

Anixter Level 1 for Industrial Network Environments

Power Supplies: 24V 10 A Single Phase



Anixter Item #	Product Description
L1-24V-10A-1P-DIN	Primary Switched-Mode Power Supply, Single Phase, 24 VDC / 10 A, DIN-rail mount.

Technical Data	
Input:	
Nominal input voltage V_i nom	110 ... 240 VAC
Input voltage range	85 ... 264 VAC; 130 ... 373 VDC (use of DC requires external protection)
Frequency	47 - 63 Hz
Input current I_i	1.5 A typ. at 230 VAC; 3.0 A at 115 VAC
Discharge current	< 3.5 mA
Inrush current	< 30 A
Mains failure hold-up time	> 20 ms at 230 VAC

Output:	
Nominal output voltage $V_o \text{ nom}$	24 VDC (SELV)
Output voltage range	22 ... 28 VDC adjustable
Output current I_o	10 A at 24 V DC
Factory preset	24 VDC
Adjustment accuracy	1%
Residual ripple	< 100 mVpp to 20 MHz
Overload behavior	Constant power (in overload range: $1.15 \dots 1.4 \times I_a$); shutdown and automatic restart in the event of a short circuit
Operational indication	LED green (24 V DC o.k.), LED red (overload)
Efficiency / power losses:	
Efficiency	82 % typ.
Power loss PV	37.5 W (at 230 VAC and 10 ADC)
Max. power loss PV	53 W (at 110 VAC and 11 ADC)
Fuse protection:	
Internal fuse	F 5 A / 250 V
External fuse	C10 or B16 circuit breakers An external DC fuse is required for the DC input voltage
Environmental requirements:	
Ambient operating temperature	-10 °C ... +70 °C
Storage temperature	-25 °C ... +85 °C
Rel. humidity	95 % (no condensation)
Derating	-2.33 % / K (> 40 °C at 230 VAC)
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.	3 kV AC / 1.5 kV AC / 0.5 kV AC
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	28 VDC
Parallel operation	yes
Series connection	yes
MTBF	480000 h (acc. IEC 61709)
Connection and type of mounting:	
Cross sections	0.08 mm ² ... 4 mm ² / AWG 28 ... 12 (THHN, THWN)
Strip lengths	8 ... 9 mm / 0.33 in
Type of mounting	DIN-rail mount (EN 60715)
Standards and approvals:	
Standards/Specifications	EN 60950, EN 61000-6-2, EN 61000-6-3, UL 60950, UL 508, ANSI/ISA 12.12.01 (Class I Div.2),

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