

250W Rugged DC-DC Converters with Convection Cooling by Heatsink Assembly Fins for Heavy-Duty Industrial Applications

LTH 65-F3-HSA



- Rugged industrial quality
- Field-proven design
- Regulated and adjustable output
- Convection cooling via heatsink assembly
- Full electronic protection
- N+1 redundancy available

This rugged, industrial quality DC-DC converter uses field proven topology to generate the required output power. It is based on mature design topology with a track record in numerous applications. An optional built-in redundancy diode allows for paralleling and N+1 operation or back-up battery connection. The input and output are filtered for low noise. Convection cooling is via a heatsink assembly (HSA) block with fins attached to the under-surface of the inverter chassis. Additional cooling is provided by natural convection through the cooling slots. The heatsink assembly also allows for mounting on uneven and thermally non-conductive surfaces. Conformal coating provides protection against humidity and airborne contaminants. Full electronic protection, low component count, large design headroom, and the exclusive use of components with established reliability contribute to a high MTBF. All of our products are manufactured at our plant under strict quality control.

SPECIFICATIONS

<p>Input Voltage 12Vdc nominal 10.5-16Vdc operating range Input current: 29A max. Other inputs upon request</p> <p>Input Protection Inrush current limiting. Reverse polarity protection Varistor Internal safety fuse Lower voltage than specified minimum input will not damage unit</p> <p>Isolation According to input and output voltage minimum of: 500Vdc input to chassis 1000Vdc input to output, 500VDC output to chassis</p> <p>Standards Designed to meet EN62368-1 And corresponding standards</p> <p>EMI EN55032 Class A with margins</p> <p>Switching Frequency 55kHz ±3kHz</p>	<p>Output Voltage 24V, 48V or 125Vdc Output is floating; either terminal can be grounded Other outputs on request</p> <p>Redundancy diode Not included Available as option</p> <p>Line/Load Regulation ±1% from no load to full load</p> <p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</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>Overload Protection Rectangular current limiting with short-circuit protection Thermal shutdown in case of insufficient cooling (self -resetting)</p> <p>Output Overvoltage Protection Double regulator loop. Second loop completely stable and independent of main regulator loop</p>	<p>Efficiency Typically 80% at full load depending on input/output combination</p> <p>Operating Temperature 0°C to 50°C for full specification Extended temperature ranges with derating Consult factory for extended temperature range</p> <p>Temperature Drift 0.03% per °C over operating temperature range</p> <p>Cooling Convection by heat-sink fins attached to the under surface</p> <p>Environmental Protection Ruggedizing Conformal coating</p> <p>Shock/Vibration IEC 61373 Cat 1 A&B</p> <p>Humidity 5 - 95% non-condensing</p> <p>MTBF 150,000 hours @ 45 °C Demonstrated MTBF is significantly higher</p>	<p>Indicators Green 'Output ON' LED visible through cooling slots</p> <p>Control Input None Available as option</p> <p>Alarm Outputs None on standard version Optional output fail</p> <p>Package/Dimensions (W x H x L) F3 enclosure on HSA heatsink assembly with fins: 132 x 106 x 323mm (5.2" x 4.2" x 12.7") Mounting holes are clear</p> <p>Weight 3 kg (6.6 lbs.)</p> <p>Connections 12-pole barrier type terminal block with 3/8" spacing</p> <p>RoHS Compliance Compliant</p> <p>Warranty Two years subject to application within good engineering practice</p> <p>Terminal Block Pin-out</p>
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NOT USED		DC OUTPUT				GND		DC INPUT			
1	2	+	+	-	-	GND	GND	-	-	+	+
1	2	3	4	5	6	7	8	9	10	11	12

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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