Light Industrial Environments

Power Supplies: 24V 20 A Single Phase

Item #	Product Description
L2-24V-20A-1P	DIN Rail Mount Power Supply, Single Phase, 24 VDC / 20 A

Input Circuit		
Rated input voltage U		115-230 V AC
Input voltage range		90-264 V AC,
		120-375 V DC
Frequency range AC		47-63 Hz
Typical input current	at 115 V AC	4.9 A
	at 230 V AC	2.5 a
Typical power consumption		270 W

Inrush current limiting	at 115 V AC at 230 V AC	25 A (max. 5 ms) 50 A (max. 5 ms)
Internal input fuse		10 A slow-acting / 250 VAC
Power factor correction (PFC)		yes, active 115 V AC: 0.99 230 V AC: 0.97
Indication of Operational States:		
Output voltage	Green LED Red LED	OUTPUT OK: V: output voltage OK OUTPUT LOW: V: output voltage too low
Output Circuit		
Rated output voltage		24 V DC
Tolerance of the output voltage		0...+1 %
Adjustment range of the output voltage		22.5-28.5 V DC
Rated output power		480 W
Rated output current I		20 A
Signaling contact for output voltage OK		solid-state (max. 60 V DC, 0.3 A)
Minimum fuse rating to achieve short-circuit protection		M 60 V DC, 0.3 A fast-acting
Output circuit - No-load, overload and short-circuit behavior:		
Power dissipation		typ. 35 W
Efficiency		typ. 89%
Duty time		100%
Dimensions (W x H x D)		175 x 123.6 x 123.6 mm [6.89 x 4.87 x 4.87 in]
Weight		1.850 kg (4.19 lb)

Material of housing		Metal
Mounting		DIN rail (IEC/EN 60715), snap-on mounting without any tool
Mounting position		horizontal
Degree of protection housing / terminals		IP20 / IP20
Electrical connection - input circuit / output circuit:		
Wire size fine-strand with wire end ferrule	fine-strand with wire end ferrule	0.2-4 mm² (24-11 AWG)
	fine-strand without wire end ferrule	0.2-6 mm² (24-10 AWG)
	rigid	
Stripping length		8 mm (0.31 in)
Environmental Data		
Ambient temperature range	operation	-40…+70 °C
	rated load	-40…+55 °C
	storage	-40…+85 °C
Damp heat (cyclic)	(IEC/EN 60068-2-30)	95 % without condensation
Shock (half-sine)	(IEC/EN 60068-2-27)	15 G, 11 ms, 3 axes, 6 faces, 3 times for each face
Vibration (sinusoidal)	(IEC/EN 60068-2-6)	10-500 Hz, 2 G, along X, Y, Z each axis, 60 min. for each axis
Standards		
Product standard		EN 61204-3
Low Voltage Directive		2006/95/EC
EMC directive		2004/108/EC
RoHS directive		2002/95/EC
Electrical safety		EN 60950-1, UL 60950-1, UL 508, EN 61558-1, EN 61558-2-17; EN 60204-1

Electromagnetic Compatibility		
Interference immunity to:		IEC/EN 61000-6-2
Electrostatic discharge	IEC/EN 61000-4-2	Level 4 (air discharge 15 kV / contact discharge 8 kV)
Radiated, radio-frequency, electromagnetic field IEC/EN	IEC/EN 61000-4-3	Level 3 (10 V/m)
Electrical fast transient/burst	IEC/EN 61000-4-4	Level 4 (4 kV / 5 kHz)
Surge	IEC/EN 61000-4-5	L-L Level 3 (2 kV) / L-PE Level 4 (4 kV)
Conducted disturbances, induced by radio-frequency fields	IEC/EN 61000-4-6	Level 3 (10 Vrms)
Power frequency magnetic fields	IEC/EN 61000-4-6	Level 4 (30 A/m)
Voltage dips, short interruptions and voltag variations	IEC/EN 61000-4-6	dip: >95 % 10 ms / >30 % 500 ms interruptions: >95 % 5000 ms
Interference emission		IEC/EN 61000-6-3
High-frequency radiated	IEC/CISPR 22, EN 55022	Class B
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Limits for harmonic current emissions		Class D