

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

## MIW 100-FT Series

- Rugged industrial quality
- Conduction/convection cooled - no fan
- Fully protected
- Field proven design



This rugged, industrial quality AC/DC power supply uses field-proven technology to generate the required output power. It is a mature product with a track record in numerous applications. The input accepts any AC voltage from 95V to 264Vac. Cooling is via baseplate to a heat-sinking surface and by natural convection. 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. It 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  $\pm 2$ kHz

#### Hold Up Time

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

#### Output Voltages

5Vdc/15A, 12Vdc/8A,  
24Vdc/4A; 36Vdc/3A,  
48Vdc/2A, 72Vdc/1.5A or  
130Vdc/0.75A are standard.  
Other outputs on request.  
The output is floating, either terminal can be grounded

#### Redundancy Diode

None

#### 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 short-circuit protection (hiccup mode)  
Thermal shutdown in case of insufficient cooling (self-resetting)

#### 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 ( $\geq 100$ V output)

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



European Stocking Distributor

Phone: +41 44 730 33 53

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