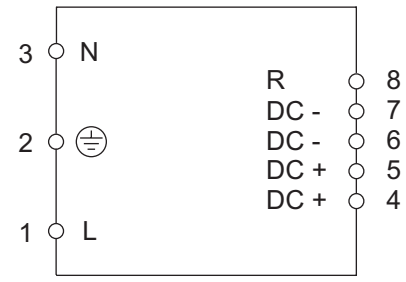


Power Supply Unit

1/2

Primary switched-mode, 2 A, stabilized output voltage, wide input voltage range AC 85-264 V

Data sheet



Description	Item-No.	Pack.-unit pcs																																																		
Front-entry, short-circuit and overload proof overload proof up to 50% for 1s	787-912	1																																																		
<p>Industrial 48 W power supply unit</p> <ul style="list-style-type: none"> • Universal input voltage range AC 85-264 V. • 86 % efficiency. • SELV-output. • Output voltage adjustment range of approx. 90...110 %. • Isolation voltage AC 3 kV. • Very compact construction. • Mountable on DIN 35 rail. 	<p>Technical data</p> <table border="1"> <tr><td colspan="2">Input:</td></tr> <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>0.8 A (125 V); AC 0.4 A (230 V)</td></tr> <tr><td>Peak inrush current</td><td>19 A</td></tr> <tr><td>Input fuse</td><td>1.6 A slow (internal)</td></tr> <tr><td>Function indication</td><td>LED, green</td></tr> <tr><td>Max. power consumption</td><td>106 W</td></tr> <tr><td>Input protective circuit</td><td>voltage-dependent resistance (VDR)</td></tr> <tr><td colspan="2">Output:</td></tr> <tr><td>Output voltage</td><td>DC 24 V, accuracy ±1.5 %</td></tr> <tr><td>Output power</td><td>48 W</td></tr> <tr><td>Output nominal current</td><td>2 A</td></tr> <tr><td>Efficiency (AC 230 V)</td><td>86 %</td></tr> <tr><td>Peak-to-average Ripple factor</td><td><1 %</td></tr> <tr><td>Ripple voltage</td><td>100 mV_{typ} / 150 mV_{max}</td></tr> <tr><td>Switching peak 20 MHz</td><td>ca. 100 mV</td></tr> <tr><td>Output current limit</td><td>Short term overload proof, with overheat protection</td></tr> <tr><td>Output hold-up time</td><td>14 ms / 115 V 90 ms / 230 V</td></tr> <tr><td>Output protection measures</td><td>open circuit, overload and short-circuit protection</td></tr> <tr><td colspan="2">Dielectric strength</td></tr> <tr><td>input / output</td><td>AC 3 kV / DC 4.2 kV (acc.to IEC 60950)</td></tr> <tr><td>Nominal operating mode</td><td>100 % continuous duty</td></tr> <tr><td>Emission of interference</td><td>10 kHz ... 30 MHz</td></tr> <tr><td></td><td>Level B (acc. to EN 50011/50022)</td></tr> <tr><td>Degree of protection</td><td>IP 20</td></tr> </table>		Input:		Input voltage	AC 85–264 V, 47-63 Hz, DC 90-250 V	Input current	0.8 A (125 V); AC 0.4 A (230 V)	Peak inrush current	19 A	Input fuse	1.6 A slow (internal)	Function indication	LED, green	Max. power consumption	106 W	Input protective circuit	voltage-dependent resistance (VDR)	Output:		Output voltage	DC 24 V, accuracy ±1.5 %	Output power	48 W	Output nominal current	2 A	Efficiency (AC 230 V)	86 %	Peak-to-average Ripple factor	<1 %	Ripple voltage	100 mV _{typ} / 150 mV _{max}	Switching peak 20 MHz	ca. 100 mV	Output current limit	Short term overload proof, with overheat protection	Output hold-up time	14 ms / 115 V 90 ms / 230 V	Output protection measures	open circuit, overload and short-circuit protection	Dielectric strength		input / output	AC 3 kV / DC 4.2 kV (acc.to IEC 60950)	Nominal operating mode	100 % continuous duty	Emission of interference	10 kHz ... 30 MHz		Level B (acc. to EN 50011/50022)	Degree of protection	IP 20
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Application note:

As a standard feature, the power supply units offer adjustable output voltage by using the control input R. If the R pin is left open-circuit, the output voltage is set to $U_{O\ nom}$. (see: Output data). The R input is referenced to the secondary side of the converter. Adjustment of the output voltage is possible by means of either an external resistor connected to V_{O+} and V_{O-} or by an external voltage source (remote operations).

1) Adjustment by means of an external resistor (R_{ext1}):
Depending upon the value of the required output voltage, the resistor shall be connected

- **either:** Between the R terminal and V_{O-} to achieve an output voltage adjustment range of approximately $U_O = 90 \dots 100 \% U_{O\ nom}$.

$$R_{ext1} \approx 4k\Omega \cdot \frac{U_O}{24V - U_O}$$

- **or:** Between the R terminal and V_{O+} to achieve an output voltage range of approximately $U_O = 100 \dots 110 \% U_{O\ nom}$

$$R_{ext2} \approx 4k\Omega \cdot \frac{(U_O - 2.5V)}{2.5V \cdot (U_O / 24V - 1)}$$

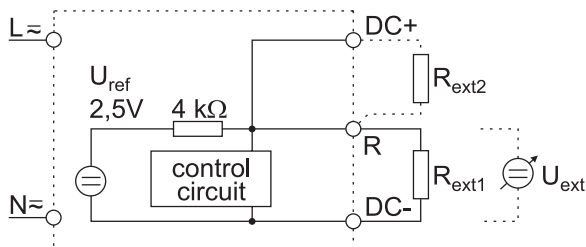
2) Adjustment by means of an external voltage U_{ext} between V_{O-} and R terminal to achieve an output voltage adjustment range of approx. 90...110 % $U_{O\ nom}$

$$U_{ext} \approx \frac{U_O \cdot 2.5V}{24V}$$

Attempting to adjust the output below this range will cause the converter to shutdown (hiccup mode).

Note:

Applying an external control voltage >3 V may damage the converter.



General data:

Vibration resistance	2 g at 10-2000 Hz
Shock resistance	15 g
Bump resistance	10 g
Ambient operating temperature	-10 °C...+50 °C *
	* +70 °C at I = 0.9 A
Relative air humidity	93 %, no condensation
Storage temperature	-40 °C...+85 °C
Mounting system	To be snapped onto DIN rail in accordance with EN 50022, for vertical mounting, modular
Wire connection	Terminal blocks with CAGE CLAMP®, (WAGO series 236) 0,08-2,5 mm ² / AWG 28-14
Stripped length	5-6 mm / 0.22 in
Weight	600 g / 1.32 lbs
Dimensions (LxWxH)	(38x108**x90) mm / (1.52x4.2**x3.54) in ** from upper edge of DIN 35 rail
Standards / prescriptions	EN 60950, VDE 0805, EN 50022, EN 60068, EN 61000-4-2,-3,-4,-5,-6,-11 UL 1950 CSA 22.2. No. 950