SIEMENS

Data sheet

6EP1731-2BA00



SITOP POWER/DC/DC/48-220V/24V/0.375A

SITOP power 0.375 A, DC/DC Stabilized power supply input: 48-220V DC output: DC 24 V/0,375 A

Figure similar

Input	
type of the power supply network	DC voltage
supply voltage at AC	
• initial value	30 V
• full-scale value	187 V
supply voltage	
• at DC	48 220 V
input voltage	
• at DC	30 264 V
design of input wide range input	Yes
overvoltage overload capability	
operating condition of the mains buffering	at Vin = 220 V
buffering time for rated value of the output current in the event of power failure minimum	10 ms
operating condition of the mains buffering	at Vin = 220 V
input current	
 at rated input voltage 48 V 	0.3 A
 at rated input voltage 220 V 	0.06 A
current limitation of inrush current at 25 °C maximum	35 A
duration of inrush current limiting at 25 °C	
typical	3 ms
I2t value maximum	1.2 A ² ·s
fuse protection type	F 4 A/250 V (not accessible)
• in the feeder	Recommended miniature circuit breaker: from 6 A characteristic C, suitable for DC
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
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 	0.1 %
residual ripple	
• maximum	150 mV
typical	50 mV
voltage peak	
• maximum	240 mV
• typical	50 mV

product function output voltage adjustable	No
type of output voltage setting	-
display version for normal operation	Green LED for 24 V OK
behavior of the output voltage when switching on	No overshoot of Vout (soft start)
response delay maximum	2.5 s
voltage increase time of the output voltage	
• typical	90 ms
output current	
rated value	0.375 A
rated range	0 0.375 A; +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
product feature	
 bridging of equipment 	No
Efficiency	
efficiency in percent	66 %
power loss [W]	
 at rated output voltage for rated value of the output 	4.6 W
current typical	
Closed-loop control	
relative control precision of the output voltage with rapid fluctuation of the input voltage by +/- 15% typical	0.3 %
relative control precision of the output voltage load step of resistive load 50/100/50 % typical	0.4 %
setting time	
 load step 50 to 100% typical 	2 ms
 load step 100 to 50% typical 	2 ms
Protection and monitoring	
design of the overvoltage protection	Yes, according to EN 60950-1
response value current limitation	0.41 0.49 A
property of the output short-circuit proof	Yes
design of short-circuit protection	Electronic shutdown, automatic restart
enduring short circuit current RMS value	
• maximum	0.9 A
display version for overload and short circuit	
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	00001
• maximum	3.5 mA
protection class IP	IP20
P	IF20
Approvals	
certificate of suitability	No.
• CE marking	Yes
UL approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289; cURus- Recognized (UL 60950, CSA C22.2 No. 60950), File E151273
CSA approval	Yes; cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289; cURus- Recognized (UL 60950, CSA C22.2 No. 60950), File E151273
 cCSAus, Class 1, Division 2 	No
• ATEX	No
certificate of suitability	
• IECEx	No
NEC Class 2	No
ULhazloc approval	No
FM registration	No
type of certification CB-certificate	No
certificate of suitability	
EAC approval	Yes

certificate of suitability shipbuilding approval	No
shipbuilding approval	- ·
Marine classification association	
 American Bureau of Shipping Europe Ltd. (ABS) 	No
 French marine classification society (BV) 	No
• DNV GL	No
 Lloyds Register of Shipping (LRS) 	No
 Nippon Kaiji Kyokai (NK) 	No
EMC	
standard	
 for emitted interference 	EN 55022 Class B
 for mains harmonics limitation 	not applicable
for interference immunity	EN 61000-6-2
environmental conditions	
ambient temperature	
during operation	-25 +70 °C; with natural convection
 during transport 	-40 +70 °C
during storage	-40 +70 °C
environmental category according to IEC 60721	Climate class 3K3, 5 95% no condensation
Mechanics	
type of electrical connection	screw-type terminals
• at input	L+1, M1, PE: 1 screw terminal each for 0.5 2.5 mm ² single-core/finely stranded
 at output 	+: 1 screw terminal for 0.5 2.5 mm ² ; -: 2 screw terminals for 0.5 2.5 mm ²
 for auxiliary contacts 	-
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
net weight	0.14 kg
product feature of the enclosure housing can be lined up	Yes
fastening method	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)

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