


REVISIONS				
LTR	DESCRIPTION	ECO NUM.	DATE	APPROVED
B	REVISE FOR UL QUALIFICATION		8/15/08	
C	ADD FIGURE 4" RACK MOUNTING LOCATIONS AND MARKUPS	7632	9/22/08	MTH
D	UPDATE SPEC PER MARKUPS	8435	11/20/09	MTH
E	REMOVE PART NUMBERS THAT ARE OBSOLETE	12311	1/20/14	MTH

	DRAWN: MLH	DATE 1/16/08	 TRANSTECTOR			
	CHECKED:					
	ENGR. APPD: DLR	1/21/08				
	PROJ. APPD: MTH	1/21/08	TITLE: Product Specification DC-EDGE® 350DF4/4 350A Dual Feed PDU +/-24 & -48VDC			
	APPROVED: MN	1/21/08				
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			SCALE = N/A		PAGE 1 OF 6	

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HIGH CURRENT DC POWER DISTRIBUTION AND PROTECTION – PATENT PENDING

DC-EDGE® II 350DF4/4 Dual 350Amp Feed x Quad 125Amp 48VDC

Part Number
1101-900
2300-101-K

Description
DC EDGE® II 350DF4/4
19" Rack Flange Kit (Supplied with standard unit)

1. **GENERAL DESCRIPTION:** The DC EDGE® II is a high-power compact DC power distribution unit (PDU) featuring dual feed 350A inputs with four each 125A maximum outputs. The unit supports the use of either fuses or industry standard bullet terminal circuit breakers. The alarm card module is hot-swappable and automatically operates at +/-24VDC or -48VDC. The unit can accommodate any combination of Cooper Bussmann™ 1-70A TPS fuses and/or Littlefuse™ 1-125A TLS fuses when using Canadian Shunt Industries #TFD-101-011-01 (alarm "C") disconnects. When the use of a circuit breaker is desired, the panel accommodates standard Airpax™ LEL series bullet terminal breakers or equivalent. The unit is Listed to UL 60950 and is NEBS Level III compliant.

2. ELECTRICAL FEATURES:

2.1 Nominal Service Voltages: +/-24VDC to -48VDC
2.2 Operating Voltage Range: 20VDC to 60VDC



2.3 DC Fault Rating: 10 KA with breakers, 10 KA with fuses

3. ENVIRONMENTAL:

3.1. Storage Temperature: -40°C to +65°C
3.2. Operating Temperature -40°C to +55°C
3.3. Relative Humidity: 90% (non-condensing)

4. MECHANICAL (refer to figure 2):

4.1. Input Terminals up to 1.25" tongue width, dual 3/8-16 studs, 1.00" cc
4.2. Output Load Terminals up to .75" tongue width, dual 1/4-20 studs, .625" cc
4.3. Rack Chassis Material 16 gauge CRS, "telecom" grey powder coat
4.4. Weight (without packaging) 16.5 lbs (7.5kg)
4.5. Weight, Shipping 17.5 lbs (8kg)
4.6. Rack Chassis Dimensions 1.7' H X 17.0' W X 11.5" D (4.3cm x 30.5cm x 29.2cm)
4.7. Rack Mounting 1RU, 19" per EIA Standard RS-310-D
4.8. Rear-Panel Safety snap-fit clear terminal covers provided

5. APPLICABLE INDUSTRY STANDARDS:

5.1. Bonding and Grounding NEC 800.100 and 830.100
5.2. Safety UL 60950 (LISTED)
5.3. Environmental and Shock GR-63-CORE, GR-1089-CORE, NEBS-III Report
5.4. Materials Safety RoHS



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6. **INSTALLATION INSTRUCTIONS:** This Product weighs 16.5 pounds (7.5 kg) and care must be taken to support the chassis during installation into a rack. All installations should be completed by qualified personnel. This unit is intended for installation in a restricted access area.

⚠ CAUTION



This product must be installed only by qualified personnel. Any service to this product must be performed only by qualified personnel.

⚠ CAUTION



Do not install breakers with breaker switched on. Do not install Fused Disconnect Housing with load fuse inserted in the cartridge.

⚠ DANGER



Before connecting input power cables make sure input power to panel is turned off.

⚠ DANGER



Before connecting or disconnecting alarm circuits. Disconnect power to avoid potential shock hazard.

