



LOGO!POWER 24 V/2.5 A STABILIZED POWER SUPPLY INPUT:
100-240 V AC (110-300 V DC) OUTPUT: 24 V/2.5 A DC

Technical specifications

Product	LOGO!Power
Power supply, type	24 V/2.5 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	1.22 A
Input current at rated input voltage 230 V Rated value	0.66 A
Switch-on current limiting (+25 °C), max.	46 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	24 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)	50 mV
Adjustment range	22.2 ... 26.4 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	2.5 A
Current range	0 ... 2.5 A
• Note	+55 ... +70 °C: Derating 2%/K
Active power supplied typical	60 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.	88 %
Power loss at V_{out} rated, I_{out} rated, approx.	8 W
Active power loss during no-load operation maximum	1.8 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.	2 %
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.	3.3 A
Property of the output Short-circuit proof	Yes
Short-circuit protection	Constant current characteristic
Enduring short circuit current RMS value maximum	4.8 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, NEC class 2 (acc. to UL 1310)
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	Yes
FM approval	Class I, Div. 2, Group ABCD, T4
CB approval	Yes
Marine approval	GL, ABS, BV, DNV, LRS
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)