# KPW-2012-D

## DIN-Rail AC-DC 12V 20W Power Supply

User's Manual

DOC.200416

KTI Networks Inc. reserves the right to revise this documentation and to make changes in content from time to time without obligation on the part of KTI Networks Inc. to provide notification of such revision or change.

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## FCC WARNING AND NOTICE

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instruction manual may cause harmful interference in which case the user will be required to correct the interference at his own expense.

NOTICE:

(1) The changes or modifications not expressively approved by the party responsible for compliance could void the user's authority to operate the equipment.

(2) Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.

47 CFR FCC Part 15, Subpart B, Class A

ICES-003; 2016 Issue 6, Class A

ANSI C63.4:2014

## CE NOTICE

Marking by the symbol “CE” indicates compliance of this equipment to the EMC directive of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:

EMC Directive of 2014/30/EU

EN 61000-6-4 Class A

EN 61000-6-2

# Specifications


**AC Power Input**

| | |
|---|---|
| Interfaces | Type 1: IEC320 receptacle |
| | Type 2: Terminal block (L, N, PE) |
| Rated Input Voltage | 100 ~ 240VAC |
| No load Consumption | < 0.2W |

**DC Power Output**

| | |
|---|---|
| Interfaces | Type 1: Screw-type terminal block (Vout＋, Vout－, Vout＋, Vout－) |
| | Type 2: DC plug with bundled DC plug cable |
| Output Power | ＋12VDC (＋/－ 2%), 1.8A max. |

**LEDs**

Power

**Power Derating**

100%@－30°C ~＋50°C, 50%@＋60°C

**Protection**

Short Circuit, Over Power, Over Voltage, Over Temperature

**Mechanical**

| | |
|---|---|
| Dimension (base) | 40 x 80 x 95 mm (WxDxH) |
| Housing | Enclosed metal |
| Mounting | Din-Rail mounting, Panel mounting, Desktop mounting |

**Environmental**

| | |
|---|---|
| Operating Temperature | －30°C ~＋60°C |
| Storage Temperature | －40°C ~＋85°C |
| Relative Humidity | 10% ~ 90% non-condensing |

**Internal Power Module Approvals**

| | |
|---|---|
| Safety Certification | UL60601-1 |
| | IEC60601-1 |
| | EN60601-1 |

**Electrical Approvals**

| | |
|---|---|
| FCC | Part 15 rule Class A |
| CE EMC | EN61000-6-4 Class A |
| | EN 61000-6-2 |
| Safety | LVD, IEC62368-1 |
| IEC 60068-2-64 | Vibration |
| IEC 60068-2-27 | Shock test |

**MTBF**

604K Hours

# Installation

## Unpacking

The product package contains:

- The power supply unit
- One DC plug cable
- QR code label linking to product documentation cloud

## Safety Cautions

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

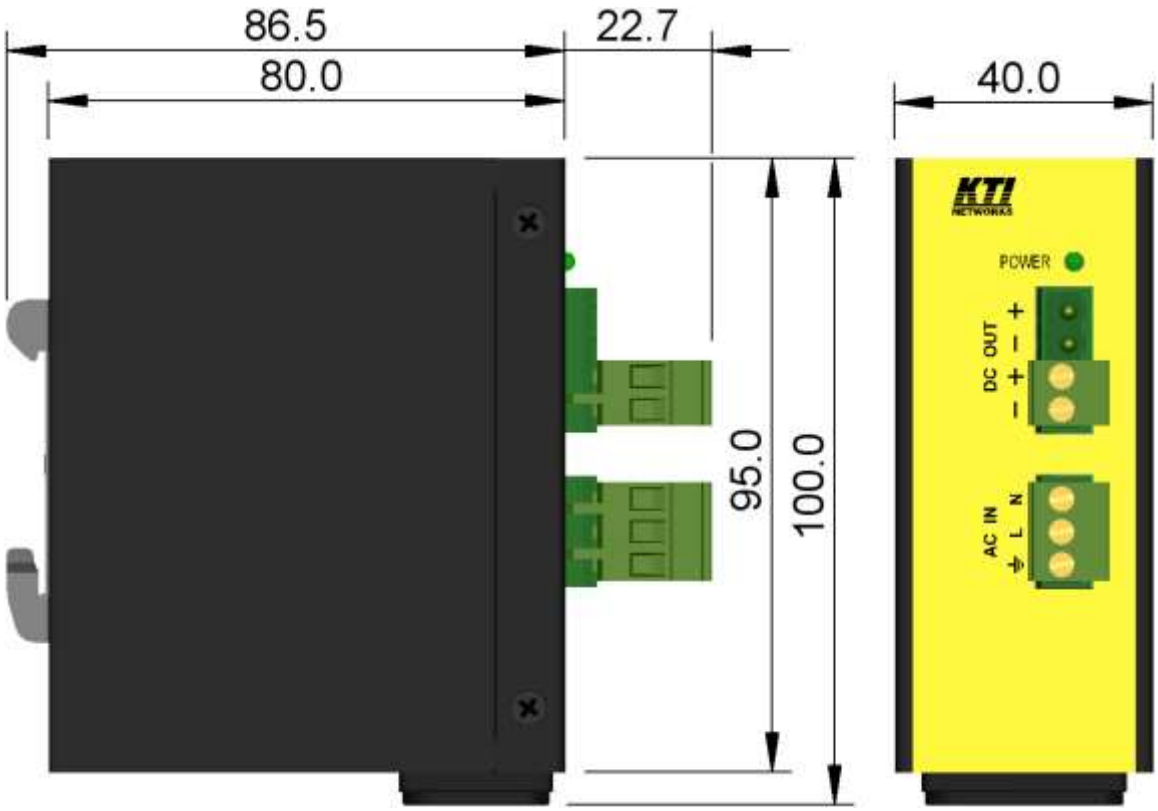
- ✓ Do not service any product except as explained in your system documentation.
- ✓ Opening or removing covers may expose you to electrical shock.
- ✓ Only a trained service technician should service components inside these compartments.
- ✓ If any of the following conditions occur, unplug the product 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.

