

# Tokamak™ DC-10 Multi-Protocol/RS-485

TOK-DC-10

## Product Overview:

Tokamak™ is a Plenum-Rated Rack-Mount, din mount, or wall-mount low-voltage power supply & 485 agnostic data hub with 10 motor ports and 8 device ports and 1 Bus in.

Tokamak™ can also be used to harvest energy for up to 8 PDU's

When used as a 10-shade power supply, each rear port can provide up to 8Nm motors. The half-rack sized enclosure can be joined together to allow for up to 20 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 10-Shade systems or to harvest power for us to 176 shades via up to 8 Reaktor's or Neutron units. Grow your system by adding other Neutron, Reaktors, Stellarators, & Colliders or 485 data hubs for unlimited 485 node systems.



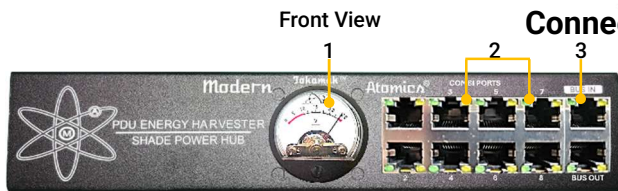
## Technical Specifications:

- Input: 90 ~ 264 VAC, 1.2A (IEC-C14)
- Rear Motor Output: **12-24 VDC (8Nm)**
- Front Device/ PDU Harvest
- Rear mounted On/Off Power Switch
- 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.  
2 position wire with 12AWG for power
  - Front PDU 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: 5.1 lbs. [2.17kg]
- Indoor use only
- 10-YEAR Transferable Warranty

## Features summary:

- Enables power for up to 10 Low Voltage DC motors per unit (**11A Max**)
- Built-in 8-port 485 Data Hub and non-powered Bus in and Bus out
- Works with Many Popular Motors.
  - All Lutron® Low Voltage RF Motors
  - All Somfy® 24v Low Voltage RTS®, or Zigbee Motors
  - All Q-Motion® Low Voltage Motors
  - All Power Shades® Low Voltage Motors
  - All Nice® Low Voltage Motors
- Built-in Voltmeter enables display of real-time power output
- Certified IEC 62368-1 & CB 60950-1
- Meets USA EISA 2007
- Meets Energy Efficiency DOE Level VI
- Meets Code of Conduct Version 5 Tier 2
- Over Current Protection
- Over Temperature Protection
- Over Voltage Protection

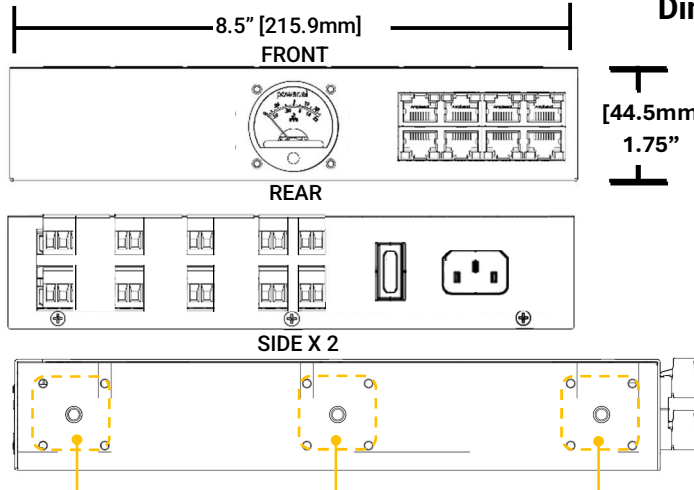
## Connections & Indicators:



ELEMENT	DESCRIPTION
1	<b>Voltmeter</b> Indicates Output Power Voltage
2	<b>COMBI</b> (8) Motor / PDU / Device
3	<b>BUS IN/OUT</b> Non Powered
4	<b>Motor Ports</b> (10) DC motors max 8Nm per port
5	<b>Power Switch</b> Turns off all power outputs
6	<b>IEC 14 Port</b> AC Power Cable Included
7	<b>Plenum Rated</b> Enclosure
8	
9	

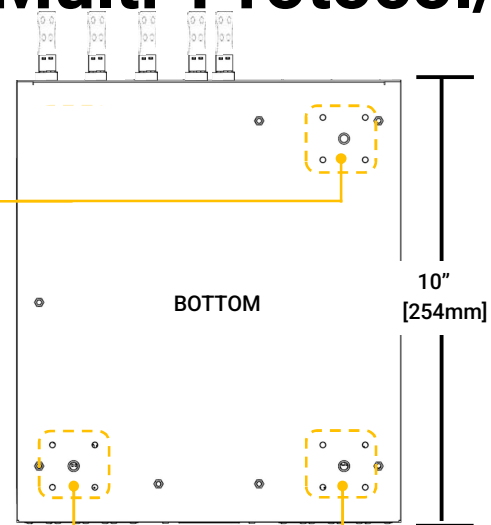
# Tokamak™ DC-10

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## Dimensions:

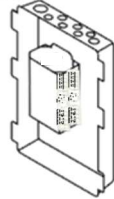
# Multi-Protocol/485



## Mounting Options:



DIN RAIL

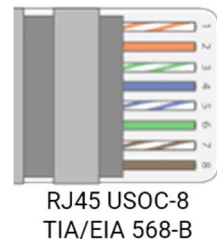
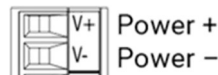


IN-WALL ENCLOSURE

(9) Universal Mounting Points

## Motor/Device Cable pinouts:

5.08mm  
Terminal Blocks



Data A+  
Data B-  
Power +  
Power +  
Power +  
Ground -  
Ground -  
Ground -

## 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®

### PDU HAVESTING:

Reaktor DC-22, and Bond Editions

Neutron DC-22, Collider PoE-8/16/24, and Stellarator AC-24

### MOTORS:

Most brands Low Voltage Horizontal stack may require optional din rail kit

LONG and MID Rack Ears and 1RU JOINER KITS NOT INCLUDED & sold separately

OPTIONAL VOLTMETER AND WALL MOUNTED ENCLOSURE ALSO AVAILABLE

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## Included in Box: (Standard Edition)

(1) Tokamak PDU

(10) 5.08 pitch Terminal Blocks

(10) 3" Wire ties

(1) 2m IEC AC Cable

(2) Universal Rack Ears

(2) Universal Din Rail Brackets with stop

(4) #10-32 Rack Screws

(10) M3.5 Universal mounting screws

## SAFETY STANDARD APPROVAL



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Specifications are subject to change without notice

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**FC** Tested to Comply  
With FCC Standards  
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