SIEMENS

Data sheet 6EP1334-1AL12

SITOP POWER 10, SPECIAL LINE STABILIZED POWER SUPPLY
INPUT: 120/230 V AC OUTPUT: 24 V DC/10 A

Technical specifications	
Product	SITOP power
Power supply, type	24 V/10 A

Input	
Input	1-phase AC
Supply voltage 1 with AC Rated value	120 V
Supply voltage 2 with AC Rated value	230 V
• Note	Set by means of selector switch on the device
Input voltage 1 with AC	85 ... 132 V
Input voltage 2 with AC	170 ... 264 V
Wide-range input	No
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	20 ms; at Vin = 93/187 V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current at rated input voltage 120 V Rated value	4 A
Input current at rated input voltage 230 V Rated value	2.5 A
Switch-on current limiting (+25 °C), max.	65 A
Duration of inrush current limiting at 25 °C maximum	3 ms
I^2t, max.	3.3 $A^2 \cdot s$
Built-in incoming fuse	T 6.3 A/250 V (not accessible)
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 10 A characteristic C

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Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	1 %
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)	200 mV
Adjustment range	22 ... 29 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for 24 V OK
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	2 s
Voltage rise, typ.	40 ms
Rated current value Iout rated	10 A
Current range	0 ... 10 A
Active power supplied typical	240 W
Short-term overload current on short-circuiting during the start-up typical	35 A
Duration of overloading capability for excess current on short-circuiting during the start-up	700 ms
Short-term overload current at short-circuit during operation typical	35 A
Duration of overloading capability for excess current at short-circuit during operation	700 ms
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency	
Efficiency at Vout rated, Iout rated, approx.	89 %
Power loss at Vout rated, Iout rated, approx.	30 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	0.3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	0.6 %
Load step setting time 50 to 100%, typ.	0.1 ms
Load step setting time 100 to 50%, typ.	0.2 ms

Protection and monitoring

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Output overvoltage protection	Additional control loop, shutdown at approx. 33 V, automatic restart
Current limitation	11 ... 13 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current RMS value maximum	10 A
Overload/short-circuit indicator	-

Safety	
Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage Uout acc. to EN 60950-1 and EN 50178
Protection class	Class I
Leakage current maximum	3.5 mA
Leakage current typical	0.27 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 107.1), File E197259
Explosion protection	-
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
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
Ambient temperature during transport	-40 ... +85 °C
Ambient temperature 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	L, N, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
Connections Output	L+, M: 3 screw terminals each for 0.5 ... 2.5 mm²
Connections Auxiliary	-
Width of the enclosure	160 mm
Height of the enclosure	130 mm

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Depth of the enclosure	60 mm
Weight, approx.	0.72 kg
Product property of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)

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