

## USER GUIDE

[www.fiberopticlink.com](http://www.fiberopticlink.com)

UG-M034 2025-02-25

### Industrial AC/DC + DC/DC Switching 150 Watt Power Supply

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

The 150 Watt industrial switching power supply series features a universal input of 100-240VAC or 120-370VDC. Designed for industrial use and is UL Listed, RoHS and CE compliant and operates over a wide temperature range. Includes a powder coated steel housing that can be DIN or wall mounted.

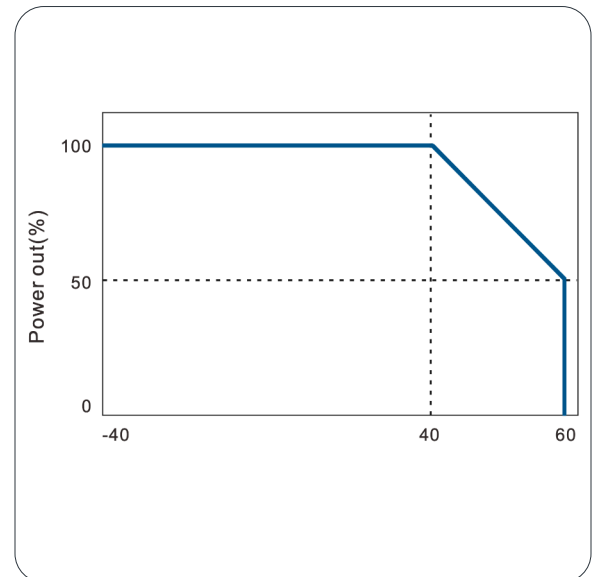
When used in combination with the optional battery charge controllers and battery packs, these power supplies make a compact and reliable UPS system.

#### Key Features

- Input Range 100-240VAC/120-370VDC
- 24VDC and 48VDC Output models available
- Short circuit, overload, and over voltage protection
- Wide operating temperature range, -40° - 140°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



150W Power Supply



Derating Curve

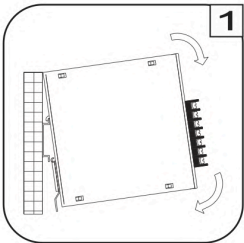
#### Ordering Information

Description	Part Number
Industrial AC/DC + DC/DC Switching Power Supply, 24 Volts, 6.3 Amps, 150 Watts	RD1150-24F
Industrial AC/DC + DC/DC Switching Power Supply, 48 Volts, 3.2 Amp, 150 Watts	RD1150-48F

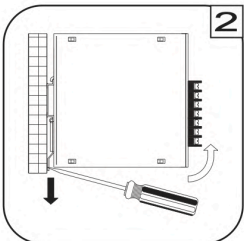
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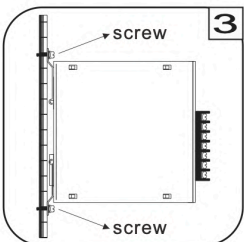
### **Installation**



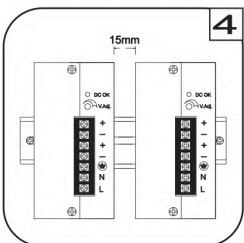
Place the top of the AD1150F rail mount over the top of the DIN rail. Tilt the bottom of the AD1150F toward the DIN rail until it snaps into place.



To remove the AD1150F from the DIN rail, use a flathead screwdriver to pull down the bottom of the rail mount and tilt it away from the DIN rail.



To install AD1150F on wall/plate, loosen the set screw on mounting bracket, fully extend the bracket, then tighten the set screw. Next attach the additional bracket included in the packaging to the opposed side.



The left housing of AD1150F is designed as a heat sink, please keeping a minimum distance of 15mm from each other.

