**The World’s Most Complete Line of Medium Voltage Vacuum Circuit Breakers**

**Breaker Type** | **Voltage Class** | **Insulation BIL** | **Interrupting Ratings** | **Continuous Current** | **Application**
--- | --- | --- | --- | --- | ---
VCPW-ND | ANSI 5 kV | 60 kV | 250 MVA | 1200A | 28” Wide New Metal-Clad Switchgear or Upgrades to Existing Airbreak Switchgear
VCPW-ND | IEC 3.6-7.2 kV | 40-60 kV | 25-31.5 kA | 930-1290A |
VCP-W | ANSI 5-15 kV | 60-95 kV | 250-1500 MVA | 1200-3000A | 38” Wide New Metal-Clad Switchgear or Upgrades to Existing Switchgear
VCP-W | IEC 3.6-7.2 kV | 40-60 kV | 25-40 kA | 930-1290A |
VCP-W-GE | ANSI 5-15 kV | 60-95 kV | 250-1500 MVA | 1200-3000A | 38” Wide Special Environment Metal-Clad Switchgear Featuring Breakers with Cycloaliphatic Epoxy Insulation for Harsh Industrial Environments
VCP-W | IEC 3.6-7.2 kV | 40-60 kV | 25-40 kA | 930-1290A |
VCP-W | 27 kV | 125 kV | 16-40 kA | 930-2030A | 38” Wide Metal-Clad Switchgear or Upgrades to Existing Switchgear
VCP-W | 24 kV | 125 kV | 16-25 kA | 930-2030A | 42” Wide Metal-Clad Switchgear
VCP-W (Outdoor) | 15-35 kV | 110 kV | 16-31.5 kA | 930-2030A | Outdoor Station Distribution Breakers
W-VAC | IEC 3.6-7.2 kV | 40-95 kV | 16-40 kA | 830-2030A | 600-750 mm Wide IEC Medium Voltage Switchgear
W-VAC | IEC 3.6-7.2 kV | 40-95 kV | 35-55 kA | 830-2050A | 1000 mm Wide IEC Medium Voltage Switchgear
W-VAC | IEC 3.6-7.2 kV | 170 kV | 16-31.5 kA | 930-2050A | 42” Wide IEC Metal-Clad Switchgear
DHP-VR | ANSI 5-15 kV | 60-95 kV | 250-1000 MVA | 1200-3000A | DHP Metal-Clad Switchgear Technology Upgrades with the DHP-VR Direct Roll-in Vacuum Replacement Breakers from the Original Manufacturer
DHP-VR | IEC 3.6-7.2 kV | 40-95 kV | 16-31.5 kA | 930-2050A |
VCP-WR | ANSI 5-15 kV | 60-95 kV | 250-1500 MVA | 1200-3000A | Modular Fixed Vacuum Circuit Breakers in 18”, 20”, and 29” Widths for Conversions/Retrofits, Metal Enclosed Switchgear and Mining Switchgear
VCP-VR | IEC 3.6-7.2 kV | 40-95 kV | 25-50 kA | 1200-3000A | 36” wide Metal-Clad Switchgear
VCP-VG | IEC 3.6-7.2 kV | 40-95 kV | 50-70 kA | 1200-3000A | 36” wide Metal-Clad Switchgear
VCP-VT | IEC 3.6-7.2 kV | 95kV | 16-25kA | 800-1200A | Smaller frame breaker
VCP-TR | IEC 3.6-7.2 kV | 95kV | 16-25kA | 830-1250A | Smaller frame breaker

**Type VCP-W Vacuum Circuit Breakers**

- **ANSI** 5/15 kV at 1200-3000 Amperes
- 25-1500 MVA, 60-95 kV BIL
- **IEC** 3.6/17.5 kV at 630-2000 Amperes
- 25-40 kA, 40-95 kV BIL

The leading value-added modular approach for assembling metal-clad switchgear featuring Cutler-Hammer medium voltage vacuum circuit breakers, structures and accessories.
### Type VCP-W Vacuum Circuit Breakers

Industry-Leading Vacuum Technology in ANSI 5/15 kV or IEC 3.6/17.5 kV
- Type VCP-W
- Type VCP-W-SE
- Type VCP-W-N0

#### Power Modules

Complete Structures including Fully Equipped Breaker Compartment and Auxiliary Provisions

#### Mini Modules

A Simple Building Block Approach Easily Configured to Any Project Specification
- A One-High Fully Equipped Breaker Compartment for 1200, 2000, or 3000 Amperes.

