

Data sheet

6EP1332-1SH71

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



| Input                                     |                           |
|-------------------------------------------|---------------------------|
| Input                                     | 1-phase AC                |
| Supply voltage                            |                           |
| • 1 at AC Rated value                     | 120 V                     |
| • 2 at AC Rated value                     | 230 V                     |
| • Note                                    | Automatic range selection |
| 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 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                                                                                  |
| $I^2t$ , 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 $V_{out}$ DC                                    | 24 V                                   |
| Total tolerance, static $\pm$                                 | 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 $V_{out}$ (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 $I_{out}$ 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 $V_{out}$ rated, $I_{out}$ rated, approx. | 83 % |
| Power loss at $V_{out}$ rated, $I_{out}$ rated, approx. | 12 W |

| Closed-loop control                                                   |       |
|-----------------------------------------------------------------------|-------|
| Dynamic mains compensation ( $V_{in}$ rated $\pm 15$ %), max.         | 0.3 % |
| Dynamic load smoothing ( $I_{out}$ : 50/100/50 %), $U_{out} \pm$ 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 <ul style="list-style-type: none"> <li>• typical</li> </ul>                                                           | 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 <ul style="list-style-type: none"> <li>• maximum</li> </ul>                                                                                    | 3.5 mA                                                                                                                      |
| 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                                                                                                                                                | GL, ABS, BV, DNV, LRS, NK                                                                                                   |
| Degree of protection (EN 60529)                                                                                                                                | IP20                                                                                                                        |
| <b>EMC</b>                                                                                                                                                     |                                                                                                                             |
| Emitted interference                                                                                                                                           | EN 55022 Class B                                                                                                            |
| Supply harmonics limitation                                                                                                                                    | not applicable                                                                                                              |
| Noise immunity                                                                                                                                                 | EN 61000-6-2                                                                                                                |
| <b>Operating data</b>                                                                                                                                          |                                                                                                                             |
| Ambient temperature <ul style="list-style-type: none"> <li>• during operation</li> <li>— Note</li> <li>• during transport</li> <li>• during storage</li> </ul> | 0 ... 60 °C<br>with natural convection<br>-40 ... +85 °C<br>-40 ... +85 °C                                                  |
| Humidity class according to EN 60721                                                                                                                           | Climate class 3K3, no condensation                                                                                          |
| <b>Mechanics</b>                                                                                                                                               |                                                                                                                             |
| Connection technology                                                                                                                                          | screw-type terminals                                                                                                        |
| Connections <ul style="list-style-type: none"> <li>• Supply input</li> </ul>                                                                                   | L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                                                             |

|                                                                                                            |                                                                                                   |
|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• Output</li> <li>• Auxiliary</li> </ul>                            | L+, M: 2 screw terminals each for 0.5 ... 2.5 mm <sup>2</sup><br>-                                |
| 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> | 20 mm<br>20 mm<br>0 mm<br>0 mm                                                                    |
| Weight, approx.                                                                                            | 0.3 kg                                                                                            |
| Product feature of the enclosure housing for side-by-side mounting                                         | Yes                                                                                               |
| Installation                                                                                               | Snap 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) |