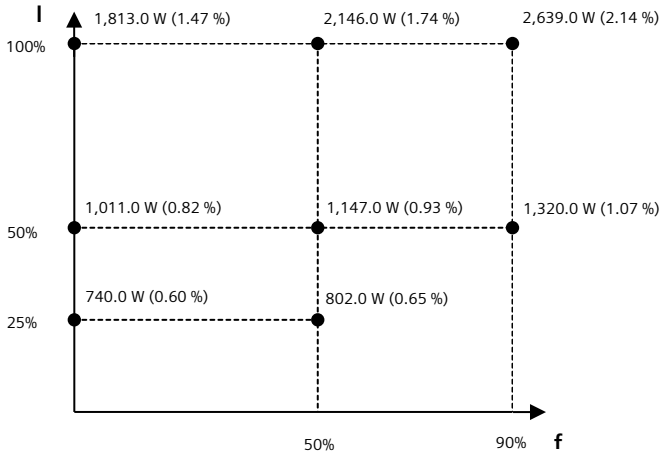
Data sheet for SINAMICS Power module PM250

Article No. : **6SL3225-0BE37-5AA0**

Converter losses to IEC61800-9-2*	
Efficiency class	IE2
Comparison with the reference converter (90% / 100%)	54.08 %



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

[1] The output current and HP ratings are valid for the voltage range 440V-480V

SIMATIC S7-400, Backup battery 3.6 V/2.3 AH - SP3005101878

SIMATIC S7-400, Backup battery 3.6 V/2.3 AH for PS 405
4 A/10A/20 A and PS 407 4 A/10 A/20 A
Article No.: 6ES7971-0BA00

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet 6ES7971-0BA00

SIMATIC S7-400, Backup battery 3.6 V/2.3 AH for PS 405 4 A/10 A/20 A and PS 407 4 A/10 A/20 A

General information	
Product type designation	3.6 V backup battery
Accessories	
belongs to product	S7-400
Weights	
Weight, approx.	25 g

last modified: 02/05/2020

SITOP PSU100S/1AC/24 V DC/5 A - SP3005102211

SITOP PSU100S/1AC/24VDC/5A
SITOP PSU100S 24 V/5 A stabilized power supply
input: 120/230 V AC output: 24 V DC/5 A
Article No.: 6EP1333-2BA20

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

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Data sheet 6EP1333-2BA20

SITOP PSU100S/1AC/24VDC/5A

SITOP PSU100S 24 V/5 A stabilized power supply input: 120/230 V AC output: 24 V DC/5 A

input	
type of the power supply network	1-phase AC
supply voltage at AC	Automatic range selection
supply voltage	120 V/230 V
input voltage 1 at AC	85 ... 132 V
input voltage 2 at AC	170 ... 264 V
wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
● at rated input voltage 120 V	2.34 A
● at rated input voltage 230 V	1.36 A
current limitation of inrush current at 25 °C maximum	40 A
I2t value maximum	1 A²·s
fuse protection type	T 3,15 A/250 V (not accessible)
fuse protection type in the feeder	Recommended miniature circuit breaker: from 6 A characteristic C
output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
● at output 1 at DC rated value	24 V
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	22.8 ... 28 V
relative control precision of the output voltage	
● on slow fluctuation of input voltage	0.1 %
● on slow fluctuation of ohm loading	1 %
residual ripple	
● maximum	150 mV
● typical	30 mV
voltage peak	
● maximum	240 mV
● typical	140 mV
display version for normal operation	Green LED for 24 V OK
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
behavior of the output voltage when switching on	Overshoot of Vout < 3 %
response delay maximum	0.3 s