- 6.1 Install the unit into an unused rack position using provided mounting brackets and hardware. 19" and 23" brackets are provided. Use all four screws to fasten bracket-to-panel and 2 each screws for bracket-to-rack per side. (Positioning the unit as high as possible is preferred). Torque all screws to 25 in-lb.
- 6.2 Proper grounding of the chassis is required by securing a dual-hole compression lug (1/4"-20 stud on 5/8" cc) on the right side rear of chassis. The ground lug mounting area is free of paint. If required, apply anti-oxidant material to panel surface and ground lug. (Torque to 60 in-lb). size of copper conductor depends on input interrupt device size per NEC. (example: use #2awg for input interrupt device over 400A).

⚠ DANGER



Failure to properly ground this equipment can create hazardous conditions to installation personnel and to the equipment.

NOTE All 1/4-20 fastener connections must be tightened to 60 in-lb. All 3/8-16 fastener connections must be tightened to 180 in-lb.

- 6.3 Be sure that all power sources are not energized. Note the front and back markings for power Feeds A and B. Note the positive (+) and negative (-) polarity markings and correlate with buss feed and return lug points (Battery Input and Battery Return). Attach the incoming power feed lines to the rear input lugs using copper wire and 2 hole compression lugs. The lugs must be sized for the source interrupt device up to 350A as per Figure 2. Use appropriate size industry standard compression lugs. Insulate lug barrels with UL 94V-0 rated heat shrink tubing. All crimp lug connections must be assembled per the lug manufacture's specifications using the correct crimp tools. All input and output wire sizes must meet National and Local electrical codes for the intended application. High conductor strand count type wire is recommended for flexibility and ease of wire management.
- 6.4 Identify each front breaker/fuse position with the associated rear output position and install Fuse/CB that is sized for the intended load application, up to 125A maximum. Use Canadian Shunt TFD housing #TFD-101-011-01 (alarm "C") or Airpax™ LEL Series "Bullet" style breaker or equivalent. Be sure to install and secure the breaker/fuse retaining covers on the front using thumb screws and or screw driver.



