

SIPLUS POWER DC 24V/ 0,375 A
SIPLUS PS 24 V/0.375 A Condensation permissible in: 48...220 V
DC out: 24 V DC/0.375 A based on 6EP1731-2BA00



Figure similar

Input	
Input	DC voltage
Voltage range AC	30 ... 187 V
Supply voltage	
• at DC	48 ... 220 V
Input voltage	
• at DC	30 ... 264 V
Wide-range input	Yes
Overtoltage resistance	-
Mains buffering	at Vin = 220 V
Mains buffering at lout rated, min.	10 ms; at Vin = 220 V
Input current	
• at rated input voltage 48 V	0.3 A
• at rated input voltage 220 V	0.06 A
Switch-on current limiting (+25 °C), max.	35 A
Duration of inrush current limiting at 25 °C	
• typical	3 ms

I ² t, max.	1.2 A ² ·s
Built-in incoming fuse	F 4 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 6 A characteristic C, suitable for DC

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.	150 mV
Residual ripple peak-peak, typ.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Product function output voltage adjustable	No
Output voltage setting	-
Status display	Green LED for 24 V OK
On/off behavior	No overshoot of V _{out} (soft start)
Startup delay, max.	2.5 s
Voltage rise, typ.	90 ms
Rated current value I _{out} rated	0.375 A
Current range	0 ... 0.375 A
• Note	+60 ... +70 °C: Derating 3%/K
Supplied active power typical	9 W
Short-term overload current	
• at short-circuit during operation typical	2.7 A
Duration of overloading capability for excess current	
• at short-circuit during operation	200 ms
Parallel switching for enhanced performance	No

Efficiency

Efficiency at V _{out} rated, I _{out} rated, approx.	66 %
Power loss at V _{out} rated, I _{out} rated, approx.	4.6 W

Closed-loop control

Dynamic mains compensation (V _{in} rated ±15 %), max.	0.3 %
Dynamic load smoothing (I _{out} : 50/100/50 %), U _{out} ± typ.	0.4 %
Load step setting time 50 to 100%, typ.	2 ms
Load step setting time 100 to 50%, typ.	2 ms

Protection and monitoring

Output overvoltage protection	Yes, according to EN 60950-1
Current limitation	0.41 ... 0.49 A

Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value • maximum	0.9 A
Overload/short-circuit indicator	-

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
Degree of protection (EN 60529)	IP20

Approvals

CE mark	Yes
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EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
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
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

Connection technology	screw-type terminals
Connections	
• Supply input	L+1, M1, PE: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
• Output	+: 1 screw terminal for 0.5 ... 2.5 mm ² ; -: 2 screw terminals for 0.5 ... 2.5 mm ²
Width of the enclosure	22.5 mm
Height of the enclosure	80 mm
Depth of the enclosure	91 mm
Required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	0.14 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
MTBF at 40 °C	1 466 123 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)