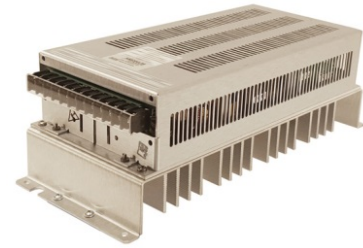


250W, Rugged DC-DC Converter with Convection Cooling by a Built-in Heatsink Assembly for Heavy Duty Industrial Applications LTH 65-F3-HSA Series



- Rugged industrial quality
- Field-proven design
- Regulated and adjustable output
- Convection cooling by heat assembly
- Full electronic protection
- N+1 redundancy available as option

This rugged, industrial quality DC-DC converter uses field proven topology to generate the required output power. It is based on a mature design with a track record in numerous applications. An optional built-in redundancy diode allows for paralleling and N+1 operation or back-up battery connected. Convection cooling is achieved by installing a heatsink assembly block with fins to the under-surface of the unit. The heatsink assembly also allows for mounting on uneven and thermally non-conductive surfaces. Ruggedizing and conformal coating provide immunity to shock, vibration, 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. The unit is manufactured at our plant under strict quality control. The power supply is chassis-mounted. A DIN-rail option is available. A railway quality version of this design, the LTH-65R-HSA-F3, is also available.

SPECIFICATIONS

<p>Input Voltage 12Vdc nominal 10.5-16Vdc operating range Input current: 29A max. Other inputs upon request</p>	<p>Output Voltage 24V, 48V or 125Vdc Output is floating; either terminal can be grounded Other outputs on request</p>	<p>Efficiency Typically 80% at full load depending on input/output combination</p>	<p>Indicators Green 'Output ON' LED visible through cooling slots</p>
<p>Input Protection Varistor Reverse polarity protection Internal safety fuse Lower voltage than specified minimum input will not damage unit</p>	<p>Redundancy diode Not included Available as option</p>	<p>Operating Temperature 0°C to 50°C for full specification Extended temperature ranges with derating</p>	<p>Control Input None Available as option</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>Line/Load Regulation ± 1% combined from zero load to full load</p>	<p>Temperature Drift 0.03% per °C over operating temperature range</p>	<p>Alarm Output None on standard version Optional output fail</p>
<p>Standards Designed to meet EN60950-1 and corresponding standards</p>	<p>Dynamic Response Max 5% voltage deviation for 10% to 50% load step, with better than 1msec recovery time</p>	<p>Cooling Convection by heat-sink fins attached to the under surface</p>	<p>Package/Dimensions (W x H x L) F3 enclosure on HAS heatsink assembly with fins: 132mm x 102mm x 323mm (5.2" x 4" x 12.7") Mounting holes are clear</p>
<p>EMI EN55032 Class A with margins</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>Weight 3kg (6.6 lbs)</p>
<p>Switching Frequency 55kHz ±3kHz</p>	<p>Overload Protection Rectangular current limiting with short-circuit protection Thermal shutdown in case of insufficient cooling (self -resetting)</p>	<p>Shock/Vibration IEC 61373 Cat 1 A&B</p>	<p>Connections Barrier type terminal block with 9.5mm spacing, 12 poles</p>
	<p>Output Overvoltage Protection Double regulator loop. Second loop completely stable and independent of main regulator loop</p>	<p>Humidity 5 – 95% non-condensing</p>	<p>RoHS Compliance Compliant</p>
		<p>MTBF 150,000 hours @ 45 °C Demonstrated MTBF is significantly higher</p>	<p>Warranty Two years subject to application within good engineering practice</p>

Terminal Block Pin-Out

DC OUTPUT				GND		DC INPUT					
NOT USED	NOT USED	+	+	-	-	GND	GND	-	-	+	+
1	2	3	4	5	6	7	8	9	10	11	12

Enhancements to these general specifications and customizing can be accommodated upon request. Specifications are subject to change.

Designer and manufacturer of DC-DC converters, AC-DC power supplies, DC-AC sine wave inverters, AC-AC frequency converters, DC-output UPS systems, complete rack mount systems and DC-input fluorescent lamp inverters since 1982. Custom or standard. ABSOPULSE is a BABT-approved Facility.

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