#### Circuit Breaker Compartment Kits

Provide the Opportunity to Add the Most Value and Include All Key Breaker/Call Interfacing Parts Necessary to Build a Breaker Compartment

#### Auxiliary Drawer Compartment Kits

All Parts Necessary for Building Potential Transformer, Control Power Transformer, or Fuse Drawer Compartments

#### Tools and Accessories

A Complete Selection of Standard and Optional Tools and Accessories
Cutler-Hammer Products

The Industry Leader in Vacuum Circuit Breakers

VacClad-W, the Cutler-Hammer vacuum switchgear family, has been engineered to feature a standardized design, interchangeable parts, skid and lab construction, and industry-leading vacuum interrupter technology. This world-class switchgear includes the Type VCP-W Vacuum Circuit Breaker which meets both ANSI and IEC electrical standards.

Industry-Leading Vacuum Technology Provides Unequaled Reliability

Cutler-Hammer now provides the industry’s most complete family of technologically advanced vacuum circuit breakers at 5 kV, 15 kV, 27 kV, and 38 kV. Type VCP-W Vacuum Circuit Breakers incorporate many design features which have been field proven with more than 25 years of vacuum interrupter design and manufacturing experience...coupled with over 70 years of power circuit breaker design and manufacturing experience.

Type VCP-W Vacuum Circuit Breakers are available in a complete range of ANSI and IEC ratings:

- **ANSI**
  - 5 kV through 38 kV, continuous currents from 600 through 3000 amperes.
  - 3.6 kV through 38 kV, continuous currents from 630 through 2000 amperes.

- **IEC**
  - 3.6 kV through 38 kV, continuous currents from 630 through 2000 amperes.

ISO Certified Facilities

Type VCP-W Vacuum Circuit Breakers, including the vacuum interrupter, are assembled by Cutler-Hammer in ISO 9002 certified facilities. The breakers are fully tested to ANSI and IEC standards and each is provided with its unique Quality Assurance Certificate that documents all tests and inspections performed.

Assembly Flexibility

Assembly flexibility is provided with a variety of industry leading value-added approaches for assembling premold metal-clad switchgear. Customers have the unique opportunity to select the appropriate building block approach to match their manufacturing capabilities with those of Cutler-Hammer.

The OEM Value-Added Approach to Circuit Protection... Flexibility that Exceeds the Customer’s Requirements

- **Type VCP-W Vacuum Circuit Breakers**
  - Industry-Leading Vacuum Technology in ANSI 5/15 kV or IEC 3.6/17.5 kV
  - Type VCP-W
  - Type VCPW-SE
  - Type VCPW-ND

Power Modules

- Complete Structures Including Fully Equipped Breaker Compartment and Auxiliary Provisions
- Mini Modules
  - A Simple Building Block Approach Easily Configured to Any Project Specification
  - Mini Modules Configured as:
    - A One-High Fully Equipped Breaker Compartment for 1200, 2000, or 3000 Amperes.
  - Assembly Flexibility
  - Auxiliary Drawer Compartment Kits
  - All Parts Necessary for Building Potential Transformer, Control Power Transformer, or Fuse Drawer Compartments

Tools and Accessories

- A Complete Selection of Standard and Optional Tools and Accessories

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**ANSI Standards – Type VCP-W Vacuum Circuit Breaker Rated on Symmetrical Current Rating Basis**

<table>
<thead>
<tr>
<th>Breaker Type</th>
<th>K E</th>
<th>K 720</th>
<th>K 1200</th>
<th>K 2400</th>
<th>K 3600</th>
<th>K 4800</th>
<th>K 7200</th>
<th>K 12000</th>
<th>K 24000</th>
<th>K 36000</th>
<th>K 48000</th>
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<td>1200</td>
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<td>78</td>
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**IEC-56 Standards – Type VCP-W Vacuum Circuit Breaker Rated on Symmetrical Current Rating Basis**

<table>
<thead>
<tr>
<th>Breaker Type</th>
<th>E K</th>
<th>K 720</th>
<th>K 1200</th>
<th>K 2400</th>
<th>K 3600</th>
<th>K 4800</th>
<th>K 7200</th>
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<td>25</td>
<td>125</td>
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</tbody>
</table>

Consult Application Data 32-265 for further information.

- Optional interrupting time of 2 cycles is available.
- Also 3 second short time current carrying capability.
- Nonstandard circuit breakers with High Close and Latch (momentary) rating for special applications.
Cutter-Hammer Products

PROTECTIVE RELAYS

MP-3000

Flexible Power Management System

PowerNet

Digital Protection, Metering and Control for Electric Power Distribution

FP-5000

Integrated Protection, Metering and Control for Electric Power Distribution

GENESIS32™

Web-Based MM1 Software

Digitrip 3000

Nonlatching Current Transfer System

EZC Minals®

Compact indicating lights for general indicating or signaling. They are quickly and easily mounted on panels up to and including 1/4 inch in thickness. Round and rectangular designs are available.

