

DC Power Distribution

& Specialty Solutions



-48 or +24 VDC Power Distribution Unit With True Remote Cycling Capability



& Power Monitoring Unit

Remote/Local Power Management System

The DC SMARTStart® is a -48, or +24 VDC power distribution and circuit protection unit designed to reliably cycle power to devices with DC power supplies. The DC SMARTStart® has specialized electronic switchable solid state breakers to provide a true remote power cycling capability. To minimize the downtime, this PDU family has a breaker auto reset function. The on-board computer will pole the tripped channel position to determine whether there is indeed a fault, such as a short circuit. If this condition is determined to be non catastrophic, the breaker is reset. The client is able to disable this feature if desired. The unit also features integral circuitry to provide LVD and OVD protection automatically.

The DC SMARTStart® PDU will permit the network operator the ability to power cycle all 12 solid state breakers as well as the 2 ROCB mains breakers. Refer to the Ordering Information table for respective trip currents. The SMARTStart® PDU features a visual basic (VB) Interface to program the power up/down sequence and power up/down delays for each channel, along with the LVD and OVD thresholds.

There are numerous remote operated circuit breaker values available (see table) that provide primary current protection to the PDU and down stream equipment controlled by the PDU. The ROCBs are UL listed primary circuit protection to the six outputs on side A and B.

Our newest high current, direct feed version provides easy power cycling to 48VDC powered routers/switches, DSLAMS and other enterprise-related equipment via remote activated circuit breakers rated up to 100 Amps.

The DC SMARTStart® PDU is capable of monitoring line voltage, circuit breaker status and internal temperature to provide the required power and circuit protection to connected equipment.

Operational control is performed either manually by front panel push buttons or remotely through either an RS-232 serial console port 10/100 BASE-T or LAN TCP/IP socket or telnet session.

The DC SMARTStart® is the ideal DC power distribution and circuit protection solution for unmanned vehicles, Command Post Platforms, Competitive Local Exchange Carriers (CLECs), Incumbent Local Exchange Carriers (ILECs), XDSL applications, CATV enterprises, and blade servers.





DC SMARTStart® Features



- On board 6 month event log.
- Flash upgradeable in the field without disruption of power to loads.
- Independent programmable power-on and off sequencing delays to reduce/manage the level of inrush current transients.
- Remote control capability by means of LAN TCP/IP socket, Telnet connection or RS-232 serial console port.
- Front Panel push buttons for local output control. Output status is displayed through individual tri-colored LEDs for each output.
- LVD (low voltage disconnect) & OVD (over voltage disconnect) using user defined values.
- Reverse polarity protection.
- Solid state electronic circuit breaker technology.
- SNMP agent on board.
- Auto reset to nuisance trip breakers (up to 3 times prior to alarm threshold alert of breaker trip - user configurable).
- Monitors line voltage, circuit breaker status, and internal temperature of the PDU.
- The ROCBs may be used to switch power-on or off to each output side (A or B) either locally or remotely.
- Optional design to provide high ampacity output available to capacity of 100A on each A & B output. See ordering information.
- Three form C relay contacts available for alarm notification. Programmable at factory.
- UL listed and designed to meet NEBS III. Complies to FCC and CE requirements.



Remote Monitoring Unit Features

- Flash upgradeable in the field without disruption of power to loads.
- Remote control capability by means of LAN TCP/IP socket, Telnet connection or RS-232 serial console port.
- SNMP agent on board.
- Available in 4, 6, 8, 10, or 12 channels.

Visual Basic (VB) GUI Interface:

- Multiple PDU interface control in active screen.
- Easy to use interface for either serial or TCP/IP communication.
- Enhanced web-based device set-up and control management.
- Standards-based monitoring and control of the power distribution unit and its associated operating features.

Communications:

- LAN/Telnet: Front panel RJ-45 connector. TCP/IP protocol.
- RS-232: Serial front panel 9 position female D-sub connector.
- Easy to use Visual Basic (VB) interface for either serial or TCP/IP communication. Multiple PDU interface control in active screen.