voltage increase time of the output voltage	
● typical	15 ms
output current	
● rated value	5 A
● rated range	0 ... 6 A; 6 A up to +45°C; +60 ... +70 °C: Derating 1.6%/K
supplied active power typical	144 W
short-term overload current	
● on short-circuiting during the start-up typical	18 A
● at short-circuit during operation typical	18 A
duration of overloading capability for excess current	
● on short-circuiting during the start-up	800 ms
● at short-circuit during operation	800 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	88 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	16 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.3 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3 %
setting time	
● load step 10 to 90% typical	1 ms
● load step 90 to 10% typical	1 ms
protection and monitoring	
design of the overvoltage protection	protection against overvoltage in case of internal fault Vout < 33 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
response value current limitation	6 ... 7.1 A
overcurrent overload capability	
● in normal operation	overload capability 150 % Iout rated up to 5 s/min
enduring short circuit current RMS value	
● typical	7.1 A
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
● maximum	3.5 mA
● typical	0.4 mA
protection class IP	IP20
standard	
● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	EN 61000-3-2
● for interference immunity	EN 61000-6-2
standards, specifications, approvals	
certificate of suitability	
● CE marking	Yes
● UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
● CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
● EAC approval	Yes
● NEC Class 2	No
type of certification	
● BIS	Yes; R-41188271
● CB-certificate	Yes
MTBF at 40 °C	1 998 441 h

standards, specifications, approvals hazardous environments	
certificate of suitability	
● IECEx	No
● ATEX	No
● ULhazloc approval	No
● cCSAus, Class 1, Division 2	No
● FM registration	No
standards, specifications, approvals marine classification	
shipbuilding approval	Yes
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	No
● French marine classification society (BV)	Yes
● Det Norske Veritas (DNV)	Yes
● Lloyds Register of Shipping (LRS)	No
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq]	
● total	513.7 kg
● during manufacturing	12.9 kg
● during operation	500.4 kg
● after end of life	0.35 kg
ambient conditions	
ambient temperature	
● during operation	-25 ... +70 °C; with natural convection
● during transport	-40 ... +85 °C
● during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
connection method	
type of electrical connection	screw terminal
● at input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
● at output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm²
● for auxiliary contacts	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm²
● for signaling contact	2 screw terminals for 0.5 ... 2.5 mm²
mechanical data	
width × height × depth of the enclosure	50 × 120
installation width × mounting height	50 mm
required spacing	
● top	50 mm
● bottom	50 mm
● left	0 mm
● right	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
● standard rail mounting	Yes
● S7 rail mounting	No
● wall mounting	No
housing can be lined up	Yes
net weight	0.5 kg
accessories	
electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
further information internet links	
internet link	
● to web page: selection aid TIA Selection Tool	https://siemens.com/tst
● to website: Industrial communication	http://www.siemens.com/simatic-net
● to website: CAx-Download-Manager	http://www.siemens.com/cax
additional information	
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)
security information	
security information	Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks.

In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit www.siemens.com/cybersecurity-industry. Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under https://www.siemens.com/cert. (V4.7)

Classifications

	Version	Classification
eClass	14	27-04-07-01
eClass	12	27-04-07-01
eClass	9.1	27-04-07-01
eClass	9	27-04-07-01
eClass	8	27-04-90-02
eClass	7.1	27-04-90-02
eClass	6	27-04-90-02
ETIM	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540
IDEA	4	4130
UNSPSC	15	39-12-10-04

Approvals Certificates

General Product Approval

CB

CSA

Manufacturer Declaration

Declaration of Conformity

UKCA

UL

General Product Approval

Miscellaneous

BIS CRS

For use in hazardous locations

ATEX

IECEx

CCC-Ex

UL

Marine / Shipping

BUREAU VERITAS

DNV

Environment

EPD

last modified: 5/7/2024

SITOP PSU100S/1AC/24 V DC/10 A - SP3005102212

SITOP PSU100S 24 V/10 A
SITOP PSU100S 24 V/10 A Stabilized power supply
input: 120/230 V AC, output: DC 24 V/10 A
Article No.: 6EP1334-2BA20

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

RAMESH KUMAR KORRA

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Date: 2024.05.29 14:37:52 +05'30'

