

DC SMARTStart® Power Distribution

DC Switched Power Distribution with True Remote Cycling Capability: Available in -48 or +24/+28 VDC



The DC SMARTStart® is a -48 or +24/+28 VDC power distribution unit with circuit protection that reliably cycles power to devices with DC power supplies. The DC Switched Power Distribution Unit uses 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 allows the network operator to power cycle all 12 solid state breakers as well as the 2 ROCB mains breakers. Refer to the Solid State Breaker Ratings table for respective trip currents. The DC Switched PDU features a visual basic 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 that provide primary current protection to the PDU and down stream equipment controlled by the PDU. The ROCBs are UL listed primary circuit protection for 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 Switched PDU monitors 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® 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, Oil & Gas, Medical, Industrial, Communications, and Telco industries, as well as data centers throughout the world.

Applications

- Unmanned Vehicles
- Command Post Platforms
- Competitive Local Exchange Carriers (CLECs)
- Incumbent Local Exchange Carriers (ILECs)
- XDSL applications, CATV enterprises
- blade servers
- power several devices including blades, servers, switches, communications equipment, unmanned vehicles, simulators, and Command Post Platforms.



Technical Specifications

Distributed Output PN	7832S30	7832S3024	7832S60	7832S6024
Input Voltage VDC	-48	+24	-48	+24
Input Current	30 Amps	30 Amps	60 Amps	60 Amps
Individual Output Steady State Load Max	5 Amps	5 Amps	10 Amps	10 Amps
Factory Set Trip Current Nominal	5.9 Amps	5.9 Amps	11.2 Amps	11.2 Amps
Input Connection	Non-rotational terminal block 5/8" centers, 1/4-20 threads			
Output Config.	6 A, 6B	6 A, 6B	6 A, 6B	6 A, 6B
Direct A&B PN	7832RB050	7832RB080	7832RB100	
Input Voltage VDC	-48	-48	-48	
Input Current	50 Amps	80 Amps	100Amps	
Individual Output Steady State Load Max	50 Amps	80 Amps	100Amps	
Factory Set Trip Current Nominal	60 Amps	100 Amps	120Amps	
Input Connection	Non-rotational terminal block 5/8" centers, 1/4-20 threads			
Output Config.	1 A, 1B	1 A, 1B	1 A, 1B	

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)

Solid State Breaker Rating

Steady State Amps	Factory Set Trip Current	Trip Curve		
		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	✓	✓

Remote Monitoring Unit Features and Benefits

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



DC Smart Start Features & Benefits

- 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.
- SNMP agent on board.
- Reverse polarity protection.
- Solid state electronic circuit breaker technology.
- 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 NEBS Level 3 certified. Complies to FCC and CE requirements.

Rev: 10/15/13

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