Type VCP-W Vacuum Circuit Breakers

The highly dependable performance of Cutter-Hammer vacuum circuit breakers results from our commitment to a continuing research and development program. Beginning with early research in 1929, we have been a leader in the vacuum interrupter field. Production was launched in the mid-1960s, and since that time hundreds of thousands of vacuum interrupters have been in reliable operation worldwide.

Cutter-Hammer experience has resulted in many significant vacuum interrupter breakthroughs including:

- Copper chrome contact materials that provide longer life.
- A smaller envelope size with longer circuit breaker service life.
- Improved current flow because of the multipoint contact concept.
- Nonlatching current transfer systems.
- A patented V-Flex nonlatching current transfer system.

Unique swaged design benefits include:

- Improved current flow because 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.
- Longer circuit breaker service life.

Type VCP-W and Digitrip 3000 are registered trademarks of Cutler-Hammer, Inc. V-Flex and EZC Minals are trademarks of Cutler-Hammer, Inc. Gen3-Vac is a trademark of Gen3-Arc.
Copper chrome contact material that provide longer life.

Longer circuit breaker service life.

Improved current flow because

Unlike sliding or rolling designs, there are no moving parts to wear

Cutler-Hammer Products

METERs

IQ Analyzer 6400/6600 Series

The IQ Analyzer provides comprehensive diagnostic capabilities with over 150 measured values. The device allows in preventing process deviations and detecting trends. Analyzing harmonic and unbalance problems. Historical data captured by the IQ Analyzer helps to identify problems in an electrical distribution system. Energy usage and costs are controllable through highly accurate energy measurement, onboard energy value storage and time-of-use energy registers. Option attacks waveform and harmonic spectrum display available on the 6600 series.

IQ DP-4000 Meters and Voltage Protection

The IQ DP-4000 provides complete electrical metering and system voltage protection. This device measures and displays the over 74 electrical system values. It measures % total harmonic distortion (%THD) and harmonic distortion helps the measurement of the source of problems. The IQ DP-4000 keeps track of voltage and current data and in energy management. Optional digital IO available on the 4100 series.

IQ 200 Switchboard Metersing

The IQ 200 family is a group of revenue accurate ANSI C12.1 meters that providing features in a small and flexible package. They are ideal for panelboard and switchboard applications where panel space is at a premium. Energy management information is provided by direct reading of measured values. With built-in communications the IQ 200 base can be used as a metering transducer for submetering applications.

PROTECTIVE RELAYS

MP-3000 Award-Winning Motor Protection

The MP-3000, winner of Plant Engineering magazine Product of the Year Award, protects three-phase induction motors, and overloads and instantaneous overcurrent. The MP-3000 has the highest sensitivity and versatile stator protection that enables accurate, reliable, and instantaneous overcurrent protection in a small package. The MP-3000-5000 series is available in a quick-release drawer case model.

FP-5000 Integrated Protection, Metering and Control for Electric Power Distribution

The FP-5000 provides advanced overcurrent protection for mains, metering and feeder circuits of any voltage level. This device provides complete metering and advanced data logging capabilities. The FP-3000 is available in a quick-release drawer case model.

GENESIS32™ Web-Based HMI Software

GENESIS32 is Cutler-Hammer’s graphical solution and includes GraphiWorks, TrendWorks, AlarmWorks and Web HMI software. The basic bundle also includes an integrated tool of Modbus to OPC to facilitate the communication with Modbus devices in your network. These applications provide customized graphical displays, ease of integration and portability of data throughout the enterprise network, even via a web browser from any client. This bundle provides the flexible and powerful graphic applications that are easily deployed.

ACCESSORIES

EZC MiniCalcs®

The EZC MiniCalc provides three-phase and ground overload instantaneous protection in a single, compact enclosure. It provides a quick no-contactor capability. Optional zone selective interlocking is an alternative to high cost differential protection. The selectable long time curve steps (ANSI: Moderately inverse, very inverse, and extremely inverse and thermal curve): 0, 5, 7. FLU provides protection for a wide range of protection capability in a single device.