DC SMARTStart® Ordering Information

Electrical & Mechanical Specifications	
Input Voltage	-48 or +24 VDC
Size (Overall)	17.25"W x 1.75"H x 8.00"D (43.8cm W x 4.44cm H x 20.4cm D)
Weight	13.3 lbs. (6.1 kg)
Operating Temp.	0 - 45°C (32 - 113°F)
Operating Humidity	0 - 95% (non-condensing)
Operating Elevation	0 - 10,000 ft. (0 - 3000 m)

Distributed Outputs

Part Number	Input Voltage	Input Current	Output Steady State Load (Max)	Factory Set Trip Current (Nominal)	Input Connection	Output Configuration
7832S60	-48	60 Amps	12 x 10 Amps	11.5 Amps	Non-rotational terminal block 5/8" centers, 1/4-20 threads	6 A, 6 B
7832S60-01	-48	60 Amps	8 x 5 Amps, 4 x 10 Amps	5.75 Amps & 11.5 Amps		6 A, 6 B
7832S60-04	-48	60 Amps	10 x 3 Amps, 2 x 20 Amps	11.5 Amps & 23 Amps		6 A, 6 B
7832S60-05	-48	60 Amps	12 x 20 Amps	23 Amps		6 A, 6 B
7832S60-07	-48	60 Amps	8 x 5 Amps, 4 x 20 Amps	5.75 Amps & 23 Amps		6 A, 6 B
7832S60-08	-48	60 Amps	12 x 5 Amps	5.75 Amps		6 A, 6 B
7832S60-10	-48	60 Amps	2 x 5 Amps, 10 x 10 Amps	5.75 Amps & 11.5 Amps		6 A, 6 B
7832S100-03	-48	100 Amps	12 x 15 Amps	17.25 Amps		6 A, 6 B
7832S100-08	-48	100 Amps	8 x 10 Amps, 4 x 20 Amps	11.5 Amps & 23 Amps		6 A, 6 B
7832S6024	+24	60 Amps	12 x 10 Amps	11.5 Amps		6 A, 6 B
7832S10024-01	+24	100 Amps	12 x 10 Amps	11.5 Amps		6 A, 6 B
7832S10024-02	+24	100 Amps	8 x 15 Amps, 4 x 20 Amps	17.25 Amps & 23 Amps		6 A, 6 B
7832S10024-07	+24	100 Amps	12 x 20 Amps	23 Amps		6 A, 6 B

Direct A & B Outputs

Part Number	Input Voltage	Input Current	Individual Output Steady State Load (Max)	Factory Set Trip Current (Nominal)	Input Connection	Output Configuration
7832RB0100	-48	100 Amps	100 Amps	120 Amps	Non-rotational terminal block 5/8" centers, 1/4-20 threads	1 A, 1 B
7832RB10024	+24	100 Amps	100 Amps	120 Amps		1 A, 1 B

DC SMARTStart® Ordering Information

Solid State Breaker Ratings				
		Trip Curve		
Steady State Amps	Factory Set Trip Current	Slow (51-110 msec)	Medium (11-50 msec)	Fast (<10 msec)
3	3.45	✓	✓	✓
5	5.75	✓	✓	✓
7.5	8.625	✓	✓	✓
10	11.5	✓	✓	✓
15	17.25	✓	✓	✓
20	23	N/A	✓	✓

If you cannot find the solution you are looking for, custom solutions are available. Please use the tables below to configure your unit. Then, contact a sales representative at 814-272-SPMS. A configuration tool is also available on our website for your added convenience.

