

LOGO!Power/1AC/12VDC/4.5A
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 Vin rated	100 ... 240 V
Voltage range AC	85 ... 264 V
input voltage	
• at DC	110 ... 300 V
Wide-range input	Yes
Overtoltage resistance	300 V AC for 1 s
Mains buffering	at Vin = 187 V
Mains buffering at Iout rated, min.	40 ms; at Vin = 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
I²t, max.	3 A²·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
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Output	
Output	Controlled, isolated DC voltage
Rated voltage Vout 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 Vout (soft start)
Startup delay, max.	0.5 s
Voltage rise, typ.	100 ms
Rated current value Iout 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 Vout rated, Iout rated, approx.	87.1 %
Power loss at Vout rated, Iout rated, approx.	8 W
power loss [W] during no-load operation maximum	0.3 W

Closed-loop control	
Dynamic mains compensation (Vin rated ± 15 %), max.	0.2 %
Dynamic load smoothing (Iout: 10/90/10 %), Uout $\pm$ 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	
• 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 $\approx$ 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)
Degree of protection (EN 60529)	IP20

Approvals

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
certificate of suitability NEC Class 2	No
FM approval	Class I, Div. 2, Group ABCD, T4
CB approval	Yes
Marine approval	ABS, DNV GL

EMC

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

environmental conditions

ambient temperature	
• during operation	-25 ... +70 °C
— Note	with natural convection
• during transport	-40 ... +85 °C
• during storage	-40 ... +85 °C
Humidity class according to EN 60721	Climate class 3K3, 5 ... 95% 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
• Output	+, -: 1 screw terminal each for 0.5 ... 2.5 mm ²
• 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	Snap 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)