

USER GUIDE

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

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.

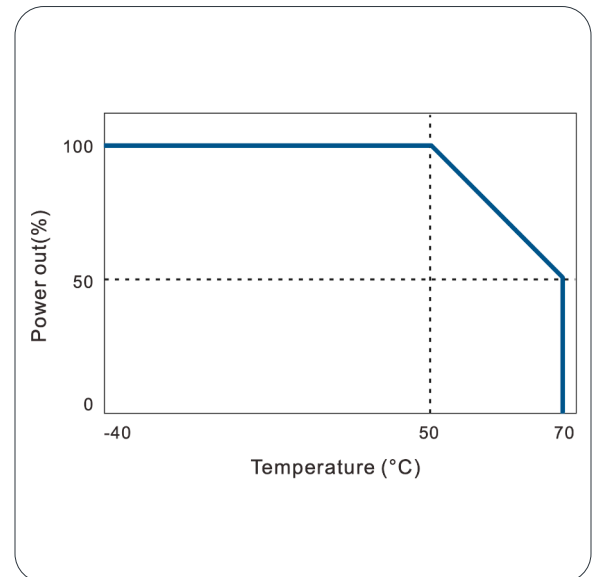
When used in combination with the optional battery charge controllers and battery packs, these power supplies make a compact and reliable UPS system.

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° - 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



48W Power Supply

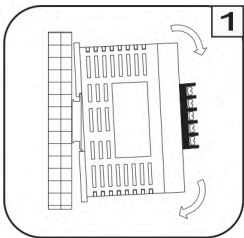


Derating Curve

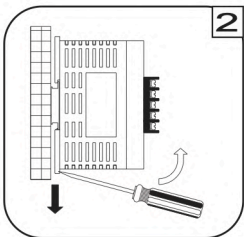
Ordering Information

Description	Part Number
Industrial AC/DC + DC/DC Switching Power Supply, 24 Volts, 2 Amps, 48 Watts	AD1048-24FS
Industrial AC/DC + DC/DC Switching Power Supply, 48 Volts, 1 Amp, 48 Watts	AD1048-48FS

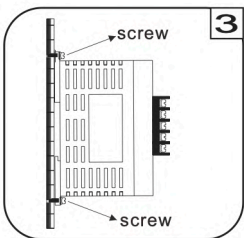
Installation



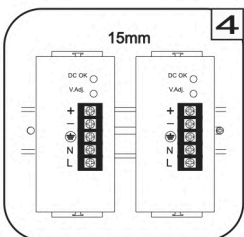
Place the top of the AD1048FS rail mount over the top of the DIN rail. Tilt the bottom of the AD1048FS toward the DIN rail until it snaps into place.



To remove AD1048FS 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 AD1048FS on wall/plate, pulling both mounting brackets out first. Then screwing the two brackets with screws onto wall/plate.



The vents of housing is designed for dissipating heat, please keeping a minimum distance of 15mm from each other.

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Safety Standards



EN 60950

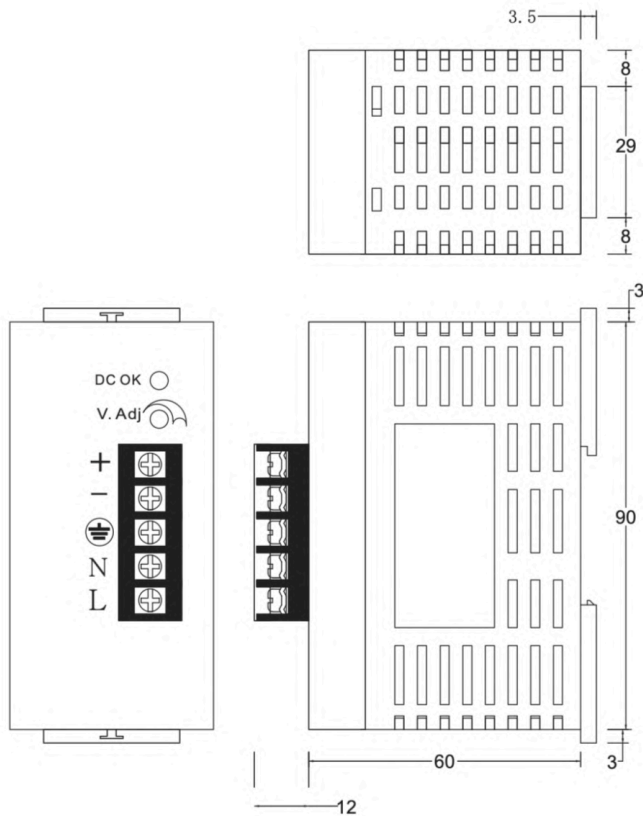


UL 508
CSA 22.2

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



Case No.	AD024
Dimensions	75.5(D)x45(W)x96(H)mm
Case Material	Plastic

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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General Specifications

Switching Frequency:	66kHz
Isolation Voltage:	Input-Output: 3000VAC /4242VDC Input-FG: 1500VAC/2121VDC Output-FG: 500VAC/ 710VDC
Isolation Resistance:	100MΩ when Input-Output @500VDC
Operating Temperature:	-40°C~50°C Full Load, 50°C to 70°C derating curve applies
Derating:	2.5% per degree from 50°C to 70°C
Storage Temperature:	-40°C to +85°C
Relative Humidity:	5%~95% RH, Non-condensing
Temperature Coefficient:	±0.04% of output voltage per °C
MTBF:	100,000hrs Min. Per MIL-HDBK-217F, 25°C GB
Attitude During Operation:	2000m
Installation Position:	Vertical
Vibration:	Random Vibration, 10~500Hz. 3 axis
Warranty:	3 Years

Input Specifications

Input Voltage:	100~240VAC/120~370VDC
Input Frequency:	47~63Hz
Inrush Current: Cold Start:	11A/115VAC 22A/230VAC
Rated Input Current:	1A Max., Vi=100~240VAC
Leakage Current:	Input-output 0.25mA, Inout-FG 3.5mA, Vi=250VAC

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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:	AD1048-24FS: 150mVp-p / AD1048-48FS: 250mVp-p (measured by using 0.1μF metallized capacitor and 47μF electrolytic capacitor in parallel at rated load and 230VAC input)

Protection Specifications

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

USER GUIDEwww.fiberopticlink.com**Contact**

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