



SIMATIC PM 1507/1AC/24VDC/8A

SIMATIC PM 1507 24 V/8 A stabilized power supply for SIMATIC S7-1500 input:  
120/230 V AC output: 24 V DC/8 A without Ex approval

| input                                                                                      |                                                                                       |
|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| type of the power supply network                                                           | 1-phase AC                                                                            |
| supply voltage at AC                                                                       | Automatic range selection                                                             |
| supply voltage                                                                             | 120 V/230 V                                                                           |
| input voltage 1 at AC                                                                      | 85 ... 132 V                                                                          |
| input voltage 2 at AC                                                                      | 170 ... 264 V                                                                         |
| wide range input                                                                           | No                                                                                    |
| overvoltage overload capability                                                            | $2.3 \times V_{in}$ rated, 1.3 ms                                                     |
| 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 $V_{in} = 93/187$ V                                                                |
| line frequency                                                                             | 50/60 Hz                                                                              |
| line frequency                                                                             | 45 ... 65 Hz                                                                          |
| input current                                                                              |                                                                                       |
| • at rated input voltage 120 V                                                             | 3.7 A                                                                                 |
| • at rated input voltage 230 V                                                             | 1.7 A                                                                                 |
| current limitation of inrush current at 25 °C maximum                                      | 62 A                                                                                  |
| duration of inrush current limiting at 25 °C                                               |                                                                                       |
| • maximum                                                                                  | 3 ms                                                                                  |
| I <sup>2</sup> t value maximum                                                             | 12 A <sup>2</sup> ·s                                                                  |
| fuse protection type                                                                       | T 6.3 A/250 V (not accessible)                                                        |
| fuse protection type 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                                                                                  |
| output voltage adjustable                                                                  | No                                                                                    |
| relative overall tolerance of the voltage                                                  | 1 %                                                                                   |
| relative control precision of the output voltage                                           |                                                                                       |
| • on slow fluctuation of input voltage                                                     | 0.1 %                                                                                 |
| • on slow fluctuation of ohm loading                                                       | 0.1 %                                                                                 |
| residual ripple                                                                            |                                                                                       |
| • maximum                                                                                  | 50 mV                                                                                 |
| voltage peak                                                                               |                                                                                       |
| • maximum                                                                                  | 150 mV                                                                                |
| display version for normal operation                                                       | LED green for 24 V OK; LED red for error; LED yellow for stand-by                     |
| behavior of the output voltage when switching on                                           | No overshoot of V <sub>out</sub> (soft start)                                         |
| response delay maximum                                                                     | 1.5 s                                                                                 |

|                                                                                                                 |                                                                                     |
|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| voltage increase time of the output voltage                                                                     |                                                                                     |
| • typical                                                                                                       | 10 ms                                                                               |
| output current                                                                                                  |                                                                                     |
| • rated value                                                                                                   | 8 A                                                                                 |
| • rated range                                                                                                   | 0 ... 8 A                                                                           |
| supplied active power typical                                                                                   | 192 W                                                                               |
| short-term overload current                                                                                     |                                                                                     |
| • on short-circuiting during the start-up typical                                                               | 35 A                                                                                |
| • at short-circuit during operation typical                                                                     | 35 A                                                                                |
| duration of overloading capability for excess current                                                           |                                                                                     |
| • on short-circuiting during the start-up                                                                       | 70 ms                                                                               |
| • at short-circuit during operation                                                                             | 70 ms                                                                               |
| bridging of equipment                                                                                           | Yes                                                                                 |
| number of parallel-switched equipment resources for increasing the power                                        | 2                                                                                   |
| <b>efficiency</b>                                                                                               |                                                                                     |
| efficiency in percent                                                                                           | 90 %                                                                                |
| power loss [W]                                                                                                  |                                                                                     |
| • at rated output voltage for rated value of the output current typical                                         | 21 W                                                                                |
| <b>closed-loop control</b>                                                                                      |                                                                                     |
| relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical | 0.1 %                                                                               |
| relative control precision of the output voltage load step of resistive load 50/100/50 % typical                | 2 %                                                                                 |
| relative control precision of the output voltage at load step of resistive load 10/90/10 % typical              | 3 %                                                                                 |
| setting time                                                                                                    |                                                                                     |
| • load step 10 to 90% typical                                                                                   | 5 ms                                                                                |
| • load step 90 to 10% typical                                                                                   | 5 ms                                                                                |
| • maximum                                                                                                       | 5 ms                                                                                |
| <b>protection and monitoring</b>                                                                                |                                                                                     |
| design of the overvoltage protection                                                                            | Additional control loop, limitation (closed loop control) at < 28.8 V               |
| property of the output short-circuit proof                                                                      | Yes                                                                                 |
| design of short-circuit protection                                                                              | Electronic shutdown, automatic restart                                              |
| response value current limitation                                                                               | 8.4 ... 9.6 A                                                                       |
| • typical                                                                                                       | 9 A                                                                                 |
| <b>safety</b>                                                                                                   |                                                                                     |
| galvanic isolation between input and output                                                                     | Yes                                                                                 |
| galvanic isolation                                                                                              | Safety extra-low output voltage Vout acc. to EN 60950-1 and EN 50178 and EN 61131-2 |
| operating resource protection class                                                                             | Class I                                                                             |
| leakage current                                                                                                 |                                                                                     |
| • maximum                                                                                                       | 3.5 mA                                                                              |
| • typical                                                                                                       | 1.3 mA                                                                              |
| protection class IP                                                                                             | IP20                                                                                |
| <b>EMC</b>                                                                                                      |                                                                                     |
| standard                                                                                                        |                                                                                     |
| • for emitted interference                                                                                      | EN 55022 Class B                                                                    |
| • for mains harmonics limitation                                                                                | EN 61000-3-2                                                                        |
| • for interference immunity                                                                                     | EN 61000-6-2                                                                        |
| <b>standards, specifications, approvals</b>                                                                     |                                                                                     |
| certificate of suitability                                                                                      |                                                                                     |
| • CE marking                                                                                                    | Yes                                                                                 |
| • UL approval                                                                                                   | Yes; cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289                         |
| • CSA approval                                                                                                  | Yes; cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289                         |
| • UKCA marking                                                                                                  | Yes                                                                                 |
| • EAC approval                                                                                                  | Yes                                                                                 |
| • Regulatory Compliance Mark (RCM)                                                                              | Yes                                                                                 |
| • NEC Class 2                                                                                                   | No                                                                                  |
| type of certification                                                                                           |                                                                                     |
| • BIS                                                                                                           | Yes; R-41183539                                                                     |

