



SIMATIC S7-300 OUTDOOR STABILIZED POWER SUPPLY PS307 INPUT: 120/230 V AC OUTPUT: 24 V DC/5 A

### Technical specifications

Product	PS 307
Power supply, type	24 V/5 A
<b>Input</b>	
Input	1-phase AC
Supply voltage / 1 / at AC / nominal value	120 V
Supply voltage / 2 / at AC / nominal value	230 V
Voltage range	
• Note	Set by means of selector switch on the device
Input voltage / 1 / at AC	93 ... 132 V
Input voltage / 2 / at AC	187 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at lout rated, min.	20 ms
Mains buffering	at Vin = 93/187 V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the input voltage 120 V	2.1 A
Input current / at nominal level of the input voltage 230 V	1.2 A
Switch-on current limiting (+25 °C), max.	45 A
Duration of current limiting / at 25 °C / maximum	3 ms

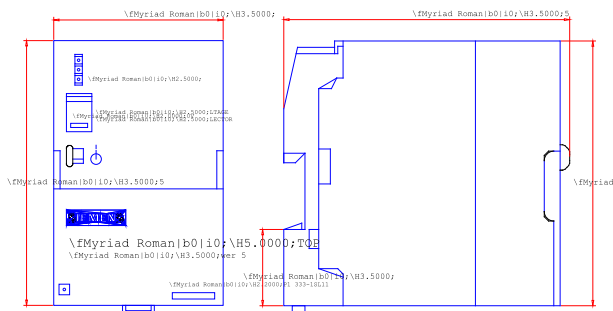
I <sup>2</sup> t, max.	1.8 A <sup>2</sup> ·s
Built-in incoming fuse	T 3,15 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A, characteristic C, or from 6 A, characteristic D
<b>Output</b>	
Output	Controlled, isolated DC voltage
Rated voltage V <sub>out</sub> DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.2 %
Static load balancing, approx.	0.4 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	40 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	90 mV
Product feature / output voltage adjustable	No
Output voltage setting	-
Status display	Green LED for 24 V OK
On/off behavior	No overshoot of V <sub>out</sub> (soft start)
Startup delay, max.	3 s
Voltage rise, typ.	100 ms
Rated current value I <sub>out</sub> rated	5 A
Current range	0 ... 5 A
delivered active power / typ.	120 W
short-term overload current / at short-circuit during run-up / typical	20 A
Duration of overloading ability for excess current / on short-circuiting during the start-up	180 ms
short-term overload current / at short-circuit during operation / typical	20 A
Duration of overloading ability for excess current / on short-circuiting during the operational phase	80 ms
Parallel switching for enhanced performance	No
<b>Efficiency</b>	
Efficiency at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	84 %
Power loss at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	23 W
<b>Closed-loop control</b>	
Dynamic mains compensation (V <sub>in</sub> rated ±15 %), max.	0.3 %
Dynamic load smoothing (I <sub>out</sub> : 50/100/50 %), U <sub>out</sub> ± typ.	3 %
Load step setting time 50 to 100%, typ.	0.2 ms
Load step setting time 100 to 50%, typ.	0.2 ms
Setting time / maximum	5 ms
<b>Protection and monitoring</b>	

Output overvoltage protection	Additional control loop, shutdown at approx. 30 V, automatic restart
Current limitation	5.5 ... 6.5 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current / Effective level / maximum	5 A
<b>Safety</b>	
Primary/secondary isolation	Yes
Potential separation	Safety extra low output voltage $V_{out}$ according to EN 60950-1 and EN 50178, creepage distances and clearances > 5 mm
Protection class	Class I
stray current / maximum	3.5 mA
stray current / typical	0.3 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	UL-Listed (UL 508), File E143289, CSA (CSA C22.2 No. 142)
Explosion protection	-
CB approval	No
Marine approval	-
Degree of protection (EN 60529)	IP20
<b>EMC</b>	
Emitted interference	EN 55011 Class A
Supply harmonics limitation	-
Noise immunity	EN 61000-6-2
<b>Operating data</b>	
Ambient temperature / in operation	-25 ... +70 °C
• Note	with natural convection
Ambient temperature / on transport	-40 ... +85 °C
Ambient temperature / in storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K5, transient condensation permitted
<b>Mechanics</b>	
Connection technology	screw-type terminals
Connections / Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded
Connections / Output	L+, M: 3 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup>
Connections / Auxiliary	-
Width / of the housing	80 mm
Height / of the housing	125 mm
Depth / of the housing	120 mm
Installation width	80 mm
Mounting height	205 mm

Weight, approx.	0.57 kg
Product feature / of the housing / housing for side-by-side mounting	Yes
Type of mounting / wall mounting	No
Type of fixing / cap rail mounting	No
Type of mounting / S7-300 rail mounting	Yes
Installation	Can be mounted onto S7 rail
Mechanical accessories	Mounting adapter for standard mounting rail (6ES7390-6BA00-0AA0)

**Other information**

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



**letzte Änderung:**

Jul 25, 2012