-48 VDC

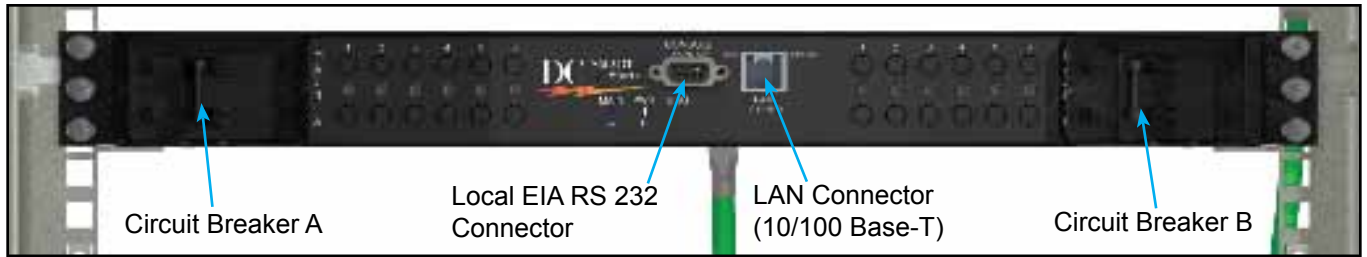
MAX. LOAD		SIDE A						SIDE B					
SIDE A	SIDE B	1	2	3	4	5	6	1	2	3	4	5	6
100	100												

+24 VDC

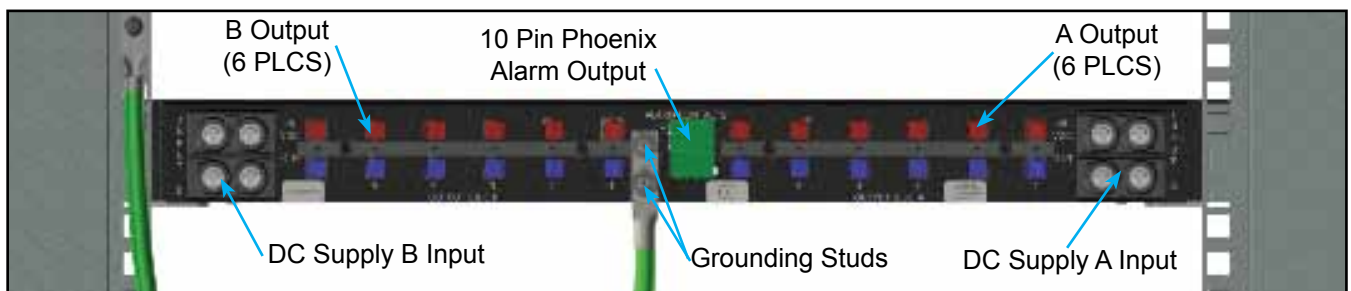
MAX. LOAD		SIDE A						SIDE B					
SIDE A	SIDE B	1	2	3	4	5	6	1	2	3	4	5	6
60	60												

DC SMARTStart® Mechanical Specifications

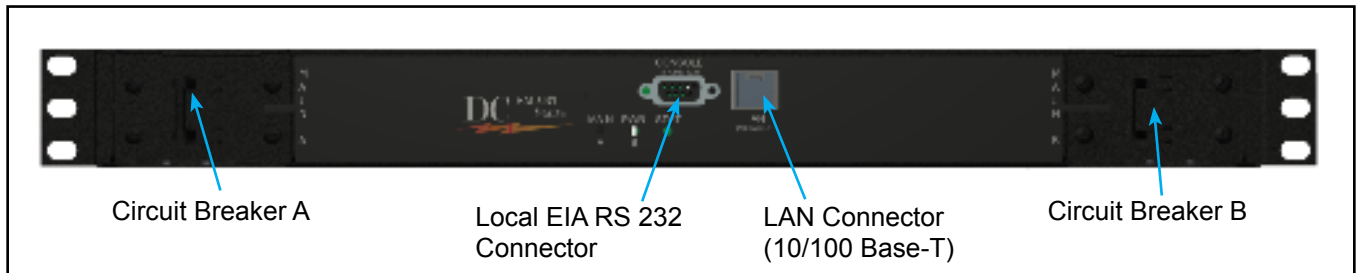
Distributed Outputs Front View (Rack Mounted)



