



SIMATIC S7-1200 POWER MODULE PM1207 STABILIZED
POWER SUPPLY INPUT: 120/230 V AC OUTPUT: 24 V DC/2.5 A

Technical specifications

Product	S7-1200 PM1207
Power supply, type	24 V/2.5 A

Input

Input	1-phase AC
Supply voltage 1 with AC Rated value	120 V
Supply voltage 2 with AC Rated value	230 V
• Note	Automatic range selection
Input voltage 1 with AC	85 ... 132 V
Input voltage 2 with AC	176 ... 264 V
Wide-range input	No
Overvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at I _{out} rated, min.	20 ms; at $V_{in} = 93/187$ V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current at rated input voltage 120 V Rated value	1.2 A
Input current at rated input voltage 230 V Rated value	0.67 A
Switch-on current limiting (+25 °C), max.	13 A
Duration of inrush current limiting at 25 °C maximum	3 ms
I ² t, max.	0.5 A ² ·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 Vout 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 Vout (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 Iout rated	2.5 A
Current range	0 ... 2.5 A
Active power supplied typical	60 W
Short-term overload current on short-circuiting during the start-up typical	6 A
Duration of overloading capability for excess current on short-circuiting during the start-up	100 ms
Short-term overload current at short-circuit during operation typical	6 A
Duration of overloading capability for excess current 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 Vout rated, Iout rated, approx.	83 %
Power loss at Vout rated, Iout rated, approx.	12 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± 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

Protection and monitoring	
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	-

Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage U _{out} acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current maximum	3.5 mA
CE mark	Yes
UL/CSA approval	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
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	Class I, Div. 2, Group ABCD, T4
CB approval	Yes
Marine approval	GL, ABS, BV, DNV, LRS, NK
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature during operation	0 ... 60 °C
• Note	with natural convection
Ambient temperature during transport	-40 ... +85 °C
Ambient temperature during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections Supply input	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ²
Connections Output	L+, M: 2 screw terminals each for 0.5 ... 2.5 mm ²
Connections Auxiliary	-
Width of the enclosure	70 mm
Height of the enclosure	100 mm
Depth of the enclosure	75 mm
Weight, approx.	0.3 kg

Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, wall mounting
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)