

### 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

Input	
Input	1-phase and 2-phase AC
<ul style="list-style-type: none"> <li>Note</li> </ul>	Set by means of selector switch on the device; starting from $V_{in} > 90/180$ V
supply voltage	
<ul style="list-style-type: none"> <li>1 at AC</li> <li>2 at AC</li> </ul>	120 ... 230 V 230 ... 500 V
input voltage	
<ul style="list-style-type: none"> <li>1 at AC</li> <li>2 at AC</li> </ul>	85 ... 264 V 176 ... 550 V
Wide-range input	Yes
Overvoltage resistance	1300 V <sub>peak</sub> , 1.3 ms
Mains buffering	at $V_{in} = 120/230$ V, typ. 150 ms at $V_{in} = 400$ V
Mains buffering at I <sub>out</sub> rated, min.	25 ms; at $V_{in} = 120/230$ V, typ. 150 ms at $V_{in} = 400$ V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
input current	
<ul style="list-style-type: none"> <li>at rated input voltage 120 V</li> <li>at rated input voltage 230 V</li> <li>at rated input voltage 500 V</li> </ul>	2.2 A 1.2 A 0.61 A
Switch-on current limiting (+25 °C), max.	35 A
I <sup>2</sup> t, max.	1.7 A <sup>2</sup> ·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 <sub>out</sub> DC	24 V
<ul style="list-style-type: none"> <li>output voltage at output 1 at DC rated value</li> </ul>	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 <sub>out</sub> approx. 3 %
Startup delay, max.	1 s
Voltage rise, typ.	50 ms

Rated current value lout rated	5 A
Current range	0 ... 5 A
supplied active power typical	120 W
short-term overload current	
• at short-circuit during operation typical	15 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	6 A
Parallel switching for enhanced performance	Yes; switchable characteristic
Numbers of parallel switchable units for enhanced performance	2
<b>Efficiency</b>	
Efficiency at Vout rated, lout rated, approx.	88 %
Power loss at Vout rated, lout rated, approx.	17 W
power loss [W] during no-load operation maximum	4 W
<b>Closed-loop control</b>	
Dynamic mains compensation (Vin rated $\pm 15$ %), max.	0.1 %
Dynamic load smoothing (lout: 50/100/50 %), Uout $\pm$ 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
<b>Protection and monitoring</b>	
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"
<b>Safety</b>	
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	0.25 mA
Degree of protection (EN 60529)	IP20
<b>Approvals</b>	
CE mark	Yes
<b>EMC</b>	
Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
<b>environmental conditions</b>	
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
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
<b>Mechanics</b>	
Connection technology	screw-type terminals
Connections <ul style="list-style-type: none"> <li>• Supply input</li> <li>• Output</li> <li>• Auxiliary</li> </ul>	L, N, PE: 1 screw terminal each for 0.2 ... 2.5 mm <sup>2</sup> single-core/finely stranded +, -: 2 screw terminals each for 0.2 ... 2.5 mm <sup>2</sup> 13, 14 (alarm signal): 1 screw terminal each for 0.14 ... 1.5 mm <sup>2</sup>
width of the enclosure	70 mm
height of the enclosure	125 mm
depth of the enclosure	121 mm
required spacing <ul style="list-style-type: none"> <li>• top</li> <li>• bottom</li> <li>• left</li> <li>• right</li> </ul>	50 mm 50 mm 0 mm 0 mm
Weight, approx.	0.6 kg
product feature of the enclosure housing can be lined up	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)

