

40W, High Reliability, Opto-less, Industrial Power Supply for Critical Applications HRW 40 Series



- No optocouplers, low component count
- Rugged industrial quality construction
- Conformal coating
- Excellent EMI performance
- High input/output isolation
- Conduction/convection cooled
- Full electronic protection
- Custom versions available

This rugged industrial quality DC-DC converters use field-proven technology to generate the required output power. It is a mature design with a track record in numerous applications. The input accepts any AC voltage from 85V to 264Vac or DC voltage from 100V to 360Vdc. By eliminating optocouplers in the feedback loop and significantly reducing the component count, the MTBF of the unit is improved over conventional designs. Full electronic protection, low component count, large design headroom and the use of components with established reliability also contribute to the long operating life of the unit. Cooling is via baseplate to a heatsinking surface and by natural convection. The unit is manufactured at our plant under strict quality control. A redundant version is also available. Typical applications 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

<p>Input Voltage 95Vac to 264Vac; 47-420Hz 100Vdc to 360Vdc Consult factory for other input voltages required</p>	<p>Output Voltages 12Vdc/3A or 24Vdc/1.5A Output is floating; either terminal can be grounded Other outputs on request</p>	<p>Efficiency Min 80% at full load depending on input/output combination</p>	<p>Indicators None</p>
<p>Input Protection Inrush current limiting Varistors Reverse polarity protection Internal safety fuse Lower voltage than the specified minimum input will not damage the unit</p>	<p>Redundancy Diode None Available as option</p>	<p>Operating Temperature 0 to +50°C for full specification with proper airflow</p>	<p>Control Input None</p>
<p>Isolation 2250Vdc input to chassis 4300Vdc input to output 500Vdc output to chassis</p>	<p>Line/Load Regulation ±5% combined from 10% load to full load.</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Outputs None</p>
<p>Standards Designed to meet EN60950-1 and related standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 3msec recovery time</p>	<p>Cooling Natural convection and conduction via customer chassis</p>	<p>Dimensions PCB Size: 3" x 5" Component height: 1.5" Weight: 0.5 lb (0.25kg)</p>
<p>EMI EN55032 Class A as a minimum</p>	<p>Output Ripple/Noise Better than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHZ BW)</p>	<p>Environmental Protection Ruggedizing Conformal coating</p>	<p>Connections and Packaging: Open PCB version is standard Header pins with 0.156" spacing (Enclosed case version as option)</p>
<p>Hold Up Time Minimum 10ms at full load for 5% drop of output voltage at 115V and higher input</p>	<p>Output Overload Protection Current limiting with short circuit protection (hiccup mode)</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>RoHS compliance Compliant</p>
	<p>Output Overvoltage Protection Transzorbs across the output</p>	<p>Humidity 5 – 95% non-condensing</p>	<p>Warranty Twelve months subject to application within good engineering practice</p>
		<p>MTBF 500,000 hours @ 45 °C Demonstrated MTBF is significantly higher.</p>	

The specifications on this data sheet are generic and are subject to change. Enhancements to these specifications can be provided upon request.

OEM of professional quality AC/DC power supplies and battery chargers, DC/DC converters, DC-AC sine-wave inverters, phase and frequency converters, DC-output UPS systems and complete power systems in 19" and 23" racks since 1982. Custom or standard.



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