

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
Oversvoltage resistance	300 V AC for 1 s
Mains buffering	at $V_{in} = 187$ V
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 <sup>2</sup> ·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
<b>Output</b>	
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
<b>Efficiency</b>	
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
<b>Closed-loop control</b>	
Dynamic mains compensation ( $V_{in}$ rated $\pm 15$ %), 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
<b>Protection and monitoring</b>	
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"> <li>• maximum</li> </ul>	5 A
Overcurrent overload capability in normal operation	overload capability 150% I <sub>out</sub> 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 <sub>out</sub> rated typ. 200 ms

### Safety

Primary/secondary isolation	Yes
Galvanic isolation	Safety extra-low output voltage U <sub>out</sub> 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
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	
<ul style="list-style-type: none"> <li>• during operation</li> <li>— Note</li> <li>• during transport</li> <li>• during storage</li> </ul>	-25 ... +70 °C with natural convection -40 ... +85 °C -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"> <li>• Supply input</li> <li>• Output</li> <li>• Auxiliary</li> </ul>	L, N: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> single-core/finely stranded +, -: 1 screw terminal each for 0.5 ... 2.5 mm <sup>2</sup> -
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)