



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

Technical Product Detail Page

<https://i.siemens.com/1P6EP7133-6AE00-0BN0>

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	4.34 A
• at rated input voltage 230 V	1.92 A
current limitation of inrush current at 25 °C maximum	60 A
I2t value maximum	6.3 A²·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	22.8 ... 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
<b>efficiency</b>	
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	Constant current characteristic
response value current limitation	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
<b>EMC</b>	
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>• EAC approval</li> </ul>	Yes Yes Yes

• NEC Class 2	No
type of certification	
• CB-certificate	Yes
MTBF at 40 °C	1 114 510 h
<b>standards, specifications, approvals hazardous environments</b>	
certificate of suitability	
• IECEx	Yes; IECEx Ex ec nC IIC T3 Gc
• ATEX	Yes; ATEX (EX) II 3G Ex ec nC IIC T3 Gc
• ULhazloc approval	Yes
• UKEX	Yes
<b>standards, specifications, approvals marine classification</b>	
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
<b>standards, specifications, approvals Environmental Product Declaration</b>	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
• total	725 kg
• during manufacturing	13.2 kg
• during operation	711.1 kg
• after end of life	0.48 kg
<b>ambient conditions</b>	
ambient temperature	
• during operation	-30 ... +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
<b>connection method</b>	
type of electrical connection	push-in terminals
• at input	L, N, PE: 1 push-in terminal each for 0.2 ... 2.5 mm² single-core/finely stranded
• at output	+, -: 2 push-in terminals each for 0.2 ... 2.5 mm²
• for auxiliary contacts	Signaling contact: 2 push-in terminals for 0.2 ... 2.5 mm²
• for signaling contact	2 push-in terminals for 0.2 ... 2.5 mm²
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 mm × 174 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	0.7 kg
<b>accessories</b>	
electrical accessories	Redundancy module, buffer module, selectivity module, DC UPS
<b>further information internet links</b>	
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
- to website: CAX-Download-Manager
- to website: Industry Online Support

<https://siemens.com/sitop>  
<https://siemens.com/cax>  
<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

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#### 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

For use in hazardous locations



[Manufacturer Declaration](#)



[China RoHS](#)



For use in hazardous locations

Maritime application

Environment



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