

SIMATIC ET 200SP PS/1AC/24VDC/10A

SIMATIC ET 200SP PS 24V/10A Stabilized power supply Input: 120/230 V AC  
Output: 24 V DC/10 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 initial value	47 ... 63 Hz
line frequency full-scale value	
input current	
• at rated input voltage 120 V	4.34 A
• at rated input voltage 230 V	1.92 A
current limitation of inrush current at 25 °C maximum	60 A
I <sup>2</sup> t value maximum	6.3 A <sup>2</sup> ·s
fuse protection type	T 6.3 A/250 V (not accessible)
fuse protection type in the feeder	recommended LS switch: B/C 10 A/6 A
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 initial value	22.8 V
adjustable output voltage full-scale value	28 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	1 %
residual ripple	
• maximum	150 mV
• typical	50 mV
voltage peak	
• maximum	240 mV
• typical	150 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 $V_{out} < 3 \%$
response delay maximum	0.3 s
voltage increase time of the output voltage <ul style="list-style-type: none"> <li>• typical</li> </ul>	30 ms
output current <ul style="list-style-type: none"> <li>• rated value</li> <li>• rated range</li> </ul>	10 A 0 ... 12 A; 10 A up to +60°C; +60 ... +70 °C: Derating 3%/K
supplied active power typical	240 W
short-term overload current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up typical</li> <li>• at short-circuit during operation typical</li> </ul>	30 A 30 A
duration of overloading capability for excess current <ul style="list-style-type: none"> <li>• on short-circuiting during the start-up</li> <li>• at short-circuit during operation</li> </ul>	750 ms 800 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency in percent	90 %
power loss [W] <ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> <li>• during no-load operation maximum</li> </ul>	26 W 2.8 W
<b>closed-loop control</b>	
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 <ul style="list-style-type: none"> <li>• load step 10 to 90% typical</li> <li>• load step 90 to 10% typical</li> </ul>	1 ms 1 ms
<b>protection and monitoring</b>	
design of the overvoltage protection	protection against overvoltage in case of internal fault $V_{out} < 31.8 \text{ V}$
property of the output short-circuit proof	Yes
design of short-circuit protection <ul style="list-style-type: none"> <li>• response value current limitation</li> </ul>	Constant current characteristic 14 ... 15 A
overcurrent overload capability <ul style="list-style-type: none"> <li>• in normal operation</li> </ul>	overload capability 150 % $I_{out}$ rated up to 5 s/min
enduring short circuit current RMS value <ul style="list-style-type: none"> <li>• typical</li> </ul>	14.1 A
<b>safety</b>	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage $U_{out}$ acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current <ul style="list-style-type: none"> <li>• maximum</li> <li>• typical</li> </ul>	3.5 mA 1 mA
protection class IP	IP20
standard <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>	EN 61000-6-3 Class B EN 61000-3-2 EN 61000-6-2
<b>standards, specifications, approvals</b>	
certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> <li>• EAC approval</li> <li>• NEC Class 2</li> </ul>	Yes Yes; cULus-Listed (UL61010-2-201, CSA C22.2 No.142); cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) Yes; cULus-Listed (UL61010-2-201, CSA C22.2 No.142), cCSAus (CSA C22.2 No. 60950-1, UL 60950-1) Yes No

type of certification	
<ul style="list-style-type: none"> <li>• CB-certificate</li> </ul>	Yes
MTBF at 40 °C	1 114 510 h
<b>standards, specifications, approvals hazardous environments</b>	
certificate of suitability	
<ul style="list-style-type: none"> <li>• IECEx</li> </ul>	Yes; IECEx Ex ec nC IIC T3 Gc
<ul style="list-style-type: none"> <li>• ATEX</li> </ul>	Yes; ATEX (EX) II 3G Ex ec nC IIC T3 Gc
<ul style="list-style-type: none"> <li>• ULhazloc approval</li> </ul>	No
<ul style="list-style-type: none"> <li>• cCSAus, Class 1, Division 2</li> </ul>	No
<b>standards, specifications, approvals marine classification</b>	
shipbuilding approval	Yes
Marine classification association	
<ul style="list-style-type: none"> <li>• American Bureau of Shipping Europe Ltd. (ABS)</li> </ul>	No
<ul style="list-style-type: none"> <li>• French marine classification society (BV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Det Norske Veritas (DNV)</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Lloyds Register of Shipping (LRS)</li> </ul>	No
<b>standards, specifications, approvals Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
Global Warming Potential [CO2 eq]	
<ul style="list-style-type: none"> <li>• total</li> </ul>	827.7 kg
<ul style="list-style-type: none"> <li>• during manufacturing</li> </ul>	13.8 kg
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	813.3 kg
<ul style="list-style-type: none"> <li>• after end of life</li> </ul>	0.44 kg
<b>ambient conditions</b>	
ambient temperature	
<ul style="list-style-type: none"> <li>• during operation</li> </ul>	-30 ... +70 °C; with natural convection
<ul style="list-style-type: none"> <li>• during transport</li> </ul>	-40 ... +85 °C
<ul style="list-style-type: none"> <li>• during storage</li> </ul>	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
<b>connection method</b>	
type of electrical connection	push-in terminals
<ul style="list-style-type: none"> <li>• at input</li> </ul>	L, N, PE: 1 push-in terminal each for 0.2 ... 2.5 mm <sup>2</sup> single-core/finely stranded
<ul style="list-style-type: none"> <li>• at output</li> </ul>	+, -: 2 push-in terminals each for 0.2 ... 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• for auxiliary contacts</li> </ul>	Signaling contact: 2 push-in terminals for 0.2 ... 2.5 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>• for signaling contact</li> </ul>	2 push-in terminals for 0.2 ... 2.5 mm <sup>2</sup>
removable terminal at input	Yes
removable terminal at output	Yes
<b>mechanical data</b>	
width × height × depth of the enclosure	160 × 117 × 74 mm
installation width × mounting height	160 × 174 mm
required spacing	
<ul style="list-style-type: none"> <li>• top</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>• bottom</li> </ul>	50 mm
<ul style="list-style-type: none"> <li>• left</li> </ul>	0 mm
<ul style="list-style-type: none"> <li>• right</li> </ul>	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
<ul style="list-style-type: none"> <li>• standard rail mounting</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• S7 rail mounting</li> </ul>	No
<ul style="list-style-type: none"> <li>• wall mounting</li> </ul>	No
housing can be lined up	Yes
net weight	0.7 kg
<b>accessories</b>	
electrical accessories	Redundancy module, buffer module, selectivity module, DC UPS
<b>additional information</b>	
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)
<b>security information</b>	
security information	Siemens provides products and solutions with industrial security 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 security 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 security measures that may be implemented, please visit <https://www.siemens.com/industrialsecurity>. 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 Security RSS Feed under <https://www.siemens.com/cert>. (V4.6)

### 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		For use in hazardous locations			
		<a href="#">Manufacturer Declaration</a>			
For use in hazardous locations		Marine / Shipping	Environment		
<a href="#">CCC-Ex</a>					

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