100W, Rugged, Dual Output, AC/DC Industrial Power Supply with Universal Input
MIW 102-FT Series

- Rugged industrial quality
- Dual output
- Conduction/convection cooled (no fans)
- Full electronic protection
- Field-proven design

The MIW 102 Series rugged, dual output AC/DC industrial quality power supply uses field-proven technology to deliver 100W. It is a mature design with a track record in numerous applications. The unit has two isolated output circuits with common return: V1 output is fully regulated and V2 is a tracking output without additional post regulation. Cooling is by conduction via baseplate to a heat-sinking surface and by natural convection. Full electronic protection, low component count, large design headroom, and the use of components with established reliability result in a high MTBF. Additional ruggedizing and conformal coating are available for operation in extreme environments. The unit is manufactured at our plant under strict quality control.

SPECIFICATIONS

Input Voltage
95V to 264Vac ±15%
47 - 63Hz
DC-input also available.
Other inputs available on request

Input Protection
Inrush current limiting
Varistor
Internal safety fuse
Lower voltage than the specified minimum input will not damage the unit

Isolation
2250VDC input to chassis
4300VDC input to output
8mm spacing
500VDC output to chassis
(or corresponding to output voltage)

Standards
Designed to meet EN 60950-1 and corresponding UL and CSA standards.
Several versions have formal agency approvals

EMI
EN55022 Class A with margins

Switching Frequency
47 kHz ± 2kHz

Hold Up Time
Minimum 5ms at full load for 5% drop of output voltage at 120Vac and higher input

Output Voltage/Current
V1: Any voltage +12V to +65Vdc main
V2: Any voltage -12V to -65Vdc tracking
Both outputs limited by a 6A current handling capacity
Output power depends on the combination. Consult factory for required output combination
The outputs are have common return.

Redundancy Diode
None

Line/Load Regulation
V1: ± 1% combined from no load to full load
V2: ± 5% combined from 10% to full load with constant load of min 10% on V1

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

Output Overvoltage Protection
Double regulator loop on V1

Efficiency
Output voltage dependent.
Typically better than 80% at full load

Operating Temperature Range
0°C to 50°C for full specification installed on heat-sinking surface with good air flow
Extended temperature ranges available

Temperature Drift
0.03% per °C over operating temperature range

Cooling
Conduction via base plate and additional natural air convection

Environmental Protection
Basic ruggedizing
Full ruggedizing and conformal coating available as an option

Shock/Vibration
IEC 61373 Cat 1 A&B

Humidity
5 – 95% non-condensing

MTBF
150,000 hours @ 45 °C
Demonstrated MTBF is significantly higher

Indicators
None

Control Input
None

Alarm Output
None

Package/Dimensions (W x H x L)
F0: 94mm x 48mm x 160mm (3.7" x 1.9" x 6.3") including terminal block and flanges
Mounting holes are clear

Weight
0.55 kg (1.2 lbs)

Connections
6-pole barrier-type terminal block, with 3/8" spacing

RoHS Compliance
Fully compliant

Warranty
Two years subject to application within good engineering practice

Terminal Block Pin-out

DC OUTPUT			AC INPUT		
+	COM	−	GND ⏚	PH ∿	N ∿
1	2	3	4	5	6

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

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

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