KPW-10024-DF
KPW-10048-D/DF

Industrial DIN-Rail
AC-DC 100W/150W Power Supply

24V / 150W
48V / 100W
48V / 150W

User's Guide

The information contained in this document is subject to change without prior notice.

FCC NOTICE

This device complies with Class A Part 15 the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received including the interference that may cause.

CE NOTICE

Marking by the symbol indicates compliance of this equipment to the EMC directive 2014/30/EU of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:

EMC Class A

EN 61000-6-4:2007+A1:2011

EN61000-3-2:2014

EN61000-3-3:2013 Class A

EN 61000-6-2:2005+AC:2005

EN 61000-4-2:2008

EN 61000-4-3:2006+1:2007+A2:2010

EN 61000-4-4:2012

EN 61000-4-5:2014+A1:2017

EN 61000-4-6:2013

EN 61000-4-8:2009

EN 61000-4-11:2004+A1:2017

Introduction

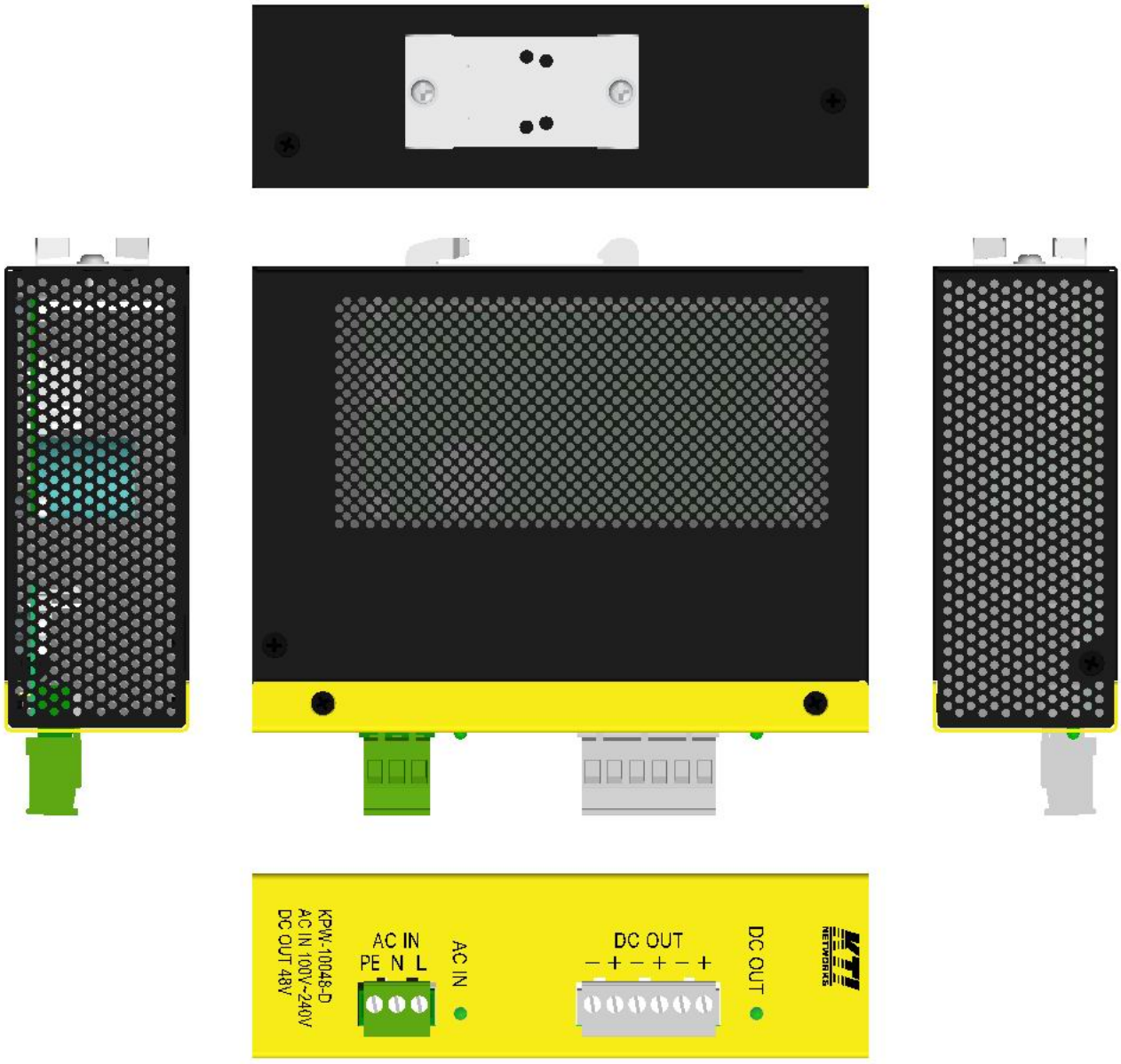
This guide describes the specifications and installation information of the following AC-DC power supply:

