

Tokamak™ DC-8

TOK-DC-8

Multi-Protocol/RS-485

Product Overview:

Tokamak™ is a Plenum-Rated Rack-Mount, din mount, or wall-mount low-voltage power supply & 485 agnostic data hub with 8 motor ports and 7 device ports and 1 Bus in.

Tokamak™ can also be used to harvest energy for up to 8 Reactor's or Neutron PDUs

When used as an 8-shade power supply, each rear port can provide up to 4Nm motors. The half-rack sized enclosure can be joined together to allow for up to 16 DC motors per 1RU together inside a 20" wall box. The product can be used as a stand-alone solution in small 8-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.



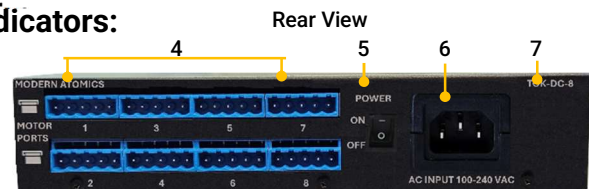
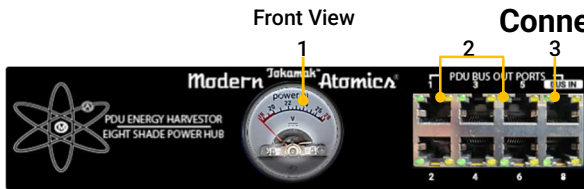
Technical Specifications:

- Input: 90 ~ 264 VAC, 1.2A (IEC-C14)
- Rear Motor Output: **12-56 VDC (8Nm)**
- Front Device/ PDU Harvest Output: 24V DC
- 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.
4 or 5 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 8 Low Voltage DC motors per unit (11A MAX)
- Built-in 8-port 485 Data Hub
- Works with Many Popular Motors;
 - All Lutron® Low Voltage RF and 485 Motors
 - All Somfy® 24v Low Voltage RTS®, Zigbee, or 485 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

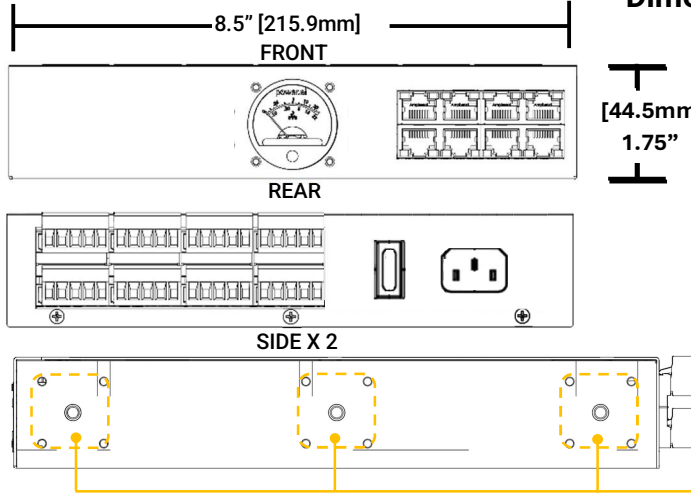
Connections & Indicators:



ELEMENT	DESCRIPTION
1	Voltmeter Indicated Output Power Voltage
2	PDU/DEVICE (8) PDU Harvest Ports/(7) Device
3	BUS IN When used as 8-shade PDU
4	Motor Ports (8) DC motors max ≤4Nm per port
5	Power Switch Turns off all power outputs
6	IEC 14 Port AC Power Cable Included
7	Plenum Rated Enclosure
8	
9	

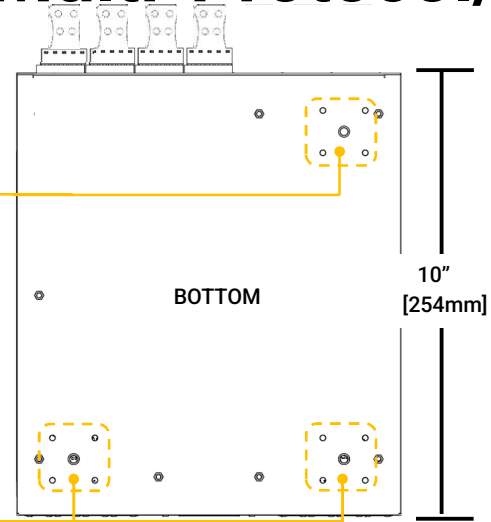
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Dimensions:

Multi-Protocol/485

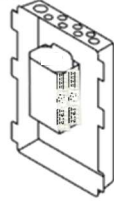


(9) Universal Mounting Points

Mounting Options:



DIN RAIL

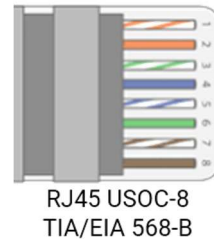


IN-WALL ENCLOSURE

Motor/Device Cable pinouts:

5.08mm
Terminal Blocks

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



RJ45 USOC-8
TIA/EIA 568-B

1	Data A+
2	Data B-
3	N/C
4	Power +
5	Power +
6	N/C
7	Ground -
8	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-24, and Stellarator AC-24

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

OPTIONAL VOLTMETER & WALL MOUNTED BOX AVAILABLE

Included in Box: (Standard Edition)

(1) Tokamak PDU

(8) 5.08 pitch Terminal Blocks

(8) 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



I.T.E. POWER SUPPLY
E190414



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