

300W, Universal Input, Dual Output Rugged AC/DC Power Supply MIW 302 Series

- Industrial quality
- 95 – 264Vac universal input
- Two regulated and adjustable output
- 300W output power
- Convection/conduction cooling
- Full electronic protection
- Field-proven design
- N+1 redundancy available



The MIW 302 Series AC/DC power supply uses a high frequency conversion topology to generate 300W output power. The design consists of two completely independent converter stages to provide 150W on each output. The outputs are floating and can be connected in series to generate high output voltage (100 – 250Vdc) or in parallel to increase the output current. A built-in redundancy diode allows for the outputs to be connected in parallel for 1+1 redundancy, or handle high peak load currents. Adjustments for both outputs are accessible. Options include a built-in alarm, a DC-input range of 105Vdc to 350Vdc, and a wide range of output configurations. The design is based on the field-proven MIW 150 series topology. The chassis-mount design features low component count and high efficiency. The use of high quality components and rigorous quality control results in an MTBF exceeding 100,000 hours.

SPECIFICATIONS

Input Voltage

95 - 264Vac universal
47 - 63Hz
105V – 350Vdc is also available as an option

Input Protection

Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified min. input will not damage the unit

Isolation

2250VDC input to chassis
4300VDC input to output
8mm spacing
500VDC output to chassis

Standards

Designed to meet EN 60950 and corresponding UL and CSA standards

EMI

EN55022 Class B

Switching Frequency

47 KHz +/-2KHz

Hold Up Time

Minimum 10ms at full load for 5% drop of output voltage at > 120Vac input

Output Voltage/Current

Up to 125Vdc per output
Up to 15 Amps per output
Outputs are floating and can be connected in series or parallel.

Redundancy Diode

Built-in redundancy diode available as option.

Line/Load Regulation

+/- 1% combined from zero load to full load

Dynamic Response

Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time

Output Ripple / Noise

Less than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)

Output Overload Protection

Rectangular current limiting with hiccup mode short-circuit protection on both outputs
Thermal shutdown in case of insufficient cooling (self resetting)

Output Overvoltage Protection

Double regulator loop on both outputs

Efficiency

Output voltage dependent.
Typically 80% at full load

Operating Temperature Range

0 to 50°C for full specification with proper cooling

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction to customer heatsink or chassis and natural convection

Environmental Protection

Basic ruggedizing
Optional conformal coating

Humidity

5 – 95% non-condensing

MTBF

100,000 hours @ 45 °C (calculated)
Demonstrated MTBF exceeds 1,000,000 hours at typical operating temperatures

Indicators

None on standard version

Control Input

None

Alarm Output

None on standard version
Available as option

Dimensions (WxHxD)

F3: 5.2" x 2.5" x 11.4"
including mounting flanges and terminals

Weight

1.77 kg (3.9 lb)

Connections

12 pole barrier type terminal block with 3/8" spacing

RoHS Compliance

(Directive 2002/95/EC)
According to requirements

Warranty

Twelve months subject to application within good engineering practice

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications subject to change.

Designer and manufacturer of quality converters, inverters, UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. Absopulse is a BAPT-approved Facility.



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