SIEMENS

SITOP Modular/1AC/DC24V/20A

SITOP modular 20 A stabilized power supply input: 120/230 V AC output: 24 V DC/20 A

Figure similar

input

type of the power supply network	1-phase AC
supply voltage at AC	Set by means of wire jumper on the device; starting from Vin > 93/183 V
supply voltage	120 V/230 V
input voltage 1 at AC	85 ... 132 V
input voltage 2 at AC	176 ... 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 = 230 V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
● at rated input voltage 120 V	7.7 A
● at rated input voltage 230 V	3.5 A
current limitation of inrush current at 25 °C maximum	60 A
I2t value maximum	9.9 A²·s
fuse protection type	Yes
fuse protection type 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 3RV2411-1JA10 (120 V) or 3RV2411-1FA10 (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
output voltage adjustable	Yes; via potentiometer
adjustable output voltage	24 ... 28.8 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	0.1 %
residual ripple	
● maximum	100 mV
● typical	30 mV
voltage peak	
● maximum	200 mV
● typical	60 mV

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display version for normal operation	Green LED for 24 V OK
type of signal at output	via signaling module (6EP1961-3BA10)
behavior of the output voltage when switching on	Overshoot of Vout approx. 3 %
response delay maximum	0.1 s
voltage increase time of the output voltage	
● typical	50 ms
output current	
● rated value	20 A
● rated range	0 ... 20 A; +60 ... +70 °C: Derating 3.5%/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	23 A
bridging of equipment	Yes; switchable characteristic
number of parallel-switched equipment resources for increasing the power	2

efficiency	
efficiency in percent	89 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	59 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	2 %
setting time	
● load step 50 to 100% typical	2 ms
● load step 100 to 50% typical	2 ms
setting time	
● maximum	5 ms

protection and monitoring	
design of the overvoltage protection	< 35 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Alternatively, constant current characteristic approx. 23 A or latching shutdown
● typical	23 A
enduring short circuit current RMS value	
● typical	23 A
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	3.5 mA
● typical	0.4 mA
protection class IP	IP20

EMC	
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
● CSA 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
● SEMI F47	Yes
type of certification	
● CB-certificate	No
MTBF at 40 °C	786 164 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)	Yes
● 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	1 881.8 kg
● during manufacturing	34.7 kg
● during operation	1 846.1 kg
● after end of life	0.5 kg

ambient conditions

ambient temperature	
● during operation	0 ... 70; with natural convection
● during transport	-40 ... +85
● during storage	-40 ... +85
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 0.2 ... 4 mm² single-core/finely stranded
● at output	+, -: 2 screw terminals each for 0.5 ... 4 mm²
● for auxiliary contacts	-

mechanical data

width × height × depth of the enclosure	160 × 125 × 125 mm
installation width × mounting height	160 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
● standard rail mounting	Yes
● S7 rail mounting	No
● wall mounting	No
housing can be lined up	Yes
net weight	2.2 kg

accessories

electrical accessories	Buffer module, signaling module

further information internet links

internet link	
● to website: Industry Mall	https://mall.industry.siemens.com
● to web page: selection aid TIA Selection Tool	https://www.siemens.com/tstcloud
● to website: CAx-Download-Manager	https://siemens.com/cax

● to website: Industry Online Support	https://support.industry.siemens.com

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

Manufacturer Declaration   Declaration of Conformity   UKCA   UL   UR

General Product Approval	Marine / Shipping	Environment
Miscellaneous		
RCM	ABS DNV	EPD

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