

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 $\pm 15\%$
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 ± 2 kHz

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: $\pm 1\%$ combined from no load to full load
V2: $\pm 5\%$ 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



European Stocking Distributor

Phone: +41 44 730 33 53

Email: sales@hvps-condatas.com / www.hvps-condatas.com
Rietbachstrasse 7, 8952 Schlieren (ZH), Switzerland