SIEMENS

Data sheet

Siemens EcoTech

SITOP PSU4200/1AC/24VDC/5A

SITOP PSU4200 1AC 24 V/5 A stabilized power supply PSU4200 input: 120/240 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 1 at AC	100 ... 120 V
supply voltage 2 at AC	200 ... 240 V
input voltage 1 at AC	85 ... 132 V
input voltage 2 at AC	187 ... 264 V
wide range input	No
buffering time for rated value of the output current in the event of power failure minimum	15 ms
operating condition of the mains buffering	at Vin = 120/240 V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
● at rated input voltage 100 V	2.5 A
● at rated input voltage 120 V	2.1 A
● at rated input voltage 200 V	1.4 A
● at rated input voltage 230 V	1.25 A
● at rated input voltage 240 V	1.2 A
current limitation of inrush current at 25 °C maximum	45 A
duration of inrush current limiting at 25 °C	
● typical	20 ms
I2t value maximum	1.6 A²·s
fuse protection type	3.15 A
fuse protection type in the feeder	Recommended miniature circuit breaker: from 6 A characteristic C to from 16 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	24 ... 28 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
● on slow fluctuation of input voltage	0.2 %
● on slow fluctuation of ohm loading	0.3 %

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residual ripple	
● maximum	150 mV
● typical	35 mV
voltage peak	
● maximum	240 mV
● typical	30 mV
display version for normal operation	Green LED for 24 V OK
type of signal at output	Signal contact (signal load capacity: 5 mA) for DC 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	210 ms
● maximum	500 ms
output current	
● rated value	5 A
● rated range	0 ... 5 A; +60 ... +70 °C: Derating 4%/K
supplied active power typical	120 W
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency in percent	87 %
power loss [W]	
● at rated output voltage for rated value of the output current typical	18 W
● during no-load operation maximum	2.2 W

closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.2 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	1 %
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	< 32 V
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
● typical	6 A
enduring short circuit current RMS value	
● typical	6 A

safety	
galvanic isolation between input and output	Yes
galvanic isolation	ES1 output voltage Vout according to EN 62368-1 (Safety extra low output voltage Vout according to EN 60950-1)
operating resource protection class	Class I
leakage current	
● maximum	1.4 mA
● typical	0.7 mA
protection class IP	IP20
standard	
● for emitted interference	EN 55032 Class A
● 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 (UL 62368-1, CSA C22.2 No. 62368-1-19)
● CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cCSAus (UL 62368-1, CSA C22.2 No. 62368-1-19)
● UKCA marking	Yes

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● EAC approval	Yes
● Regulatory Compliance Mark (RCM)	Yes
● NEC Class 2	No
type of certification	
● BIS	Yes; R-41183539
● CB-certificate	Yes
MTBF at 40 °C	1 580 000 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	No
Marine classification association	
● American Bureau of Shipping Europe Ltd. (ABS)	No
● French marine classification society (BV)	No
● Det Norske Veritas (DNV)	No
● Lloyds Register of Shipping (LRS)	No

standards, specifications, approvals Environmental Product Declaration

Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq]	
● total	476.1 kg
● during manufacturing	14 kg
● during operation	461.6 kg
● after end of life	0.38 kg
Siemens Eco Profile (SEP)	Siemens EcoTech

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	push-in terminals
● at input	L, N, PE: push-in for 0.5 ... 4 mm²
● at output	+, -: push-in for 0.5 ... 2.5 mm²
● for signaling contact	13, 14: push-in for 0.2 ... 1.5 mm²

mechanical data

width × height × depth of the enclosure	50 × 135 × 125 mm
installation width × mounting height	50 × 225 mm
required spacing	
● top	45 mm
● bottom	45 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	Yes
housing can be lined up	Yes
net weight	0.44 kg

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	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 / Environment

CSA

Manufacturer Declaration

CE EG-Konf.

UKCA

BIS CRS

EPD

Environment

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