

50W, IP66-Rated, Rugged, Industrial Quality AC-DC Power Supply with Wide Input Ranges MIW 50-D0 Series (IP66)

- Packaged in waterproof IP66 enclosure
- Cooling by conduction and natural convection
- Internal module ruggedized and conformal coated
- Rugged, field-proven design
- Universal input range
- Full electronic protection



The rugged industrial quality AC-DC power supplies utilize field proven topology to generate the required output power. The units are packaged in rugged, waterproof, IP66 die cast aluminum enclosures. The input and output are via sealed cable glands, circular connectors or custom connections. The internal boards are ruggedized and conformal coated for increased immunity to high levels of shock and vibration. Cooling is by internal conduction to the walls of the IP66 enclosure and by baseplate to an external chassis or cabinet wall, and additional convection via the outside surface. This enables operation within a wide temperature range for full specification. If installed on a heat-sinking surface, cooling is further enhanced and the power supplies achieve higher output power. High frequency conversion enables compact construction and high efficiency. Full electronic protection, generous design headroom and the exclusive use of components with established reliability also contribute to high MTBF. The unit is manufactured at our plant under strict quality control. Customized versions are available. The design is suitable for operation in transportation, mining, marine, oil rig, military and other severe environments.

SPECIFICATIONS

Input Voltage 90 – 264Vac universal 47 - 430Hz 250Vdc (210 – 290V) 300Vdc (250 – 350V) Other DC voltages on request	Output Voltage/Current 5V, 12V, 24V, 36V, 48V, 72V, or 130Vdc. Other outputs on request. The output is floating, either terminal can be grounded	Efficiency Output voltage dependent. Typically better than 80% at full load	Indicators None
Input Protection Inrush current limiting Varistor Internal safety fuse Lower voltage than the specified minimum input will not damage the unit	Redundancy Diode None	Operating Temperature Range -25 °C to 55 °C for full specification Extended temperature ranges available on request	Control Input None
Isolation 2250VDC input to chassis 4300VDC input to output 8mm spacing 500VDC output to chassis (or corresponding to output voltage)	Line/Load Regulation ± 1% combined from zero load to full load	Temperature Drift 0.03% per °C over operating temperature range	Alarm Output None
Standards Designed to meet EN60950-1 and corresponding UL and CSA standards	Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time	Cooling Conduction to customer heat-sink or chassis and by additional natural convection via the surface of the IP66 enclosure	Package/Dimensions (W x H x D) <i>D0 IP66: Overall dimensions incl. mounting flanges, excluding connectors):</i> 108 x 77.5 x 177.8 mm 4.25" x 3.05" x 7.0" <i>D0 IP66: Dimensions of enclosure body(excluding connectors):</i> 108 x 75 x 148.1 mm 4.25" x 2.95" x 5.8"
EMI EN55032 Class A with margins Class B on request	Output Ripple / Noise Less than 1% of output voltage peak to peak or 0.2% RMS of the output voltage (20MHz BW)	Environmental Protection IP66 enclosure Internal module: Ruggedized and conformal coated	Weight 1.2 kg; 2.6 lb
Switching Frequency 47KHz ±3KHz	Output Overload Protection Rectangular current limiting with cycling short-circuit protection	Shock/Vibration IEC 61373 Cat 1 A&B	Connections Internal barrier-type terminal block accessible via sealed cable glands. Optional connectors instead of cable glands
Hold Up Time Minimum 5ms at full load for 5% drop of output voltage at nominal input	Output Overvoltage Protection Transorb clamp	MTBF 150,000 at 45°C Demonstrated MTBF is significantly higher	RoHS Compliance Compliant
			Warranty Two years subject to application within good engineering practice

ABSOPULSE power supplies are designed and built to customer requirements. The specifications on this data sheet are generic guidelines only and are subject to change

OEM of industrial and railway quality DC-DC converters, AC-DC power supplies and battery chargers, 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. ABSOPULSE is a BABT-approved Facility



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