

# Reaktor™ DC-22

RKT-DC22-BOND

# RS-485

## Product Overview:

Reaktor™ is a Plenum-Rated Rack-Mount, din mount, or wall-mount low-voltage power & 485 data distribution device with 22 motor ports and 6 device ports. Each rear motor port can power motor(s) up to a max. of 4Nm. 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 & 36 total 485 motors. The half-rack sized enclosure can be joined together to allow for up to 44 DC motors & 72 AC&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 control device channels, including 485 wired devices or 485 transceivers for control from popular RF devices and sensors. Grow your system by adding other Reaktors, Stellarators & Colliders or 485 data hubs for unlimited 485 node systems.



## Technical Specifications:

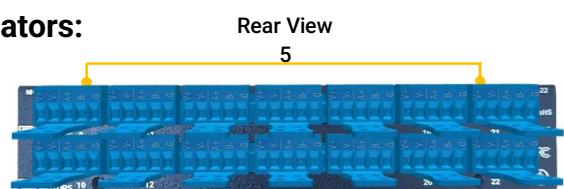
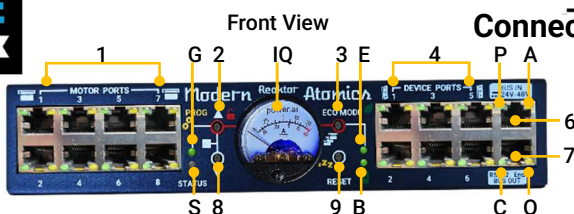
- Input: 24-48V DC, 1-2A
- Rear Motor Output: 24V DC (4Nm)
- Front Motor Output: 24V DC (2Nm)
- Device Ports: 12V DC
- Material: Powder coated steel enclosure
- Dimensions: (1.75 in. H) x (8.51 in. W) x (10.5 in. D)  
(4.3cm H) x (21.58cm W) x (24.81cm D)
- Maximum Wiring Distance
  - Rear motor ports: 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: 6.1 lbs. [2.77kg]
- Indoor use only
- 10-YEAR Transferable Warranty

## Features summary:

- Enables power for up to 22 RS485 DC motors per unit
- Motor control keys allow for testing / limit setting of motors at Reaktor
- Device port auto-programming enables fast commissioning of any Somfy®, SILABS, Lutron®, or Bond 485 or RF device
- Auto-Group creation at Reaktor or remote via any 485 or RF device
- One 485 broadcast alias translation per Reaktor
- Compatible with Bond Bridge Pro via 232 serial connection and compatible serial to IP interface INCLUDED
- Built-in Ammeter enables display of real-time connect motor current or quiescent current loads from 0.01 – 22 Amps
- ECO MODE enables removing all quiescent current
- Built-in Energy Storage Module (ESM-LiFePo4 phosphate) provides ultra-high current at less than 01ms slew rate
- Reaktor 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:



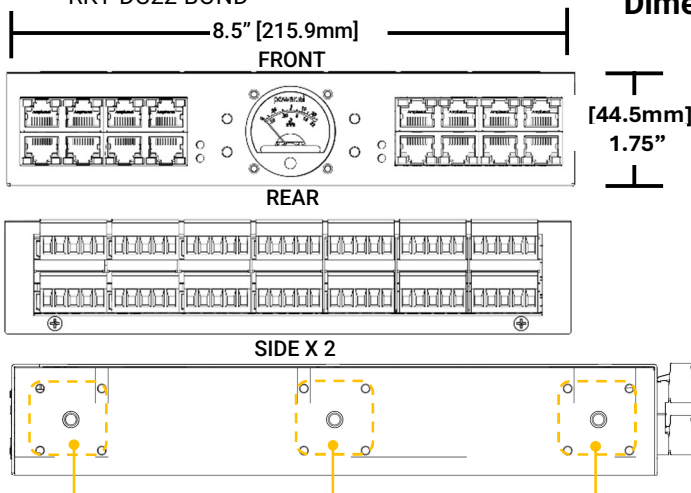
ELEMENT	DESCRIPTION
1	Motor Ports
2	UP KEY
3	ECO MODE
4	Device Ports
5	Motor Ports
6	485 BUS IN
7	485 BUS OUT
8	DOWN KEY
9	RESET

LED	INDICATORS	FUNCTION ON	FUNCTION OFF
S	System Status	Keys locked -Green Unlocked - Amber	Hibernate mode on flashing - sys. busy
IQ	Ammeter	Motor Power On	Motor Power Off
E	ECO MODE	ECO Mode On	ECO Mode Off
P	POWER	Harvest Power On	No Harvest Power
A	BUS Activity	BUS Data Activity	No Data on BUS
G	PROGRAM	Group Mode	User Mode
B	ESM	Normal = Green	Wink = Harvesting
C	RS-232	Ready = Green	Flash = Data Act.
O	End of Line	End of Bus =Yellow	EXT BUS present



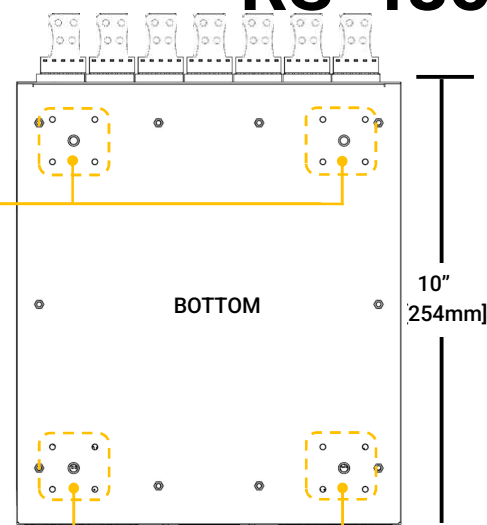
# Reaktor™ DC-22

RKT-DC22-BOND



## Dimensions:

# RS-485

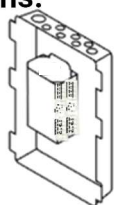


(10) Universal Mounting Points

## Mounting Options:

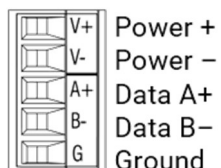


DIN RAIL

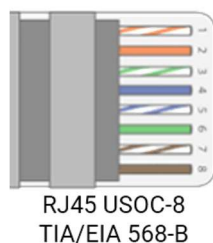


IN-WALL ENCLOSURE

5.08mm  
Terminal Blocks



## Cable pinouts:



Data A+  
Data B-  
RS232- TX  
Power +  
Power +  
RS232- RX  
Ground -  
Ground -

## Compatible Devices:

### 485 DEVICES:

485 Decoflex® keypads (V1 and 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 sensor

### 485 MOTORS:

All Somfy® 485 DC and AC Motors

## Included in Box:

(1) Global Cache PoE flex & Cable

(1) Reaktor PDU

(14) 5.08 pitch Terminal Blocks

(14) 3" Wire ties

(1) 2m CAT5 Cable

(1) 24VDC Passive DC 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



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

All brand names, product names and trademarks are the property of their respective owners. Certain trademarks, registered trademarks, and trade names may be used to refer to either the entities claiming the marks and names or their products.

WWW.MODERNATOMICS.COM

23438 Texas Highway 35, Palacios, Texas 77465, United States

+1 (844)771-8725

©2024 MODERN ATOMICS LLC | #340021 MAY. 2025

Specifications are subject to change without notice



Tested to Comply  
With FCC Standards  
FOR HOME OR OFFICE USE

