



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"> <li>at DC</li> </ul>	
input voltage	16.8 ... 138 V
<ul style="list-style-type: none"> <li>at DC</li> </ul>	
design of input wide range input	Yes
overvoltage overload capability	154 V; 0.1 s
operating condition of the mains buffering	at $V_{in}$ 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 $V_{in}$ rated
input current	
<ul style="list-style-type: none"> <li>at rated input voltage 24 V</li> </ul>	2.4 A
<ul style="list-style-type: none"> <li>at rated input voltage 110 V</li> </ul>	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"> <li>maximum</li> </ul>	10 ms
I <sup>2</sup> t value maximum	5 A <sup>2</sup> ·s
fuse protection type	T 6.3 A/250 V (not accessible)
<ul style="list-style-type: none"> <li>in the feeder</li> </ul>	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"> <li>at output 1 at DC rated value</li> </ul>	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
<ul style="list-style-type: none"> <li>on slow fluctuation of input voltage</li> </ul>	0.2 %
<ul style="list-style-type: none"> <li>on slow fluctuation of ohm loading</li> </ul>	0.4 %
residual ripple	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	150 mV
<ul style="list-style-type: none"> <li>typical</li> </ul>	30 mV
voltage peak	
<ul style="list-style-type: none"> <li>maximum</li> </ul>	240 mV
<ul style="list-style-type: none"> <li>typical</li> </ul>	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 $V_{out}$ (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 mm<sup>2</sup> single-core/finely stranded  
L+, M: 3 screw terminals each for 0.5 ... 2.5 mm<sup>2</sup>  
-

### 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)

