

## 40W, High Reliability Power Supply for Critical Applications

### HRW 40 Series – Generic Data-Sheet

- MTBF > 1 million hours
- Input 85VAC-264Vac or 120-360Vdc
- Convection cooled
- Single output
- Fully protected
- Rugged construction
- Stock or short delivery
- Made in North America



The HRW 40 series power supply was developed to provide highly reliable supply voltage for critical applications. These include large industrial systems where a fail safe logic supply voltage is essential and in fan drives where a fan supply voltage failure would lead to the entire system failure. The HRW 40 can also be used for a wide range of other applications where high reliability is essential. Field-proven technology, the use of components with established reliability and the complete avoidance of optocouplers in feedback loop ensure outstanding reliability. The input accepts any AC voltage from 85V to 264Vac as well as DC voltage from 100V to 360Vdc. Convection cooling alone is sufficient for the specified 40W output power. The HRW 40 is also fully protected, meets all approval requirements, and is available with a short lead-times. It is manufactured in North America under strict quality controls. A redundant version is also available.

### SPECIFICATIONS

#### Input Voltage

85Vac to 264Vac; 47-420Hz  
100Vdc to 360Vdc

#### Input Protection

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

#### Isolation

2250Vdc input to chassis  
4300Vdc input to output  
500Vdc output to chassis

#### Standards

Designed to meet EN60950 and related standards

#### EMI

EN 55022 Class B

#### Hold Up Time

Minimum 10ms at full load for 5% drop of output voltage at 115V and higher input

#### Output Voltages

12Vdc/3A or 24Vdc/1.5A  
Consult factory for other output voltages.

#### Redundancy Diode

Optional

#### Line/Load Regulation

±/-5% combined from 10% load to full load. No optocouplers for high reliability

#### Output Ripple/Noise

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

#### Overload Protection

Current limiting with short circuit protection (hiccup mode)

#### Output Overvoltage Protection

Transzorbs on output

#### Efficiency

Min 80% at full load

#### Operating Temperature

0 to +50°C with convection cooling

#### Temperature Drift

0.03% per °C over operating temperature range

#### Cooling

Convection only is sufficient

#### MTBF

500,000 hours @ 45 °C  
Demonstrated MTBF exceeds 1,000,000 hours at typical operating temperatures.

#### Indicators

None.

#### Environmental Protection

Basic ruggedizing. Full ruggedizing and conformal coating as option

#### Dimensions

PCB Size: 3" x 5"  
Component height: 1.5"  
Weight: 0.5 lb (0.25kg)

#### Connections and Packaging:

Open PCB version is standard  
Header pins with 0.156" spacing  
(Enclosed case version as option)

#### Warranty

Twelve months subject to application within good engineering practice

Enhancements to these general specifications and customizing can be accommodated upon request.  
Designed to meet common approval requirements. 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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