

SIMATIC ET 200SP PS/1AC/24VDC/5A

SIMATIC ET 200SP PS 24V/5A Stabilized power supply Input: 120/230 V AC
Output: 24 V DC/5 A



General information	
Technical Product Detail Page	https://l.siemens.com/1P6EP7133-6AB00-0BN0
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	2.16 A
• at rated input voltage 230 V	1.22 A
current limitation of inrush current at 25 °C maximum	45 A
I ² t value maximum	3.15 A ² ·s
fuse protection type	T 3,15 A/250 V (not accessible)
fuse protection type in the feeder	recommended LS switch: B/C 6 A/3 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"> • typical 	30 ms
output current <ul style="list-style-type: none"> • rated value • rated range 	5 A 0 ... 6 A; 5 A up to +60°C; +60 ... +70 °C: Derating 3%/K
supplied active power typical	120 W
short-term overload current <ul style="list-style-type: none"> • on short-circuiting during the start-up typical • at short-circuit during operation typical 	15 A 15 A
duration of overloading capability for excess current <ul style="list-style-type: none"> • on short-circuiting during the start-up • at short-circuit during operation 	800 ms 800 ms
bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
efficiency	
efficiency in percent	88 %
power loss [W] <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical • during no-load operation maximum 	17 W 2.7 W
closed-loop control	
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"> • load step 10 to 90% typical • load step 90 to 10% typical 	1 ms 1 ms
protection and monitoring	
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	7 ... 7.5 A
overcurrent overload capability <ul style="list-style-type: none"> • in normal operation 	overload capability 150 % I_{out} rated up to 5 s/min
enduring short circuit current RMS value <ul style="list-style-type: none"> • typical 	7 A
safety	
galvanic isolation between input and output	Yes
galvanic isolation	Output voltage: SELV, ES1 (IEC 62368-1), DVC As (IEC 61204-7)
operating resource protection class	Class I
leakage current <ul style="list-style-type: none"> • maximum • typical 	3.5 mA 1 mA
protection class IP	IP20
EMC	
standard <ul style="list-style-type: none"> • for emitted interference • for mains harmonics limitation • for interference immunity 	EN 61000-6-3 Class B EN 61000-3-2 EN 61000-6-2
standards, specifications, approvals	
certificate of suitability <ul style="list-style-type: none"> • CE marking • UL approval 	Yes Yes; cULus-Listed (UL61010-2-201, CSA C22.2 No.142)

<ul style="list-style-type: none"> • EAC approval 	Yes
<ul style="list-style-type: none"> • NEC Class 2 	No
type of certification	
<ul style="list-style-type: none"> • CB-certificate 	Yes
MTBF at 40 °C	1 598 441 h
standards, specifications, approvals hazardous environments	
certificate of suitability	
<ul style="list-style-type: none"> • IECEx 	Yes; IECEx Ex ec nC IIC T3 Gc
<ul style="list-style-type: none"> • ATEX 	Yes; ATEX (EX) II 3G Ex ec nC IIC T3 Gc
<ul style="list-style-type: none"> • ULhazloc approval 	Yes
<ul style="list-style-type: none"> • UKEX 	Yes
standards, specifications, approvals marine classification	
shipbuilding approval	Yes
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) 	No
<ul style="list-style-type: none"> • French marine classification society (BV) 	Yes
<ul style="list-style-type: none"> • Det Norske Veritas (DNV) 	Yes
<ul style="list-style-type: none"> • Lloyds Register of Shipping (LRS) 	No
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> • total 	474.8 kg
<ul style="list-style-type: none"> • during manufacturing 	9.4 kg
<ul style="list-style-type: none"> • during operation 	465 kg
<ul style="list-style-type: none"> • after end of life 	0.35 kg
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation 	-30 ... +70 °C; with natural convection
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
<ul style="list-style-type: none"> • 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
<ul style="list-style-type: none"> • at input 	L, N, PE: 1 push-in terminal each for 0.2 ... 2.5 mm ² single-core/finely stranded
<ul style="list-style-type: none"> • at output 	+, -: 2 push-in terminals each for 0.2 ... 2.5 mm ²
<ul style="list-style-type: none"> • for auxiliary contacts 	Signaling contact: 2 push-in terminals for 0.2 ... 2.5 mm ²
<ul style="list-style-type: none"> • for signaling contact 	2 push-in terminals for 0.2 ... 2.5 mm ²
removable terminal at input	Yes
removable terminal at output	Yes
mechanical data	
width × height × depth of the enclosure	160 × 117 × 74 mm
installation width × mounting height	160 mm × 174 mm
required spacing	
<ul style="list-style-type: none"> • top 	50 mm
<ul style="list-style-type: none"> • bottom 	50 mm
<ul style="list-style-type: none"> • left 	0 mm
<ul style="list-style-type: none"> • right 	0 mm
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
<ul style="list-style-type: none"> • DIN-rail mounting 	Yes
<ul style="list-style-type: none"> • S7 rail mounting 	No
<ul style="list-style-type: none"> • wall mounting 	No
housing can be lined up	Yes
net weight	0.5 kg
accessories	
electrical accessories	Redundancy module, buffer module, selectivity module, DC UPS
further information internet links	
internet link	
<ul style="list-style-type: none"> • to website: Industry Mall 	https://mall.industry.siemens.com

- to web page: selection aid TIA Selection Tool
- to web page: power supplies
- to website: CAx-Download-Manager
- to website: Industry Online Support

- <https://www.siemens.com/tstcloud>
- <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

Environmental Product Declaration

- | | |
|--|----------|
| • global warming potential [CO2 eq] / during manufacturing | 9.4 kg |
| • global warming potential [CO2 eq] / during operation | 465 kg |
| • global warming potential [CO2 eq] / after end of life | 0.35 kg |
| • global warming potential [CO2 eq] / total | 474.8 kg |

Environment

General Product Approval

For use in hazardous locations



[Manufacturer Declaration](#)



[China RoHS](#)



For use in hazardous locations

Maritime application



[Miscellaneous](#)

[CCC-Ex](#)



last modified:

5/5/2026