Type VCP-W Vacuum Circuit Breakers

The highly dependable performance of Cutler-Hammer vacuum circuit breakers results from our commitment to a continuing research and development program. Beginning with early research in 1929, we have been a leader in the vacuum interrupter field. Production was launched in the mid-1980s, and since then hundreds of thousands of vacuum interrupters have been in reliable operation worldwide. Cutler-Hammer experience has resulted in many significant vacuum interrupter breakthroughs including:

- Copper chrome contact materials that provide longer life.
- A smaller envelope size with reduced footprint.
- Improved dielectric strength.
- Consequently, Cutler-Hammer vacuum interrupters are maintenance free and provide increased service life and optimum operator safety.

Type VCP-W Vacuum Circuit Breakers Are Designed with the Patented V-Flex Nonsliding, Non-Rolling Current Transfer System

The current transfer system consists of a series of tin-plated, high conductivity copper leaf contacts that are sewaged onto the movable interrupter.

Unique patented design benefits include:

- Improved current flow because 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.
- Longer circuit breaker service life.

Type VCP-W Vacuum Circuit Breakers Industry Leading Vacuum Technology Enhances Breaker and Switchgear Reliability

World-class VCP-W Vacuum Circuit Breakers provide a patented V-Flex nonsliding current transfer system.
Cutler-Hammer Products

Type VCP-W Vacuum Circuit Breaker…
A New Level of Standardization

All Type VCP-W Vacuum Circuit Breakers, regardless of voltage or interrupting capacity, have the same time proven stored energy mechanism...and are significantly smaller than conventional medium voltage drawout breakers in both size and weight. Refer to weights table on page 11.

Three Methods of Easy Installation

Lower Compartment Installation
1. A roll off the floor ramp.
2. A dockable dolly.
The floor ramp or dockable dolly is used for quick lower cell installation or removal.

Upper and Lower Compartment Installation
3. A lifting yoke that is compatible with any standard lifting device.
Since the breaker rides on extension rails, alignment problems are eliminated and installation time is reduced. Additionally, a position indicator shows when the breaker is in the fully connected or disconnected position.

Designed for Operator Safety

Two dead front shields are provided to isolate the operator from high voltage when the breaker is energized.

During levering, safety interlocks render the breaker mechanically trip free and the breaker is grounded throughout its travel. The "T" handle latch which engages and disengages the breaker is at the bottom of the breaker, far from energized parts.

When the breaker is withdrawn, steel shutters automatically rotate to cover the primary disconnect supports...and a current transformer barrier is located in front of the shutters. This prevents the operator from accidental contact with primary voltage parts and controls.

VCP-W Vacuum Circuit Breaker Compartment

- Metal shutters
- Ground stab assembly
- Breaker position indicator
- Levering mechanism
- MOC/TOC switch location
- Drawout type secondaries

Tools and Accessories

Cutler-Hammer provides several standard and optional accessories including equipment used to transport the breaker and lift and lever it into a compartment, as well as a manually operated ground and test device.

- Standard accessories include (top to bottom): manual charging handle, left and right removable extension rail, rail clamps, and levering crank.
- Optional accessories include (clockwise): lifting yoke, test cabinet, spin-free levering crank, and test jumper.

- Optional ground and test devices include manually operated, "Bail Type" manually operated, electrically operated, and "Consolidated Edison" user type (shown). Dummy elements are also available.

The optional portable filter is used to lift the breaker from or onto the extension rails.

A dockable dolly for transporting the lower breaker to or from the lower compartment.

A roll off the floor ramp is used to move the lower breaker from the floor to the bottom compartment.
All Type VCP-W Vacuum Circuit Breakers, regardless of voltage or interrupting capacity, have the same time proven stored energy mechanism...and are significantly smaller than conventional medium voltage drawout breakers in both size and weight. Refer to weights table on page 11.

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Optional accessories include (top to bottom): manual charging handle, left and right removable extension rail, rail clamps, and levering crank.

Optional ground and test devices, include manually operated, “Bail Type” manually operated, electrically operated, and “Consolidated Edison” user type (shown). Dummy elements are also available.
These kits include all major parts used in assembling an auxiliary compartment. Each kit is shipped in a single carton with detailed instructions and drawings that include important dimensions, clearances and configurations. Power Module B-Planes are prepackaged to accommodate any auxiliary compartment kit.

### Potential Transformer Drawer Kit

**Parts include:**
- Left and right drawout rails.
- PT truck assembly. (Potential transformers and fuse mountings are not included.)
- Primary and secondary contact assemblies, standoff insulators, and cable supports.
- Shutter assembly.
- Hardware for rail mountings and alignment brackets.
- Horizontal sectioning barriers.
- Drawings are provided for manufacturing the back sheet. They also detail the clearances and locations of integral parts.
- Detailed assembly instructions.
- Available for 36 inch wide standard and 26 inch wide narrow design switchgear configurations.

