



SITOP PSU300E 24 V/5 A STABILIZED POWER SUPPLY
INPUT: 3 400-500 V AC OUTPUT: 24 V/5 A DC

Technical specifications

Product	SITOP PSU300E
Power supply, type	24 V/5 A
Input	
Input	3-phase AC
Supply voltage / at AC / nominal value min.	400 V
Supply voltage / at AC / nominal value max.	500 V
Supply voltage	
• at AC	320 ... 550 V
Wide-range input	Yes
Mains buffering at I _{out} rated, min.	50 ms
Mains buffering	at V _{in} = 400 V
Rated line frequency	50 / 60 Hz
Rated line range	47 ... 63 Hz
Input current / at nominal level of the input voltage 400 V	0.36 A
Input current / at nominal level of the input voltage 500 V	0.29 A
Switch-on current limiting (+25 °C), max.	15 A
I ² t, max.	0.9 A ² ·s
Built-in incoming fuse	none

Protection in the mains power input (IEC 898)	Required: 3-pole connected miniature circuit breaker 6 A characteristic B or C or circuit breaker 3RV2011-1DA10 (setting 3 A) or 3RV2711-1DD10 (UL 489)
Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout DC	24 V
Total tolerance, static ±	3 %
Static mains compensation, approx.	3 %
Static load balancing, approx.	3 %
Residual ripple peak-peak, max.	150 mV
Residual ripple peak-peak, typ.	35 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	240 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	70 mV
Adjustment range	24 ... 29 V
Product feature / output voltage adjustable	Yes
Output voltage setting	via potentiometer
• Note	max. 120 W
Status display	Green LED for 24 V OK
Signaling	Relay contact (NO contact, rating 60 V DC/ 0.3 A) for "24 V OK"
On/off behavior	Overshoot of Vout approx. 3 %
Startup delay, max.	0.5 s
Voltage rise, typ.	10 ms
Voltage increase time / of the output voltage / maximum	100 ms
Rated current value Iout rated	5 A
Current range	0 ... 5 A
delivered active power / typ.	120 W
short-term overload current / at short-circuit during run-up / typical	33 A
Duration of overloading ability for excess current / on short-circuiting during the start-up	140 ms
short-term overload current / at short-circuit during operation / typical	28 A
Duration of overloading ability for excess current / on short-circuiting during the operational phase	135 ms
Parallel switching for enhanced performance	No
Efficiency	
Efficiency at Vout rated, Iout rated, approx.	90 %
Power loss at Vout rated, Iout rated, approx.	13 W
Closed-loop control	
Dynamic mains compensation (Vin rated ±15 %), max.	3 %
Dynamic load smoothing (Iout: 50/100/50 %), Uout ± typ.	5 %
Load step setting time 50 to 100%, typ.	1 ms

Load step setting time 100 to 50%, typ.	1 ms
Dynamic load smoothing (I _{out} : 10/90/10 %), U _{out} ± typ.	1 %
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 90 to 10%, typ.	1 ms
Setting time / maximum	30 ms
Protection and monitoring	
Output overvoltage protection	Yes, according to EN 60950-1
Current limitation, typ.	11 A
Characteristic feature of the output / short-circuit protected	Yes
Short-circuit protection	Electronic shutdown, automatic restart
Enduring short circuit current / Effective level / maximum	7.5 A
Safety	
Primary/secondary isolation	Yes
Potential separation	Safety extra-low output voltage U _{out} acc. to EN 60950-1 and EN 50178
Protection class	Class I
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	-
FM approval	-
CB approval	Yes
Marine approval	-
Degree of protection (EN 60529)	IP20
EMC	
Emitted interference	EN 55022 Class A
Supply harmonics limitation	EN 61000-3-2
Noise immunity	EN 61000-6-2
Operating data	
Ambient temperature / in operation	0 ... 60 °C
• Note	with natural convection
Ambient temperature / on transport	-40 ... +85 °C
Ambient temperature / in storage	-40 ... +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: Removable screw terminal for 0.5 ... 2.5 mm ² single-core/finely stranded
Connections / Output	+, -: 2 screw terminals each for 0.5 ... 2.5 mm ²
Connections / Auxiliary	13, 14 (alarm signal): 1 screw terminal each for 0.5 ... 2.5 mm ²

Width / of the housing	42 mm
Height / of the housing	125 mm
Depth / of the housing	125 mm
Installation width	42 mm
Mounting height	225 mm
Weight, approx.	0.6 kg
Product feature / of the housing / housing for side-by-side mounting	Yes
Mounting type / wall mounting	No
Type of mounting / standard rail mounting	Yes
Mounting type / S7 rail mounting	No
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)

letzte Änderung:

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