



Model: RM-VS210xxxDC3

100 kA Protection

General

Application: The RM-VS210-DC3 series is a DC voltage workhorse of our product line. This durable, high performance single port device is intended for sensitive and critical load applications, and individual equipment.

IEEE –C62.41.1 & C62.41.2-2002 environments: Suitable for Categories: A, B & C (Most Severe Electrical Environments)

IEC Environments: Suitable for use in IEC 61643-11 environments

Circuit Topology: Parallel configured combination **Frequency Attenuation Network and Optimal Response Circuitry™** circuit design incorporating component-level, thermal disconnecter. All protection circuits are encapsulated in our high dielectric compound to promote long component life and protection from the weather and vibration.

Protection Modes: Industry-best practice of true all mode dedicated protection components for all operational modes of the electrical system. **Discrete P-N, P-G (Normal Mode) and N-G (Common Mode)**

Input Power: DC

Temperature Rating: Up to 80°C

Standard Enclosure: NEMA 1 Rated

Diagnostics: Green LED's, one per phase, normally on. A wide range of optional diagnostics is available (see page two for details).

Circuit Interrupt: Internal component-level, thermal disconnecter.

Short Circuit Current Rating: 200 kAIC (UL's Highest Rating)

Product Qualifications:

ISO 9001 Certified Manufacturing Facility

2004/2006 TVSS Customer Value Enhancement Award from Frost & Sullivan

Options:

AC = Internal Audible Alarm w/ test button, mute switch and red LED

C = Form C dry relay contacts

D1 = Integral, non-fused disconnect switch (TVSS unit mounts inside)

D2 = External non-fused disconnect switch (TVSS mounts to outside)

D3 = Same as **D1**, except no external handle

E1 = Hub on side of enclosure

LP = Remote LED indicators in individual NEMA 4X housings

M = NEMA 12 Steel Enclosure

P = Flush Mount Plate

R1 = Remote lights on separate circuit board (no enclosure)

R2 = Remote lights on separate circuit board in separate enclosure

S = Surge counter w/ reset button

W = NEMA 4 Steel Enclosure

X = NEMA 4X Composite Fiberglass Enclosure

XS = NEMA 4X Stainless Steel Enclosure

External Accessories: **EACS** = externally mounted diagnostic module, combines **AC**, **C**, and **S** options (Also available: **EAC** and **ES**)
Other options may be available upon request.



Key Features

Industry Leading Measured Limiting Voltage (let-through) Performance

Local & Remote Diagnostics

Component-Level, Thermal Disconnecter

Ten Year Free Replacement Warranty

DC Power Panel Units



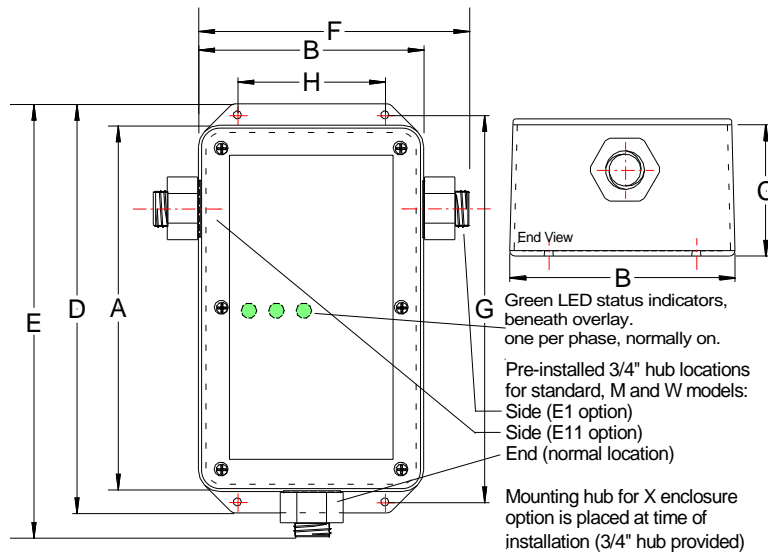
10 Year Unlimited Free Replacement Warranty

