



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 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"> <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
I2t 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 Vout (soft start)
response delay maximum	3 s
voltage increase time of the output voltage <ul style="list-style-type: none"> <li>• typical</li> </ul>	5 ms
output current <ul style="list-style-type: none"> <li>• rated value</li> <li>• rated range</li> </ul>	2 A 0 ... 3 A; 3 A up to +60°C at Vin > 24 V
supplied active power typical	48 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>	9 A 9 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>	270 ms 270 ms
product feature <ul style="list-style-type: none"> <li>• bridging of equipment</li> </ul>	Yes
number of parallel-switched equipment resources for increasing the power	2
<b>Efficiency</b>	
efficiency in percent	75 %
power loss [W] <ul style="list-style-type: none"> <li>• at rated output voltage for rated value of the output current typical</li> </ul>	16 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 load step of resistive load 50/100/50 % typical	2.5 %
setting time <ul style="list-style-type: none"> <li>• load step 50 to 100% typical</li> <li>• load step 100 to 50% typical</li> </ul>	2.5 ms 2.5 ms
setting time <ul style="list-style-type: none"> <li>• maximum</li> </ul>	5 ms
<b>Protection and monitoring</b>	
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 <ul style="list-style-type: none"> <li>• maximum</li> </ul>	2 A
display version for overload and short circuit	-
<b>Safety</b>	
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
<b>Approvals</b>	
certificate of suitability <ul style="list-style-type: none"> <li>• CE marking</li> <li>• UL approval</li> <li>• CSA approval</li> <li>• cCSAus, Class 1, Division 2</li> <li>• ATEX</li> </ul>	Yes Yes; UL-Listed (UL 508), File E143289; CSA (CSA C22.2 No. 142) Yes; UL-Listed (UL 508), File E143289, CSA (CSA C22.2 No. 142) No No
certificate of suitability <ul style="list-style-type: none"> <li>• IECEx</li> <li>• NEC Class 2</li> <li>• ULhazloc approval</li> <li>• FM registration</li> </ul>	No No No 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
<b>EMC</b>	
standard • for emitted interference • for mains harmonics limitation • for interference immunity	EN 55011 Class A not applicable EN 61000-6-2
<b>environmental conditions</b>	
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
<b>Mechanics</b>	
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)

