

Siemens 6EP1333-2AA01 Manual

Brand	Siemens
Product Series	Siemens
Product Type	24 V/5 A

Description

6EP1333-2AA01

SITOP SMART 120 W STABILIZED POWER SUPPLY

INPUT: 120/230 V AC OUTPUT: 24 V DC/5 A

Technical specifications

Product SITOP smart

Power supply, type 24 V/5 A

Input

Input 1-phase AC

Supply voltage / 1 / at AC / nominal value 120 V

Supply voltage / 2 / at AC / nominal value 230 V

Voltage range

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Note Set by means of selector switch on the device

Input voltage / 1 / at AC 85 ... 132 V

Input voltage / 2 / at AC 170 ... 264 V

Wide-range input No

Overvoltage resistance $2.3 \times V_{in}$ rated, 1.3 ms

Mains buffering at I_{out} rated, min. 20 ms

Mains buffering at $V_{in} = 93/187$ V

Rated line frequency 50 / 60 Hz

Rated line range 47 ... 63 Hz

Input current / at nominal level of the input voltage 120 V 2.1 A

Input current / at nominal level of the input voltage 230 V 1.15 A

Switch-on current limiting (+25 °C), max. 32 A

Duration of current limiting / at 25 °C / typical 3 ms

I^2t , max. 0.8 A²·s

Built-in incoming fuse T 3,15 A/250 V (not accessible)

Protection in the mains power input (IEC 898) Recommended miniature circuit breaker: from 6 A, characteristic C

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. 0.5 %

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) 150 mV
 Adjustment range 22.8 ... 28 V
 Product feature / output voltage adjustable Yes
 Output voltage setting via potentiometer
 Status display Green LED for 24 V OK
 On/off behavior Overshoot of Vout approx. 4 %
 Startup delay, max. 0.1 s
 Voltage rise, typ. 50 ms
 Rated current value Iout rated 5 A
 Current range 0 ... 6 A
 Note 6 A up to +45 °C
 delivered active power / typ. 144 W
 short-term overload current / at short-circuit during run-up / typical 17 A
 Duration of overloading ability for excess current / on short-circuiting during the start-up
 100 ms
 short-term overload current / at short-circuit during operation / typical 17 A
 Duration of overloading ability for excess current / on short-circuiting during the operational phase
 200 ms
 Parallel switching for enhanced performance Yes
 Numbers of parallel switchable units for enhanced performance 2
 Efficiency
 Efficiency at Vout rated, Iout rated, approx. 87 %
 Power loss at Vout rated, Iout rated, approx. 17 W
 Closed-loop control
 Dynamic mains compensation (Vin rated ± 15 %), max. 0.3 %
 Dynamic load smoothing (Iout: 50/100/50 %), Uout $\pm$ typ. 1 %
 Load step setting time 50 to 100%, typ. 0.2 ms
 Load step setting time 100 to 50%, typ. 0.2 ms

Protection and monitoring
 Output overvoltage protection < 33 V
 Current limitation 6.4 ... 6.6 A
 Characteristic feature of the output / short-circuit protected Yes
 Short-circuit protection Constant current characteristic
 Enduring short circuit current / Effective level / typical 10 A
 Overload/short-circuit indicator -
 Safety
 Primary/secondary isolation Yes
 Potential separation Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
 Protection class Class I
 stray current / maximum 3.5 mA
 stray current / typical 0.4 mA
 CE mark Yes
 UL/CSA approval Yes
 UL/cUL (CSA) approval cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259, cCSAus (CSA C22.2 No. 60950-1, UL 60950-1, UL 1604)
 Explosion protection ATEX (EX) II 3G Ex nA II T4; UL 1604 Class I, Div. 2, Group ABCD
 FM approval -

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CB approval Yes

Marine approval GL

Degree of protection (EN 60529) IP20

EMC

Emitted interference EN 55022 Class B

Supply harmonics limitation -

Noise immunity EN 61000-6-2

Operating data

Ambient temperature / in operation 0 ... 60 °C

Note with natural convection

Ambient temperature / on transport -40 ... +85 °C

Ambient temperature / in storage -40 ... +85 °C

Humidity class according to EN 60721 Climate class 3K3, no condensation

Mechanics

Connection technology screw-type terminals

Connections / Supply input L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded

Connections / Output L+, M: 2 screw terminals each for 0.5 ... 2.5 mm²

Connections / Auxiliary -

Width / of the housing 50 mm

Height / of the housing 125 mm

Depth / of the housing 125 mm

Installation width 50 mm

Mounting height 225 mm

Weight, approx. 0.5 kg

Product feature / of the housing / housing for side-by-side mounting Yes

Type of mounting / wall mounting No

Type of fixing / cap rail mounting Yes

Type of mounting / S7-300 rail mounting No

Installation Snaps onto DIN rail EN 60715 35x7.5/15

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