



SIMATIC PS307/1AC/24VDC/5A

SIMATIC S7-300 Regulated power supply PS307 input: 120/230 V AC, output: 24 V/5 A DC

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	$2.3 \times V_{in}$ 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 $V_{in} = 93/187$ V
line frequency	50/60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 120 V	2.3 A
• at rated input voltage 230 V	1.2 A
current limitation of inrush current at 25 °C maximum	20 A
duration of inrush current limiting at 25 °C	
• maximum	3 ms
I ² t value maximum	1.2 A ² s
fuse protection type	T 3,15 A/250 V (not accessible)
fuse protection type in the feeder	Recommended miniature circuit breaker: from 6 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	No; -
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	0.5 %
residual ripple	
• maximum	50 mV
• typical	10 mV
voltage peak	
• maximum	150 mV
• typical	20 mV
display version for normal operation	Green LED for 24 V OK
behavior of the output voltage when switching on	No overshoot of V _{out} (soft start)

response delay maximum	2 s
voltage increase time of the output voltage	
• typical	10 ms
output current	
• rated value	5 A
• rated range	0 ... 5 A
supplied active power typical	120 W
short-term overload current	
• on short-circuiting during the start-up typical	20 A
• at short-circuit during operation typical	20 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	100 ms
• at short-circuit during operation	100 ms
bridging of equipment	Yes
efficiency	
efficiency in percent	87 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	18 W
closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.1 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	1 %
setting time	
• load step 50 to 100% typical	0.3 ms
• load step 100 to 50% typical	0.3 ms
protection and monitoring	
design of the overvoltage protection	Additional control loop, shutdown at < 28.8 V, automatic restart
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
response value current limitation	5.5 ... 6.5 A
enduring short circuit current RMS value	
• maximum	7 A
safety	
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	
• maximum	3.5 mA
• typical	0.5 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. 142), File E143289
• CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289
• UKCA marking	Yes
• EAC approval	Yes
• NEC Class 2	No
type of certification	
• BIS	Yes; R-41183539
• CB-certificate	Yes
MTBF at 40 °C	2 480 589 h
standards, specifications, approvals hazardous environments	
certificate of suitability	

<ul style="list-style-type: none"> • IECEX • ATEX • ULhazloc approval • cCSAus, Class 1, Division 2 • UKEX • CCC for hazardous zone according to GB standard • FM registration 	Yes; IECEX Ex nA nC IIC T3 Gc Yes; ATEX (EX) II 3G Ex nA nC IIC T3 Gc Yes No Yes Yes Yes; Class I, Div. 2, Group ABCD, T4
standards, specifications, approvals marine classification	
shipbuilding approval	Yes
Marine classification association	
<ul style="list-style-type: none"> • American Bureau of Shipping Europe Ltd. (ABS) • French marine classification society (BV) • Det Norske Veritas (DNV) • Lloyds Register of Shipping (LRS) 	No No Yes Yes
standards, specifications, approvals Environmental Product Declaration	
Environmental Product Declaration	Yes
global warming potential [CO2 eq]	
<ul style="list-style-type: none"> • total • during manufacturing • during operation • after end of life 	504.2 kg 11.3 kg 492.3 kg 0.41 kg
ambient conditions	
ambient temperature	
<ul style="list-style-type: none"> • during operation • during transport • during storage 	0 ... 60 °C; with natural convection -40 ... +85 °C -40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
connection method	
type of electrical connection	screw terminal
<ul style="list-style-type: none"> • at input • at output • for auxiliary contacts 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded L+, M: 3 screw terminals each for 0.5 ... 2.5 mm² -
mechanical data	
width × height × depth of the enclosure	60 × 125 × 120 mm
installation width × mounting height	60 mm × 205 mm
required spacing	
<ul style="list-style-type: none"> • top • bottom • left • right 	40 mm 40 mm 0 mm 0 mm
fastening method	Can be mounted onto S7 rail
<ul style="list-style-type: none"> • DIN-rail mounting • S7 rail mounting • wall mounting 	No Yes No
housing can be belid up	Yes
net weight	0.6 kg
accessories	
mechanical accessories	Mounting adapter for standard mounting rail (6EP1971-1BA00)
further information internet links	
internet link	
<ul style="list-style-type: none"> • to website: Industry Mall • to web page: selection aid TIA Selection Tool • to website: CAX-Download-Manager • to website: Industry Online Support 	https://mall.industry.siemens.com https://www.siemens.com/tstcloud 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	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

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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



[Declaration of Conformity](#)

[Manufacturer Declaration](#)



General Product Approval

EMV

For use in hazardous locations



[BIS CRS](#)



For use in hazardous locations

Maritime application



[FM](#)

[CCC-Ex](#)



Maritime application



[NK / Nippon Kaiji Kyokai](#)



[CCS \(China Classification Society\)](#)



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