

DATA SHEET

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Industrial 100 Watt 24V to 48V DC/DC Converter

Industrial, Rugged, & Compact

The RLH DC/DC converter is a compact power supply designed to convert a DC Input voltage to a regulated and isolated DC output voltage. Able to power a wide range of industrial equipment, this power supply offers a wide variety of conversion options to accommodate standard voltages found in substations, Telco, and automation & control environments.

This rugged power supply features a tough aluminum alloy frame with a powder-coated, galvanized-steel housing for superior corrosion resistance. The DIN clip allows for easy mounting anywhere DIN rail can be placed.

Supports a wide input voltage range and also allows for adjusting the output voltage to $\pm 10\%$ of the rated output voltage. The converter has a bi-color LED indicator and a relay output to indicate power status and alarm conditions.

Key Features

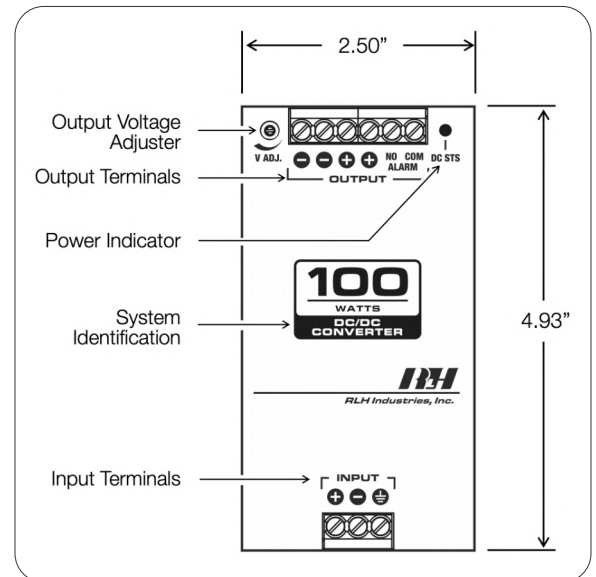
- Hardened to operate in -40°C to $+70^{\circ}\text{C}$ environment
- DIN mountable - install anywhere rail can be placed or found
- Bi-Color LED provide power status and alarm indication
- Sturdy powder-coated aluminum case
- Alarm relay output for remote/external monitoring
- High DC input available for converting large battery array power to usable range for network devices
- Isolated DC Output with $\pm 10\%$ adjustment

Ordering Information

Description	Input Voltage	Output Voltage	Amps	Part Number
100 Watt 24V to 48V DC/DC Converter	24VDC (18~31V)	48VDC	2.1A	RLH-D100-DCDC-2448-1



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Dimensions

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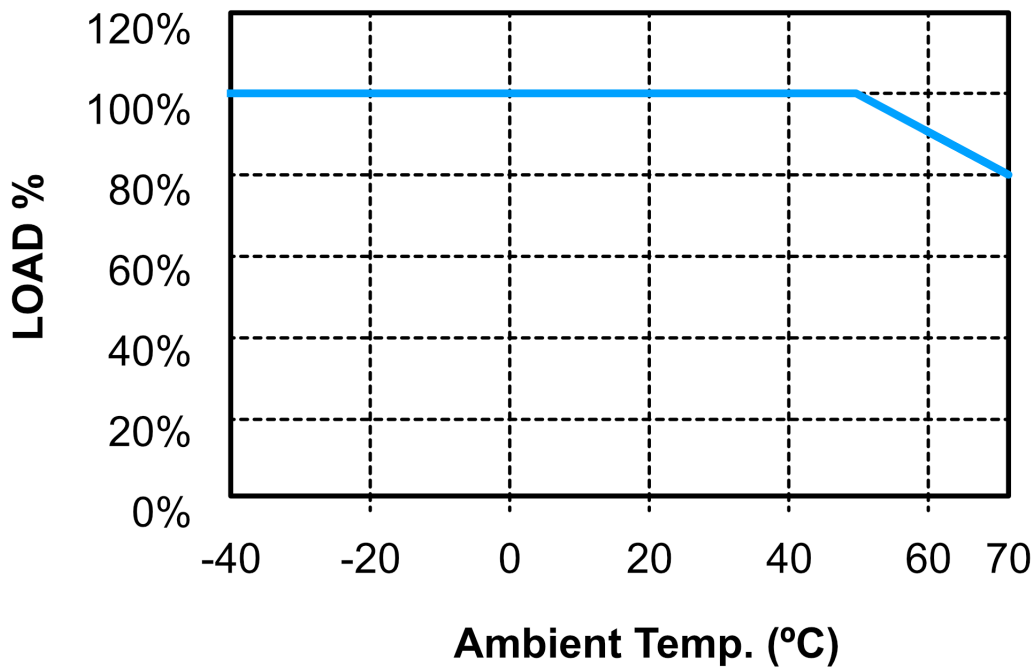
Key Specifications

Input:	Voltage Range	18 ~ 31V
Output:	Voltage	48VDC
	Start Time	20mS (Non capacitive Load)
	Voltage Accuracy	± 1.0% Max.
	Line Regulation	± 0.2% Max.
	Load Regulation	± 0.5% Max.
	Ripple & Noise	1% @ 2-Mhz Broadband
	Over Current Protection	120% @ Vin Min ≤ Vin Nominal ≤ Vin Max
	Peak Deviation	± 5.0%
	Dynamic Response Setting Time	400µs
	Output Voltage Trim	± 10%
	Switching Frequency	300KHz
General:	Efficiency	85% Typical
	Operating Temperature	-40°C to +70°C
	Relative Humidity	5% ~ 90% RH (Non-Condensing)
	Over Current Protection Type	Hiccup mode with automatic recovery
	Input Polarity Reversal Protection	Auto Correcting
	Input Over Voltage Protection	120% of max. input voltage
	Cooling	Heatsink, Convection cooling
	Isolation Resistance	Input to Output: 100MΩ
	Isolation Voltage	Input to Output: 1500VDC
Alarm Relay:	Rated Load	0.50 A @ 125 VAC, 1A @ 24 VDC
	Max. Operating Voltage	125 VAC, 60 VDC
	Max. Operating Current	1A
	Max. Switching Capacity	62.50 VA, 30W
	RED Power LED - Relay Open	< 43.2VDC Output
	GREEN Power LED - Relay Closed	Normal Operation
	Power LED OFF - Relay Open	No Power Detected
Physical:	Dimensions	2.59" (W) x 3.79" (D) x 4.95" (H), (66mm x 97mm x 126mm)
	Weight	1.5 lbs.
	Construction	Aluminum alloy, galvanized steel, powder coated
	Mounting	35mm DIN rail

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Typical Derating Curve



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