

LOGO!POWER 12 V/4.5 A
 LOGO!POWER 12 V / 4.5 A Regulated power supply input: 100-240
 V AC output: 12 V DC/ 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	
• at DC	110 ... 300 V
Wide-range input	Yes
Overvoltage resistance	300 V AC for 1 s
Mains buffering at I_{out} rated, min.	40 ms; at $V_{in} = 187$ V
Rated line frequency 1	50 Hz
Rated line frequency 2	60 Hz
Rated line range	47 ... 63 Hz
Input current	
• at rated input voltage 120 V	1.13 A
• at rated input voltage 230 V	0.61 A
Switch-on current limiting (+25 °C), max.	50 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 10 A characteristic B or from 6 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.	0.1 %
Residual ripple peak-peak, max.	200 mV
Residual ripple peak-peak, typ.	30 mV
Spikes peak-peak, max. (bandwidth: 20 MHz)	300 mV
Spikes peak-peak, typ. (bandwidth: 20 MHz)	50 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.	100 ms
Rated current value I_{out} rated	4.5 A
Current range	0 ... 4.5 A
• Note	+55 ... +70 °C: Derating 2%/K
Supplied active power typical	54 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.	87.1 %
Power loss at V_{out} rated, I_{out} rated, approx.	8 W
Power loss [W] during no-load operation maximum	0.3 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 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic

Enduring short circuit current RMS value	
<ul style="list-style-type: none"> • maximum 	5 A
Overcurrent overload capability in normal operation	overload capability 150% I _{out} rated typ. 200 ms
Overload/short-circuit indicator	-
measuring point for output current	50 mV ≈ 4.5 A
Overcurrent overload capability when switching on	150% I _{out} rated typ. 200 ms

Safety

Primary/secondary isolation	Yes
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/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, NEC class 2 (acc. to UL 1310)
Explosion protection	ATEX (EX) II 3G Ex nA IIC T3; cULus Class I Div. 2 (ANSI/ISA-12.12.01, CSA C22.2 No. 213) Group ABCD, T4, File E488866
FM approval	Class I, Div. 2, Group ABCD, T4
CB approval	Yes
Marine approval	ABS, DNV GL
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	
<ul style="list-style-type: none"> • during operation 	-25 ... +70 °C
<ul style="list-style-type: none"> — Note 	with natural convection
<ul style="list-style-type: none"> • during transport 	-40 ... +85 °C
<ul style="list-style-type: none"> • during storage 	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, no condensation

Mechanics

Connection technology	screw-type terminals
Connections	
<ul style="list-style-type: none"> • Supply input 	L, N: 1 screw terminal each for 0.5 ... 2.5 mm ² single-core/finely stranded
<ul style="list-style-type: none"> • Output 	+, -: 1 screw terminal each for 0.5 ... 2.5 mm ²
<ul style="list-style-type: none"> • Auxiliary 	-
Width of the enclosure	54 mm
Height of the enclosure	90 mm
Depth of the enclosure	53 mm

Required spacing	
• top	20 mm
• bottom	20 mm
• left	0 mm
• right	0 mm
Weight, approx.	0.2 kg
Product feature of the enclosure housing for side-by-side mounting	Yes
Installation	Snaps onto DIN rail EN 60715 35x7.5/15, direct mounting in different mounting positions
MTBF at 40 °C	2 566 680 h
Other information	Specifications at rated input voltage and ambient temperature +25 °C (unless otherwise specified)