



Figure similar

SIPLUS PS PSU100S 24 V/10 A

SIPLUS PS PSU100S 24 V/10 A based on 6EP1334-2BA20 with conformal coating, -25...+70 °C, stabilized power supply input output: 24 V DC/10 A

Input	
type of the power supply network	1-phase AC
supply voltage at AC	
• initial value	Automatic range selection
supply voltage	
• 1 at AC rated value	120 V
• 2 at AC rated value	230 V
input voltage	
• 1 at AC	85 ... 132 V
• 2 at AC	170 ... 264 V
design of input wide range input	No
overvoltage overload capability	2.3 × Vin rated, 1.3 ms
operating condition of the mains buffering	at Vin = 93/187 V
buffering time for rated value of the output current in the event of power failure minimum	20 ms
operating condition of the mains buffering	at Vin = 93/187 V
line frequency	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
line frequency	47 ... 63 Hz
input current	
• at rated input voltage 120 V	4.49 A
• at rated input voltage 230 V	1.91 A
current limitation of inrush current at 25 °C maximum	60 A
I2t value maximum	5.6 A ² ·s
fuse protection type	T 6.3 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: from 10 A characteristic C
Output	
voltage curve at output	Controlled, isolated DC voltage
output voltage at DC rated value	24 V
output voltage	
• at output 1 at DC rated value	24 V
relative overall tolerance of the voltage	3 %
relative control precision of the output voltage	
• on slow fluctuation of input voltage	0.1 %
• on slow fluctuation of ohm loading	1 %
residual ripple	
• maximum	150 mV
• typical	20 mV

voltage peak	
• maximum	240 mV
• typical	160 mV
adjustable output voltage	22.8 ... 28 V
product function output voltage adjustable	Yes
type of output voltage setting	via potentiometer
display version for normal operation	Green LED for 24 V OK
type of signal at output	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
behavior of the output voltage when switching on	Overshoot of Vout < 3 %
response delay maximum	0.3 s
voltage increase time of the output voltage	
• typical	20 ms
output current	
• rated value	10 A
• rated range	0 ... 12 A; 12 A up to +45°C; +60 ... +70 °C: Derating 3%/K
supplied active power typical	288 W
short-term overload current	
• on short-circuiting during the start-up typical	32 A
• at short-circuit during operation typical	32 A
duration of overloading capability for excess current	
• on short-circuiting during the start-up	1 000 ms
• at short-circuit during operation	1 000 ms
product feature	
• bridging of equipment	Yes
number of parallel-switched equipment resources for increasing the power	2
Efficiency	
efficiency in percent	90 %
power loss [W]	
• at rated output voltage for rated value of the output current typical	25 W
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.3 %
relative control precision of the output voltage at load step of resistive load 10/90/10 % typical	3 %
setting time	
• load step 10 to 90% typical	1 ms
• load step 90 to 10% typical	1 ms
Protection and monitoring	
design of the overvoltage protection	protection against overvoltage in case of internal fault Vout < 33 V
response value current limitation	12 ... 14.6 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Constant current characteristic
enduring short circuit current RMS value	
• typical	14.6 A
overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
display version for overload and short circuit	-
Safety	
galvanic isolation between input and output	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
operating resource protection class	Class I
leakage current	
• maximum	3.5 mA
• typical	0.8 mA
protection class IP	IP20
Approvals	
certificate of suitability	
• CE marking	Yes
EMC	
standard	
• for emitted interference	EN 55022 Class B

<ul style="list-style-type: none"> • for mains harmonics limitation • for interference immunity 	<p>EN 61000-3-2</p> <p>EN 61000-6-2</p>
environmental conditions	
ambient temperature <ul style="list-style-type: none"> • in horizontal mounting position during operation • during storage and transport 	<p>-25 ... +70 °C; with natural convection</p> <p>-40 ... +85 °C</p>
installation altitude at height above sea level maximum	6 000 m
ambient condition relating to ambient temperature - air pressure - installation altitude	In case of operation at altitudes of 2000 - 6000 m above sea level: Output power derating of -7.5 %/1000 m or reduction of the ambient temperature by 5 K/1000 m
relative humidity with condensation according to IEC 60068-2-38 maximum	100 %; RH incl. condensation/frost (no commissioning if condensation is present), horizontal installation
chemical resistance to commercially available cooling lubricants	Yes; incl. diesel and oil droplets in the air
resistance to biologically active substances conformity according to EN 60721-3-3	Yes; Class 3B2 mold, fungal, sponge spores (except fauna); class 3B3 upon request
resistance to chemically active substances conformity according to EN 60721-3-3	Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)
resistance to mechanically active substances conformity according to EN 60721-3-3	Yes; Class 3S4 incl. sand, dust
resistance to biologically active substances conformity according to EN 60721-3-6	Yes; Class 6B2 mold, fungal, sponge spores (except fauna)
resistance to chemically active substances conformity according to EN 60721-3-6	Yes; Class 6C3 (RH < 75%) incl. salt spray acc. to EN 60068-2-52 (severity level 3)
resistance to mechanically active substances conformity according to EN 60721-3-6	Yes; Class 6S3 incl. sand, dust
coating for equipped printed circuit board according to EN 61086	Yes; Class 2 for high availability
type of coating protection against pollution according to EN 60664-3	Yes; Type 1 protection
type of test of the coating according to MIL-I-46058C	Yes; Discoloration of the coating during service life possible
product conformity of the coating Qualification and Performance of Electrical Insulating Compound for Printed Board Assemblies according to IPC-CC-830A	Yes; Conformal Coating, Class A
Mechanics	
type of electrical connection <ul style="list-style-type: none"> • at input • at output • for auxiliary contacts 	<p>screw-type terminals</p> <p>L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded</p> <p>+, -: 2 screw terminals each for 0.5 ... 2.5 mm²</p> <p>Alarm signals: 2 screw terminals for 0.5 ... 2.5 mm²</p>
width of the enclosure	70 mm
height of the enclosure	125 mm
depth of the enclosure	120 mm
required spacing <ul style="list-style-type: none"> • top • bottom • left • right 	<p>50 mm</p> <p>50 mm</p> <p>0 mm</p> <p>0 mm</p>
net weight	0.8 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Buffer module
MTBF at 40 °C	1 614 510 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

