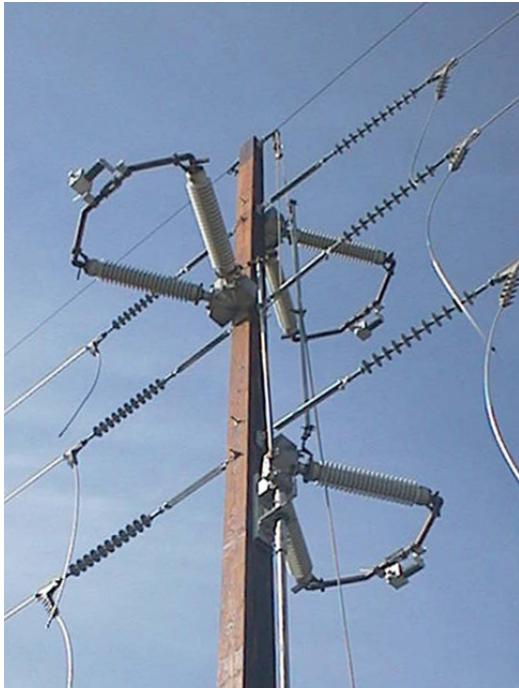




Monoruptr® Vacuum Interrupters



CM13812-1 on a 138 kV Center Vee switch

Standard Equipment

Type SM, CM and VM units employ proven vacuum bottle technology to provide reliable interruption in load dropping, line dropping and loop splitting applications. The speed of contact separation in opening is controlled by a high speed overtoggle mechanism, which minimizes contact erosion and prolongs interrupter life. The interrupter housing is filled with a solidified urethane foam, which serves as a dielectric medium and prevents ingress of air and moisture into the housing.

Interrupter units are supplied complete with mounting hardware, blade mounted pick-up rods and moving and stationary contacts, which protect the main switch contacts in both opening and closing operations.

Installation

The interrupter units are shipped assembled and pre-adjusted for proper activation or "trip" of the internal overtoggle mechanism. Field adjustment is quick and simple, and is limited to the "throw" (position and degrees of rotation) of the interrupter unit trip arm, blade mounted pick-up rods and auxiliary contacts. Field installation can be easily accomplished in three hours.

Operation Sequence

The interrupters are only in the circuit for a few seconds during the opening operation of the air switch. The movement of the air switch blade "trips" the interrupter unit through a series of mechanical linkages and a high

Type: SM, CM and VM

Number of Vacuum Bottles: 1

Description

A single bottle vacuum interruption device for use with both SEECO and non-SEECO group operated switches, including side-break, center-break and vertical-break configurations.

Application

Provides interruption capabilities in switching applications where the recovery voltage does not exceed 30 kV peak and a maximum interrupting current of 3000 amps. Common switching applications for single bottle interrupters include:

- Load dropping - 70% pf of load interruption up to 25 kV on ungrounded systems and 34.5 kV on solidly grounded systems
- Line dropping - to 25 kV or 72.5 kV with voltage limiter
- Loop splitting (parallel break) - to 230 kV if recovery voltage does not exceed 30 kV peak

Monoruptr® vacuum interrupters are not designed or rated for fault duty. Please contact the factory for confirmation of the appropriate interrupter configuration for your specific application.

Features & Benefits

- Provides arc-less switching
- Supports load management, remote switching and automatic sectionalizing schemes
- Interrupter units are out of the main current path when not in operation and are not subject to fault currents
- Safety - does not produce or vent hot exhaust or ionized gases; does not utilize SF6
- Quick, simple field installation

speed toggle mechanism which opens the vacuum bottle contacts. The speed of contact opening is independent of the air switch blade speed. After contact opening, the trip arm of the interrupter disengages from the blade mounted pick-up rod and automatically returns to its original position, closing the vacuum bottle contacts. In switch closing, the interrupter is out of the circuit.

