

Anixter Level 1 for Industrial Network Environments

Power Supplies: 48V 10 A Single Phase



Anixter Item #	Product Description
L1-48V-10A-1P-DIN	Primary Switched-Mode Power Supply, Single Phase, 48 VDC / 10 A, DIN-rail mount.

Technical Data	
Input:	
Nominal input voltage V_i nom	110 ... 240 VAC
Input voltage range	85 ... 264 VAC; 120 ... 350 VDC (use of DC requires external protection)
Input voltage derating	-1.5 % / V AC < 110 VAC
Frequency	50 - 60 Hz
Input current I_i	2.3 A at 230 VAC and 10 ADC
Discharge current	1 mA typ.
Inrush current	< 8 A (active inrush current limitation)
Mains failure hold-up time	20 ms typ. at 230 VAC

Output:	
Nominal output voltage V_o nom	48 VDC (SELV)
Output voltage range	33 ... 52 VDC adjustable
Output current I_o	10 A at 48 V DC
PowerBoost	17.5 ADC (for 4 s); 15 ADC (for 8 s)
TopBoost	60 ADC (for 25 ms)
Factory preset	48 VDC
Adjustment accuracy	1%
Residual ripple	< 70 mV (peak-peak)
Current limitation	1.1 x I_o typ.
Overload behavior	TopBoost / PowerBoost / Constant current
Operational indication	LED green (V_o), LED red (error)
Signaling	Relay contact DC O.K. (changeover contact)
Efficiency / power losses:	
Efficiency	91 % typ.
Power loss PV	0.8 W (stand-by) / 4.8 W (no load) / 43.2 W (rated load)
Fuse protection:	
Internal fuse	610 AT
External fuse	Circuit breakers 6 A, 10 A, 16 A,, Characteristic: B or C; An external DC fuse is required for the DC input voltage
Environmental requirements:	
Ambient operating temperature	-25 °C ... +70 °C; Device start at -40 °C (type-tested)
Storage temperature	-25 °C ... +85 °C
Rel. humidity	30 % ... 85 % (no condensation)
Derating	-3 % / K (> +50 °C)
Degree of pollution	2 (acc. to EN 50178)
Climatic category	3K3 (acc. to EN 60721)
Safety and protection:	

Test voltage pri.-sec./ pri.-gr. / sec.-gr.	4.2 kV DC / 2.2 kV DC / 0.7 kV DC
Protection class	Prepared for class I equipment
Degree of protection	IP20 (acc. to EN 60529)
Overvoltage protection	via varistor at primary circuit
Short circuit protection	yes
No-load proof	yes
Feedback voltage	Max 63 VDC
Parallel operation	yes
Series connection	yes
Connection and type of mounting:	
Cross sections	Input: 0.08 mm ² ... 2.5 mm ² / AWG 28 ... 12 Output: 0.5 mm ² ... 10 mm ² / AWG 20 ... 8 Signalling: 0.08 mm ² ... 0.5 mm ² / AWG 28 ... 20
Strip lengths	Input: 8 ... 9 mm / 0.33 in Output: 13 ... 15 mm / 0.55 in Signalling: 5 ... 6 mm / 0.22 in
Type of mounting	DIN-rail mounting (EN 60715) in 2 positions
Dimensions and weight:	
Dimensions (mm) W x H x L	97 x 171 x 187 (incl female connector) Length from upper-edge of DIN 35 rail
Weight	2460 g
Standards and approvals:	
Standards/Specifications	EN 60950, EN 61204-3, UL 60950, UL 508

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