

Siemens 6EP1436-3BA00 Manual

Brand	Siemens
Product Series	Siemens
Product Type	of the power supply network 3-phase AC

Description

6EP1436-3BA00

SITOP modular/3AC/24VDC/20A

SITOP modular 20 A stabilized power supply input: 400-500 V 3 AC output: 24 V DC/20 A

input

type of the power supply network 3-phase AC

supply voltage at AC

- minimum rated value 400 V
- maximum rated value 500 V
- initial value 320 V
- full-scale value 550 V

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supply voltage at AC Starting from $V_{in} > 340$ V

wide range input Yes

overvoltage overload capability $2.3 \times V_{in}$ rated, 1.3 ms

buffering time for rated value of the output current in the event of power failure minimum

6 ms

operating condition of the mains buffering at $V_{in} = 400$ V

line frequency 50/60 Hz

line frequency 47 ... 63 Hz

input current

- at rated input voltage 400 V 1.1 A
- at rated input voltage 500 V 0.9 A

current limitation of inrush current at 25 °C maximum 35 A

I^2t value maximum 0.7 A²·s

fuse protection type none

fuse protection type in the feeder Required: 3-pole connected miniature circuit breaker 6 ... 16 A characteristic C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)

output

voltage curve at output Controlled, isolated DC voltage

output voltage at DC rated value 24 V

output voltage

- at output 1 at DC rated value 24 V

output voltage adjustable Yes; via potentiometer

adjustable output voltage 24 ... 28.8 V; max. 480 W

relative overall tolerance of the voltage 3 %

relative control precision of the output voltage

- on slow fluctuation of input voltage 0.1 %
- on slow fluctuation of ohm loading 0.2 %

residual ripple

- maximum 100 mV

voltage peak

- maximum 200 mV

display version for normal operation Green LED for 24 V OK

type of signal at output via signaling module (6EP1961-3BA10)

behavior of the output voltage when switching on No overshoot of V_{out} (soft start)

response delay maximum 2.5 s

voltage increase time of the output voltage

- maximum 500 ms

output current

- rated value 20 A
- rated range 0 ... 20 A; +60 ... +70 °C: Derating 2%/K

supplied active power typical 480 W

short-term overload current

- at short-circuit during operation typical 60 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 23 A

bridging of equipment Yes; switchable characteristic

number of parallel-switched equipment resources for increasing the power

2

efficiency

efficiency in percent 90 %

power loss [W]

- at rated output voltage for rated value of the output

current typical

53 W

closed-loop control

relative control precision of the output voltage with rapid

fluctuation of the input voltage by +/- 15% typical

1 %

relative control precision of the output voltage load step of

resistive load 50/100/50 % typical

2 %

setting time

- load step 50 to 100% typical 4 ms
- load step 100 to 50% typical 4 ms

setting time

- maximum 10 ms

protection and monitoring

design of the overvoltage protection < 35 V

property of the output short-circuit proof Yes

design of short-circuit protection Alternatively, constant current characteristic approx. 23 A or latching shutdown

- typical 23 A

enduring short circuit current RMS value

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- typical 23 A

display version for overload and short circuit LED yellow for "overload", LED red for "latching shutdown"

safety

galvanic isolation between input and output Yes

galvanic isolation Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178

operating resource protection class Class I

leakage current

- maximum 3.5 mA

protection class IP IP20

EMC

standard

- for emitted interference EN 55022 Class B
- for mains harmonics limitation EN 61000-3-2
- for interference immunity EN 61000-6-2

standards, specifications, approvals

certificate of suitability

- CE marking Yes
- UL approval Yes; UL-Listed (UL 508), File E197259; CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
- CSA approval Yes; UL-Listed (UL 508), File E197259, CSA (CSA C22.2 No. 14, CSA C22.2 No. 107.1)
- UKCA marking Yes
- EAC approval Yes
- Regulatory Compliance Mark (RCM) Yes

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NEC Class 2 No

- SEMI F47 Yes

type of certification

- CB-certificate No

MTBF at 40 °C 711 213 h

standards, specifications, approvals hazardous environments

certificate of suitability

- IECEx No
- ATEX No
- ULhazloc approval No
- cCSAus, Class 1, Division 2 No
- FM registration No

standards, specifications, approvals marine classification

shipbuilding approval Yes

Marine classification association

- American Bureau of Shipping Europe Ltd. (ABS) Yes
- French marine classification society (BV) No
- Det Norske Veritas (DNV) Yes
- Lloyds Register of Shipping (LRS) No

standards, specifications, approvals Environmental Product Declaration

Environmental Product Declaration Yes

global warming potential [CO2 eq]

- total 1 690.8 kg
- during manufacturing 31.5 kg
- during operation 1 658.4 kg
- after end of life 0.45 kg

ambient conditions

ambient temperature

- during operation 0 ... 70 °C; with natural convection
- during transport -40 ... +85 °C
- during storage -40 ... +85 °C

environmental category according to IEC 60721 Climate class 3K3, 5 ... 95% no condensation

connection method

type of electrical connection screw terminal

- at input L1, L2, L3, PE: 1 screw terminal each for 0.2 ... 4 mm² single-core/finely stranded

- at output +, -: 2 screw terminals each for 0.33 ... 4 mm²
- for auxiliary contacts -

mechanical data

width × height × depth of the enclosure 160 × 125 × 125 mm

installation width × mounting height 160 mm × 225 mm

required spacing

- top 50 mm
- bottom 50 mm
- left 0 mm
- right 0 mm

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

- DIN-rail mounting Yes
- S7 rail mounting No
- wall mounting No

housing can be lined up Yes www.AutoDCSTech.com

net weight 2 kg

accessories

electrical accessories Buffer module, signaling module