To Be Specified on Order

To obtain pricing information or to place an order, the following minimum information must be specified:

- Monoruptr® catalog number
- Brand and catalog number of the group operated switch
- Voltage and current rating of the switch
- Direction of blade opening or rotation as viewed from the hinge end of the switch: CW, CCW
- Description of application or intended use



Catalog Numbers and Ratings - Type SM



Type SM single bottle interrupter on a 138 kV side break switch

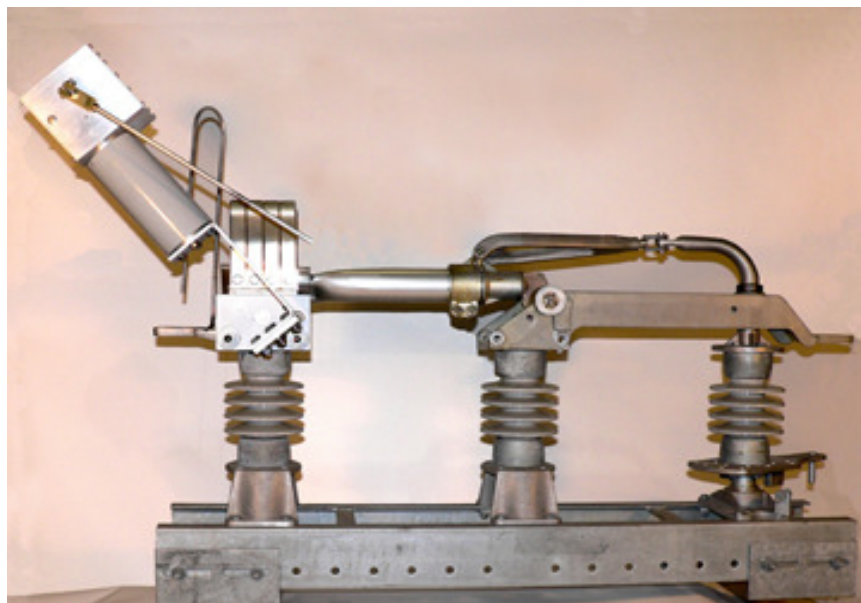
Switch Voltage Rating	Switch Current Rating	Type SM		
		Catalog	Weight, Lbs	
			Install	Ship
14.4	600	SM01506-1	105	130
	1200	SM01512-1	105	130
	2000	SM01520-1	105	130
	3000	SM01530-1	105	130
23	600	SM02306-1	105	130
	1200	SM02312-1	105	130
	2000	SM02320-1	105	130
	3000	SM02330-1	105	130
34.5	600	SM03406-1	105	130
	1200	SM03412-1	105	130
	2000	SM03420-1	105	130
	3000	SM03430-1	105	130
46	600	SM04606-1	105	130
	1200	SM04612-1	105	130
	2000	SM04620-1	105	130
	3000	SM04630-1	105	130
69	600	SM06906-1	105	130
	1200	SM06912-1	105	130
	2000	SM06920-1	105	130
	3000	SM06930-1	105	130

Switch Voltage Rating	Switch Current Rating	Type SM		
		Catalog	Weight, Lbs	
			Install	Ship
115	600	SM11506-1	111	136
	1200	SM11512-1	111	136
	2000	SM11520-1	111	136
	3000	SM11530-1	111	136
138	600	SM13806-1	111	136
	1200	SM13812-1	111	136
	2000	SM13820-1	111	136
	3000	SM13830-1	111	136
161	600	SM16106-1	111	136
	1200	SM16112-1	111	136
	2000	SM16120-1	111	136
	3000	SM16130-1	111	136
230	600	SM23006-1	111	136
	1200	SM23012-1	111	136
	2000	SM23020-1	111	136
	3000	SM23030-1	111	136

Installed weight is the weight of a three phase set. For the weight of a single interrupter unit and associated mounting hardware, divide by three.



