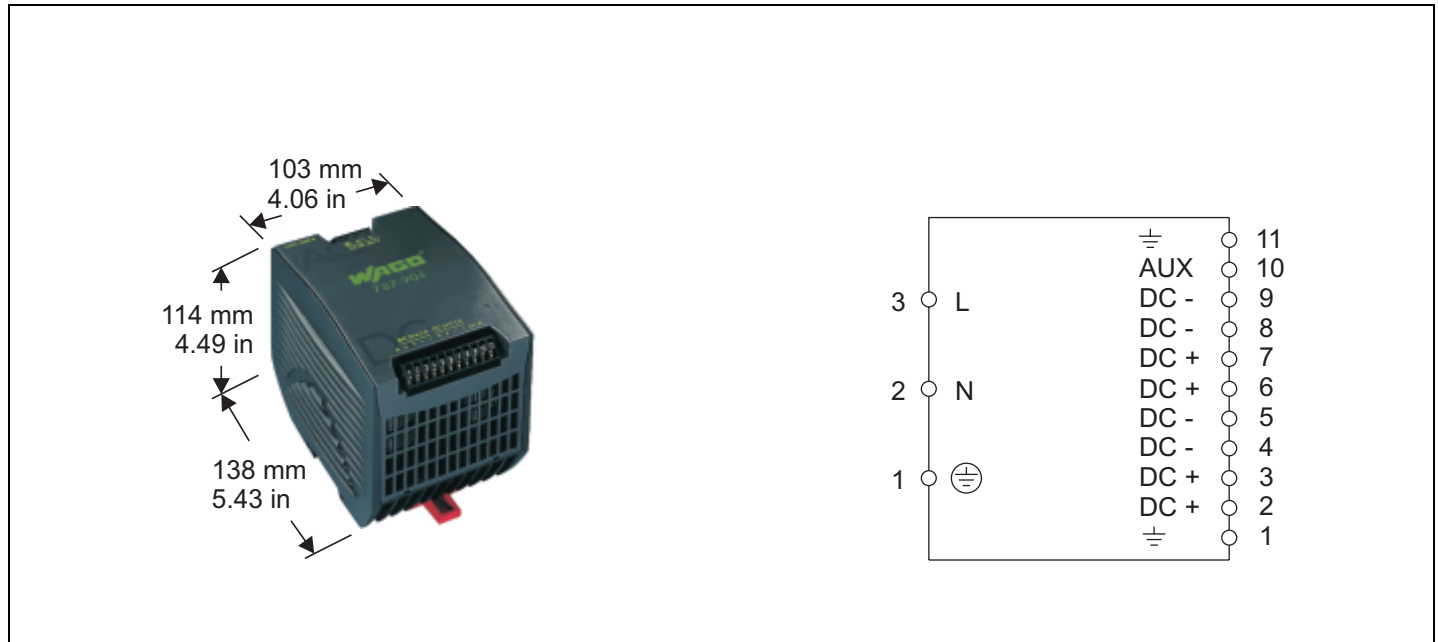


# Power Supply Unit

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Primary switched-mode, 10 A, wide input voltage range AC 85-264 V

