



Figure similar

### SIPLUS POWER MODUL PM1207

SIPLUS S7-1200 PM 1207 based on 6EP1332-1SH71 with conformal coating, 0...+60 °C, stabilized power supply input: 120/230 V AC output: 24 V DC/2.5 A

| Input                                                                                      |                                                                                       |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| type of the power supply network                                                           | 1-phase AC                                                                            |
| supply voltage at AC                                                                       |                                                                                       |
| • initial value                                                                            | 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                                                                         |
| 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                                                                             |                                                                                       |
| • 1 rated value                                                                            | 50 Hz                                                                                 |
| • 2 rated value                                                                            | 60 Hz                                                                                 |
| line frequency                                                                             | 47 ... 63 Hz                                                                          |
| input current                                                                              |                                                                                       |
| • at rated input voltage 120 V                                                             | 1.2 A                                                                                 |
| • 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                                               |                                                                                       |
| • maximum                                                                                  | 3 ms                                                                                  |
| I2t value maximum                                                                          | 0.5 A²·s                                                                              |
| fuse protection type                                                                       | T 3,15 A/250 V (not accessible)                                                       |
| • in the feeder                                                                            | Recommended miniature circuit breaker: 16 A characteristic B or 10 A characteristic C |
| Output                                                                                     |                                                                                       |
| voltage curve at output                                                                    | Controlled, isolated DC voltage                                                       |
| output voltage at DC rated value                                                           | 24 V                                                                                  |
| output voltage                                                                             |                                                                                       |
| • at output 1 at DC rated value                                                            | 24 V                                                                                  |
| relative overall tolerance of the voltage                                                  | 3 %                                                                                   |
| relative control precision of the output voltage                                           |                                                                                       |
| • on slow fluctuation of input voltage                                                     | 0.1 %                                                                                 |
| • on slow fluctuation of ohm loading                                                       | 0.2 %                                                                                 |

|                                                                                                                 |                                                                      |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| residual ripple                                                                                                 |                                                                      |
| • maximum                                                                                                       | 150 mV                                                               |
| voltage peak                                                                                                    |                                                                      |
| • 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                                                                     |                                                                      |
| • typical                                                                                                       | 10 ms                                                                |
| output current                                                                                                  |                                                                      |
| • rated value                                                                                                   | 2.5 A                                                                |
| • rated 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                                                               |
| product feature                                                                                                 |                                                                      |
| • bridging of equipment                                                                                         | Yes                                                                  |
| number of parallel-switched equipment resources for increasing the power                                        | 2                                                                    |
| <b>Efficiency</b>                                                                                               |                                                                      |
| efficiency in percent                                                                                           | 83 %                                                                 |
| power loss [W]                                                                                                  |                                                                      |
| • at rated output voltage for rated value of the output current typical                                         | 12 W                                                                 |
| <b>Closed-loop control</b>                                                                                      |                                                                      |
| 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                                                                                                    |                                                                      |
| • load step 50 to 100% typical                                                                                  | 5 ms                                                                 |
| • load step 100 to 50% typical                                                                                  | 5 ms                                                                 |
| setting time                                                                                                    |                                                                      |
| • maximum                                                                                                       | 5 ms                                                                 |
| <b>Protection and monitoring</b>                                                                                |                                                                      |
| 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                                                                        |                                                                      |
| • typical                                                                                                       | 2.7 A                                                                |
| display version for overload and short circuit                                                                  | -                                                                    |
| <b>Safety</b>                                                                                                   |                                                                      |
| 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                                                                                                 |                                                                      |
| • maximum                                                                                                       | 3.5 mA                                                               |
| protection class IP                                                                                             | IP20                                                                 |
| <b>Approvals</b>                                                                                                |                                                                      |
| certificate of suitability                                                                                      |                                                                      |
| • CE marking                                                                                                    | Yes                                                                  |
| <b>EMC</b>                                                                                                      |                                                                      |
| standard                                                                                                        |                                                                      |

|                                                                                                                                                                  |                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>• for emitted interference</li> <li>• for mains harmonics limitation</li> <li>• for interference immunity</li> </ul>      | EN 55022 Class B<br>not applicable<br>EN 61000-6-2                                                                                                               |
| <b>environmental conditions</b>                                                                                                                                  |                                                                                                                                                                  |
| ambient temperature <ul style="list-style-type: none"> <li>• in horizontal mounting position during operation</li> <li>• during storage and transport</li> </ul> | 0 ... 60 °C; with natural convection<br>-40 ... +85 °C                                                                                                           |
| installation altitude at height above sea level maximum                                                                                                          | 6 000 m                                                                                                                                                          |
| ambient condition relating to ambient temperature - air pressure - installation altitude                                                                         | In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m |
| relative humidity with condensation according to IEC 60068-2-38 maximum                                                                                          | 100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation                                                        |
| chemical resistance to commercially available cooling lubricants                                                                                                 | Yes; incl. diesel and oil droplets in the air                                                                                                                    |
| resistance to biologically active substances conformity according to EN 60721-3-3                                                                                | Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request                                                                                |
| resistance to chemically active substances conformity according to EN 60721-3-3                                                                                  | Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)                                                                              |
| resistance to mechanically active substances conformity according to EN 60721-3-3                                                                                | Yes; Class 3S4 incl. sand, dust                                                                                                                                  |
| resistance to biologically active substances conformity according to EN 60721-3-6                                                                                | Yes; Class 6B2 mold, fungal, sponge spores (except fauna)                                                                                                        |
| resistance to chemically active substances conformity according to EN 60721-3-6                                                                                  | Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)                                                                              |
| resistance to mechanically active substances conformity according to EN 60721-3-6                                                                                | Yes; Class 6S3 incl. sand, dust                                                                                                                                  |
| coating for equipped printed circuit board according to EN 61086                                                                                                 | Yes; Class 2 for high availability                                                                                                                               |
| type of coating protection against pollution according to EN 60664-3                                                                                             | Yes; Type 1 protection                                                                                                                                           |
| type of test of the coating according to MIL-I-46058C                                                                                                            | Yes; Discoloration of the coating during service life possible                                                                                                   |
| product conformity of the coating Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A          | Yes; Conformal Coating, Class A                                                                                                                                  |
| <b>Mechanics</b>                                                                                                                                                 |                                                                                                                                                                  |
| type of electrical connection <ul style="list-style-type: none"> <li>• at input</li> <li>• at output</li> <li>• for auxiliary contacts</li> </ul>                | screw-type terminals<br>L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup><br>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                                                                                                                                   |
| 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)                                                                |

