DATA SHEET

Rooftop Sector Solution for RRH Applications

RDIDC-3045-PF-48

The deployment of Remote Radio Head (RRH) architecture poses unique challenges to the mobile telecom industry. Raycap's innovative RRH protection solutions mitigate the risk of damage due to lightning and provide high levels of availability and reliability to radio equipment.

Features

- Employs the Strikesorb® 30-V1-2CFV 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-V1-2CFV 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-V1-2CFV is able to withstand direct lightning currents of up to 12.5kA (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 equipment
- For shared circuit protection architecture
- Configurable cable ports are designed to accommodate varying diameters of hybrid (combined power and fiber optic) or standard cables
- Fully recognized to the UL 1449 4th Edition Safety Standard
- Patent pending design

Benefits

- Offers unique maintenance-free protection against direct lightning currents
- Protects up to 3 Remote Radio Heads and connects up to 8 fiber pairs
- Utilizes a NEMA 4X rated enclosure, allowing for indoor or outdoor installation at the Towertop, Tower Base, and Rooftop Base

Strikesorb 30-V1-2CFV

SPECIFICATIONS

Rooftop Sector Solution for RRH Applications

RDIDC-3045-PF-48

Electrical

Model Number	RDIDC-3045-PF-48
Nominal Operating Voltage	48 VDC
Nominal Discharge Current [I_n]	20 kA 8/20 µs
Maximum Surge Current [I_{max}]	60 kA 8/20 µs
Maximum Impulse (Lightning) Current per IEC 61643-11	12.5 kA 10/350 µs
Maximum Continuous Operationg Voltage [U_c]	75 VDC
Response Time [t_A]	<1 ns
Voltage Protection Rating (VPR) per UL 1449 4th Edition	400 V
Let-through Voltage @ 20kA (8/20)	<410 V
Let-through Voltage @ 10kA (8/20)	<330 V
Voltage Protection Level (VPL) per IEC 61643-11	<200 V @ 12.5 kA 10/350 µs
Fault Monitoring	Local status indicator - dry contact alarm
Circuit Configuration	Parallel; -48VDC suppy-return, return-ground
Protection Class as per IEC 61643-1	Class I
Incoming Power/Fiber	Power: #10/8/6/4/2 AWG (6 mm² - 33.6 mm²) power trunk Fiber: LC/LC
Strikesorb Module Type	30-V1-2CFV

Mechanical

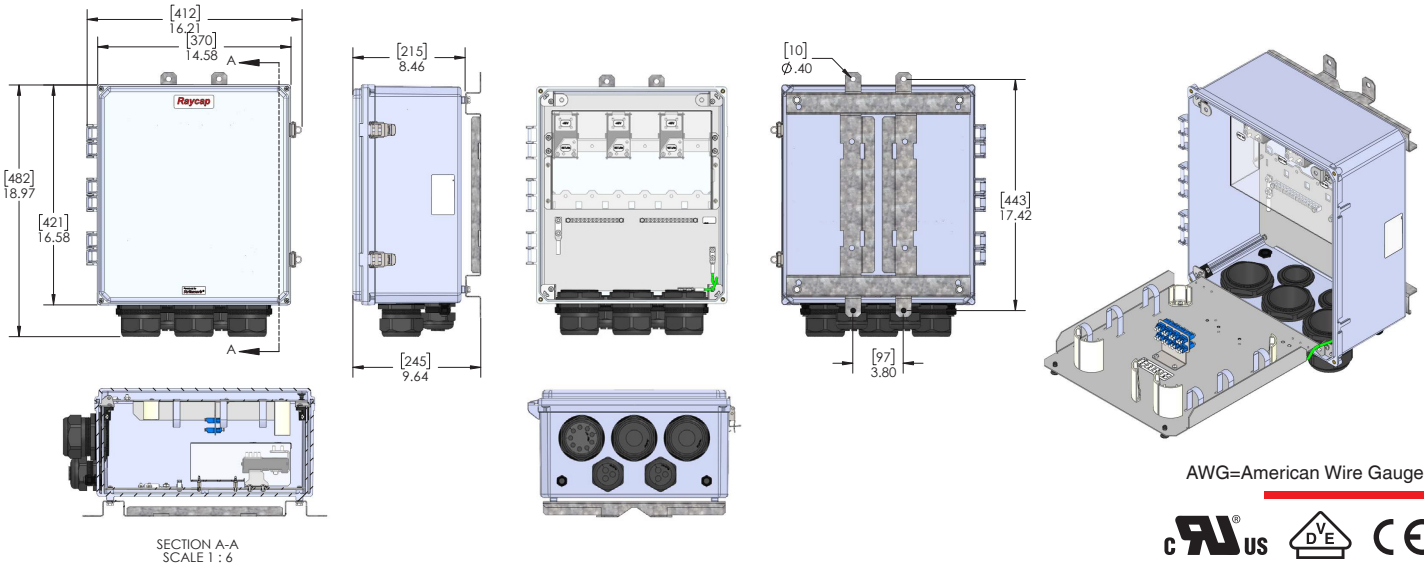
Suppression Connection Method	Compression lug, #14 - #2 AWG (2.1 mm² - 33.6 mm²) Copper; #12 - #2 AWG (3.3 mm² - 33.6 mm²) Aluminum
Fiber Connection Method	8 LC-LC Single mode
Environmental Rating	NEMA 4X
Operating Temperature	-40° C to +80° C
UV Resistant	Yes
Combined Wind Load	150 mph (sustained): 110.5 lbs (491.5N) 195 mph (gust): 186 lbs (827.4N)
Dimensions	14" x 16" x 8"
Estimated Weight	21 lbs

Standards Compliance & Certifications

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

Standards ANSI/UL 1449 4th Edition, IEEE C62.41, NEMA LS-1, IEC 61643-11 (Class I Protection), IEC 61643-12, EN 61643-11:2002 (including A11:2007)

Product Diagram



AWG=American Wire Gauge