SIEMENS

Data sheet 6AG1931-2BA00-3AA0

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

Input	
Input	DC voltage
Supply voltage	
• at DC	48 ... 220 V
Voltage range AC	30 ... 187 V
Input voltage	
• at DC	30 ... 264 V
Wide-range input	Yes
Overvoltage resistance	-
Mains buffering at Iout 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^2t, max.	1.2 $A^2 \cdot s$
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 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.	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 Vout (soft start)
Startup delay, max.	2.5 s
Voltage rise, typ.	90 ms
Rated current value Iout 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 Vout rated, Iout rated, approx.	66 %
Power loss at Vout rated, Iout rated, approx.	4.6 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± 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 Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current	
• maximum	3.5 mA
CE mark	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289, cURus-Recognized (UL 60950, CSA C22.2 No. 60950), File E151273
Explosion protection	-
FM approval	-
CB approval	No
Marine approval	-
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature	
• during operation	-25 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +70 °C
• during storage	-40 ... +70 °C
Humidity class according to EN 60721	Climate class 3K8H
Relative humidity with condensation maximum	100 %; Relative humidity, incl. condensation/frost permitted (no commissioning under condensation conditions)
Resistance to biologically active substances conformity acc. to EN 60721-3-3	Yes; Compliant with EN 60721-3-3, Class 3B2 mold and fungal spores (except fauna); the supplied plug covers must remain in place on the unused interfaces during operation.
Resistance to chemically active substances conformity acc. to EN 60721-3-3	Yes; Compliant with EN 60721-3-3, Class 3C4 incl. salt spray in accordance with EN 60068-2-52 (severity 3); the supplied plug covers must remain in place on the unused interfaces during operation.
Resistance to mechanically active substances conformity acc. to EN 60721-3-3	Yes; Conformity with EN 60721-3-3, Class 3S4 incl. Sand, dust. The supplied connector covers must remain on the unused interfaces during operation!

Mechanics

Connection technology	screw-type terminals
Connections	
• Supply input	L+1, M1, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
• Output	+: 1 screw terminal for 0.5 ... 2.5 mm²; -: 2 screw terminals for 0.5 ... 2.5 mm²
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)