



Figure similar

SIMATIC PS305/DC24-110V/24V/2A/OUTDOOR

SIMATIC S7-300 with Regulated power supply PS305 input: 24-110 V DC
output: 24 V DC/2 A

Input	
type of the power supply network	DC voltage
supply voltage	24 ... 110 V
<ul style="list-style-type: none"> at DC 	
input voltage	16.8 ... 138 V
<ul style="list-style-type: none"> at DC 	
design of input wide range input	Yes
overvoltage overload capability	154 V; 0.1 s
operating condition of the mains buffering	at Vin rated
buffering time for rated value of the output current in the event of power failure minimum	10 ms
operating condition of the mains buffering	at Vin rated
input current	
<ul style="list-style-type: none"> at rated input voltage 24 V 	2.4 A
<ul style="list-style-type: none"> at rated input voltage 110 V 	0.6 A
current limitation of inrush current at 25 °C maximum	20 A
duration of inrush current limiting at 25 °C	
<ul style="list-style-type: none"> maximum 	10 ms
I2t value maximum	5 A ² ·s
fuse protection type	T 6.3 A/250 V (not accessible)
<ul style="list-style-type: none"> in the feeder 	Recommended miniature circuit breaker: from 10 A characteristic C, suitable for DC
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
<ul style="list-style-type: none"> at output 1 at DC rated value 	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> on slow fluctuation of input voltage 	0.2 %
<ul style="list-style-type: none"> on slow fluctuation of ohm loading 	0.4 %
residual ripple	
<ul style="list-style-type: none"> maximum 	150 mV
<ul style="list-style-type: none"> typical 	30 mV
voltage peak	
<ul style="list-style-type: none"> maximum 	240 mV
<ul style="list-style-type: none"> typical 	150 mV
product function output voltage adjustable	No
type of output voltage setting	-
display version for normal operation	Green LED for 24 V OK
behavior of the output voltage when switching on	No overshoot of Vout (soft start)

response delay maximum	3 s
voltage increase time of the output voltage	
• typical	5 ms
output current	
• rated value	2 A
• rated range	0 ... 3 A; 3 A up to +60°C at Vin > 24 V
supplied active power typical	48 W
short-term overload current	
• on short-circuiting during the start-up typical	9 A
• at short-circuit during operation typical	9 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	270 ms
• at short-circuit during operation	270 ms
product feature	
• bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2

Efficiency

efficiency in percent	75 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	16 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 load step of resistive load 50/100/50 % typical	2.5 %
setting time	
• load step 50 to 100% typical	2.5 ms
• load step 100 to 50% typical	2.5 ms
setting time	
• maximum	5 ms

Protection and monitoring

design of the overvoltage protection	Additional control loop, shutdown at approx. 30 V, automatic restart
response value current limitation	3.3 ... 3.9 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
• maximum	2 A
display version for overload and short circuit	-

Safety

galvanic isolation between input and output	Yes
galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1 and EN 50178, creepage distances and clearances > 5 mm
operating resource protection class	Class I
protection class IP	IP20

Approvals

certificate of suitability	
• CE marking	Yes
• UL approval	Yes; UL-Listed (UL 508), File E143289; CSA (CSA C22.2 No. 142)
• CSA approval	Yes; UL-Listed (UL 508), File E143289, CSA (CSA C22.2 No. 142)
• cCSAus, Class 1, Division 2	No
• ATEX	No
certificate of suitability	
• IECEX	No
• NEC Class 2	No
• ULhazloc approval	No
• FM registration	No
type of certification CB-certificate	No
certificate of suitability	
• EAC approval	Yes
certificate of suitability shipbuilding approval	No
shipbuilding approval	-
Marine classification association	

- American Bureau of Shipping Europe Ltd. (ABS)
- French marine classification society (BV)
- DNV GL
- Lloyds Register of Shipping (LRS)
- Nippon Kaiji Kyokai (NK)

No
No
No
No
No

EMC

standard

- for emitted interference
- for mains harmonics limitation
- for interference immunity

EN 55011 Class A
not applicable
EN 61000-6-2

environmental conditions

ambient temperature

- during operation
- during transport
- during storage

-25 ... +70 °C; with natural convection
-40 ... +85 °C
-40 ... +85 °C

environmental category according to IEC 60721

Climate class 3K5, transient condensation permitted

Mechanics

type of electrical connection

- at input
- at output
- for auxiliary contacts

screw-type terminals
L+1, M1, 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
-

width of the enclosure

80 mm

height of the enclosure

125 mm

depth of the enclosure

120 mm

required spacing

- top
- bottom
- left
- right

50 mm
50 mm
0 mm
0 mm

net weight

0.57 kg

product feature of the enclosure housing can be lined up

Yes

fastening method

Can be mounted onto S7 rail

mechanical accessories

Mounting adapter for standard mounting rail (6ES7390-6BA00-0AA0)

MTBF at 40 °C

964 506 h

other information

Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