### Control Power Transformer Drawer Kit

**Parts include:**
- Left and right drawout rails.
- CPT truck assembly including glass polyester barriers and secondary fuse mountings. (Control power transformers are not included.)
- Primary and secondary contact assemblies. Shutter assembly, standoff insulators, and cable supports.
- Hardware for all configurations and alignments including mounting and alignment brackets.
- Horizontal sectioning barriers.
- Drawings are provided for manufacturing the back sheet. They also detail the clearances and locations of integral parts.
- Detailed assembly instructions.
- Available for 36 inch wide standard and 26 inch wide narrow design switchgear configurations.

### Fuse Drawer Kit

**Parts include:**
- Left and right drawout rails.
- Fuse truck assembly including fuse holder assembly and various fuse mountings. (Fuses are not included.)
- Primary contact assemblies. Shutter assembly, standoff insulators, and cable supports.
- Hardware for all configurations and alignments including mounting and alignment brackets.
- Horizontal sectioning barriers.
- Drawings are provided for manufacturing the back sheet. They also detail the clearances and locations of integral parts.
- Detailed assembly instructions.
- Available for 36 inch wide standard and 26 inch wide narrow design switchgear configurations.

### User-Friendly Operation

**Type VCP-W Vacuum Circuit Breaker**

Controls and indicators are functionally grouped on the front control panel and include: contact position indicator, closing spring status, close and trip button, operation counter, and a breaker “T” handle latch (located at the bottom of the control panel).

The simplified design includes just five major components: vacuum interrupter pole units, stored energy mechanism, push rod assembly, primary disconnecting contacts, and removable glass polyester insulating barriers.

### Convenient Inspection

The breaker is withdrawn on removable extension rails and no separate lifting device is required. There is no need to remove the breaker from the switchgear. With the breaker withdrawn, both the compartment and contact erosion indicator, and “T” cutout loading spring indicator can be visually inspected.

Both stored energy mechanism and control components are conveniently located behind the easily removed front panel. The current transformer breaker is easily removed for inspection and access to the current transformers. Auxiliary drawers use extension rails to provide for easy inspection and fuse replacement.

### Easy Maintenance

**Type VCP-W Vacuum Circuit Breakers**

Are easily maintained. The easy access mechanism and control components can be conveniently inspected and minor maintenance (such as lubricating the mechanism and replacing control components) is uncomplicated.

### A Standardized Line

**Type VCP-W Vacuum Circuit Breakers**

Represent a standard line that utilizes common parts. Standardization provides for fewer total parts which, in turn, reduces and simplifies the spare parts inventory. Type VCP-W Vacuum Circuit Breakers of the same ratings are totally interchangeable between structures.

### Simplified Maintenance through Visual Inspection of Indicators

**Easy-to-See Contact Erosion Indicator**

The vacuum interrupter direct reading contact erosion indicator is clearly visible. Only periodic inspection of the erosion indicator is required.

**Convenient Loading Spring Indicator**

Visual inspection of the “T” cutout loading spring indicator insures that when closing the breaker, the loading springs are applying proper pressure to the contacts.
These kits include all major parts used in assembling an auxiliary compartment. Each kit is shipped in a single carton with detailed instructions and drawings that include important dimensions, clearances and configurations. Power Module B-Planes are prepositioned to accommodate any auxiliary compartment kit.

### Potential Transformer Drawer Kit

- Left and right drawout rails.
- PT truck assembly. (Potential transformers and fuse mountings are not included.)
- Primary and secondary contact assemblies, standoff insulators, and cable supports.
- Shutter assembly.
- Hardware for fuse mountings and alignment brackets.
- Horizontal sectioning barriers.
- Drawings are provided for manufacturing the back sheet. They also detail the clearances and locations of integral parts.
- Detailed assembly instructions.
- Available for 36 inch wide standard and 26 inch wide narrow design switchgear configurations.

### Control Power Transformer Drawer Kit

- Left and right drawout rails.
- CPT truck assembly including glass polyester barriers and secondary fuse mountings. (Control power transformers are not included.)
- Primary and secondary contact assemblies.
- Shutter assembly, standoff insulators, and cable supports.
- Hardware for all configurations and alignments including mounting and alignment brackets.
- Horizontal sectioning barriers.
- Drawings are provided for manufacturing the back sheet. They also detail the clearances and locations of integral parts.
- Detailed assembly instructions.
- Available for 36 inch wide standard and 26 inch wide narrow design switchgear configurations.