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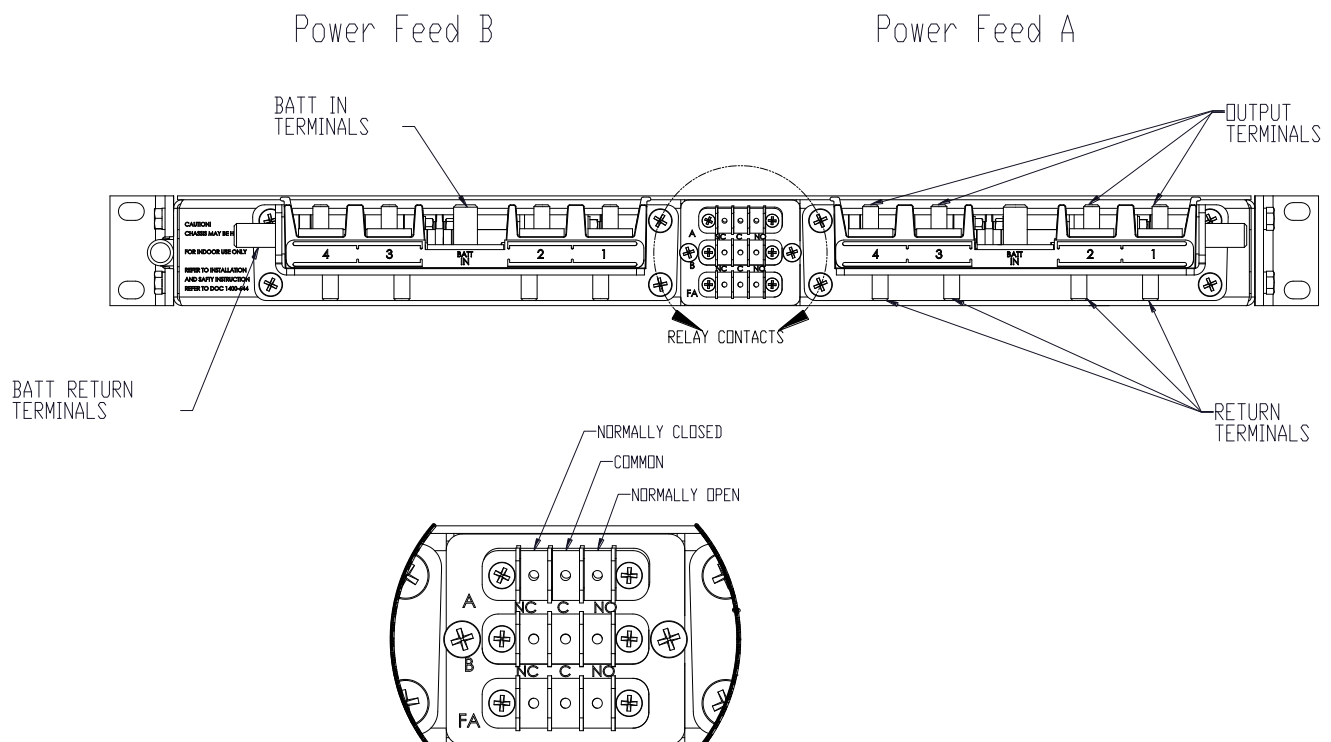
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- 6.5 Note the breaker/load designations and ratings for easy reference of each Fuse/CB on the circuit designation card provided with each unit.
- 6.6 Attach the output (load) power cables to the rear output lugs using copper wire and 2-hole compression lugs. The lugs must be sized for the source interrupt device up to 125A as per Figure 2. Crimp all connections to manufacturer's specifications. Be sure to install the clear plastic protective covers over the input and output power lug connections after connections are completed.
- 6.7 Install the alarm connection circuits for remote monitoring of the power and breaker status. Use a suitable wiring gage size #16-#30, Screw size: #3-48, Barrier width: .20". with the circuits wired as shown in Figure 1.
- 6.8 Energize appropriate power feed and breaker circuits after all connections are inspected and secured.
- 6.9 Note that future circuit expansion for each of the two active power feeds can easily be completed by installing the appropriate wire terminal outputs in conjunction with the correct breaker position up to a maximum of four breakers/fuses per feed.
- 6.10 A) Elevated Operating Ambient-If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T_{ma}) specified by the manufacturer.
- 6.11 B) Reduced Air Flow -Installation of the equipment in a rack should be such that the amount of airflow required for safe operation of the equipment is not compromised.
- 6.12 C) Mechanical loading- Mounting of the equipment in the rack should be such that a hazardous condition is not achieved due to the uneven mechanical loading.
- 6.13 D) Circuit Overloading-Consideration should be giving to the connection of the equipment to the supply circuit and the effect that overloading of the circuits might have on over current protection and supply wiring. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- 6.14 E) Reliable Earthing- Reliable earthing of the rack-mounted equipment should be maintained. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips)."

Figure 1. Cable Interconnections, as viewed from rear

Do not cover vent holes on top of unit



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Figure 2. Lug Installation Reference Guide

Item	Description	Burndy	Panduit
Input terminal compression lugs	1/0 awg, Dual Hole 3/8" x 1", Standard Barrel	YA25L-2TC38	LCD1/0-38D-X
	2/0 awg, Dual Hole 3/8" x 1", Standard Barrel	YA26L-2TC38	LCD2/0-38D-X
	4/0 awg, Dual Hole 3/8" x 1", Standard Barrel	YA28L-2TC38	LCD4/0-38D-X
	250 kcmil, Dual Hole 3/8" x 1", Standard Barrel	YA29L-2TC38	LCD250-38D-X
	350 kcmil, Dual Hole 3/8" x 1", Narrow Tongue	YA31L2NT38	LCDN350-38D-X
	500 kcmil, Dual Hole 3/8" x 1", Narrow Tongue	YA34L2NT38	LCDN500-38D-6
Output Load terminal compression lugs	14-10 AWG, Dual Hole 1/4" x 5/8", Standard Barrel	YAV102TC14	LCD10-14A-L
	8 AWG, Dual Hole 1/4" x 5/8", Standard Barrel	YA8CL-2TC14	LCD8-14A-L
	6 AWG, Dual Hole 1/4" x 5/8", Standard Barrel	YA6CL-2TC14	LCD6-14A-L
	4 AWG, Dual Hole 1/4" x 5/8", Standard Barrel	YA4CL-2TC14	LCD4-14A-L
	2 AWG, Dual Hole 1/4" x 5/8", Standard Barrel	YA2CL-2TC14	LCD2-14A-Q
	1 AWG, Dual Hole 1/4" x 5/8", Standard Barrel	YA1CL-2TC14	LCD1-14A-E

Notes: Suggested standard two-hole lugs with inspection window, straight barrel, for stranded copper code cable.



