



KPW-DCT48-D

Isolated DC to DC48V 100W

Din-Rail DC Power Supply

Installation Guide



DOC.170207B

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FCC NOTICE

This device complies with Part 15 of 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 undesired operation.

CE NOTICE

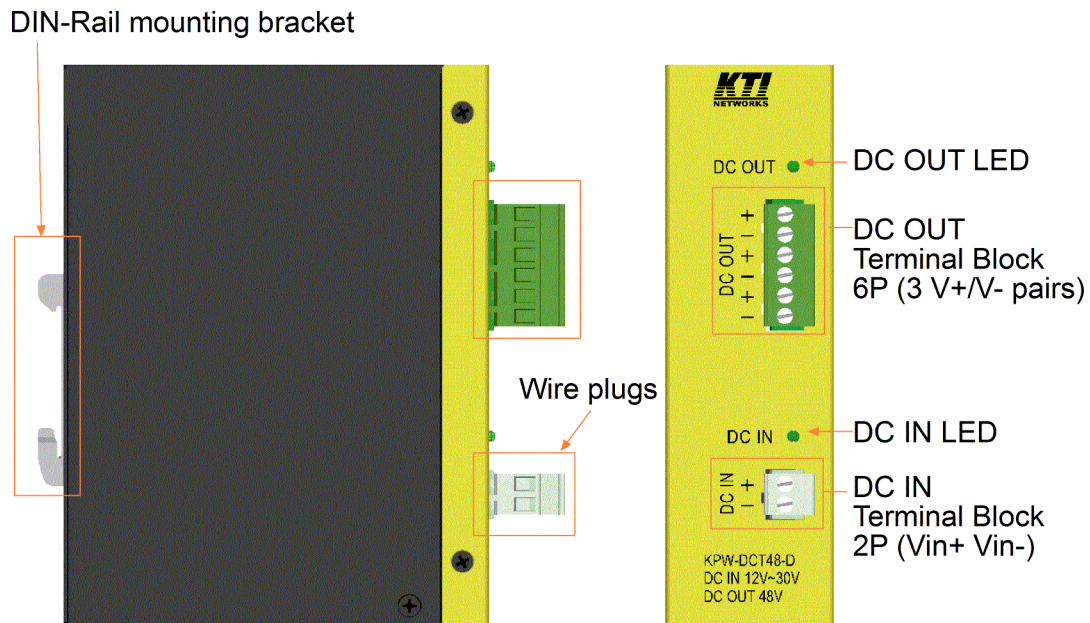
Marking by the symbol indicates compliance of this equipment to the EMC directive of the European Community. Such marking is indicative that this equipment meets or exceeds the following technical standards:

VCCI-A NOTICE

この装置は、クラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

VCCI-A

Specifications



DC IN

Interfaces	Terminal block (2P, V_{in+} / V_{in-})
Rated Input Voltage	+12 ~ +30VDC
Rated Input Current	11A (maximum)
Wires	18 ~ 12AWG

DC OUT

Interfaces	Terminal block (6P, V_{out+} / V_{out-} , V_{out+} / V_{out-} , V_{out+} / V_{out-})
Output Voltage	+48VDC (+/-1.5%)
Output Current	2A (maximum)
Wires	24 ~ 12AWG

LED Indicators

DC IN	Power status
DC OUT	Power status

Shut Down Protection

Under Voltage Input	Less than +8VDC
Over Current	Rated output current 110% ~ 140%
Short Circuit	Yes

Thermal Case temperature of the internal power module over 105°C

Isolation

DC IN vs. DC OUT 1.5KVDC

DC IN vs. Case Frame 1.5KVDC

DC OUT vs. Case Frame 1.5KVDC

Mechanical

Dimension (base) 42 x 106 x 140 mm (WxDxH)

Housing Enclosed metal

Mounting Din-Rail mounting, Panel mounting

Environmental

Operating Temperature -30°C ~ +70°C

Storage Temperature -40°C ~ +85°C

Relative Humidity 10% ~ 90% non-condensing

Electrical Approvals

FCC Part 15 rule Class A

CE EMC Class A

VCCI Class A

IEC 61000-6-4

IEC 61000-6-2

IEC 61000-3-2

IEC 61000-3-3

IEC 61000-4-2

IEC 61000-4-3

IEC 61000-4-4

IEC 61000-4-5

IEC 61000-4-6

IEC 61000-4-8

IEC 60068-2-64 Vibration

IEC 60068-2-27 Shock 50G test

MTBF

147K Hours @ Ambient 25°C

Installation


Unpacking

The product package contains:

- The power supply unit
- One product CD-ROM

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: <ul style="list-style-type: none">- 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.
	Operate the product only from the type of external power source indicated on the electrical ratings label. If you are not sure of the type of power source required, consult your service provider or local power company.
	To prevent the system from overheating, do not operate it in an area that exceeds the maximum recommended ambient temperature of: 70°C (158°F).

