

DC Surge Protection for RRH/Integrated Antenna Radio Head
RRFDC-4750-PF-48 • RRFDC-3315-PF-48
(DB-T1-6Z-12AB-0Z) • (DB-B1-6C-12AB-0Z)

Rooftop Distribution Model • Tower / Base / Rooftop

Raycap's flexible Tower, Base Stations and Rooftop protection and Distribution products provide protection for up to 6 Remote Radio Heads/Integrated Antennas. The solutions mitigate the risk of damage due to lightning and provide high levels of availability and reliability to radio equipment.



Mounting Bracket Included

Shown with optional 90° elbow for side entry. Can be installed on left or right side of unit.

Features

- Employs the Strikesorb® 30-V1-HV Surge Protective Device (SPD) specifically designed for the Remote Radio Head (RRH) installation environment and certified for use in DC applications and at low DC operating voltages (48V).
- The Strikesorb 30-V1-HV is a Class I SPD, certified by VDE per the IEC 61643-11 standard as suitable for installation in areas where direct lightning exposure is expected. Strikesorb 30-V1-HV is able to withstand direct lightning currents of up to 5kA (10/350) and induced surge currents of up to 60kA (8/20).
- Provides very low let through / clamping voltage - unique for a Class I product - as it does not employ spark gaps or other switching elements. Strikesorb offers unique protection levels to the RRH equipment as well as the Base Band Units.
- Alarms for SPD sacrifice, Moisture detection and Intrusion.
- Fully recognized to the UL 1449 3rd Edition Safety Standard.
- Digital Voltmeter with six (6) position switch to monitor each DC circuit (Model RRFDC-3315-PF-48).
- Patent pending design

Benefits

- Offers unique maintenance-free protection against direct lightning currents.
- Protects up to 6 Remote Radio Heads and connects up to 12 fiber pairs.
- Utilizes an IP 67 rated enclosure, allowing for indoor or outdoor installation on a roof or tower top.
- Configurable cable ports are designed to accommodate varying diameters of hybrid (combined power and fiber optic) or standard cables with diameters up to 2" (will fit most standard 1 5/8" coax class cables) depending upon port configuration.
- Lightweight aerodynamic design provides maximum flexibility for tower top installation.
- Companion to the RRFDC-1064-PF-48 (Sector) model.



Tower / Base / Rooftop / Rooftop Distribution Models:
 RRFDC-4750-PF-48
 RRFDC-3315-PF-48



Companion Sector Model:
 RRFDC-1064-PF-48



DC1-48-60-18U

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SPECIFICATIONS

DC Surge Protection for RRH/Integrated Antenna Radio Head

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(DB-T1-6Z-12AB-0Z) • (DB-B1-6C-12AB-0Z)

Rooftop Distribution Model • Tower / Base / Rooftop

Electrical

Raycap Model Numbers	RRFDC-4750-PF-48	RRFDC-3315-PF-48
RFS Model Numbers	DB-T1-6Z-12AB-0Z	DB-B1-6C-12AB-0Z
Nominal Operating Voltage	48 VDC	48 VDC
Nominal Discharge Current [I_n]	n/a	20 kA 8/20 μ s
Maximum Surge Current [I_{max}]	n/a	60 kA 8/20 μ s
Maximum Impulse (Lightning) Current per IEC 61643-11	n/a	5 kA 10/350 μ s
Maximum Continuous Operating Voltage [U_c]	n/a	75 VDC
Voltage Protection Rating (VPR) per UL 1449 3rd Edition	n/a	400V
Protection Class as per IEC 61643-11	n/a	Class I
SPD Alarm	n/a	upon sacrifice
Intrusion Sensor	microswitch	microswitch
Moisture Sensor	infrared moisture detector	infrared moisture detector
Strikesorb Module Type		30-V1-HV
	No Strikesorb modules installed <i>(used as Distribution Unit only)</i>	Strikesorb modules installed to protect 6 Remote Radio Heads

Mechanical

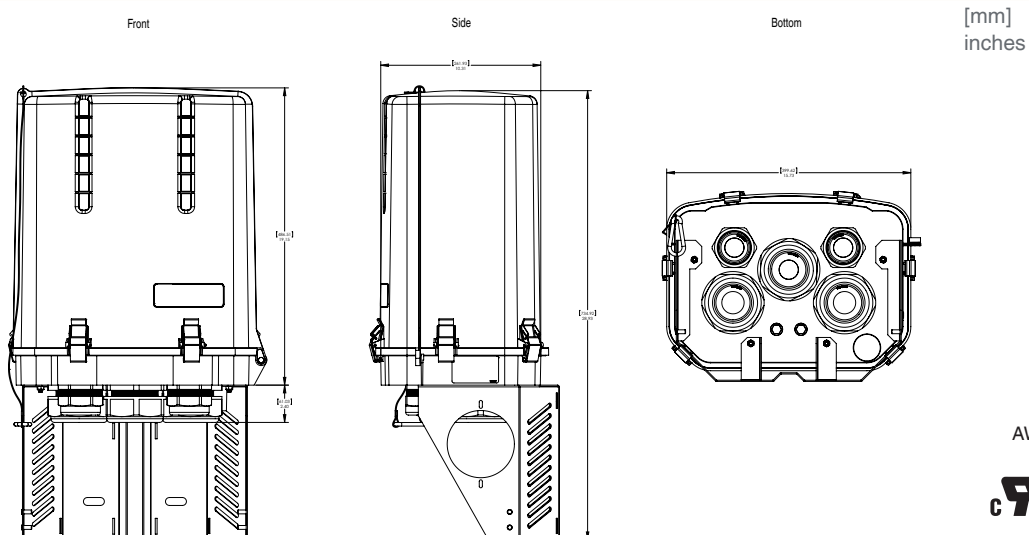
Suppression Connection Method	Compression lug, #14 - #2 AWG (2 mm ² - 33 mm ²)	
Fiber Connection Method	LC-LC Single mode	
Pressure Equalizing Vent	Gore™ Vent	
Environmental Rating	IP 67	
Operating Temperature	-40° C to +80° C	
UV Resistant	Yes	
Weight	System: 26 lbs (11.80 kg)	System: 32 lbs (14.51 kg)
Combined Wind Loading	150mph (sustained): 185 lbs (823 N)	

Standards Compliance

Strikesorb modules are compliant to the following Surge Protective Device (SPD) Standards

Standards	ANSI/UL 1449 3rd Edition
	IEEE C62.41
	NEMA LS-1, IEC 61643-11:2011 (Class I Protection)
	IEC 61643-12
	EN 61643-11:2002 (including A11:2007)

Product Diagram



AWG=American Wire Gauge



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