

# 40W, High Reliability Power Supply for Critical Applications

## HRW 40 Series



- Rugged industrial quality
- Convection cooled
- Single output
- Fully protected
- Stock or short delivery

The HRW 40 series power supply was developed for critical industrial applications. It uses field-proven technology to generate 40W output power. It is a mature product with a track record in numerous applications. The input accepts any AC voltage from 85V to 264Vac or DC voltage from 100V to 360Vdc. Low component count, large design headroom, the use of components with established reliability and no optocouplers in feedback loop result in a high MTBF. Convection cooling is sufficient for the specified 40W output power. The HRW 40 is also fully protected. It is manufactured at our plant under strict quality control. A redundant version is also available. Typical applications for the HRW 40 include systems where a fail-safe logic supply voltage is critical and in fan drives where a fan supply voltage failure would lead to the entire system failing.

### 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

Transzorb 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 is significantly higher.

#### 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



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