SIEMENS

Data sheet 6AG1433-2BA20-7AA0

Figure similar

SIPLUS PS PSU300S 24 V/5 A

SIPLUS PS PSU300S 5A -25 ... +70°C with conformal coating based on 6EP1433-2BA20.
STABILIZED POWER SUPPLY
INPUT: 3 400-500 V 3AC
OUTPUT: 24 V DC/5 A

Input	
Input	3-phase AC
Rated voltage value Vin rated	400 ... 500 V
Voltage range AC	340 ... 550 V
Wide-range input	Yes
Mains buffering	at Vin = 400 V
Mains buffering at Iout rated, min.	18 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 400 V	0.45 A
● at rated input voltage 500 V	0.4 A
Switch-on current limiting (+25 °C), max.	20 A
I²t, max.	0.5 A²·s
Built-in incoming fuse	none
Protection in the mains power input (IEC 898)	Required: 3-pole connected miniature circuit breaker 3 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489-listed, DIVQ)

Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
● output voltage at output 1 at DC rated value	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.1 %
Residual ripple peak-peak, max.	200 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Adjustment range	24 ... 28 V
product function output voltage adjustable	Yes
Output voltage setting	via potentiometer; max. 120 W
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 < 5 %
Startup delay, max.	1.5 s
Voltage rise, typ.	60 ms
voltage increase time of the output voltage maximum	500 ms
Rated current value Iout rated	5 A
Current range	0 ... 5 A
● Note	6 A up to +45°C; +60 ... +70 °C: Derating 5%/K
supplied active power typical	120 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	89.5 %
Power loss at Vout rated, Iout rated, approx.	14 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	1 %
Load step setting time 50 to 100%, typ.	3 ms
Load step setting time 100 to 50%, typ.	3 ms
Dynamic load smoothing (Iout: 10/90/10 %), Uout ± typ.	3 %
Load step setting time 10 to 90%, typ.	4 ms
Load step setting time 90 to 10%, typ.	4 ms
setting time maximum	10 ms
Protection and monitoring	
Output overvoltage protection	protection against overvoltage in case of internal fault Vout < 35 V
Current limitation, typ.	6.6 A
property of the output short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
enduring short circuit current RMS value	
● maximum	8 A
overcurrent overload capability in normal operation	overload capability 150 % Iout rated up to 5 s/min
Safety	
Primary/secondary isolation	Yes
galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178, transformer acc. to EN 61558-2-16
Protection class	Class I
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 in horizontal mounting position during operation	-40; Startup @ -25 °C ... +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.	Yes; Class 3C4 (RH < 75%) incl. salt spray acc. to EN 60068-2-52

to EN 60721-3-3	(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	L1, L2, L3, PE: 1 screw terminal each for 0.05 ... 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 0.2 ... 2.5 mm²
width of the enclosure	50 mm
height of the enclosure	125 mm
depth of the enclosure	120 mm
Weight, approx.	0.5 kg
product feature of the enclosure housing can be lined up	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
electrical accessories	Redundancy module, buffer module, selectivity module, DC UPS
mechanical accessories	Device identification label 20 mm × 7 mm, pale turquoise 3RT1900-1SB20
MTBF at 40 °C	500 000 h
other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)