

100W, Universal Input, Rugged, Industrial Quality AC/DC Power Supply

MIW 100-F0 Series



- Rugged industrial quality
- Conduction/convection cooled - no fan
- Full electronic protection
- Field proven design

This rugged, industrial quality power converter utilizes field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. Cooling is by conduction via baseplate. Additional cooling is achieved by natural convection through the cooling slots. All heat generating components are installed on aluminum heatsink blocks which are thermally connected to the base plate. This also provides exceptional mechanical ruggedness. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom and the exclusive use of components with established reliability contribute to a high MTBF. 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

EN55032 Class A with margins

Switching Frequency

47kHz ± 2 kHz

Hold Up Time

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

Output Voltages

5Vdc, 12Vdc, 24Vdc, 36Vdc, 48Vdc, 72Vdc or 130Vdc are standard.
Other outputs on request.
The output is floating, either terminal can be grounded

Redundancy Diode

None

Line/Load Regulation

$\pm 1\%$ 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 short-circuit protection (hiccup mode)

Output Overvoltage Protection

Double regulator loop

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 on request

Temperature Drift

0.03% per °C over operating temperature range

Cooling

Conduction to customer heat-sink or chassis and natural 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

160,000 hours @ 45°C
Demonstrated MTBF is significantly higher

Indicators

None on standard version

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

(5 – 72V output)

DC OUTPUT			INPUT		
-	+	NOT USED	GND	(+) PH	(-) N
1	2	3	4	5	6

Terminal Block Pin-out

($\geq 100V$ output)

DC OUTPUT			AC INPUT		
+	NOT USED	-	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 DC-DC converters, AC-DC power supplies, DC-AC sine wave inverters, AC-AC frequency converters, 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.



ABSOPULSE ELECTRONICS LTD

110 Walgreen Road, Ottawa, Ontario. K0A 1L0. CANADA

Tel: +1-613-836-3511 | Fax: +1-613-836-7488 E-mail:

absopulse@absopulse.com | <http://www.absopulse.com>