

# Neutron™ DC-22

NEU-DC22

# Multi-Protocol/RS-485

## Product Overview:

Neutron™ is a Plenum-Rated Rack-Mount, din mount, or wall-mount low-voltage power & 485 agnostic data distribution device with 22 motor ports and 5 device ports. Each rear motor port can power motor(s) up to a max. of 8Nm. Each front motor port can power a motor up to a max. of 2Nm. A single unit can support up to a maximum of 22 DC motors. The half-rack sized enclosure can be joined together to allow for up to 44 DC motors per 1RU or can be stacked together inside a 20" wall box. The product can be used as a stand-alone solution in small 485 systems with up to 128 devices and sensors. Grow your system by adding other Neutron, Reaktors, Stellarators, Tokamaks, & Colliders or 485 data hubs for unlimited 485 node systems.



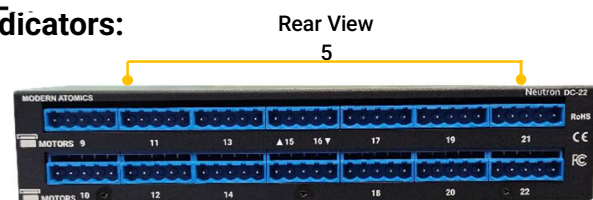
## Technical Specifications:

- Input: PoE 802.3 af or Passive PoE 24-48V DC, 1-2A
- Rear Motor Output: 24V DC (8Nm)
- Front Motor Output: 24V DC (2Nm)
- Device Ports: 12V DC
- Material: Powder coated steel enclosure
- Dimensions: (1.75 in. H) x (8.51 in. W) x (10.5 in. D)  
(4.3cm H) x (21.58cm W) x (24.81cm D)
- Maximum Wiring Distance
  - Rear motor ports: Up to 100m per motor port.  
4 or 5 position wire with 12AWG for power
  - Front motor ports: Up to 50m per motor port.  
UTP with minimum 23AWG
  - Front device ports: Up to 75m per device port
- Operating Temperature Range: Ambient temp.
- Shipping Weight: 9.1 lbs. [4.17kg]
- Indoor use only
- 10-YEAR Transferable Warranty

## Features summary:

- Enables power for up to 22 Low Voltage DC motors per unit
- Works with Many Popular Motors;
  - All Lutron® Low Voltage RF and 485 Motors
  - All Somfy® 24v Low Voltage RTS®, Zigbee, or 485 Motors
  - Q-Motion® Low Voltage Motors
  - Power Shades® Low Voltage Motors
  - Nice® Low Voltage Motors
- Built-in Ammeter enables display of real-time connect motor current or quiescent current loads from 0.01 – 22 Amps
- Built-in Energy Storage Module (ESM-LiFePo4 phosphate) provides ultra-high current at less than 01ms slew rate
- Normal Shade duty cycle of several days to weeks without any energy harvesting enables user control of all shades and controls during power outages or rolling blackouts
- No Cobalt or any other conflict minerals

## Connections & Indicators:



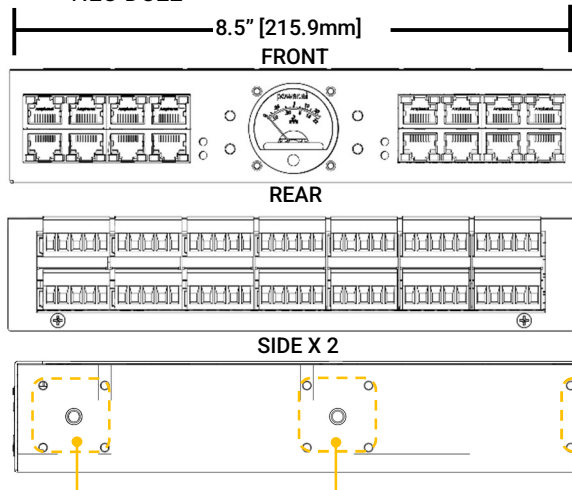
ELEMENT	DESCRIPTION
1	Motor Ports
2	
3	802.3 at PoE
4	Device Ports
5	Motor Ports
6	485 BUS IN
7	485 BUS OUT
8	
9	RESET

LED	INDICATORS	FUNCTION ON	FUNCTION OFF
IQ	Ammeter	Motor Power On	Motor Power Off
E			
P	POWER	Harvest Power On	No Harvest Power
A	BUS Activity	BUS Data Activity	No Data on BUS
G			
B	ESM	Normal = Green	Wink = Harvesting
C			
O	End of Line	End of Bus =Yellow	EXT BUS present



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## Dimensions:

[44.5mm]  
1.75"

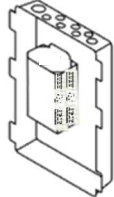
# Multi-Protocol/485

(10) Universal Mounting Points

## Mounting Options:



DIN RAIL



IN-WALL ENCLOSURE

## Compatible Devices:

### 485 DEVICES:

485 Decoflex® keypads (V2)

485 RF Receivers/Transceivers from Somfy® (V2 only) and SILABS®

485 CODECS / DATA HUBS from Somfy® and SILABS®

**RF DEVICES:** Via RF Receivers/Transceivers from Somfy® (V2 only) and SILABS®

Any Somfy® RF remote, wall switch or sensor

Any Lutron® Pico® Remote

Any Bond® remote, wall switch, or sensors

### MOTORS:

Most 485 DC and AC Motors from any Brand and Low Voltage RTS® and Zigbee

LONG and MID Rack Ears and 1RU JOINER KITS NOT INCLUDED & sold separately / [new customizations now available](#)

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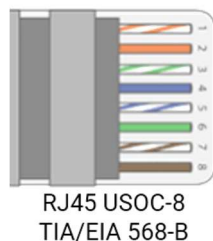
+1 (844)771-8725

Specifications are subject to change without notice

## Motor/Device Cable pinouts:

5.08mm  
Terminal Blocks

V+	Power +
V-	Power -
A+	Data A+
B-	Data B-
G	Ground



1	Data A+
2	Data B-
3	N/C
4	Power +
5	Power +
6	N/C
7	Ground -
8	Ground -

## Included in Box: (Standard Edition)

(1) Neutron PDU

(14) 5.08 pitch Terminal Blocks

(14) 3" Wire ties

(1) 2m CAT5 Cable

(1) 24VDC Passive PoE Injector

(2) Universal Rack Ears

(2) Universal Din Rail Brackets with stop

(1) 3' AC Cable for PoE Injector

(4) #10-32 Rack Screws

(10) M3.5 Universal mounting screws



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