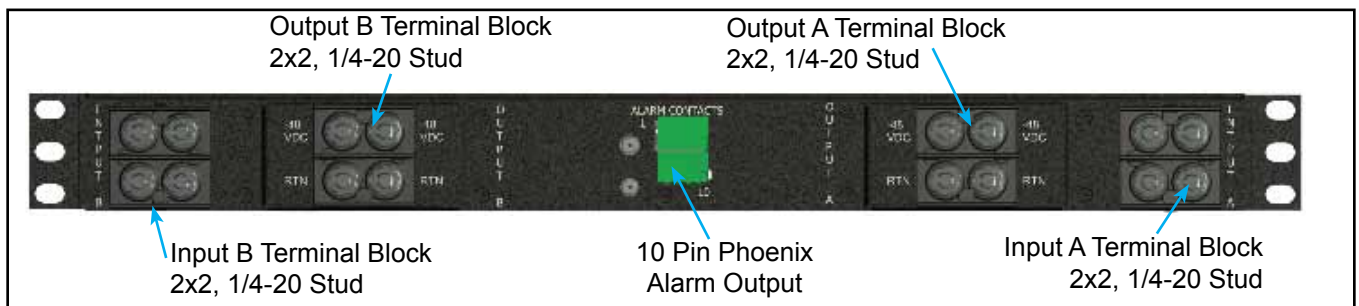
Distributed Outputs Back View (Rack Mounted)



Direct A & B Outputs Front View



Direct A & B Outputs Back View



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DC SMARTStart® Mechanical Specifications

Top View:



Front View:

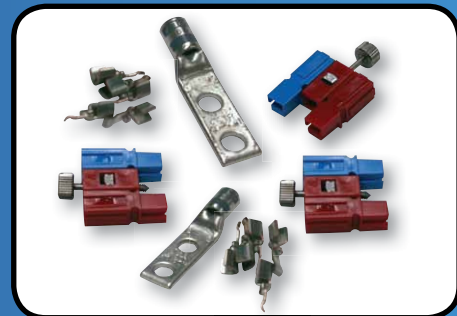


Back View:



The DC SMARTStart® is shipped with one 72-1021-070 installation kit. Included in the kit are:

- (12) 4-40 Captive Panel Screws
- (12) Captive Screw Nuts
- (12) Red Housings
- (12) Blue Housings
- (24) 45 Amp Contacts (Load should not exceed 25A, due to mating contact inside the PDU.)
- (12) Output Connector Set Spacers (Red)
- (4) 2-Hole Ring Terminals



Additional kits are available for purchase and are sold separately.

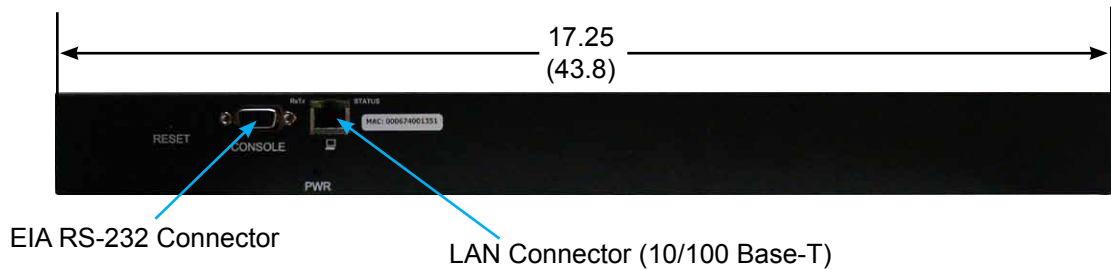
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Power Monitoring Unit Mechanical Specifications

Top View:



Front View:



Back View:



DC SMARTStart® & Power Monitoring Unit Applications

Spectrum Power Management Systems' DC SMARTStart® and power monitoring set have been employed together or individually in various applications in many industries. These devices provide reliable remote-managed power to the Military, Medical, Industrial, and Telco industries, as well as data centers throughout the world. It is used to power several devices including blades, servers, switches, communications equipment, unmanned vehicles, simulators, and Command Post Platforms.

The DC SMARTStart® has been employed in the following applications:

- Industrial ATE Cabinets
- Scientific Instrumentation Cabinets
- Communications Base Stations
- Network Operating Centers
- Defense ATE Equipment
- Portable Communications Equipment
- Rapid Deployment Racks / Transit Cases
- Telecom Messaging Systems
- Wireless Messaging Platforms
- Remote Sensors
- Data Centers Powered by DC Voltage
- Remote Cameras



Specialty DC Power Solutions



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