

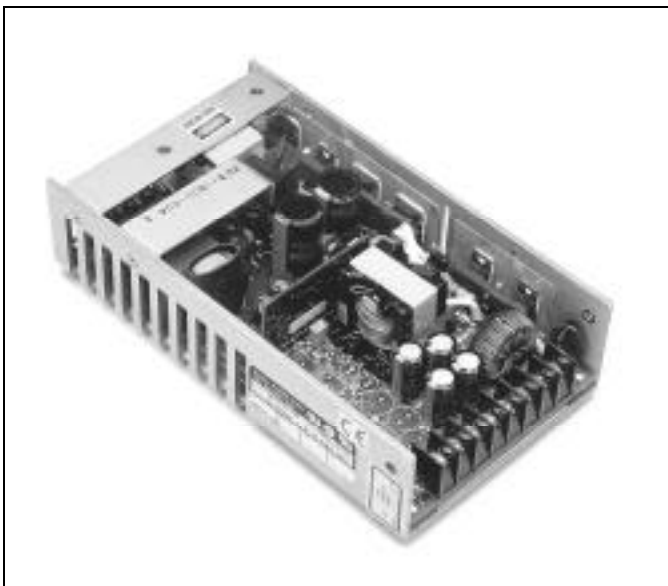


UPF300 Series Universal Input Power Factor Corrected 300 Watt Switchers

- Active Power Factor Correction
- 75% efficiency
- EN55022-B conducted
- UL, cUL, TUV
- CE
- CB test certificate
- Up to 2 outputs
- Compact 8" x 4.5" x 2" size
- Optional cover
- Optional power fail / power good signal

Consult factory for the following options:

- OR'ing diodes
- Remote Sense
- Single-Wire Forced Current Sharing
- Packaging with Custom Hot-Swap Connectors



The UPF300 series are high efficiency, open frame switchers that deliver up to 300W of power from one or two outputs. The UPF300 series is very similar to the UP300 series. The major difference is that the UPF300 series includes active Power Factor Correction (PFC), which improves input power factor to better than 0.98 and reduces input current line harmonics below the limit required to meet the applicable European directives. The physical dimensions of the two series are generally the same; however, certain models may require additional heat sinking for low voltage, high current outputs.

The UPF300 is one of the *flexibility* series. In addition to the popular models listed on this sheet, hundreds of potential other modified standard models are available that include full safety agency approval and do not require any Non-Recurring Engineering (NRE) charge. Prototype delivery is typically just a few weeks.

Flexibility options include a cover, power fail/power good signal, and an isolated V2 output. Output voltage options are given in the table below. Full custom models are also available. Please contact the factory for details.

Available Models

Model Number ¹	Output	Output Voltage	Output Current Ratings			
			Min ¹	Max ²	Max ³	Peak ⁴
UPF300-105	V1	+ 5V	1A	30A	50A	55A
UPF300-112	V1	+ 12V	1A	12A	25A	27A
UPF300-115	V1	+ 15V	1A	10A	20A	21A
UPF300-124	V1	+ 24V	0.5A	6A	12.5A	13.5A
UPF300-148	V1	+ 48V	0.2A	3.2A	6.2A	6.7A
UPF300-201	V1	+ 5V	1A	30A	40A	45A
	V2	+ 12V	0.2A	8A	12A	15A
Modified standard flexibility output options ⁵	V1	± 3.3V to ± 48V ⁶	1A		55A	
	V2	± 2.0V to ± 48V ⁷	0.2A		12A	

Notes:

¹ At least 20% of maximum output current is required to maintain stated regulation.

² Convection cooling

³ Forced air cooling

⁴ Peak output, 30 sec max

⁵ The UPF300 series allows very fast *flexible* modified standard designs within these parameters without non-recurring engineering charge and while retaining safety agency approval. Please contact the factory for details.

