

POWER SUPPLY S7-1200 PM1207

SIMATIC S7-1200 Power Module PM1207 Stabilized power supply  
input: 120/230 V AC, output: DC 24 V/2,5 A



Input	
Input	1-phase AC
• Note	Automatic range selection
Supply voltage	
• 1 at AC Rated value	120 V
• 2 at AC Rated value	230 V
Input voltage	
• 1 at AC	85 ... 132 V
• 2 at AC	176 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering	at Vin = 93/187 V
Mains buffering at lout rated, min.	20 ms; at Vin = 93/187 V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 120 V	1.2 A
• at rated input voltage 230 V	0.67 A

Switch-on current limiting (+25 °C), max.	13 A
Duration of inrush current limiting at 25 °C	
• maximum	3 ms
I <sup>2</sup> t, max.	0.5 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: 16 A characteristic B or 10 A characteristic C

## Output

Output	Controlled, isolated DC voltage
Rated voltage V <sub>out</sub> DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.2 %
Residual ripple peak-peak, max.	150 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Product function 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.	6 s; 2 s at 230 V, 6 s at 120 V
Voltage rise, typ.	10 ms
Rated current value I <sub>out</sub> rated	2.5 A
Current range	0 ... 2.5 A
Supplied active power typical	60 W
Short-term overload current	
• on short-circuiting during the start-up typical	6 A
• at short-circuit during operation typical	6 A
Duration of overloading capability for excess current	
• on short-circuiting during the start-up	100 ms
• at short-circuit during operation	100 ms
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

## Efficiency

Efficiency at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	83 %
Power loss at V <sub>out</sub> rated, I <sub>out</sub> rated, approx.	12 W

## Closed-loop control

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.	5 ms

Load step setting time 100 to 50%, typ.	5 ms
Setting time maximum	5 ms
<b>Protection and monitoring</b>	
Output overvoltage protection	< 33 V
Current limitation, typ.	2.65 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value	
• typical	2.7 A
Overload/short-circuit indicator	-
<b>Safety</b>	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage U <sub>out</sub> acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current	
• maximum	3.5 mA
Degree of protection (EN 60529)	IP20
<b>Approvals</b>	
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-Recognized (UL 60950-1, CSA C22.2 No. 60950-1) File E151273
Explosion protection	ATEX (EX) II 3G Ex nA II T4; cULus (ISA 12.12.01, CSA C22.2 No.213) Class I, Div. 2, Group ABCD, T4, File E330455
FM approval	Class I, Div. 2, Group ABCD, T4
CB approval	Yes
Marine approval	ABS, BV, DNV GL, LRS, NK
<b>EMC</b>	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2
<b>environmental conditions</b>	
Ambient temperature	
• during operation	0 ... 60 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% no condensation
<b>Mechanics</b>	
Connection technology	screw-type terminals

Connections	
<ul style="list-style-type: none"> <li>• Supply input</li> <li>• Output</li> <li>• Auxiliary</li> </ul>	<p>L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm<sup>2</sup></p> <p>L+, M: 2 screw terminals each for 0.5 ... 2.5 mm<sup>2</sup></p> <p>-</p>
Width of the enclosure	70 mm
Height of the enclosure	100 mm
Depth of the enclosure	75 mm
Required spacing	
<ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	<p>20 mm</p> <p>20 mm</p> <p>0 mm</p> <p>0 mm</p>
Weight, approx.	0.3 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, wall mounting
MTBF at 40 °C	1 492 537 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)