SIEMENS

Data sheet 6EP1334-2BA20

SITOP PSU100S 24 V/10 A
SITOP PSU100S 24 V/10 A Stabilized power supply input: 120/230 V AC, output: DC 24 V/10 A

Input	
Input	1-phase AC
• Note	Automatic range selection
Supply voltage	
• 1 at AC Rated value	120 V
• 2 at AC Rated value	230 V
Input voltage	
• 1 at AC	85 ... 132 V
• 2 at AC	170 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering	at Vin = 93/187 V
Mains buffering at Iout rated, min.	20 ms; at Vin = 93/187 V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 120 V	4.49 A
• at rated input voltage 230 V	1.91 A

Switch-on current limiting (+25 °C), max.	60 A
I²t, max.	5.6 A²·s
Built-in incoming fuse	T 6.3 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C

Output

Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	1 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	20 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	160 mV
Adjustment range	22.8 ... 28 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
Signaling	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
On/off behavior	Overshoot of Vout < 3 %
Startup delay, max.	0.3 s
Voltage rise, typ.	20 ms
Rated current value Iout rated	10 A
Current range	0 ... 12 A
• Note	12 A up to +45°C; +60 ... +70 °C: Derating 3%/K
Supplied active power typical	288 W
Short-term overload current	
• on short-circuiting during the start-up typical	32 A
• at short-circuit during operation typical	32 A
Duration of overloading capability for excess current	
• on short-circuiting during the start-up	1 000 ms
• at short-circuit during operation	1 000 ms
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency

Efficiency at Vout rated, Iout rated, approx.	90 %
Power loss at Vout rated, Iout rated, approx.	25 W

Closed-loop control

Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %

Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	3 %
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 90 to 10%, typ.	1 ms

Protection and monitoring	
Output overvoltage protection	protection against overvoltage in case of internal fault Vout < 33 V
Current limitation	12 ... 14.6 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value	
• typical	14.6 A
Overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
Overload/short-circuit indicator	-

Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current	
• maximum	3.5 mA
• typical	0.8 mA
Degree of protection (EN 60529)	IP20

Approvals	
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1)
Explosion protection	IECEx Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cULus Class I Div. 2 (ANSI/ISA-12.12.01-2007, CSA C22.2 No. 213-M1987) Group ABCD, T4; cCSAus (CSA C22.2 No. 213, ANSI/ISA-12.12.01) Class I, Div. 2, Group ABCD, T4
FM approval	-
CB approval	Yes
Marine approval	BV, DNV GL

EMC	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2

environmental conditions	
Ambient temperature	
• during operation	-25 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +85 °C

• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 … 95% no condensation

Mechanics	
Connection technology	screw-type terminals
Connections	
• Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm²
• Auxiliary	Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm²
• signaling contact	2 screw terminals for 0.5 ... 2.5 mm²
Width of the enclosure	70 mm
Height of the enclosure	125 mm
Depth of the enclosure	120 mm
Required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	0.8 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Electrical accessories	Buffer module
Mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
MTBF at 40 °C	1 614 510 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

SITOP PSU8200 24 V DC/20 A - SP3005102213

SITOP PSU8200/1ACDC/24VDC/20A
SITOP PSU8200 20 A stabilized power supply
input: 120-230 V AC 110-220 V DC output: 24 V DC/20 A
Article No.: 6EP1336-3BA10

Note to Supplier:

1. Any deviation against specification shall be specified without fail.
2. Delivery shall be within 2 months from the date of P.O.
3. Relevant data sheets shall be submitted along with the offer.