⁶ Can be specified in 0.1V increments

⁷ Can be specified in 0.75V increments

⁸ Operational extremes per safety agency testing

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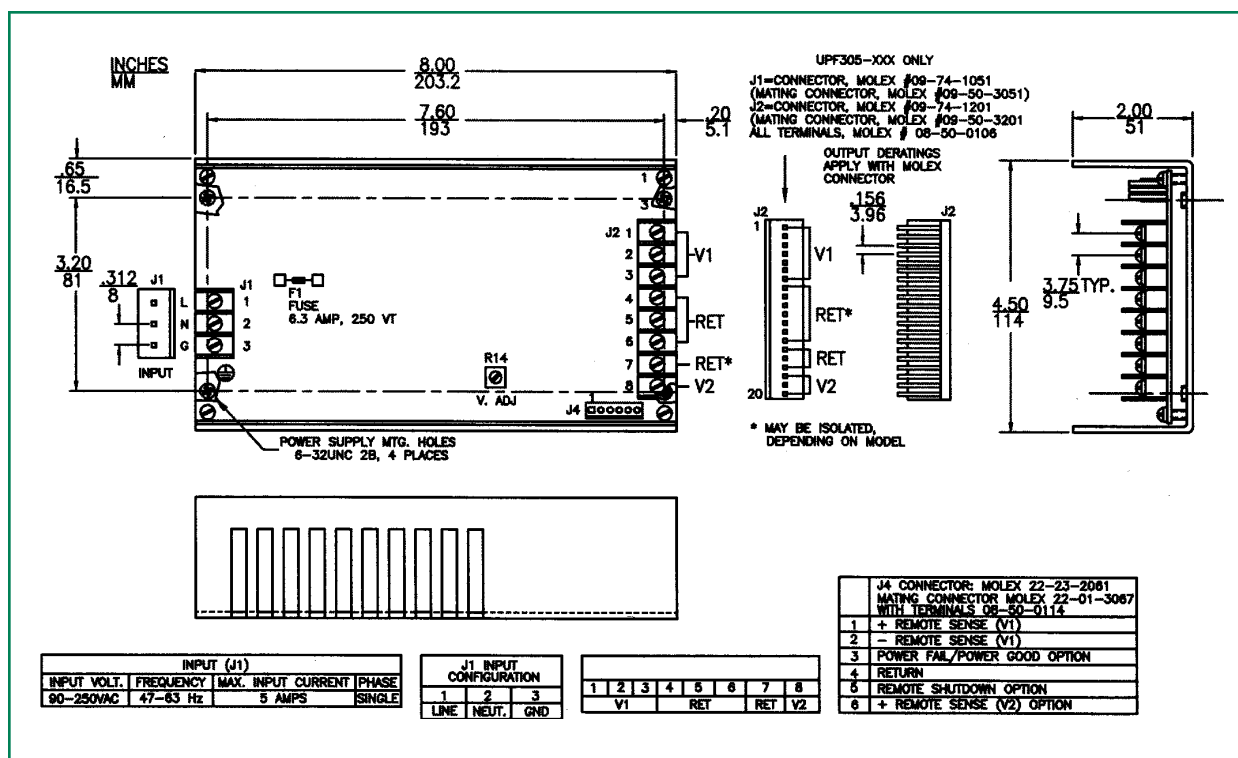
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Specifications

Specifications are typical at 25°C unless otherwise designated.

Parameter	Limits
Input	
Input Voltage Range	90 – 250Vac rated 81-265Vac operation ^a
Input Frequency	47 to 63Hz
Input Operating Current	5A rms max
Input Surge Current	35A max, cold start, 250Vac
Efficiency	75% typ at nominal input, full power
Output	
Output Power	150W, natural convection cooling 300W with forced air 325W peak
Power Foldback Point	120% of max rated power
Line Regulation	±0.2%, V_{in} (min) to V_{in} (max)
Load Regulation	±1% (V_1 , 20% to 100% I_o) ±1% (V_2 , 20% to 100% I_o)
Cross Regulation	±1% (V_1 , 20% to 100% I_o on V_2 - V_4) ±1% (V_2 , 50% to 100% I_o on V_1)
Noise and Ripple	0.5mV max RMS, 1% max P-P, on V_1 or V_2 with full load

Parameter	Limits
Output (cont'd)	
Power Up Overshoot	5% max, all outputs
Transient Response	for 25% to 75% I_o change, 5% maximum deviation, with recovery to 1% within 500 μ S
Hold-up time	16mS, nominal input, full output power
Overvoltage Protection Threshold	125% typ of nominal voltage, V_1 and V_2 (+only)
Power Limit Point	125% typ of maximum rated power
Control	
Remote Sense Voltage Drop	V_1 , 0.25V max (each lead)
Environmental	
Operating Temperature Range (full power)	0°C to 50°C
Operating Temperature Range (extended range)	0°C to 70°C Derate linearly from full power at 50°C to half power at 70°C
Storage Temperature Range	-25°C to +85°C
Relative Humidity	5% to 95%, non-condensing
Vibration	0.75G peak, 5Hz to 500Hz. Test three orthogonal axes at 1 octave/min, 5 min dwell at four major resonances



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