

SIPLUS PS PSU200M 5A
 SIPLUS PS PSU200M 5A with conformal coating based on
 6EP1333-3BA10 . STABILIZED Power-Supply Input: 120/230-500V
 AC Output: 24 V/5 A DC



Figure similar

| Input | |
|--|---|
| Input | 1-phase and 2-phase AC |
| <ul style="list-style-type: none"> Note | Set by means of selector switch on the device; starting from $V_{in} > 90/180\text{ V}$ |
| supply voltage | |
| <ul style="list-style-type: none"> 1 at AC 2 at AC | 120 ... 230 V 230 ... 500 V |
| input voltage | |
| <ul style="list-style-type: none"> 1 at AC 2 at AC | 85 ... 264 V 176 ... 550 V |
| Wide-range input | Yes |
| Overvoltage resistance | 1300 V _{peak} , 1.3 ms |
| Mains buffering | at $V_{in} = 120/230\text{ V}$, typ. 150 ms at $V_{in} = 400\text{ V}$ |
| Mains buffering at lout rated, min. | 25 ms; at $V_{in} = 120/230\text{ V}$, typ. 150 ms at $V_{in} = 400\text{ V}$ |
| Rated line frequency 1 | 50 Hz |
| Rated line frequency 2 | 60 Hz |
| Rated line range | 47 ... 63 Hz |

| | |
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| input current | |
| <ul style="list-style-type: none"> • at rated input voltage 120 V • at rated input voltage 230 V • at rated input voltage 500 V | <p>2.2 A</p> <p>1.2 A</p> <p>0.61 A</p> |
| Switch-on current limiting (+25 °C), max. | 35 A |
| I ² t, max. | 1.7 A ² ·s |
| Built-in incoming fuse | T 3.15 A (not accessible) |
| Protection in the mains power input (IEC 898) | Recommended miniature circuit breaker at 1-phase operation: from 6 A (10 A) characteristic C (B); required at 2-phase operation: circuit breaker 2-pole connected or circuit breaker 3RV2011-1EA10 (setting 3.8 A) or 3RV2711-1ED10 (UL 489) at 230 V; 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489) at 400/500 V |

| Output | |
|---|---|
| Output | Controlled, isolated DC voltage |
| Rated voltage V _{out} DC | 24 V |
| Total tolerance, static ± | 3 % |
| Static mains compensation, approx. | 0.1 % |
| Static load balancing, approx. | 0.1 % |
| Residual ripple peak-peak, max. | 50 mV |
| Spikes peak-peak, max. (bandwidth: 20 MHz) | 200 mV |
| Adjustment range | 24 ... 28.8 V |
| product function output voltage adjustable | Yes |
| Output voltage setting | via potentiometer |
| Status display | Green LED for 24 V OK |
| Signaling | Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK" |
| On/off behavior | Overshoot of V _{out} approx. 3 % |
| Startup delay, max. | 1 s |
| Voltage rise, typ. | 50 ms |
| Rated current value I _{out} rated | 5 A |
| Current range | 0 ... 5 A |
| supplied active power typical | 120 W |
| short-term overload current | |
| <ul style="list-style-type: none"> • at short-circuit during operation typical | 15 A |
| duration of overloading capability for excess current | |
| <ul style="list-style-type: none"> • at short-circuit during operation | 25 ms |
| constant overload current | |
| <ul style="list-style-type: none"> • on short-circuiting during the start-up typical | 6 A |
| Parallel switching for enhanced performance | Yes; switchable characteristic |
| Numbers of parallel switchable units for enhanced performance | 2 |

| Efficiency | |
|---|------|
| Efficiency at V _{out} rated, I _{out} rated, approx. | 88 % |

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| Power loss at V_{out} rated, I_{out} rated, approx. | 17 W |
| power loss [W] during no-load operation maximum | 4 W |
| Closed-loop control | |
| Dynamic mains compensation (V_{in} rated $\pm 15\%$), max. | 0.1 % |
| Dynamic load smoothing (I_{out} : 50/100/50 %), $U_{out} \pm$ typ. | 3 % |
| Load step setting time 50 to 100%, typ. | 2 ms |
| Load step setting time 100 to 50%, typ. | 2 ms |
| setting time maximum | 5 ms |
| Protection and monitoring | |
| Output overvoltage protection | < 35 V |
| Current limitation, typ. | 6 A |
| property of the output short-circuit proof | Yes |
| Short-circuit protection | Alternatively, constant current characteristic approx. 5.5 A or latching shutdown |
| enduring short circuit current RMS value | |
| • typical | 6 A |
| Overload/short-circuit indicator | LED yellow for "overload", LED red for "latching shutdown" |
| Safety | |
| Primary/secondary isolation | Yes |
| galvanic isolation | Safety extra-low output voltage U_{out} acc. to EN 60950-1 and EN 50178 |
| Protection class | Class I |
| leakage current | |
| • maximum | 3.5 mA |
| • typical | 0.25 mA |
| Degree of protection (EN 60529) | IP20 |
| Approvals | |
| CE mark | Yes |
| EMC | |
| Emitted interference | EN 55022 Class B |
| Supply harmonics limitation | EN 61000-3-2 |
| Noise immunity | EN 61000-6-2 |
| environmental conditions | |
| ambient temperature in horizontal mounting position during operation | -25 ... +70; with natural convection |
| ambient temperature during storage and transport | -40 ... +85 |
| installation altitude at height above sea level maximum | 6 000 m |

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| 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 acc. 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 acc. to EN 60721-3-3 | Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request |
| resistance to chemically active substances conformity acc. 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 acc. to EN 60721-3-3 | Yes; Class 3S4 incl. sand, dust |
| resistance to biologically active substances conformity acc. to EN 60721-3-6 | Yes; Class 6B2 mold, fungal, sponge spores (except fauna) |
| resistance to chemically active substances conformity acc. 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 acc. to EN 60721-3-6 | Yes; Class 6S3 incl. sand, dust |
| coating for equipped printed circuit board acc. 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 acc. 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 acc. to IPC-CC-830A | Yes; Conformal Coating, Class A |

Mechanics

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| Connection technology | screw-type terminals |
| Connections | |
| • Supply input | L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm ² single-core/finely stranded |
| • Output | +, -: 2 screw terminals each for 0.2 ... 2.5 mm ² |
| • Auxiliary | 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm ² |
| width of the enclosure | 70 mm |
| height of the enclosure | 125 mm |
| depth of the enclosure | 121 mm |
| required spacing | |
| • top | 50 mm |
| • bottom | 50 mm |
| • left | 0 mm |
| • right | 0 mm |
| Weight, approx. | 0.6 kg |
| product feature of the enclosure housing for side-by-side mounting | Yes |

| | |
|------------------------|---|
| Installation | Snaps onto DIN rail EN 60715 35x7.5/15 |
| electrical accessories | Buffer module |
| other information | Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified) |