|                                                                               |                                                                                         |
|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| • CB-certificate                                                              | Yes                                                                                     |
| MTBF at 40 °C                                                                 | 1 362 918 h                                                                             |
| <b>standards, specifications, approvals hazardous environments</b>            |                                                                                         |
| certificate of suitability                                                    |                                                                                         |
| • IECEx                                                                       | No                                                                                      |
| • ATEX                                                                        | No                                                                                      |
| • ULhazloc approval                                                           | No                                                                                      |
| • cCSAus, Class 1, Division 2                                                 | No                                                                                      |
| • UKEX                                                                        | No                                                                                      |
| • CCC for hazardous zone according to GB standard                             | No                                                                                      |
| • FM registration                                                             | No                                                                                      |
| <b>standards, specifications, approvals marine classification</b>             |                                                                                         |
| shipbuilding approval                                                         | Yes                                                                                     |
| Marine classification association                                             |                                                                                         |
| • American Bureau of Shipping Europe Ltd. (ABS)                               | Yes                                                                                     |
| • French marine classification society (BV)                                   | Yes                                                                                     |
| • Det Norske Veritas (DNV)                                                    | Yes                                                                                     |
| • Lloyds Register of Shipping (LRS)                                           | No                                                                                      |
| <b>standards, specifications, approvals Environmental Product Declaration</b> |                                                                                         |
| global warming potential [CO2 eq]                                             |                                                                                         |
| • total                                                                       | 589.1 kg                                                                                |
| • during manufacturing                                                        | 14 kg                                                                                   |
| • during operation                                                            | 574.4 kg                                                                                |
| • after end of life                                                           | 0.51 kg                                                                                 |
| <b>ambient conditions</b>                                                     |                                                                                         |
| ambient temperature                                                           |                                                                                         |
| • during operation                                                            | 0 ... 60 °C; with natural convection                                                    |
| • in horizontal mounting position during operation                            | 0 ... 60 °C                                                                             |
| • in vertical mounting position during operation                              | 0 ... 40 °C                                                                             |
| • during transport                                                            | -40 ... +85 °C                                                                          |
| • during storage                                                              | -40 ... +85 °C                                                                          |
| environmental category according to IEC 60721                                 | Climate class 3K3, 5 ... 95% no condensation                                            |
| <b>connection method</b>                                                      |                                                                                         |
| type of electrical connection                                                 | Screw-/spring clamp connection                                                          |
| • at input                                                                    | L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup>                         |
| • at output                                                                   | L+, M: 2 spring-loaded terminals each for 0.5 to 2.5 mm <sup>2</sup>                    |
| removable terminal at input                                                   | Yes                                                                                     |
| removable terminal at output                                                  | Yes                                                                                     |
| <b>mechanical data</b>                                                        |                                                                                         |
| width × height × depth of the enclosure                                       | 75 × 147 × 129 mm                                                                       |
| installation width × mounting height                                          | 75 mm × 205 mm                                                                          |
| required spacing                                                              |                                                                                         |
| • top                                                                         | 40 mm                                                                                   |
| • bottom                                                                      | 40 mm                                                                                   |
| • left                                                                        | 0 mm                                                                                    |
| • right                                                                       | 0 mm                                                                                    |
| fastening method                                                              | Can be mounted onto S7-1500 rail                                                        |
| • DIN-rail mounting                                                           | No                                                                                      |
| • S7 rail mounting                                                            | Yes                                                                                     |
| • wall mounting                                                               | No                                                                                      |
| housing can be lined up                                                       | Yes                                                                                     |
| net weight                                                                    | 0.74 kg                                                                                 |
| <b>further information internet links</b>                                     |                                                                                         |
| internet link                                                                 |                                                                                         |
| • to website: Industry Mall                                                   | <a href="https://mall.industry.siemens.com">https://mall.industry.siemens.com</a>       |
| • to web page: selection aid TIA Selection Tool                               | <a href="https://www.siemens.com/tstcloud">https://www.siemens.com/tstcloud</a>         |
| • to web page: power supplies                                                 | <a href="https://siemens.com/sitop">https://siemens.com/sitop</a>                       |
| • to website: CAX-Download-Manager                                            | <a href="https://siemens.com/cax">https://siemens.com/cax</a>                           |
| • to website: Industry Online Support                                         | <a href="https://support.industry.siemens.com">https://support.industry.siemens.com</a> |
| <b>additional information</b>                                                 |                                                                                         |

