DDNP1501
15v DC network power supply
Installation Manual

features

- **0.24A Single Phase Supply**

- **15V DC Regulated Output**

- **Output is Short Circuit Proof**

- **Enclosure is DIN Rail Mount with Circuit Breaker Profile**

- **Simple Installation -** DIN Rail mount facilitates installation. All connection terminals are accessible without disassembly

WARNING
ISOLATE FROM
MAINS SUPPLY BEFORE
REMOVING THIS COVER
NO USER SERVICEABLE PARTS INSIDE
SERVICE BY QUALIFIED PERSONNEL ONLY

To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Do not energise unless the front cover is in place. This device must be earthed. Installation, programming and maintenance must be carried out by qualified personnel.

Warning – This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

Read Instructions – We recommend that you read this Instruction Manual prior to commencement of installation.

Power Sources – This device should only be operated from the type of supply specified on the front cover. This device *must* be earthed.

Output – The load on this device should not exceed the specified capacity of 1.5A. This device should be fed via a HRC fuse or MCB.
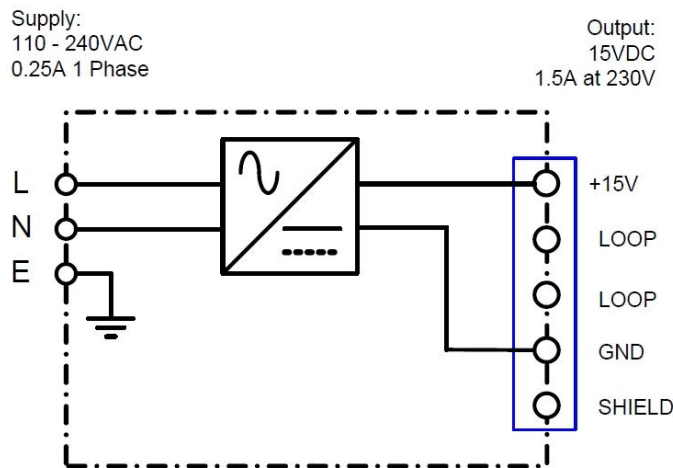
Mounting Location – Install in a dry, well-ventilated location. Controllers may emit some mechanical noise. Take this into account when deciding the mounting location.

Data Cable – Use screened, stranded RS485 data cable with three twisted pairs. Segregate from mains cables by 300mm minimum. Connect devices in a 'daisy chain'. A data cable that is connected to an energised device is live. Do not cut or terminate live data cables.
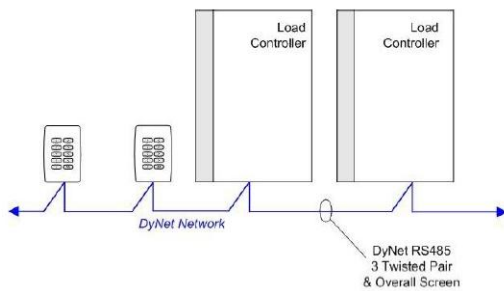
installation steps

1. Mount the device on a DIN rail inside an approved enclosure.

2. Connect a single phase 0.25A feed to the control circuit supply terminals. This device must be earthed.

3. Connect the two power conductors of data cables to the device. There are two common methods of doing this:

    a) **Method 1**: Use a 2 core cable to connect between the DDNP1501 and the data cable connector on a device that is connected to the network. Parallel connect the GND and +12V terminals on the DDNP1501 to the GND and +12V terminals on the network device.

    b) **Method 2**: Loop the network cable to the DDNP1501 and connect the Green pair to GND terminal and Orange pair to +12V terminal. Ensure that the other conductors are looped through using a suitable terminal block.
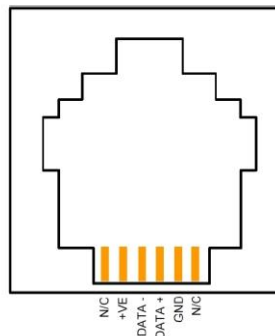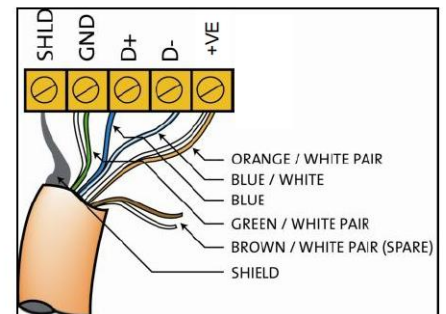
Electrical Diagram

Supply:
110 - 240VAC
0.25A 1 Phase

Output:
15VDC
1.5A at 230V

L
N
E

+15V
LOOP
LOOP
GND
SHIELD

Connecting Data Cable

Connect Data Cable in a 'Daisy Chain'

Load Controller

Load Controller

DyNet Network

DyNet RS485
3 Twisted Pair
& Overall Screen

RJ12 Socket Connections

N/C   +VE   DATA -   DATA +   GND   N/C

Serial Cable Permanent Connections

SHLD   GND   D+   D-   +VE

ORANGE / WHITE PAIR
BLUE / WHITE
BLUE
GREEN / WHITE PAIR
BROWN / WHITE PAIR (SPARE)
SHIELD

Recommended Cable Colour Coding

Green/White Pair	paralleled for GND
Orange/White Pair	paralleled for +12V
Blue/White Pair	Blue for DATA+
	White for DATA-
Brown/White Pair	Spare, use for Shield on unshielded cable

Recommended Cable Types

Belden:	9503	M&M cable:	B9503CS
Garland:	MCP3S	Multicables:	AWME120236209220
Hartland:	HCK603	RS Components:	368-687
M&M Cable:	B2003CS	Dynalite:	DYNET-STP-CABLE

product specifications

Supply:	110 - 240V AC 50/60Hz Single Phase at 0.24A
Load Outputs:	15 Volt DC @ 1.5 Amps (@230V supply), 15 Volt DC @ 1.0 Amps (@110V supply)
Electrical Design:	Switchmode
Protection:	Self resetting overload protection. Short circuit proof, Automatic thermal shutdown
Supply Terminals:	Line, Neutral, Earth, 1 x 2.5mm2 max conductor size
User Controls:	LED power indicator on front panel
Output Terminals:	0V, +15V, 1 x 2.5mm2 max conductor size, Loop terminals provided for DyNet Shield, D−, D+
Compliance:	CE, C-Tick
Operating Environment:	0º to 50ºC ambient temperature, 0% to 95% RH non condensing
Construction:	Polycarbonate DIN rail enclosure, 6 units wide
Dimensions:	H 93mm x W 105mm x D 75mm
Weight:	Packed weight 0.2kg

DDNP1501 Instruction Manual Rev H.doc Specifications subject to change without notice
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