### Fuse Drawer Kit

- Left and right drawout rails.
- Fuse truck assembly including fuse holder assembly and various fuse mountings. (Fuses are not included.)
- Primary contact assemblies.
- Shutter assembly, standoff insulators, and cable supports.
- Hardware for all configurations and alignments including mounting and alignment brackets.
- Horizontal sectioning barriers.
- Drawings are provided for manufacturing the back sheet. They also detail the clearances and locations of integral parts.
- Detailed assembly instructions.
- Available for 36 inch wide standard and 26 inch wide narrow design switchgear configurations.

### User-Friendly Operation

Type VCP-W Vacuum Circuit Breaker controls and indicators are functionally grouped on the front control panel and include: contact position indicator, closing spring status, close and trip button, operation counter, and a breaker “T” handle latch (located at the bottom of the control panel). The simplified design includes just five major components: vacuum interrupter pole units, stored energy mechanism, push rod assembly, primary disconnecting contacts, and removable glass polyester insulating barriers.

### Convenient Inspection

The breaker is withdrawn on removable extension rails and no separate lifting devise is required. There is no need to remove the breaker from the switchgear. With the breaker withdrawn, both the compartment and contact erosion indicator, and “T” cutout loading spring indicator can be visually inspected.

Both stored energy mechanism and control components are conveniently located behind the easily removed front panel. The current transformer barrier is easily removed for inspection and access to the current transformers. Auxiliary drawers use extension rails to provide for easy inspection and fuse replacement.

### Easy Maintenance

Type VCP-W Vacuum Circuit Breakers are easily maintained. The easy access mechanism and control components can be conveniently inspected and minor maintenance (such as lubricating the mechanism and replacing control components) is uncomplicated.

### A Standardized Line

Type VCP-W Vacuum Circuit Breakers represent a standard line that utilizes common parts. Standardization provides for fewer total parts which, in turn, reduces and simplifies the spare parts inventory. Type VCP-W Vacuum Circuit Breakers of the same ratings are totally interchangeable between structures.

### Simplified Maintenance through Visual Inspection of Indicators

- Easy-to-See Contact Erosion Indicator  
  The vacuum interrupter direct reading contact erosion indicator is clearly visible. Only periodic inspection of the erosion indicator is required.

- Convenient Loading Spring Indicator  
  Visual inspection of the “T” cutout loading spring indicator insures that when closing the breaker, the loading springs are applying proper pressure to the contacts.
A Modular Value-Added Approach to Circuit Protection...Exclusively from Cutler-Hammer

5/15 kV
Power Modules
Provide OEMs with a Complete Structure

- Power modules are ideal for OEMs who supply standard through complex switchgear. The OEM provides value-added items such as doors, bus, cable area compartments, instruments, relays and associated wiring. The power module incorporates individual vertical sections which will enclose a maximum of two Type VCP-W Circuit Breakers or four auxiliary drawers or a combination of one Type VCP-W Circuit Breaker and two auxiliary drawers.
- A complete structure including fully equipped circuit breaker and blank auxiliary compartment, control compartment, and main bus compartment...plus side and back sheets, roof assembly, door hinges/stops, and ventilation chimney.
- 36 inch wide design available in 10 configurations.
- 26 inch wide narrow design available in four configurations.

- The breaker can be inserted in the upper or lower compartment.
- Two auxiliary drawers (for PTs, CPT, or fuses) can be located in the upper or lower blank auxiliary compartment.
- Auxiliary compartment kits can be easily installed into any blank auxiliary power module compartment to suit any PT, CPT, or fuse drawer kit.
- Exclusive 3,000 ampere breaker in the upper compartment with a single auxiliary drawer in the lower compartment.
- 4,000 ampere forced air cooled power modules are also available.
- Available with glass polyester or porcelain insulating tubes for either 41 kA, 50 kA, or 63 kA applications.

5/15 kV
Mini Modules
Provide OEMs with a More Value-Added Approach

- Mini modules are ideal for OEMs who provide value-added items such as doors, bus, cable area compartment, side sheets, instruments, relays, and associated wiring. Easily configured to suit many applications. Mini modules are available as:
  - 1,200, 2,000, or 3,000 ampere breaker compartment designs.
  - Different bus terminal configurations available for upper or lower compartments.
  - Bayed frame, levering-in assembly, glass polyester or porcelain insulating tubes for either 41 kA, 50 kA, or 63 kA applications, current transformer barrier, and shutter assembly.