Catalog Numbers and Ratings - Type VM



Type VM single bottle interrupter
on a 15 kV vertical break switch

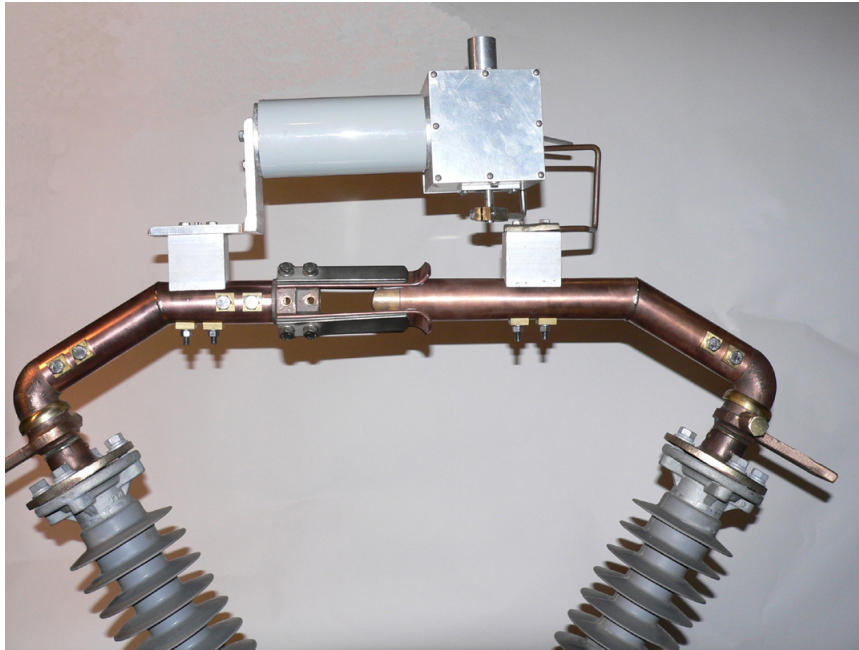
Switch Voltage Rating	Switch Current Rating	Type VM		
		Catalog	Weight, Lbs	
			Install	Ship
14.4	600	VM01506-1	105	130
	1200	VM01512-1	105	130
	2000	VM01520-1	105	130
	3000	VM01530-1	105	130
23	600	VM02306-1	105	130
	1200	VM02312-1	105	130
	2000	VM02320-1	105	130
	3000	VM02330-1	105	130
34.5	600	VM03406-1	105	130
	1200	VM03412-1	105	130
	2000	VM03420-1	105	130
	3000	VM03430-1	105	130
46	600	VM04606-1	105	130
	1200	VM04612-1	105	130
	2000	VM04620-1	105	130
	3000	VM04630-1	105	130
69	600	VM06906-1	105	130
	1200	VM06912-1	105	130
	2000	VM06920-1	105	130
	3000	VM06930-1	105	130

Switch Voltage Rating	Switch Current Rating	Type VM		
		Catalog	Weight, Lbs	
			Install	Ship
115	600	VM11506-1	105	130
	1200	VM11512-1	105	130
	2000	VM11520-1	105	130
	3000	VM11530-1	105	130
138	600	VM13806-1	105	130
	1200	VM13812-1	105	130
	2000	VM13820-1	105	130
	3000	VM13830-1	105	130
161	600	VM16106-1	105	130
	1200	VM16112-1	105	130
	2000	VM16120-1	105	130
	3000	VM16130-1	105	130
230	600	VM23006-1	105	130
	1200	VM23012-1	105	130
	2000	VM23020-1	105	130
	3000	VM23030-1	105	130

Installed weight is the weight of a three phase set. For the weight of a single interrupter unit and associated mounting hardware, divide by three.



Catalog Numbers and Ratings - Type CM



Type CM single bottle interrupter on a 69 kV center Vee switch

Switch Voltage Rating	Switch Current Rating	Type CM		
		Catalog	Weight, Lbs	
			Install	Ship
14.4	600	CM01506-1	90	115
	1200	CM01512-1	90	115
	2000	CM01520-1	90	115
	3000	CM01530-1	90	115
23	600	CM02306-1	90	115
	1200	CM02312-1	90	115
	2000	CM02320-1	90	115
	3000	CM02330-1	90	115
34.5	600	CM03406-1	90	115
	1200	CM03412-1	90	115
	2000	CM03420-1	90	115
	3000	CM03430-1	90	115
46	600	CM04606-1	90	115
	1200	CM04612-1	90	115
	2000	CM04620-1	90	115
	3000	CM04630-1	90	115
69	600	CM06906-1	90	115
	1200	CM06912-1	90	115
	2000	CM06920-1	90	115
	3000	CM06930-1	90	115

Switch Voltage Rating	Switch Current Rating	Type CM		
		Catalog	Weight, Lbs	
			Install	Ship
115	600	CM1 1506-1	96	121
	1200	CM1 1512-1	96	121
	2000	CM1 1520-1	96	121
	3000	CM1 1530-1	96	121
138	600	CM13806-1	96	121
	1200	CM13812-1	96	121
	2000	CM13820-1	96	121
	3000	CM13830-1	96	121
161	600	CM16106-1	96	121
	1200	CM16112-1	96	121
	2000	CM16120-1	96	121
	3000	CM16130-1	96	121
230	600	CM23006-1	96	121
	1200	CM23012-1	96	121
	2000	CM23020-1	96	121
	3000	CM23030-1	96	121

Installed weight is the weight of a three phase set. For the weight of a single interrupter unit and associated mounting hardware, divide by three.