RAMESH KUMAR KORRA

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Date: 2024.05.29 14:38:19 +05'30'

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Data sheet 6EP1336-3BA10

SITOP PSU8200/1ACDC/24VDC/20A

SITOP PSU8200 20 A stabilized power supply input: 120-230 V AC 110-220 V DC output: 24 V DC/20 A *Ex approval no longer available*

Input	
type of the power supply network	1-phase and 2-phase AC or DC
supply voltage at AC	
● minimum rated value	120 V
● maximum rated value	230 V
● initial value	85 V
● full-scale value	275 V
supply voltage	
● at DC	110 ... 220 V
input voltage	
● at DC	88 ... 350 V
design of input wide range input	Yes
operating condition of the mains buffering	at Vin = 230 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 230 V
line frequency	
● 1 rated value	50 Hz
● 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
● at rated input voltage 120 V	4.6 A
● at rated input voltage 230 V	2.5 A
current limitation of inrush current at 25 °C maximum	20 A
I2t value maximum	5 A²·s
fuse protection type	Yes
● in the feeder	Recommended miniature circuit breaker at 1-phase operation: 10 A characteristic C; required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2711-1HD10 (UL 489) at 120 V or 3RV2711-1ED10 (UL 489) at 230 V
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
● at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
● on slow fluctuation of input voltage	0.1 %
● on slow fluctuation of ohm loading	0.3 %
residual ripple	
● maximum	100 mV

● typical	80 mV
voltage peak	
● maximum	200 mV
● typical	100 mV
adjustable output voltage	24 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 24 V OK
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	1.5 s
voltage increase time of the output voltage	
● typical	250 ms
output current	
● rated value	20 A
● rated range	0 ... 20 A; +60 ... +70 °C: Derating 3%/K
supplied active power typical	480 W
short-term overload current	
● at short-circuit during operation typical	60 A
duration of overloading capability for excess current	
● at short-circuit during operation	25 ms
constant overload current	
● on short-circuiting during the start-up typical	30 A
product feature	
● bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	94 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	31 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.5 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1 %
setting time	
● load step 50 to 100% typical	1 ms
● load step 100 to 50% typical	1 ms
setting time	
● maximum	5 ms
Protection and monitoring	
design of the overvoltage protection	< 31.8 V
● typical	21.5 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 21.5 A or latching shutdown
enduring short circuit current RMS value	
● typical	21.5 A
overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown"
Safety	
galvanic isolation between input and output	Yes
operating resource protection class	Class I
leakage current	
● maximum	3.5 mA
● typical	1 mA
protection class IP	IP20
Approvals	
certificate of suitability	
● CE marking	Yes

● UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 62368-1, UL 62368-1)
● CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (CSA C22.2 No. 62368-1, UL 62368-1)
● NEC Class 2	No
● UKCA marking	Yes
● EAC approval	Yes
● Regulatory Compliance Mark (RCM)	Yes
type of certification	
● BIS	Yes
● CB-certificate	Yes
certificate of suitability	
● IECEx	No
● ATEX	No
● ULhazloc approval	No
● cCSAus, Class 1, Division 2	No
● FM registration	No
certificate of suitability shipbuilding approval	Yes
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	Yes
● French marine classification society (BV)	No
● Lloyds Register of Shipping (LRS)	No
EMC	
standard	
● for emitted interference	EN 55022 Class B
● for mains harmonics limitation	EN 61000-3-2
● for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
● during operation	-25 ... +70 °C; With natural convection; startup tested starting from -40 °C nominal voltage
● during transport	-40 ... +85 °C
● during storage	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 … 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
● at input	L, N, PE: 1 screw terminal each for 0.2 ... 4 mm² single-core/finely stranded
● at output	+, -: 2 screw terminals each for 0.2 ... 4 mm²
● for auxiliary contacts	13, 14 (alarm signal), 15, 16 (Remote ON OFF): 1 screw terminal each for 0.14 ... 1.5 mm²
width of the enclosure	90 mm
height of the enclosure	125 mm
depth of the enclosure	125 mm
required spacing	
● top	50 mm
● bottom	50 mm
● left	0 mm
● right	0 mm
net weight	1.2 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Buffer module
mechanical accessories	Device identification label 20 mm × 7 mm, TI-grey 3RT2900-1SB20
MTBF at 40 °C	583 500 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)