



LOGO!POWER 12 V/4.5 A STABILIZED POWER SUPPLY INPUT:
100-240 V AC (110-300 V DC) OUTPUT: 12 V/4.5 A DC

Technical specifications

Product	LOGO!Power
Power supply, type	12 V/4.5 A

Input

Input	1-phase AC or DC
Rated voltage value V_{in} rated	100 ... 240 V
Voltage range AC	85 ... 264 V
Input voltage for DC	110 ... 300 V
Wide-range input	Yes
Overvoltage resistance	$2.3 \times V_{in}$ rated, 1.3 ms
Mains buffering at I_{out} rated, min.	40 ms; at $V_{in} = 187$ V
Rated line frequency	50 ... 60 Hz
Rated line range	47 ... 63 Hz
Input current at rated input voltage 120 V Rated value	1.13 A
Input current at rated input voltage 230 V Rated value	0.61 A
Switch-on current limiting (+25 °C), max.	55 A
I^2t , max.	3 A ² ·s
Built-in incoming fuse	internal
Protection in the mains power input (IEC 898)	Recommended miniature circuit breaker: from 16 A characteristic B or from 10 A characteristic C

Output

Output	Controlled, isolated DC voltage
Rated voltage V_{out} DC	12 V

Total tolerance, static \pm	3 %
Static mains compensation, approx.	0.1 %
Static load balancing, approx.	1.5 %
Residual ripple peak-peak, max.	200 mV
Residual ripple peak-peak, typ.	10 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	70 mV
Adjustment range	10.5 ... 16.1 V
Product function Output voltage adjustable	Yes
Output voltage setting	via potentiometer
Status display	Green LED for output voltage OK
On/off behavior	No overshoot of V_{out} (soft start)
Startup delay, max.	0.5 s
Voltage rise, typ.	10 ms
Rated current value I_{out} rated	4.5 A
Current range	0 ... 4.5 A
• Note	+55 ... +70 °C: Derating 2%/K
Active power supplied typical	50 W
Parallel switching for enhanced performance	Yes
Numbers of parallel switchable units for enhanced performance	2

Efficiency

Efficiency at V_{out} rated, I_{out} rated, approx.	85 %
Power loss at V_{out} rated, I_{out} rated, approx.	10 W
Active power loss during no-load operation maximum	1.9 W

Closed-loop control

Dynamic mains compensation (V_{in} rated ± 15 %), max.	0.2 %
Dynamic load smoothing (I_{out} : 10/90/10 %), $U_{out} \pm$ typ.	4 %
Load step setting time 10 to 90%, typ.	1 ms
Load step setting time 90 to 10%, typ.	1 ms

Protection and monitoring

Output overvoltage protection	Yes, according to EN 60950-1
Current limitation, typ.	5.8 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value maximum	7 A
Overload/short-circuit indicator	-

Safety

Primary/secondary isolation	Yes
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Galvanic isolation	Safety extra-low output voltage U _{out} acc. to EN 60950-1 and EN 50178
Protection class	Class II (without protective conductor)
CE mark	Yes
UL/CSA approval	Yes
UL/cUL (CSA) approval	cULus-listed (UL 508, CSA C22.2 No. 107.1), File E197259; cURus-recognized (UL 60950, CSA C22.2 No. 60950), File E151273
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cCSAus (CSA C22.2 No. 213-M1987, ANSI/ISA-12.12.01-2007) Class I, Div. 2, Group ABCD, T4
Certificate of suitability IECEx	No
Certificate of suitability NEC Class 2	No
FM approval	Class I, Div. 2, Group ABCD, T4
CB approval	Yes
Marine approval	GL, ABS
Degree of protection (EN 60529)	IP20

EMC

Emitted interference	EN 55022 Class B
Supply harmonics limitation	not applicable
Noise immunity	EN 61000-6-2

Operating data

Ambient temperature during operation	-20 ... +70 °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: 1 screw terminal each 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	-
Width of the enclosure	72 mm
Height of the enclosure	90 mm
Depth of the enclosure	52.6 mm
Weight, approx.	0.25 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)