SIEMENS

## Data sheet 6AG1334-3BA10-7AA0

SIPLUS PS PSU200M 10A
SIPLUS PS PSU200M 10 A -25...+70°C with conformal coating based on 6EP1334-3BA10 . STABILIZED Power-Supply Input: 120/230-500V AC Output: 24 V/10 A DC


Figure similar

| Input | |
|---|---|
| Input | 1-phase and 2-phase AC |
| • Note | Set by means of selector switch on the device |
| Supply voltage | |
| • 1 at AC | 120 ... 230 V |
| • 2 at AC | 230 ... 500 V |
| Input voltage | |
| • 1 at AC | 85 ... 264 V |
| • 2 at AC | 176 ... 550 V |
| Wide-range input | Yes |
| Overvoltage resistance | 1300 Vpeak, 1.3 ms |
| Mains buffering | at Vin = 120/230 V, typ. 150 ms at Vin = 400 V |
| Mains buffering at Iout rated, min. | 25 ms; at Vin = 120/230 V, typ. 150 ms at Vin = 400 V |
| Rated line frequency 1 | 50 Hz |
| Rated line frequency 2 | 60 Hz |
| Rated line range | 47 ... 63 Hz |
| Input current | |

| | |
|---|---|
| • at rated input voltage 120 V | 4.4 A |
| • at rated input voltage 230 V | 2.4 A |
| • at rated input voltage 500 V | 1.1 A |
| Switch-on current limiting (+25 °C), max. | 35 A |
| $I^2t$, max. | 4 $A^2 \cdot s$ |
| Built-in incoming fuse | T 6.3 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 Vout 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 Vout approx. 3 % |
| Startup delay, max. | 1 s |
| Voltage rise, typ. | 50 ms |
| Rated current value Iout rated | 10 A |
| Current range | 0 ... 10 A |
| • Note | +60 ... +70 °C: Derating 2%/K (at 120 V, 230 V) or 3.5%/K (at 400 V) |
| Supplied active power typical | 240 W |
| Short-term overload current | |
| • at short-circuit during operation typical | 30 A |
| Duration of overloading capability for excess current | |
| • at short-circuit during operation | 25 ms |
| Constant overload current | |
| • on short-circuiting during the start-up typical | 12 A |
| Parallel switching for enhanced performance | Yes; switchable characteristic |
| Numbers of parallel switchable units for enhanced performance | 2 |

## Efficiency

| | |
|---|---|
| Efficiency at Vout rated, Iout rated, approx. | 91 % |
| Power loss at Vout rated, Iout rated, approx. | 24 W |
| Power loss [W] during no-load operation maximum | 6 W |

| Closed-loop control | |
|---|---|
| Dynamic mains compensation (Vin rated ±15 %), max. | 0.1 % |
| Dynamic load smoothing (Iout: 50/100/50 %), Uout ± 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. | 12 A |
| Property of the output Short-circuit proof | Yes |
| Short-circuit protection | Alternatively, constant current characteristic approx. 12 A or latching shutdown |
| Enduring short circuit current RMS value | |
| • typical | 12 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 Uout acc. to EN 60950-1 and EN 50178 |
| Protection class | Class I |
| Leakage current | |
| • maximum | 3.5 mA |
| • typical | 0.32 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 | |
| • during operation | -25 ... +70 °C |
| — Note | with natural convection |
| • during transport | -40 ... +85 °C |
| • during storage | -40 ... +85 °C |

| | |
|---|---|
| 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 maximum | 100 %; Relative humidity, incl. condensation/frost permitted (no commissioning under condensation conditions) |
| Ambient temperature in horizontal mounting position during operation minimum | -25 °C |
| Ambient temperature in horizontal mounting position during operation maximum | 70 °C; with natural convection |
| Ambient temperature during storage and transport | -40 ... +85 |
| 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 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; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request |
| Resistance to biologically active substances conformity acc. to EN 60721-3-3 | Yes |
| 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

| | |
|---|---|
| Connection technology | screw-type terminals |
| Connections | |
| • Supply input | L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm² single-core/finely stranded |
| • Output | +, -: 2 screw terminals each for 0.2 ... 2.5 mm² |
| • Auxiliary | 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm² |

| | |
|---|---|
| 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. | 0.8 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) |