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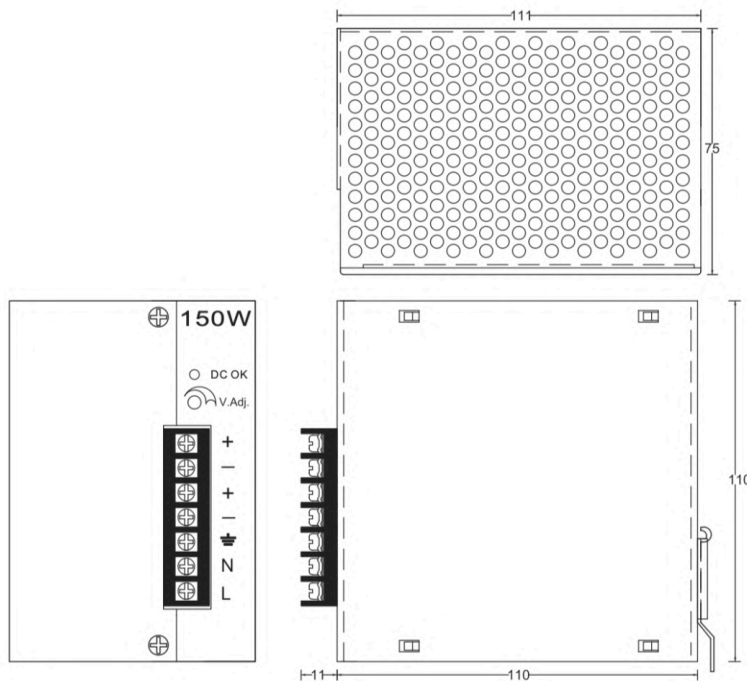
### Safety Standards



### EMC Standards

EN55011	Class B
EN55022	Class B
EN61000-4-2	Level 3
EN61000-4-3	Level 3
EN61000-4-4	Level 3
EN61000-4-5	Level 3
EN61000-4-6	Level 3
EN61000-4-8	Level 3
EN61000-4-11	Level 3

### Mechanical Details



<b>Case No.</b>	AD120
<b>Dimensions</b>	121(D)x75(W)x110(H)mm
<b>Case Material</b>	Metal

### Terminal Allocation

Designation	Description
DC OK	Green LED Indicator
V Adj.	O/P Voltage adjustment
+	Output Positive
-	Output Negative
⏏	Earth
N	Input Neutral
L	Input Line

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<b>Switching Frequency:</b>	85kHz
<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>Operating Temperature:</b>	-40°C~40°C Full Load, 40°C to 60°C derating curve applies
<b>Derating:</b>	2.5% per degree from 40°C to 60°C
<b>Storage Temperature:</b>	-40°C to +85°C
<b>Relative Humidity:</b>	5%~95% RH, Non-condensing
<b>Temperature Coefficient:</b>	±0.04% of output voltage per °C
<b>MTBF:</b>	60,000hrs Min. Per MIL-HDBK-217F, 25°C GB
<b>Attitude During Operation:</b>	2000m
<b>Installation Position:</b>	Vertical
<b>Vibration:</b>	Random Vibration, 10~500Hz. 3 axis
<b>Warranty:</b>	3 Years

**Input Specifications**

<b>Input Voltage:</b>	100~240VAC/120~370VDC
<b>Input Frequency:</b>	47~63Hz
<b>Inrush Current:</b> Cold Start:	22A/115VAC 44A/230VAC
<b>Rated Input Current:</b>	3.5A Max., Vi=100~240VAC
<b>Leakage Current:</b>	Input-output 0.25mA, Inout-FG 3.5mA, Vi=250VAC

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<b>Output Voltage Accuracy:</b>	±1%	
<b>Minimum Load:</b>	0%	
<b>Line Regulation:</b>	±1%, measuring from low line to high line rated load	
<b>Load Regulation:</b>	±2%, measuring from 20% to 100% of rated load 230VAC input	
<b>Voltage Trim Range:</b>	±10%	
<b>Rated Continuous Loading:</b>	6.3A@24VDC, 3.2A@48VDC	
<b>Hold Up Time:</b>	30mS Min., Full load@230VAC.	
<b>Turn On Time:</b>	1300mS	
<b>Rise Time:</b>	13mS	
<b>Fall Time:</b>	25mS	
<b>Transient Response:</b>	Recovery Time:	2mS, Load change 50% to 100%
	Voltage Deviation:	5%, Load change 50% to 100%
<b>Efficiency:</b>	<b>RD1150-24F:</b> 82% / <b>RD1150-48F:</b> 83%	
<b>Ripple and Noise:</b>	<b>RD1150-24F:</b> 150mVp-p / <b>RD1150-48F:</b> 250mVp-p (measured by using 0.1μF metallized capacitor and 47μF electrolytic capacitor in parallel at rated load and 230VAC input)	

**Protection Specifications**

<b>Input Fuse:</b>	3.15A/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>	160~200%
<b>Overload Protection:</b>	Power limited

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### Contact

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