5/15 kV
Circuit Breaker Compartment Kits
Provide OEMs with the Opportunity to Add the Most Value

- Circuit breaker compartment kits provide a maximum value-added approach to building switchgear, combining maximum design flexibility with cost competitiveness. Each circuit breaker compartment kit includes:
  - Slot and tab design that assures all critical breaker/structure interfaces are maintained, eliminating the potential distortion problems that can occur with conventional weld/bend designs.
  - Breaker lever-in assembly with left and right drawer drawout rails.
  - Primary disconnect supports (upper and lower).
  - Current transformer barrier assembly.
  - Shutter assembly.
  - Glass polyester or porcelain insulating tubes for either 41 kA, 50 kA, or 63 kA applications.
  - Drawings that include dimensions and clearances are provided. B-Plane sheets are provided by the OEM to maximize a staged production process.

5/15 kV
Medium Voltage Vacuum Circuit Breakers

- Type VCPW-ND
  - The Type VCPW-ND Circuit Breaker offers proven industry-leading vacuum circuit breaker technology in a 26 inch wide switchgear design, making it ideal for use when the benefits of a vacuum breaker are required and installation space is limited. This breaker is ANSI rated at 5 kV and IEC rated at 3.6/7.2 kV.*

- Type VCPW-Y / VCP-WC / VCP-WG
  - Type VCPW-Y / VCP-WC / VCP-WG Medium Voltage Vacuum Circuit Breaker
  - As with all Cutler-Hammer vacuum circuit breakers, reliability of the standard design Type VCP-W Vacuum Circuit Breaker has been proven by over 25 years of vacuum circuit breaker design and manufacturing experience. The breaker is designed for 36 inch wide switchgear and is ANSI rated at 5/15 kV and IEC rated at 3.6/17.5 kV.*

- Type VCPW-SE
  - Type VCPW-SE Medium Voltage Vacuum Circuit Breaker
  - The Type VCPW-SE Vacuum Circuit Breaker is designed for 36 inch wide switchgear applications and includes cycloaliphatic epoxy insulation and cross-linked polyethylene insulated control wire, making it ideal for use in harsh industrial environments. The breaker is ANSI rated at 5/15 kV and IEC rated at 3.6/17.5 kV.*

* Refer to page 11 for specific breaker ratings. UL listing, 3-cycle ratings, undervoltage release, and second shunt trip are optionally available.
A Modular Value-Added Approach to Circuit Protection…Exclusively from Cutler-Hammer

5/15 kV Power Modules

Provide OEMs with a Complete Structure

Power modules are ideal for OEMs who supply standard through complex switchgear. The OEM provides value-added items such as doors, bus, cable area compartments, instruments, relays and associated wiring. The power module incorporates individual vertical sections which will enclose a maximum of two Type VCP-W Circuit Breakers or four auxiliary drawers or a combination of one Type VCP-W Circuit Breaker and two auxiliary drawers.

A complete structure including fully equipped circuit breaker and blank auxiliary B-Planes are available for upper or lower auxiliary compartment, control compartment, and main bus compartment. Plus side and back sheets, roof assembly, door hinges/stops, and ventilation chimney.

36 inch wide design available in 10 configurations.

26 inch wide narrow design available in four configurations.

36” Standard Design

Power Modules Ampere Ratings

<table>
<thead>
<tr>
<th>Ampere Rating</th>
<th>Type</th>
<th>Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>1200A, 2000A, 3000A</td>
<td>Type VCPW-SE</td>
<td>Standard</td>
</tr>
<tr>
<td>1200A, 2000A</td>
<td>Type VCPW-ND</td>
<td>Narrow</td>
</tr>
<tr>
<td>1200A, 2000A, 3000A</td>
<td>Type VCPW-SE</td>
<td>Narrow</td>
</tr>
</tbody>
</table>

5/15 kV Mini Modules

Provide OEMs with a More Value-Added Approach

A simple building block approach in which the OEM provides value-added items such as doors, bus, cable area compartment, side sheets, instruments, relays, and associated wiring. Easily configured to suit many applications. Mini modules are available as:

- 1200, 2000, or 3000 ampere breaker compartment designs.

5/15 kV Circuit Breaker Compartment Kits

Provide OEMs with the Opportunity to Add the Most Value

Circuit breaker compartment kits provide a maximum value-added approach to building switchgear, combining maximum design flexibility with cost competitiveness. Each circuit breaker compartment kit includes:

- Slot and tab design that assures all critical breaker/structure interfaces are maintained, eliminating the potential distortion problems that can occur with conventional weld/bend designs.
- Breaker levering-in assembly with left and right drawer drawer rals.