Data sheet



Description	Item-No.	Pack.-unit pcs																																															
Front-entry wiring, output voltage indication, PFC (Power Factor Correction)	787-904	1																																															
<p><b>Industrial 250 W power supply unit</b></p> <p>with universal input voltage range and 88 % efficiency that can be snapped onto DIN 35 rails with built-in active Power Factor Correction → PFC &gt; 0.97 in accordance with DIN IEC/EN 61000-3-2, class D.</p> <p>This power supply unit already meets the requirements of the standard IEC/EN 61000-3-2 thanks to its active correction. This standard specifies that as of the year 2005 (probable) all units having an input power higher than 50 W must comply with specific limit values for the input current harmonic content when they are supplied by a public electrical network.</p> <p>In comparison with the passive power factor correction via a large input choke, which remains normal today, the active power factor correction reduces the rms value of the input current. Thanks to this, a 10 or 16 A unit can produce more power, which reduces the unit total cost.</p> <p>For higher current, the outputs of several units with equal nominal output voltage can be connected in parallel without any precautions.</p> <p>For higher output voltage, the connection of several outputs in series is possible without any precautions. Exceeding however the SELV value of DC 60 V the output should be connected to ground.</p>	<p><b>Technical Data</b></p> <p><b>Input:</b></p> <table border="1"> <tr><td>Input voltage</td><td>AC 85–264 V, 47-63 Hz, DC 90-250 V</td></tr> <tr><td>Input current</td><td>2.5 A (125 V); AC 1.35 A (230 V)</td></tr> <tr><td>Peak inrush current</td><td>&lt; 5 A</td></tr> <tr><td>Input fuse</td><td>6.3 A slow</td></tr> <tr><td>Function indication</td><td>LED, green</td></tr> <tr><td>Max. power consumption</td><td>250 W</td></tr> </table> <p><b>Output:</b></p> <table border="1"> <tr><td>Output voltage</td><td>DC 24 V, accuracy 0...+7.5 %</td></tr> <tr><td>Output power</td><td>250 W</td></tr> <tr><td>Nominal output current</td><td>10 A</td></tr> <tr><td>Efficiency (AC 230 V)</td><td>88 %</td></tr> <tr><td>Power factor correction (AC 230 V)</td><td>&gt; 0.97</td></tr> <tr><td>Deviation:</td><td></td></tr> <tr><td>static load change</td><td>350 mV</td></tr> <tr><td>dyn. load change 10 – 90% at <math>V_{in} \pm 10\%</math></td><td>2.6–3 V</td></tr> <tr><td>Peak-to-average Ripple factor</td><td>5 %</td></tr> <tr><td>Ripple voltage</td><td>50 mV<sub>typ</sub> acc. to IEC/EN 61204</td></tr> <tr><td>Switching peak 20 MHz</td><td>ca. 20 mV</td></tr> <tr><td>Start-up time</td><td>700 ms</td></tr> <tr><td>Output current limit</td><td>1 s ... 1.5 x I<sub>N</sub> / 1.0 ... 1.1 x I<sub>N</sub></td></tr> <tr><td>Output hold-up time</td><td>15 ms</td></tr> <tr><td>Output protection measures</td><td>Overload and short-circuit protection</td></tr> <tr><td>Dielectric strength</td><td></td></tr> <tr><td>input / output</td><td>AC 3 kV</td></tr> <tr><td>Nominal operating mode</td><td>100 % continuous duty</td></tr> </table>	Input voltage	AC 85–264 V, 47-63 Hz, DC 90-250 V	Input current	2.5 A (125 V); AC 1.35 A (230 V)	Peak inrush current	< 5 A	Input fuse	6.3 A slow	Function indication	LED, green	Max. power consumption	250 W	Output voltage	DC 24 V, accuracy 0...+7.5 %	Output power	250 W	Nominal output current	10 A	Efficiency (AC 230 V)	88 %	Power factor correction (AC 230 V)	> 0.97	Deviation:		static load change	350 mV	dyn. load change 10 – 90% at $V_{in} \pm 10\%$	2.6–3 V	Peak-to-average Ripple factor	5 %	Ripple voltage	50 mV <sub>typ</sub> acc. to IEC/EN 61204	Switching peak 20 MHz	ca. 20 mV	Start-up time	700 ms	Output current limit	1 s ... 1.5 x I <sub>N</sub> / 1.0 ... 1.1 x I <sub>N</sub>	Output hold-up time	15 ms	Output protection measures	Overload and short-circuit protection	Dielectric strength		input / output	AC 3 kV	Nominal operating mode	100 % continuous duty
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	<b>General data:</b>	
	MTBF	> 600,000 h (GB, 40 °C)
	Vibration resistance	5 g at 10-2000 Hz
	Shock resistance	50 g
	Bump resistance	25 g
	Ambient operating temperature	-40 °C...+60 °C
	Relative air humidity	93 %, no condensation
	Storage temperature	-40 °C...+100 °C
	Mounting system	To be snapped onto DIN rail (EN 50022) for vertical mounting, modular
	Wire connection	Terminal blocks with CAGE CLAMP® (WAGO series 236)
		0.08-2.5 mm <sup>2</sup> / AWG 28-14
	Stripped length	5-6 mm / 0.22 in
	Weight	1.7 kg / 3.74 lbs
	Dimensions (WxHxD)	(103 x 114* x 138) mm (4.06 x 4.49* x 5.43) in * from upper edge of DIN35 rail
	<b>Standards / prescriptions</b>	EN 60950, VDE 0805, EN 50081-1, EN 50081-2, EN 50082-2, EN 60555-2, EN 61000-3-2, EN 55011/55022, EN 61000-4-2,-3,-4,-5,-6,-11 IEC/EN 61204, EN 60068 UL 1950, UL 508 Listed