



SITOP PSU400M/DC/DC/600V/24V/20A

SITOP PSU400M 20 A DC/DC converter input: 600 V DC output: 24 V DC/20 A

Technical Product Detail Page

<https://i.siemens.com/1P6EP1536-3AA00>

input	
type of the power supply network	DC voltage
supply voltage at AC	startup from 340 V DC; derating necessary at 300 ... 400 V DC and 824 ... 900 V DC
supply voltage at DC	600 ... 600 V
input voltage at DC	300 ... 900 V
overvoltage overload capability	Shutdown at $V_{in} > 900$ V DC
input current at DC	
• at rated input voltage 600 V	0.85 A
current limitation of inrush current at 25 °C maximum	8 A
I <sup>2</sup> t value maximum	0.02 A <sup>2</sup> ·s
fuse protection type	yes, cut-off capacity 20 kA; L/R < 2 ms ("+" and "-" input)
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	24 ... 28.8 V; max. 480 W
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.3 %
• on slow fluctuation of ohm loading	0.3 %
residual ripple	
• maximum	150 mV
• typical	30 mV
voltage peak	
• maximum	200 mV
• typical	100 mV
display version for normal operation	Green LED for 24 V OK, green flashing LED for start delay
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A; 30 V DC/1 A) for 24 V OK
behavior of the output voltage when switching on	No overshoot of $V_{out}$ (soft start)
response delay maximum	0.1 s; 10 s adjustable using switch
voltage increase time of the output voltage	
• maximum	150 ms
output current	
• rated value	20 A
• rated range	0 ... 20 A; +60 ... +70 °C: Derating 5.5%/K

supplied active power typical	480 W
short-term overload current	
• on short-circuiting during the start-up typical	40 A
• at short-circuit during operation typical	60 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	150 ms
• at short-circuit during operation	25 ms
constant overload current	
• on short-circuiting during the start-up typical	23 A
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2
<b>efficiency</b>	
efficiency in percent	95 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	25 W
<b>closed-loop control</b>	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	1.5 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1.5 %
setting time	
• load step 50 to 100% typical	1 ms
• load step 100 to 50% typical	1 ms
setting time	
• maximum	5 ms
<b>protection and monitoring</b>	
design of the overvoltage protection	< 33 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 22 A or latching shutdown
• typical	22 A
overcurrent overload capability	
• in normal operation	overload capability 150 % I <sub>out</sub> rated up to 5 s/min
enduring short circuit current RMS value	
• typical	22 A
display version for overload and short circuit	LED yellow for "overload", LED red for "latching shutdown", red LED flashing for "Overtemperature"
<b>safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Protective extra low output voltage V <sub>out</sub> according to EN 60950-1 and EN 50178
operating resource protection class	Class I
protection class IP	IP20
<b>EMC</b>	
standard	
• for emitted interference	EN 55022 Class A (emission)
• for mains harmonics limitation	-
• for interference immunity	EN 61000-6-2
<b>standards, specifications, approvals</b>	
certificate of suitability	
• CE marking	Yes
• UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
• UKCA marking	Yes
• EAC approval	Yes
• Regulatory Compliance Mark (RCM)	Yes
• NEC Class 2	No
type of certification	
• CB-certificate	Yes
MTBF at 40 °C	622 277 h

**standards, specifications, approvals hazardous environments**

certificate of suitability	
• IECEx	No
• ATEX	No
• ULhazloc approval	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)	No
• 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	801.7 kg
• during manufacturing	18.9 kg
• during operation	782.3 kg
• after end of life	0.27 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	DC input, +, -, PE: 1 screw terminal each for 0.2 ... 6/4 mm <sup>2</sup> single-core/finely stranded
• at output	+, -: 2 screw terminals each for 0.2 ... 6/4 mm <sup>2</sup> single-core/finely stranded
• for auxiliary contacts	Alarm signals: 2 screw terminals for 0.14 ... 1.5 mm <sup>2</sup> single-core/finely stranded

**mechanical data**

width × height × depth of the enclosure	90 × 125 × 125 mm
installation width × mounting height	90 mm × 225 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
• DIN-rail mounting	Yes
• S7 rail mounting	No
• wall mounting	No
housing can be lined up	Yes
net weight	1.2 kg

**accessories**

mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
------------------------	--

**further information internet links**

internet link	
• to website: Industry Mall	<a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>
• to web page: selection aid TIA Selection Tool	<a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>
• to web page: power supplies	<a href="https://siemens.com/sitop">https://siemens.com/sitop</a>
• to website: CAx-Download-Manager	<a href="https://siemens.com/cax">https://siemens.com/cax</a>
• to website: Industry Online Support	<a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a>

**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](http://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	10	EC002540
ETIM	9	EC002540
ETIM	8	EC002540
ETIM	7	EC002540
IDEA	4	4130
UNSPSC	15	39-12-10-04

**Approvals Certificates**

**General Product Approval**



[Manufacturer Declaration](#)

[Declaration of Conformity](#)



[China RoHS](#)

**General Product Approval**

**Maritime application**

**Environment**



last modified:

11/14/2025