Airflow around the unit must be unrestricted. To prevent the unit from overheating, there must be the following minimum clearances:

Top and bottom: 1.0in. (25.4mm), Sides: 1.0in. (25.4mm), Front: 1.0in. (25.4mm)



$T_{amb}=75^{\circ}C$

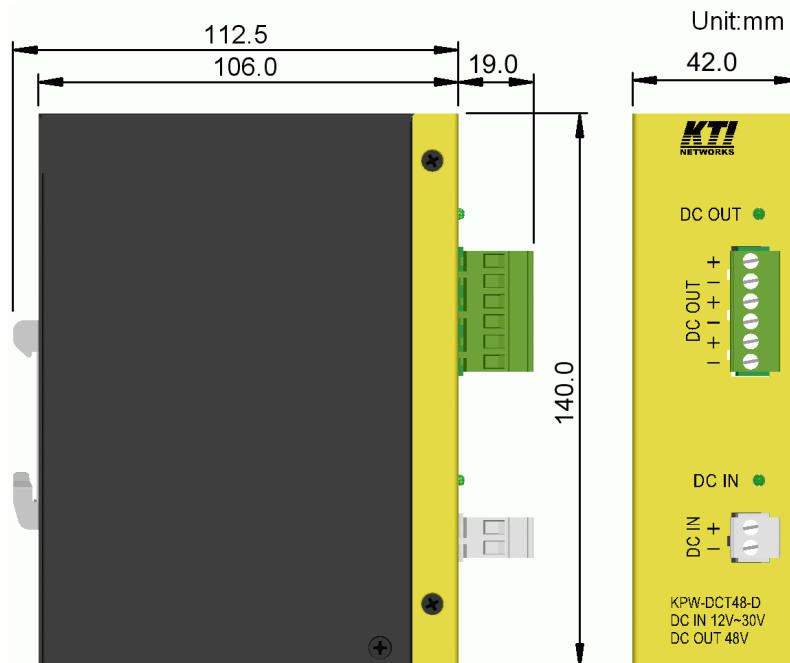
Since the product is high temperature device, install and operate the product only by authorized personnel only. Install the product at a restricted area where un-authorized persons can not reach.

Din-Rail Mounting

Install the Din-Rail bracket on the rear panel and mount the device unit on a Din-Rail as shown below:



Final Dimension after Installation

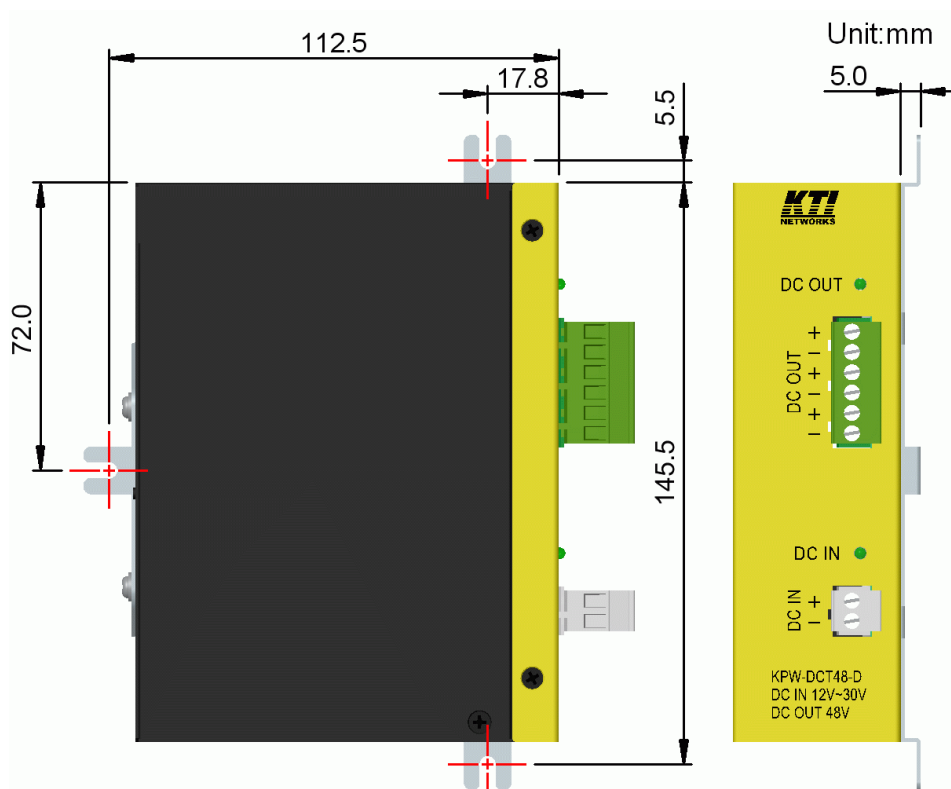


Panel Mounting

An optional panel mounting bracket supports mounting the power supply on a plane surface securely. Install the bracket on the rear face of the device unit. Three screw holes are provided for fixing the unit on a plane surface.

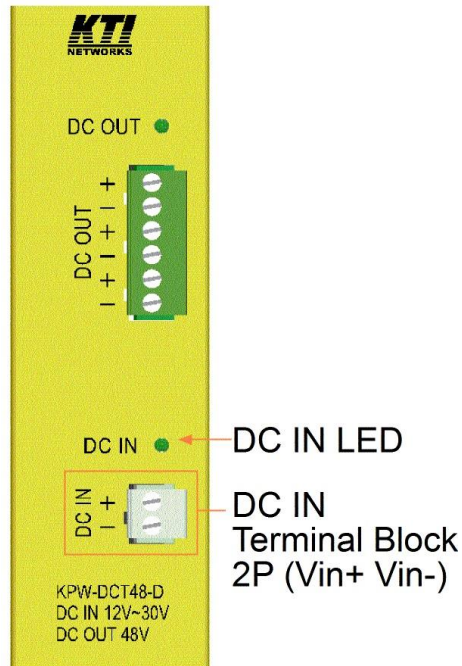


Final Dimension after Installation



DC Power Input

DC IN terminal block connector is provided as shown below:



Using Terminal Blocks

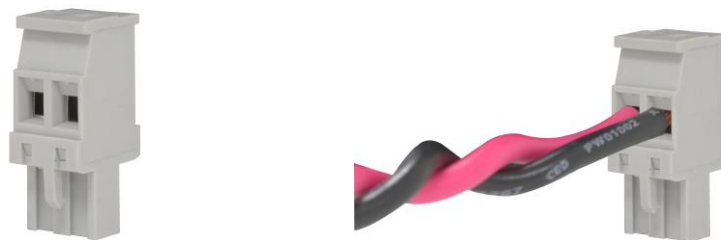
DC IN (2P Contacts)

V_{in+} terminal

V_{in-} terminal

(V_{in} : +12 ~ +30VDC, 11A maximum)

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

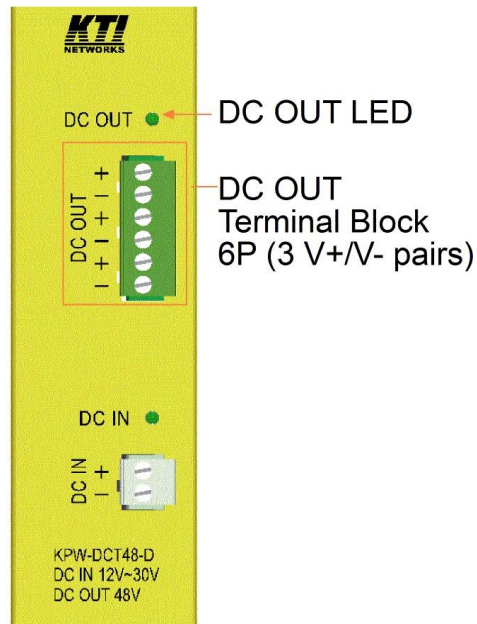


Power wire specification: 18 up ~ 12AWG

Plug the wired DC plug into DC IN socket contacts.

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)

$V_{out}+$ terminal

$V_{out}-$ terminal

$V_{out}+$ terminal

$V_{out}-$ terminal

$V_{out}+$ terminal

$V_{out}-$ terminal

(V_{out} : +48VDC, 2A total max.)

Use the supplied 2P plug for DC power wires.



Power wire specification: 24~12AWG (IEC 0.5~2.5mm²)

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