



RLH Industries, Inc.

fiberopticlink.com

PRODUCT  
DATA SHEET

DS-205 2025-0708

## Industrial AC/DC + DC/DC Switching 48 Watt Power Supply

RD1048-XXFS

### Compact, DIN or Wall mountable, with Universal Input

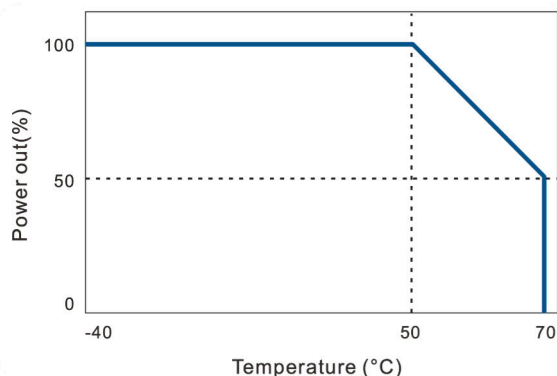
The 48 Watt compact industrial switching power supply series features a universal input of 100-240VAC or 120-370VDC. Offers a high power density in a small foot print. Designed for industrial use and is UL Listed, RoHS and CE compliant and operates over a wide temperature range.

When used in combination with the optional battery charge controllers and battery packs, these power supplies make a compact and reliable UPS system.

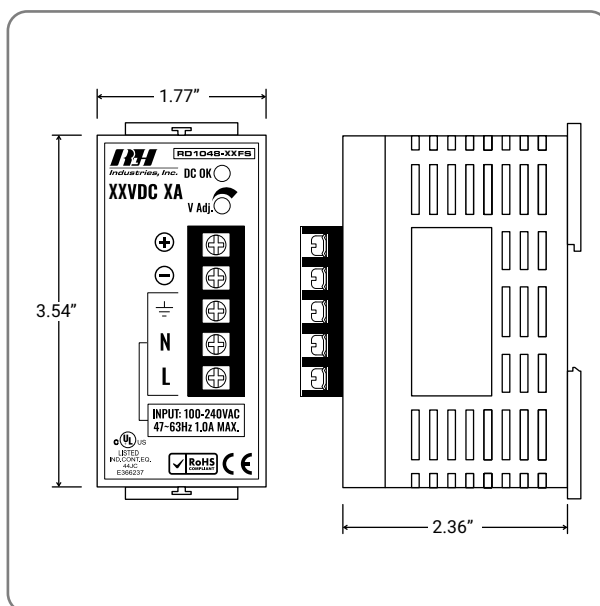
### Features

- Input Range 100-240VAC/120-370VDC
- E24VDC and 48VDC Output models available
- Short circuit, overload, and over voltage protection
- Wide operating temperature range of -40°C to 70°C (-40° to 158°F)
- Low ripple and noise
- Easily accessible output trim adjustment  $\pm 10\%$
- Cooling by free air convection
- Designed for 35mm DIN rail mounting or wall
- LED power indicator
- Convenient screw down terminals
- 100% full load tested

### Derating Curve



24VDC & 48VDC Switching 48 Watt Power Supply



Dimensions





## General Specifications

<b>Switching Frequency</b>	1 Gigabit SFP Slot, Accepts MSA compliant 1.25Gbps SFPs (Sold separately)	
<b>Isolation Voltage</b>	<b>Input-Output:</b>	3000VAC / 4242VDC
	<b>Input-FG:</b>	1500VAC/2121VDC
	<b>Output-FG:</b>	500VAC/ 710VDC
<b>Isolation Resistance</b>	100MΩ when Input-Output @500VDC	
<b>Temperature</b>	<b>Operating:</b>	-40°C~50°C (-40°F to 122°F) Full Load , 50°C to 70°C (122°F to 158°F) derating curve applies
	<b>Storage:</b>	-40°C to +85°C (-40°F to 185°F)
<b>Derating</b>	2.5% per degree from 50°C to 70°C	
<b>Temperature Coefficient</b>	±0.04% of output voltage per °C	
<b>Relative Humidity</b>	5%~95% RH, Non-condensing	
<b>Attitude During Operation</b>	2000m	
<b>Installation Position</b>	Vertical	
<b>Vibration</b>	Random Vibration, 10~500Hz. 3 axis	
<b>EMC Standards</b>	EN55011 Class B, EN55022 Class B, EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8 (Magnetic Field), EN61000-4-11 (EMC)	
<b>Safety</b>	CE, UL Listed, RoHS	
<b>MTBF</b>	100,000 hrs	Min. Per MIL-HDBK-217F, 25°C GB
<b>Warranty</b>	3 Years	Visit <a href="http://www.fiberopticlink.com">www.fiberopticlink.com</a> for warranty details

## Protection Specifications

<b>Input Fuse:</b>	2A/250V
<b>Input Surge Load Protection:</b>	Varistor, IEC6100-4-5
<b>Degree of Protection:</b>	IP20
<b>Short Circuit Protection:</b>	Autorecovery
<b>Over Voltage Protection:</b>	Autorecovery
<b>Rated Over Load Protection:</b>	150~250%
<b>Overload Protection:</b>	Power limited

## Input Specifications

<b>Input Voltage</b>	100~240VAC/120~370VDC
<b>Input Frequency</b>	47~63Hz
<b>Inrush Current</b>	11A/115VAC
<b>Cold Start</b>	22A/230VAC
<b>Isolation Resistance</b>	100MΩ when Input-Output @500VDC
<b>Rated Input Current</b>	1A Max., Vi=100~240VAC
<b>Leakage Current</b>	Input-output 0.25mA, Inout-FG 3.5mA, Vi=250VAC



## Output Specifications

Output Voltage Accuracy	±1%
Minimum Load	0%
Line Regulation	±1%, measuring from low line to high line rated load
Load Regulation	±1%, measuring from 20% to 100% of rated load 230VAC input
Voltage Trim Range	±10%(Min.)
Rated Continuous Loading	2A @ 24VDC, 1A @ 48VDC
Hold Up Time	30mS Min., Full load @ 230VAC.
Turn On Time	300mS
Rise Time	10mS
Fall Time	35mS
Transient Response	Recovery Time: 2mS, Load change 50% to 100%
	Voltage Deviation: 5%, Load change 50% to 100%
Efficiency	83%
Ripple and Noise	<b>RD1048-24FS:</b> 150mVp-p
	<b>RD1048-48FS:</b> 250mVp-p

*\*Note: Measured by using 0.1µF metallized capacitor and 47µF electrolytic capacitor in parallel at rated load and 230VAC input*

## Ordering Information

Description	Part Number
Industrial AC/DC + DC/DC Switching Power Supply, 24 Volts, 2 Amps, 48 Watts	RD1048-24FS
Industrial AC/DC + DC/DC Switching Power Supply, 48 Volts, 1 Amp, 48 Watts	RD1048-48FS

## Contact

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