



SIMATIC PM1207/1AC/24VDC/2.5A

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

Input	
type of the power supply network	1-phase AC
supply voltage at AC	Automatic range selection
<ul style="list-style-type: none"> initial value 	
supply voltage	120 V
<ul style="list-style-type: none"> 1 at AC rated value 2 at AC rated value 	230 V
input voltage	85 ... 132 V
<ul style="list-style-type: none"> 1 at AC 2 at AC 	176 ... 264 V
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	50 Hz
<ul style="list-style-type: none"> 1 rated value 2 rated value 	60 Hz
line frequency	47 ... 63 Hz
input current	1.2 A
<ul style="list-style-type: none"> at rated input voltage 120 V at rated input voltage 230 V 	0.67 A
current limitation of inrush current at 25 °C maximum	13 A
duration of inrush current limiting at 25 °C	3 ms
<ul style="list-style-type: none"> maximum 	0.5 A ² ·s
I ² t value maximum	T 3,15 A/250 V (not accessible)
fuse protection type	Recommended miniature circuit breaker: 16 A characteristic B or 10 A characteristic C
<ul style="list-style-type: none"> in the feeder 	

Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	24 V
<ul style="list-style-type: none"> at output 1 at DC rated value 	3 %
relative overall tolerance of the voltage	0.1 %
relative control precision of the output voltage	0.2 %
<ul style="list-style-type: none"> on slow fluctuation of input voltage on slow fluctuation of ohm loading 	150 mV
residual ripple	
<ul style="list-style-type: none"> maximum 	
voltage peak	

<ul style="list-style-type: none"> • maximum 	240 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	6 s; 2 s at 230 V, 6 s at 120 V
voltage increase time of the output voltage <ul style="list-style-type: none"> • typical 	10 ms
output current <ul style="list-style-type: none"> • rated value • rated range 	2.5 A 0 ... 2.5 A
supplied active power typical	60 W
short-term overload current <ul style="list-style-type: none"> • on short-circuiting during the start-up typical • at short-circuit during operation typical 	6 A 6 A
duration of overloading capability for excess current <ul style="list-style-type: none"> • on short-circuiting during the start-up • at short-circuit during operation 	100 ms 100 ms
product feature <ul style="list-style-type: none"> • bridging of equipment 	Yes
number of parallel-switched equipment resources for increasing the power	2

Efficiency

efficiency in percent	83 %
power loss [W] <ul style="list-style-type: none"> • at rated output voltage for rated value of the output current typical 	12 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	3 %
setting time <ul style="list-style-type: none"> • load step 50 to 100% typical • load step 100 to 50% typical 	5 ms 5 ms
setting time <ul style="list-style-type: none"> • maximum 	5 ms

Protection and monitoring

design of the overvoltage protection	< 33 V
response value current limitation typical	2.65 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
enduring short circuit current RMS value <ul style="list-style-type: none"> • typical 	2.7 A
display version for overload and short circuit	-

Safety

galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current <ul style="list-style-type: none"> • maximum 	3.5 mA
protection class IP	IP20

Approvals

certificate of suitability <ul style="list-style-type: none"> • CE marking • UL approval • CSA approval • cCSAus, Class 1, Division 2 • ATEX 	Yes Yes; 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 Yes; 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 No Yes; ATEX (EX) II 3G Ex nA nC IIC T4 Gc
certificate of suitability	

<ul style="list-style-type: none"> relating to ATEX 	IECEX Ex nA nC IIC T4 Gc; ATEX (EX) II 3G Ex nA nC IIC T4 Gc; cULus (ISA 12.12.01, CSA C22.2 No.213) Class I, Div. 2, Group ABCD, T4, File E330455
<ul style="list-style-type: none"> IECEX 	Yes; IECEX Ex nA nC IIC T4 Gc
<ul style="list-style-type: none"> NEC Class 2 	No
<ul style="list-style-type: none"> ULhazloc approval 	Yes
<ul style="list-style-type: none"> FM registration 	Yes; Class I, Div. 2, Group ABCD, T4
type of certification CB-certificate	Yes
certificate of suitability	
<ul style="list-style-type: none"> EAC approval 	Yes
certificate of suitability shipbuilding approval	Yes
shipbuilding approval	ABS, BV, DNV GL, LRS, NK
Marine classification association	
<ul style="list-style-type: none"> American Bureau of Shipping Europe Ltd. (ABS) 	Yes
<ul style="list-style-type: none"> French marine classification society (BV) 	Yes
<ul style="list-style-type: none"> DNV GL 	Yes
<ul style="list-style-type: none"> Lloyds Register of Shipping (LRS) 	Yes
<ul style="list-style-type: none"> Nippon Kaiji Kyokai (NK) 	Yes
EMC	
standard	
<ul style="list-style-type: none"> for emitted interference 	EN 55022 Class B
<ul style="list-style-type: none"> for mains harmonics limitation 	not applicable
<ul style="list-style-type: none"> for interference immunity 	EN 61000-6-2
environmental conditions	
ambient temperature	
<ul style="list-style-type: none"> during operation 	0 ... 60 °C; with natural convection
<ul style="list-style-type: none"> during transport 	-40 ... +85 °C
<ul style="list-style-type: none"> during storage 	-40 ... +85 °C
environmental category according to IEC 60721	Climate class 3K3, 5 ... 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
<ul style="list-style-type: none"> at input 	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> at output 	L+, M: 2 screw terminals each for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> for auxiliary contacts 	-
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"> top 	20 mm
<ul style="list-style-type: none"> bottom 	20 mm
<ul style="list-style-type: none"> left 	0 mm
<ul style="list-style-type: none"> right 	0 mm
net weight	0.3 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	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)

