SIEMENS

Data sheet 6EP1436-2BA00

SITOP POWER 24 V/20 A
SITOP POWER 20 STABILIZED POWER SUPPLY INPUT: 400-500 V 3 AC OUTPUT: 24 V DC/20 A

Input	
Input	3-phase AC
Rated voltage value Vin rated	400 ... 500 V
Voltage range AC	360 ... 550 V
• Note	340 ... 360 V for max. 2 s or at max. 0.9 x Iout rated
Wide-range input	Yes
Overvoltage resistance	2.3 × Vin rated, 1.3 ms
Mains buffering at Iout rated, min.	3 ms; at Vin = 360 V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 400 V	1.2 A
Switch-on current limiting (+25 °C), max.	25 A
I^2t, max.	1 $A^2 \cdot s$
Built-in incoming fuse	none
Protection in the mains power input (IEC 898)	Required: 3-pole connected miniature circuit breaker characteristic C up to 25 A (recommended: 6 A) or circuit-breaker 3RV1021-1DA10 (setting 3 A) or 3RV1721-1DD10 (UL 489)

Output

Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	60 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	120 mV
Adjustment range	22.8 ... 26.4 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer; only permissible at ambient temperatur 0 °C to +45 °C
Status display	Green LED for 24 V OK
On/off behavior	No overshoot of Vout (soft start)
Startup delay, max.	3 s
Voltage rise, typ.	40 ms
Rated current value Iout rated	20 A
Current range	0 ... 20 A
Active power supplied typical	480 W
Constant overload current	
• on short-circuiting during the start-up typical	30 A
• at short-circuit during operation typical	30 A
Parallel switching for enhanced performance	Yes; only permissable at ambient temperature 0 °C to 45 °C
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.	59 W

Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	1 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	2 %
Setting time maximum	2 ms

Protection and monitoring	
Output overvoltage protection	Yes, according to EN 60950
Current limitation	21 ... 26 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value	
• maximum	30 A
Overload/short-circuit indicator	-

Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra low output voltage Vout according to EN 60950-1
Protection class	Class I
Leakage current	
• maximum	3.5 mA
• typical	0.35 mA
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-Listed (UL 508, CSA C22.2 No. 142), File E143289
Explosion protection	-
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	-
CB approval	Yes
Marine approval	-
Degree of protection (EN 60529)	IP20

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Emitted interference	EN 55022 Class B
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature	
• during operation	0 ... 55 °C
— Note	with natural convection
• during transport	-25 ... +85 °C
• during storage	-25 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections	
• Supply input	L1, L2, L3, PE: 1 screw terminal each for 0.5 ... 2.5 mm² single-core/finely stranded
• Output	L+: 1 screw terminal for 0.33 ... 10 mm²; M: 2 screw terminals for 0.33 ... 10 mm²
• Auxiliary	-
Width of the enclosure	280 mm
Height of the enclosure	125 mm
Depth of the enclosure	92 mm
Weight, approx.	2 kg
Product property of the enclosure housing for side-by-side mounting	No
Installation	Snaps onto DIN rail EN 60715 35x7.5/15

Mechanical accessories	Mounting bracket 90° (6EP1971-2BA00)
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)