Reaktor™ DC-22

RS-485

#RKT-DC22

Product Overview:

Reaktor™ is a 72Nm Plenum-Rated Rack-Mount, din mount, or wall-mount low-voltage power & 485 data distribution device used to add up to twenty-two motors & up to six devices ports to a 485 bus segment. The rear motor ports can support up to 250' & front motor ports up to 150' of power & data wiring to Somfy's® range of low-voltage 485 motors. The half-rack sized enclosure can be joined together to allow for up to 44 motors to be installed in 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 16 control devices, including 485 wired devices or 485 transceivers for control from popular RF devices and sensors and up to 22 motors or it can be scaled for larger 485 systems with other Reaktor, Tokamak, Collider, Stellarator or other compatible power & data distribution devices.

Technical Specifications:

- Input: 24-48V DC, 2A
- Rear Motor Output: 24V DC 4A
- Front Motor Output: 24V DC 2.2A
- 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 250 ft. per motor port. 4 or 5 position wire with 14AWG for power
  - Front motor ports: Up to 150 ft. per motor port. UTP with minimum 23AWG
  - Front device ports: Up to 200 ft. 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 control of up to twenty-two RS485 DC motors per unit
- Motor control buttons allow for testing motors at Reaktor
- Device port auto-programming enables fast commissioning of any Somfy®, SILABS, Lutron®, or Bond 485 or RF device
- Any Somfy® RTS® motors can also be auto programmed
- 485 broadcast alias translation
- Compatible with Bond Bridge Pro and many other popular 3rd party control systems
- Built-in Ammeter enables display of currently connect motor quiescent current 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
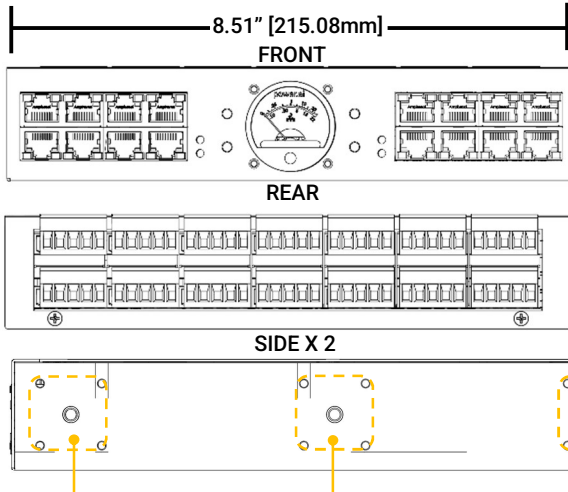- No Cobalt or any other conflict minerals

Connections & Indicators:

Front View

Rear View
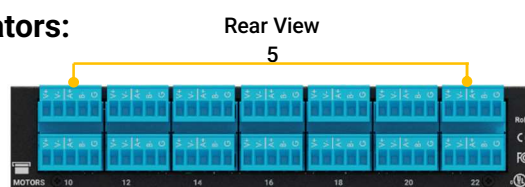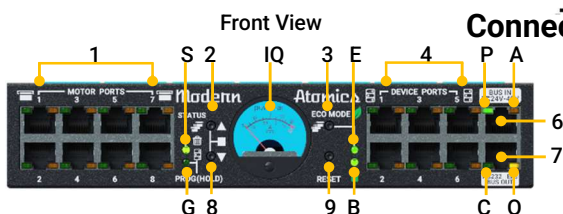
	ELEMENT	DESCRIPTION
1	Motor Ports	Connect 8 DC motors ≤2Nm
2	UP / GROUP	Moves motor(s) up / Enter Group
3	ECO MODE	Enables/ Disables ECO Mode
4	Device Ports	Connect 485 devices (up to 200' ea.)
5	Motor Ports	Connect 14 DC motors ≤4Nm
6	485 BUS IN	Bus input/Harvest input 24-48VDC
7	485 BUS OUT	Bus Output / RS-232
8	DN / GROUP	Moves motor(s) DN /Initialize device
9	RESET	Reset Groups / Factory Reset

LED	INDICATORS	FUNCTION ON	FUNCTION OFF
S	STATUS	Mis-wire / Prog ER.	System good
IQ	Ammeter	Motor Power On	Motor Power Off
E	ECO MODE	ECO Mode On	ECO Mode Off
P	POWER	Harvest Power On	Harvest Power Off
A	BUS Activity	Data	No Data
G	PROGRAM	Group Programing	Not in prog. mode
B	ESM	ESM Status	No ESM Power
C	RS-232	RS-232 Enabled	RS-232 not enabled
O	End of Line	End of bus	Not end of bus

Modern Atomics

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Dimensions:

FRONT

8.51" [215.08mm]

[43mm]
1.75"

