

## Anixter Level 1 for Industrial Network Environments

### Power Supplies: 48V 20 A Three Phase



Anixter Item #	Product Description
L1-48V-20A-3P-DIN	Primary Switched-Mode Power Supply, Three Phase, 48 VDC / 20 A, DIN-rail mount.

Technical Data	
<b>Input:</b>	
Nominal input voltage $V_i$ nom	3x (2x) 400 ... 500 VAC
Input voltage range	340 ... 550 VAC; 480 ... 780 VDC (use of DC requires external protection)
Frequency	50 - 60 Hz
Input current $I_i$	3 x 2.0 A at 340 VAC and 20 ADC
Discharge current	1 mA typ.
Inrush current	< 30 A (peak)
Mains failure hold-up time	15 ms typ. at 3 x 400 VAC

<b>Output:</b>	
Nominal output voltage $V_o$ nom	48 VDC (SELV)
Output voltage range	39 ... 53 VDC adjustable
Output current $I_o$	20 A at 48 V DC
PowerBoost	30 ADC (for 4 s); 25 ADC (for 16 s)
TopBoost	80 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)
<b>Efficiency / power losses:</b>	
Efficiency	94.4 % typ.
Power loss PV	0.8 W (stand-by) / 5.2 W (no load) / 59.2 W (rated load)
<b>Fuse protection:</b>	
Internal fuse	3 x 3.2 AT
External fuse	3x Circuit breakers 6 A, 10 A, 16 A, Characteristic: B or C; or motor circuit breakers setpoint: 3.2 A, setting range: 2.5 ... 4.0 A
<b>Environmental requirements:</b>	
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	-5 % / K (> +45 °C)
Degree of pollution	2 (acc. to EN 50178)
Climatic category	3K3 (acc. to EN 60721)
<b>Safety and protection:</b>	
Test voltage pri.-sec./ pri.-gr. / sec.-gr.	D 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
<b>Connection and type of mounting:</b>	
Cross sections	Input: 0.08 mm <sup>2</sup> ... 2.5 mm <sup>2</sup> / AWG 28 ... 12 Output: 0.5 mm <sup>2</sup> ... 10 mm <sup>2</sup> / AWG 20 ... 8 Signalling: 0.08 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> / 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
<b>Dimensions and weight:</b>	
Dimensions (mm) W x H x L	128 x 171 x 205 (incl female connector) Length from upper-edge of DIN 35 rail
Weight	3270 g
<b>Standards and approvals:</b>	
Standards/Specifications	EN 60950, EN 61204-3, UL 60950, UL 508

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