

# MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS

## Type 63kA VCP-W and Type VCP-WR MEDIUM VOLTAGE VACUUM CIRCUIT BREAKERS

**ANSI 5 kV at 500 MVA, 63 kA  
15 kV at 1500 MVA, 63 kA  
1200, 2000, and 3000 Amperes**

Introducing a 63 kA short circuit protection solution from the industry leader in vacuum circuit breaker technology. Featuring: patented nonsliding, maintenance-free current transfer system and 95 kV BIL insulation.

Ten Great Reasons that make Cutler-Hammer's 63kA Vacuum Circuit Breakers the logical choice:

- User friendly controls and indicators are functionally grouped on the operator's panel.
- Front accessible mechanism  
Simple and easy access to the mechanism and control components.
- Over 15 Years of Proven Mechanism Reliability  
The trip-free, two-step stored energy mechanism is used in all VCP-W Vacuum Circuit Breakers.
- Patented V-Flex System  
Fewer moving parts allows for vacuum stem movement without friction and without the wear normally associated with rolling/sliding designs.
- The Industry's Best System for an Electrical Connection to a Vacuum Interrupter  
The nonsliding current transfer system consists of a series of tin plated high conductivity copper leaf conductors that are swaged onto the vacuum interrupter stems.
- Provides improved current flow through the increased surface area (skin effect) of the multiple conductors, while the multipoint contact offers very low electrical and thermal resistance.



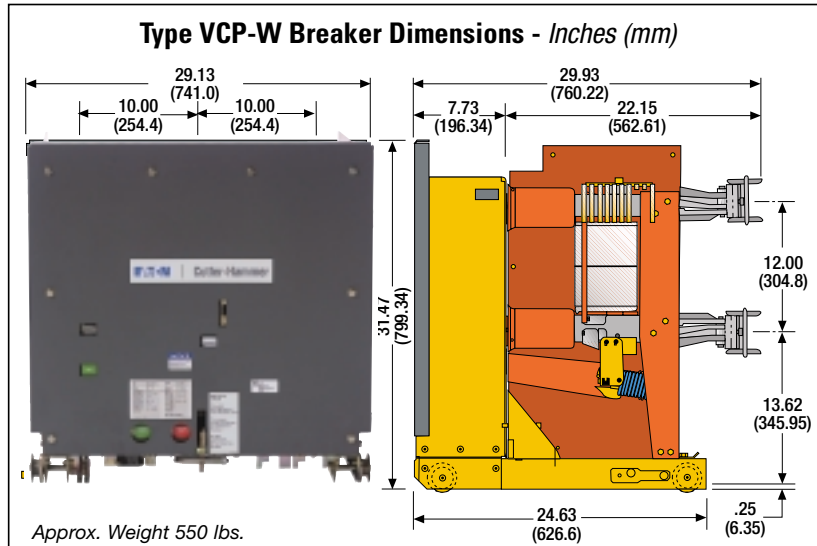
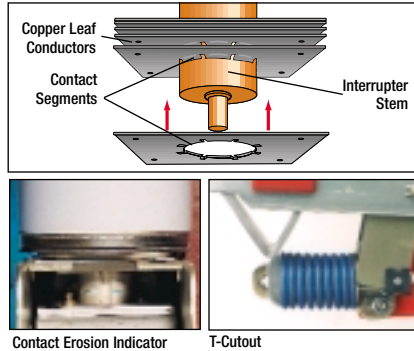
- Unlike sliding or rolling designs, there are no moving parts to wear out—therefore, no maintenance.
- Results. Longer circuit breaker life.
- Simple to Inspect
- Vacuum interrupters with contact erosion indicators.
- Contact wipe spring indicator.
- Only requires occasional visual inspection.
- No measurements required.
- Premium Control Wire & Terminals  
#14 gauge SIS cross linked polyethylene wire with ring-tongue terminals.
- Reliable Vacuum Technology  
Over 30 years of proven reliability, design and manufacturing experience in vacuum technology.
- Quality is Designed-In  
Cutler-Hammer's 63kA Vacuum Interrupter has been specifically designed for use in VCP-W and VCP-WR breakers for superior performance. Each breaker is assembled in a ISO 9002 certified facility.

The new 63kA Vacuum Circuit Breaker provides versatility in either a fixed mounted (VCP-WR) or drawout (VCP-W) configuration.

■ **Premiere Performance**  
Type VCP-W and VCP-WR

Single circuit breaker tested to 1.8 Mega Amperes in Cumulative Interruption ... and it's still performing.

Maximum Voltage	15 kV
Short Circuit Current	63 kA
1500 MVA for 15 kV Class	
500 MVA for 5 kV Class	
Voltage Range Factor (K)	1.0
Dielectric Withstand Voltages	
Power Frequency (1 minute)	36/42 kV
Impulse	95 kV peak
Continuous Current at 60 Hz	1200, 2000, 3000 and 4000 (FC) Amperes
Operating Duty Cycle	CO-15 sec-CO
Interrupting time	3 or 5 cycles
Asymmetry Factor (S)	1.27
Asymmetrical Interrupting	80 kA (62% dc)
Close and Latch capability	170 kA peak
Short time current capability (3 sec)	63 kA
Transient Recovery Voltage (E <sub>2</sub> )	28 kV
(t <sub>2</sub> )	27 μ seconds
Reclosing time	< 10 cycles
Reclosing Duty Factor (R)	100 percent
No-Derating for rapid reclosing	
Out-of-phase switching at 22 kV	
breaking	31.5 kA
making	91 kA
Spare Auxiliary Contacts	3a, 4b



**ANSI Standard Ratings**®

VCP-W Vacuum Circuit Breaker Types Rated on Symmetrical Current Rating Basis

Circuit Breaker Type	Rated Values														Weight
	Nominal Voltage Class	Nominal 3-Phase MVA Class	Voltage Maximum Voltage	Voltage Range Factor	Insulation Level Withstand Test Voltage		Current Continuous Current at 60 Hz	Short Circuit Current (at Rated Max. kV)	Interrupting Time	Permissible Tripping Delay	Maximum Voltage Divided By K	Current Values			
					Power Frequency (1 min.)	Impulse						Maximum Symmetrical Interrupting Capability	Closing and Latching Capability	Closing and Latching Momentary Capability	
kV	MVA	E kV rms	K	kV rms	kV Peak	Amperes	I kA rms	Cycles	Seconds	E/K	Ⓜ Short Time Current K x 1	kA rms	kA Peak	kA rms	lbs.
50VCP-W500 (63 kA)	4.16	...	4.76	1.00	19	60	1200 2000 3000	63	5	2	4.76	63	170	101	525 530 550
150VCP-W1500 (63 kA)	13.8	...	15	1.00	36	95	1200 2000 3000	63	5	2	15.0	63	170	101	525 530 550

① Applicable ANSI Standards C37.04-1999, C37.06-2000 (including both K>1 and K=1 ratings), and C37.09-1999.

② See Consulting Application Guide for further information.

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