REAR

SIDE X 2
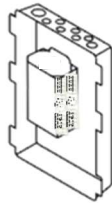
BOTTOM

10.5"
248.10mm]
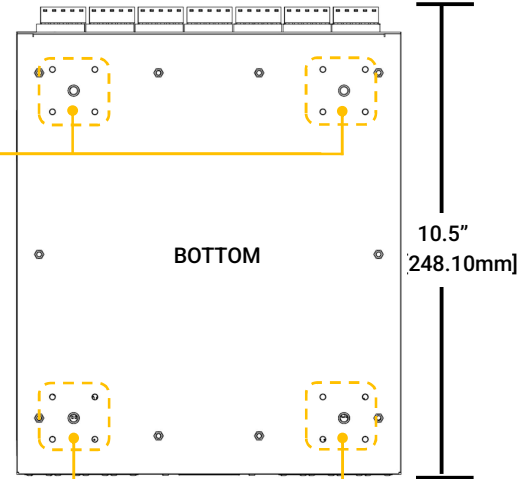
(10) Universal Mounting Points

Mounting Options:

DIN RAIL

IN-WALL ENCLOSURE

Cable pinouts:

5.08mm Terminal Blocks
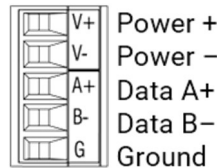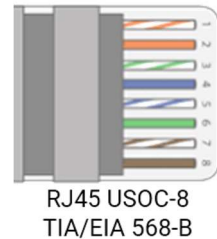
V+	Power +
V-	Power −
A+	Data A+
B-	Data B−
G	Ground

RJ45 USOC-8
TIA/EIA 568-B

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

MOTORS

- Sonesse® 50 ULTRA RS485 DC
- Irismo™ 35 Mini DC
- SDN Irismo™ 24V Mini DC Control Enclosure Kit
- Sonesse® 30 RS485 24V DC

485 BUS

BUS IN

- Bus Power Supply
- Reaktor™

BUS OUT

CONTROL

- DecoFlex Keypad
- RTS Receiver
- RTS Transmitter
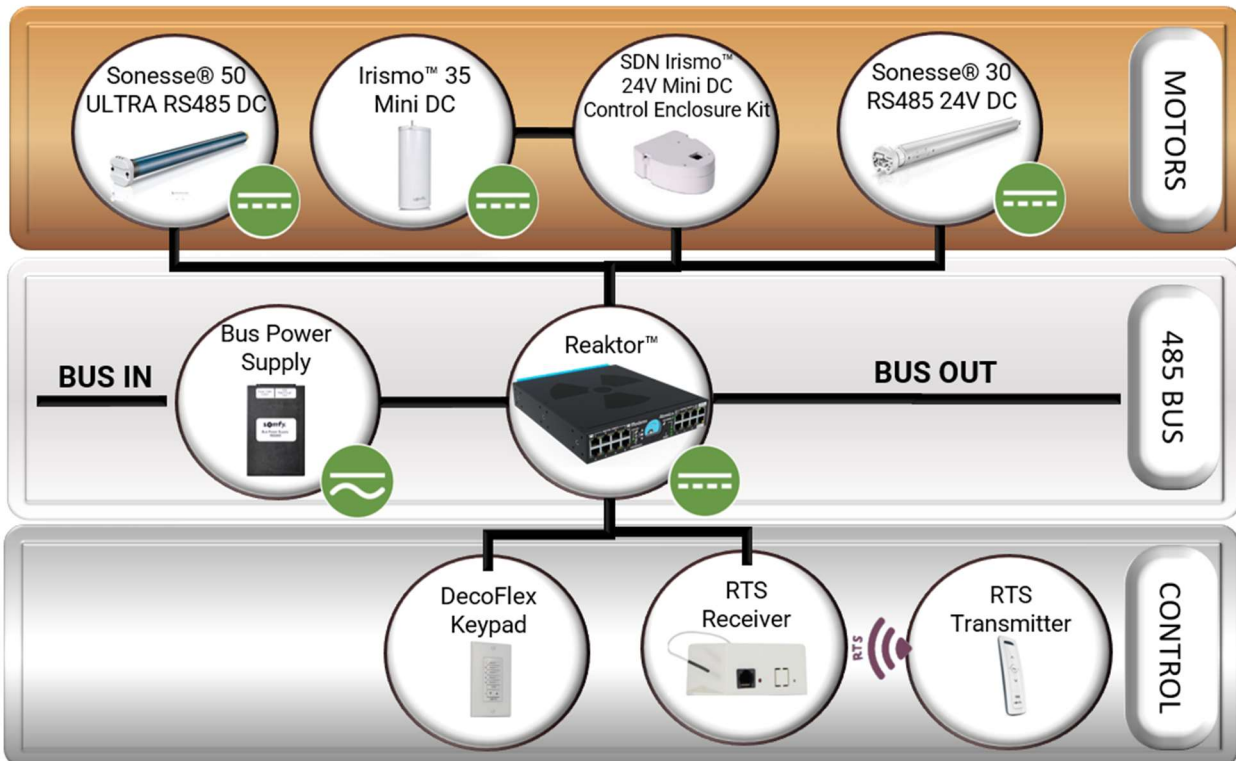
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