Model	AC Input	DC Output	Watts
KPW-10024-DF	100 ~ 240V, 50/60Hz	24V	150W
KPW-10048-D	100 ~ 240V, 50/60Hz	48V	100W
KPW-10048-DF	100 ~ 240V, 50/60Hz	48V	150W

Features

- Provides Full range AC power input
- Industrial terminal block connectors for AC input and DC output interface
- Efficiency to 92%
- Protections: Short circuit/Over current/Over voltage
- Internal power module with UL60950-1 and TUV EN60950-1 safety approval
- Wide range of operating temperature -30°C ~ 70°C

Panels


KPW-10048-D
AC IN 100V-240V
DC OUT 48V
AC IN
PE N L
AC IN
DC OUT
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DC OUT

Specifications

AC IN (AC Power Input)

Interfaces 3P European Terminal Block: PE/N/L

Rated Input Voltage 100 ~ 240VAC, 50/60Hz

DC OUT (DC Power Output)

Interfaces 6P European Terminal Block

Contacts DC＋/DC－, DC＋/DC－, DC＋/DC－

Output Power

Model	DC Output	Output Current	Efficiency
KPW-10024-DF	24V (+/- 2%)	6.25A max.	93%
KPW-10048-D	48V (+/- 2%)	2.1A max.	92%
KPW-10048-DF	48V (+/- 2%)	3.125A max.	92%

Power Wires 12AWG ~ 22 AWG (1 meter max.)

LEDs

AC input, DC output

Protection

Short circuit, Over current, Over voltage

Environmental

Model	Operating Temperature	Storage Temperature	Relative Humidity
KPW-10024-DF	－30°C ~＋70°C	－40°C ~＋85°C	10% ~ 90% non-condensing
KPW-10048-D	－30°C ~＋60°C	－40°C ~＋85°C	10% ~ 90% non-condensing
KPW-10048-DF	－30°C ~＋70°C	－40°C ~＋85°C	10% ~ 90% non-condensing

Power Derating

Model	Power Derating
KPW-10024-DF	100% @ -30°C ~ 50°C, 66% @ 60°C, 50% @ 70°C
KPW-10048-D	100% @ -30°C ~ 50°C, 75% @ 60°C

KPW-10048-DF	100% @ -30°C ~ 50°C, 66% @ 60°C, 50% @ 70°C

Fan Cooling

Model	Fan
KPW-10024-DF	Yes
KPW-10048-D	No
KPW-10048-DF	Yes

Mechanical

Dimension (base)	42 x 106 x 140 mm (WxDxH)
Housing	Enclosed metal
Mounting	Din-Rail, Panel

Internal Power Module Approvals

UL60601-1, IEC60601-1, TUV EN60601-1 Certified

Approvals

FCC Part 15 Class A, CE Mark Class A, LVD

MTBF

Model	MTBF
KPW-10024-DF	98K Hours
KPW-10048-D	181K Hours
KPW-10048-DF	98K Hours

Safety Cautions

To reduce the risk of bodily injury, electrical shock, fire and damage to the product, observe the following precautions.

- ✓ Do not service any product except as explained in your system documentation.
- ✓ Opening or removing covers may expose you to electrical shock.
- ✓ Only a trained service technician should service components inside these compartments.
- ✓ If any of the following conditions occur, unplug the product from the electrical outlet and replace the part or contact your trained service provider:
  - The power cable, extension cable, or plug is damaged.
  - An object has fallen into the product.
  - The product has been exposed to water.
  - The product has been dropped or damaged.
  - The product does not operate correctly when you follow the operating instructions.
- ✓ Do not push any objects into the openings of your system. Doing so can cause fire or electric shock by shorting out interior components.

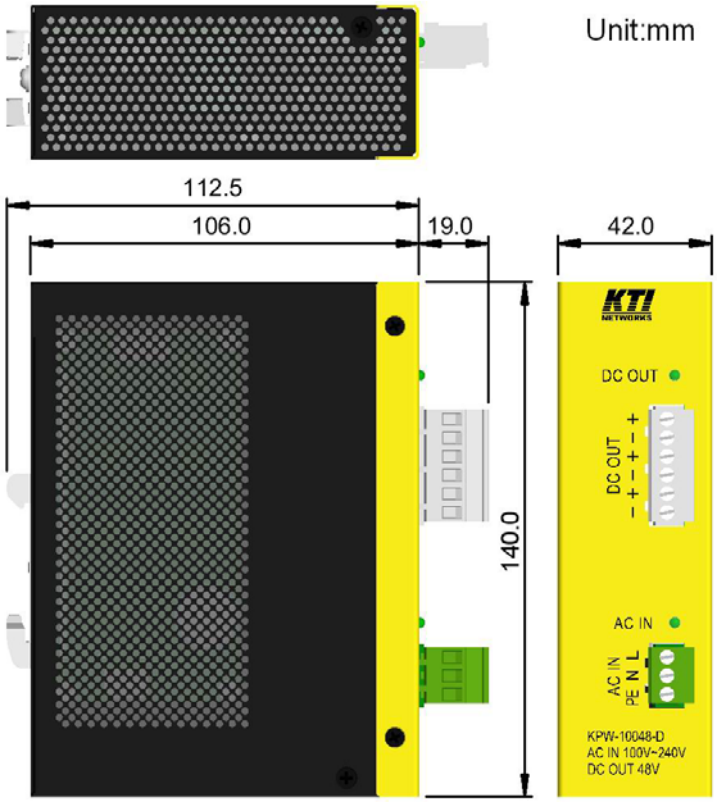
Mounting Support

Din-Rail Mounting

Install the Din-Rail bracket on the rear panel as shown below:

Mount the device on a Din-Rail as shown below:

Final Dimension after Installation

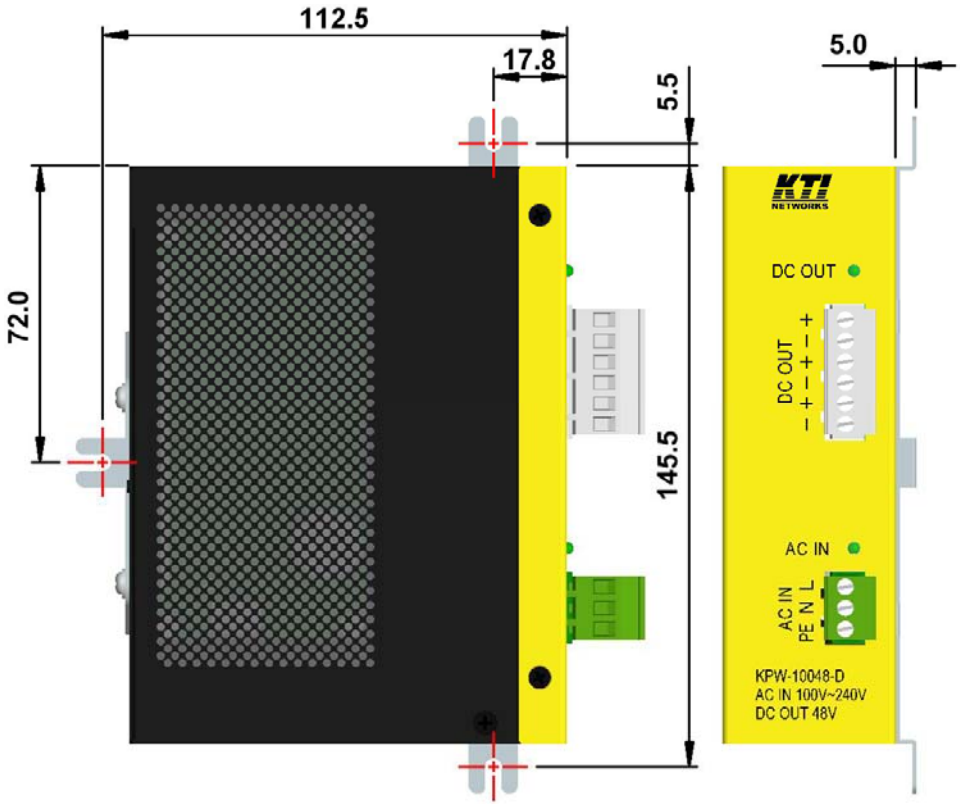


Panel Mounting

An optional panel mounting bracket supports mounting the power supply on a plane surface securely.

Install the bracket onto the device unit as shown below and use two screw holes to fix the unit on a plane surface:

Final Dimension after Installation



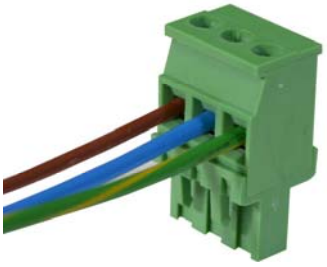
AC Power Input

The power supply provides 3P terminal block for receiving AC power input.

Using Terminal Block

Use 3P terminal plug for AC power wires. Install the wires into the plug securely. The colors of the power wires are:

Contacts	Europe (IEC)	USA
L (Life)	Brown	Black
N (Neutral)	Blue	White
PE (Earth)	Green-Yellow	Green



DC Power Output

The power supply provides three pairs of industrial terminal block connectors for installations.

Using Terminal Blocks

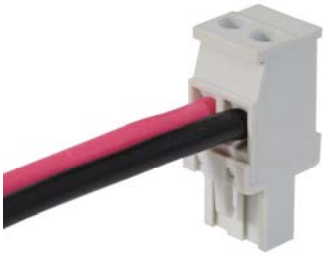
DC OUT (2P x 3 Contacts)

DC＋ / DC－

DC＋ / DC－

DC＋ / DC－

Use the supplied 2P plug for DC power wires. Insert and screw the wires securely as shown below:



Power wire specification: 24~12AWG (IEC 0.5~2.5mm^2)