## Din-Rail Mounting

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

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

**Final Dimension after Installation**

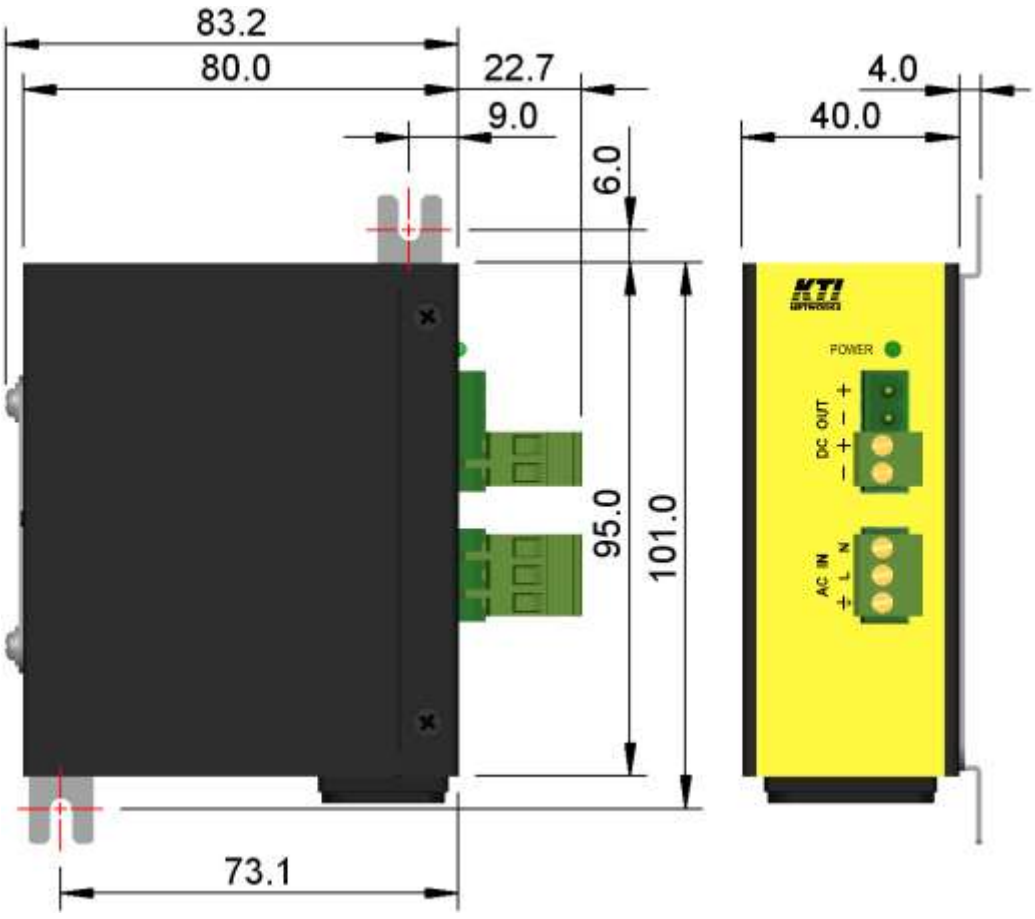



## Panel Mounting

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

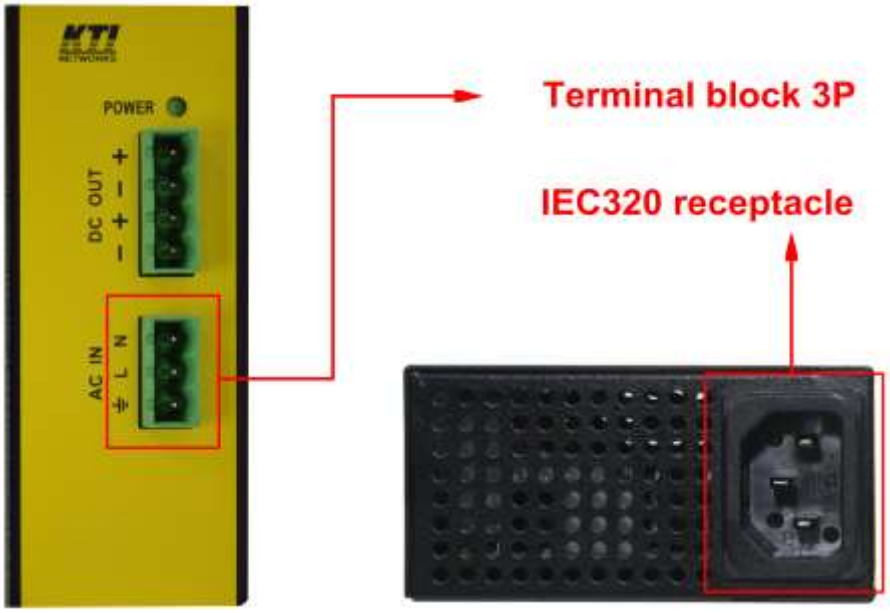
Install the bracket onto the device unit as shown below and use two screw holes to fix the unit on a plane surface:

**Final Dimension after Installation**



# AC Power Input

The power supply provides two types of power interfaces, IEC320 and terminal block for receiving AC power input.

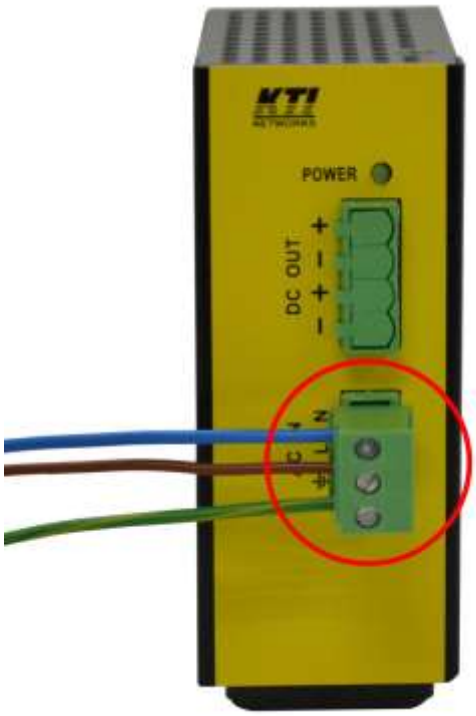



## Using Terminal Block

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 |

Install the wired plug onto the AC socket properly. For safety purpose, use the provided yellow cap to cover the unused IEC320 receptacle.

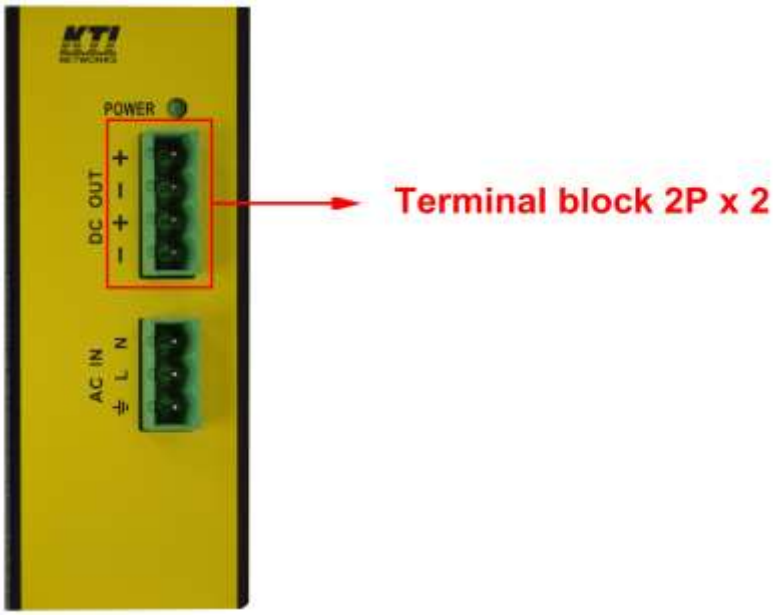



## Using IEC320 Interface

One AC power cord which meets the specification of your country of origin is supplied in package. Plug the power cord into the IEC320 receptacle properly. For safety purpose, put the supplied caps on the unused AC terminal block.

# DC Power Output

The power supply provides two pairs of industrial terminal block connectors for installations and one typical DC plug support for commercial installation.




## Using Terminal Blocks

DC OUT ( 2P x 2 Contacts)

$V_{out}$ + terminal

$V_{out}$ − terminal

$V_{out}$ + terminal

$V_{out}$ − terminal

($V_{out}$: + 12VDC, 1.8A total max.)

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$^2$)

Plug the wired DC plug into DC OUT socket as shown below and put cap on any unused DC OUT contacts.


## Using DC plug cable

To support the devices which have only DC IN Jack interface, one DC plug cable shown below is supplied.

**DC Plug Cable**

Insert the cable into DC OUT terminal block of the power unit as illustrated below and uncover any unused contacts.


**An Example of supplying power to a device with DC Jack.**