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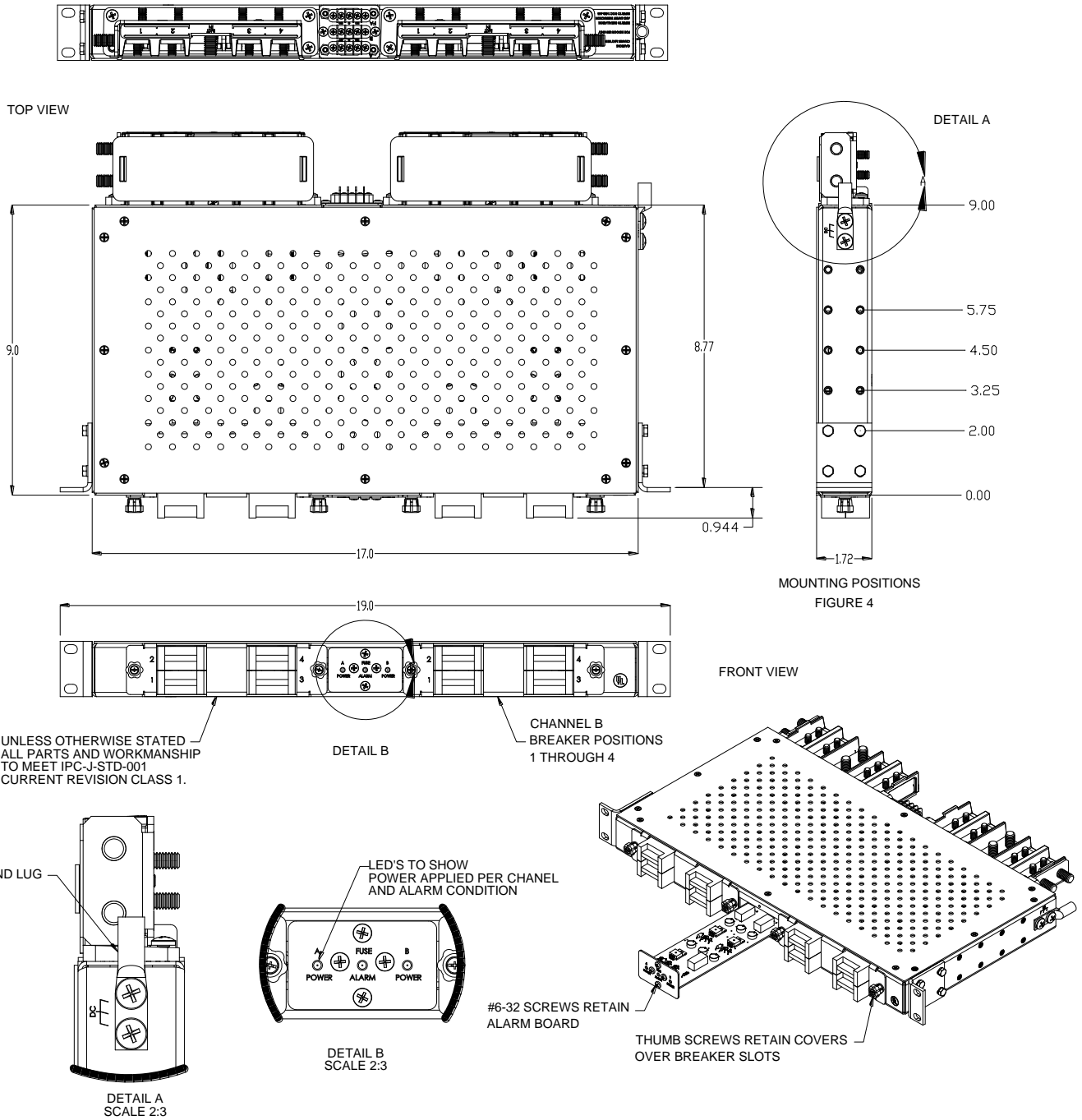
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Figure 3. Mechanical outline drawing (inches)
Figure 4 “Rack mounting locations”.



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