SIEMENS

Data sheet 6EP1621-2BA00

SITOP POWER DC/DC 24 V - 12 V
SITOP 2.5 A, DC/DC converter Stabilized power supply input: 24 V
DC output: 12 V DC/2,5 A

Input	
Input	DC voltage PELV/SELV
Supply voltage	
• at DC	24 ... 24 V
Input voltage	
• at DC	18.5 ... 30.2 V
Wide-range input	No
Input current	
• at rated input voltage 24 V	2.5 A
Switch-on current limiting (+25 °C), max.	20 A
Duration of inrush current limiting at 25 °C	
• typical	5 ms
Built-in incoming fuse	not accessible
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: 10 A characteristic B

Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	12 V
Total tolerance, static ±	3 %

Static mains compensation, approx.	0.1 %
Static load balancing, approx.	0.4 %
Residual ripple peak-peak, max.	100 mV
Residual ripple peak-peak, typ.	50 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	200 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 mV
Adjustment range	12 ... 14 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer; max. 120 W
Status display	Green LED for 12 V OK
Startup delay, max.	0.5 s
Voltage rise, typ.	300 ms
Rated current value Iout rated	2.5 A
Current range	0 ... 2.5 A
Short-term overload current	
• on short-circuiting during the start-up typical	3.3 A
• at short-circuit during operation typical	3.3 A
Constant overload current	
• on short-circuiting during the start-up typical	3.3 A
• at short-circuit during operation typical	3.3 A
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	83 %
Power loss at Vout rated, Iout rated, approx.	6.1 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.5 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	3 %
Load step setting time 50 to 100%, typ.	5 ms
Load step setting time 100 to 50%, typ.	2 ms
Setting time maximum	5 ms

Protection and monitoring	
Output overvoltage protection	< 24 V
Current limitation	3 ... 3.6 A
Current limitation, typ.	3.3 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic approx. 3.2 A
Enduring short circuit current RMS value	
• typical	3.2 A

Overload/short-circuit indicator	LED red for "overload"

Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
Protection class	Class II
CE mark	Yes
UL/cUL (CSA) approval	cCSAus (UL 508, CSA22.2-107, UL60950-1, CSA22.2-60950-1)
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	-
Noise immunity	EN 61000-6-2

Operating data	
Ambient temperature	
• during operation	0 ... 60 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics	
Connection technology	screw-type terminals
Connections	
• Supply input	+, -: 1 screw terminal each for 0.5 ... 2.5 mm²
• Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm²
• Auxiliary	-
Width of the enclosure	32.5 mm
Height of the enclosure	125 mm
Depth of the enclosure	125 mm
Required spacing	
• top	50 mm
• bottom	50 mm
• left	0 mm
• right	0 mm
Weight, approx.	0.32 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	563 793 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)