"Power Quality Is Our Business"

Model	Circuit Type	Peak Surge Current	MCOV	ANSI/IEEE C62.41.1 & .2-2002 and C62.45-2002 Let-through Voltage Test Results (tested w/6" lead length external to the enclosure per UL 1449)		
				Test Mode	Cat A, 30 Ω 100 kHz Ring Wave 2 kV / 67 A @ 270° Phase Angle	Cat C, 2 Ω Impulse Wave 20 kV / 10 kA @ 90° Phase Angle
RM-VS210-125DC3	125 VDC (2 wire + ground)	100 kA P-N 100 kA P-G 100 kA N-G	200 V 200 V 200 V	P-N P-G N-G	34 V 56 V 58 V	914 V 1,025 V 1,176 V
RM-VS210-250DC3	250VDC (2 wire + ground)	100 kA P-N 100 kA P-G 100 kA N-G	320 V 320 V	P-N P-G	57 V 76 V	1,334 V 1,304 V
RM-VS210-500DC3	500VDC (2 wire + ground)	100 kA P-N 100 kA P-G 100 kA N-G	560 V 560 V	P-N P-G	95 V 1325 V	1695 V 1875 V
RM-VS210-600DC3	600VDC (2 wire + ground)	100 kA P-N 100 kA P-G 100 kA N-G	745 V 745 V	P-N P-G	104 V 1559 V	2181 V 2344 V

Let-through Voltage Test Parameters: Positive Polarity, Net voltages are peak ($\pm 10\%$). All tests are static except 150 V MCOV modes. Each phase is the average of the 3 modes. In order to duplicate the results, the specified mode must be tested for all three phases (except N-G) and averaged together. (Individual mode or shot results may vary by more than 10%. *Scope Settings: Time Base = 10 microseconds, Sampling Rate = 500 Megasamples/sec. These settings assure Let-through voltages test results are accurate.*) **All tests performed with 6" lead length (external to the enclosure), simulating actual installed performance.**

Surge Current Testing: Single pulse surge current capacities of 200,000 amps or less are determined by testing all suppression components within each mode as a group. Present industry test equipment limitations require testing of individual suppression components or sub-assemblies within a mode for single-pulse surge capacities over 200,000 amps.



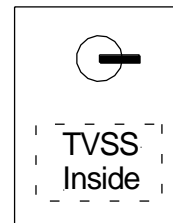
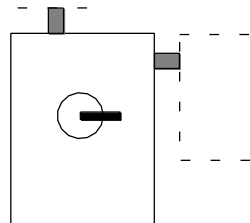
Because we are constantly seeking to improve our products, specifications are subject to change at any time.

Mechanical

Enclosure Dimensions				
Inches (mm)	Standard Model	Enclosure Options		
		M	W	X
A	8.25 (210)	10.00 (254)	10.00 (254)	12.00 (305)
B	5.00 (127)	8.00 (204)	8.00 (204)	10.50 (267)
C	3.00 (77)	4.00 (102)	4.00 (102)	6.00 (153)
D	9.37 (238)	11.50 (293)	11.50 (293)	12.50 (318)
E	9.48 (242)	12.00 (305)	12.00 (305)	13.23 (337)
F	6.23 (159)	9.00 (229)	9.00 (229)	11.73 (299)
G	8.87 (226)	10.75 (274)	10.75 (274)	12.00 (305)
H	3.37 (86)	6.00 (153)	6.00 (153)	8.00 (204)
Type	NEMA 4X* ABS	NEMA 12 Steel	NEMA 4 Steel	NEMA 4X Composite
lbs (kg)	5 (2.27)	14 (6.36)	14 (6.36)	11 (4.99)

*With optional gasket kit installed.
Flush mount trim plate available for standard and "M" option models.

External Disconnect D2 Configuration (enclosure 10x8x6) TVSS Attaches to Any Side.



Integral Disconnect D1, D3 Option Configuration (Enclosure 12x10x6)

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