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|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| other information                                                                   |                                                                                     | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |
| security information                                                                |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
| security information                                                                |                                                                                     | Siemens provides products and solutions with industrial cybersecurity functions that support the secure operation of plants, systems, machines and networks. In order to protect plants, systems, machines and networks against cyber threats, it is necessary to implement – and continuously maintain – a holistic, state-of-the-art industrial cybersecurity concept. Siemens' products and solutions constitute one element of such a concept. Customers are responsible for preventing unauthorized access to their plants, systems, machines and networks. Such systems, machines and components should only be connected to an enterprise network or the internet if and to the extent such a connection is necessary and only when appropriate security measures (e.g. firewalls and/or network segmentation) are in place. For additional information on industrial cybersecurity measures that may be implemented, please visit <a href="https://www.siemens.com/cybersecurity-industry">www.siemens.com/cybersecurity-industry</a> . Siemens' products and solutions undergo continuous development to make them more secure. Siemens strongly recommends that product updates are applied as soon as they are available and that the latest product versions are used. Use of product versions that are no longer supported, and failure to apply the latest updates may increase customer's exposure to cyber threats. To stay informed about product updates, subscribe to the Siemens Industrial Cybersecurity RSS Feed under <a href="https://www.siemens.com/cert">https://www.siemens.com/cert</a> . (V4.7) |                                                                                       |
| Classifications                                                                     |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
|                                                                                     |                                                                                     | Version                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Classification                                                                        |
|                                                                                     | eClass                                                                              | 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 27-04-07-01                                                                           |
|                                                                                     | eClass                                                                              | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 27-04-07-01                                                                           |
|                                                                                     | eClass                                                                              | 9.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 27-04-07-01                                                                           |
|                                                                                     | eClass                                                                              | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 27-04-07-01                                                                           |
|                                                                                     | eClass                                                                              | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 27-04-90-02                                                                           |
|                                                                                     | eClass                                                                              | 7.1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 27-04-90-02                                                                           |
|                                                                                     | eClass                                                                              | 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 27-04-90-02                                                                           |
|                                                                                     | ETIM                                                                                | 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EC002540                                                                              |
|                                                                                     | ETIM                                                                                | 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EC002540                                                                              |
|                                                                                     | ETIM                                                                                | 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | EC002540                                                                              |
|                                                                                     | IDEA                                                                                | 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 4130                                                                                  |
|                                                                                     | UNSPSC                                                                              | 15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 39-12-10-04                                                                           |
| Approvals Certificates                                                              |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
| General Product Approval                                                            |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
|  |  | <a href="#">Manufacturer Declaration</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |
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| General Product Approval                                                            |                                                                                     | For use in hazardous locations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                       |
| <a href="#">Miscellaneous</a>                                                       | <a href="#">BIS CRS</a>                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |
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| For use in hazardous locations                                                      |                                                                                     | Maritime application                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |
| Environment                                                                         |                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                       |
| <a href="#">CCC-Ex</a>                                                              |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |    |
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