5/15 kV Vacuum Circuit Breakers

Type VCP-W / VCP-WC Medium Voltage Vacuum Circuit Breaker

As with all Cutler-Hammer vacuum circuit breakers, reliability of the standard design Type VCP-W Medium Voltage Vacuum Circuit Breaker has been proven over by 25 years of vacuum circuit breaker design and manufacturing experience. The breaker is ANSI rated at 41 kA, 50 kA, or 63 kA applications, current transformer barrier, and shatter assembly.

Type VCPW-SE Medium Voltage Vacuum Circuit Breaker

The Type VCPW-SE Vacuum Circuit Breaker is designed for 36 inch wide switchgear applications and includes cycloaliphatic epoxy insulation and cross linked polyethylene insulated control wire, making it ideal for use in harsh industrial environments. The breaker is ANSI rated at 5/15 kV and IEC rated at 3.6/17.5 kV.

* Refer to page 11 for specific breaker ratings. UL listing, 3-cycle ratings, undervoltage release, and second shunt trip are optionally available.
The World's Most Complete Line of Medium Voltage Vacuum Circuit Breakers

<table>
<thead>
<tr>
<th>Breaker Type</th>
<th>Voltage Class</th>
<th>Insulation Bil.</th>
<th>Interrupting Ratings</th>
<th>Continuous Current</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCP-W ND</td>
<td>ANSI 5-15 kV</td>
<td>60-95 kV</td>
<td>2500 MVA</td>
<td>12000 A</td>
<td>28&quot; Wide New Metal-Clad Switchgear or Upgrades to Existing Airbreak Switchgear</td>
</tr>
<tr>
<td>VCP-W</td>
<td>IEC 3.6-7.2 kV</td>
<td>40-90 kV</td>
<td>25-31.5 kA</td>
<td>3000 A</td>
<td>28&quot; Wide New Metal-Clad Switchgear or Upgrades to Existing Switchgear</td>
</tr>
<tr>
<td>VCP-W GE</td>
<td>ANSI 5-15 kV</td>
<td>60-95 kV</td>
<td>2500 MVA</td>
<td>12000 A</td>
<td>Special Environment Metal-Clad Switchgear Featuring Breakers with Cycloaliphatic Epoxy Insulation for Harsh Industrial Environments</td>
</tr>
<tr>
<td>VCP-W</td>
<td>IEC 3.6-7.2 kV</td>
<td>40-90 kV</td>
<td>25-31.5 kA</td>
<td>3000 A</td>
<td>Special Environment Metal-Clad Switchgear Featuring Breakers with Cycloaliphatic Epoxy Insulation for Harsh Industrial Environments</td>
</tr>
<tr>
<td>VCP-W</td>
<td>ANSI 27 kV</td>
<td>125 kV</td>
<td>16-40 kA</td>
<td>930-2000 A</td>
<td>28&quot; Wide Metal-Clad Switchgear or Upgrades to Existing Switchgear</td>
</tr>
<tr>
<td>VCP-W</td>
<td>IEC 24 kV</td>
<td>125 kV</td>
<td>16-25 kA</td>
<td>930-2000 A</td>
<td>28&quot; Wide Metal-Clad Switchgear or Upgrades to Existing Switchgear</td>
</tr>
<tr>
<td>VCP-W</td>
<td>ANSI 39 kV</td>
<td>170 kV</td>
<td>16-40 kA, 1500 MVA</td>
<td>930-2000 A</td>
<td>42&quot; Wide Metal-Clad Switchgear</td>
</tr>
<tr>
<td>VCP-W (Illinois)</td>
<td>ANSI 15.5 kV</td>
<td>110 kV</td>
<td>16-31.5 kA, 1500 MVA</td>
<td>930-2000 A</td>
<td>Outdoor Station Distribution Breakers</td>
</tr>
<tr>
<td>W-VAC</td>
<td>IEC 3.6-7.2 kV</td>
<td>40-90 kV</td>
<td>25-31.5 kA</td>
<td>3000 A</td>
<td>28&quot; Wide New Metal-Clad Switchgear or Upgrades to Existing Switchgear</td>
</tr>
<tr>
<td>W-VAC</td>
<td>ANSI 5-15 kV</td>
<td>60-95 kV</td>
<td>2500 MVA</td>
<td>12000 A</td>
<td>28&quot; Wide New Metal-Clad Switchgear or Upgrades to Existing Switchgear</td>
</tr>
<tr>
<td>W-VAC</td>
<td>IEC 3.6-7.2 kV</td>
<td>40-90 kV</td>
<td>25-31.5 kA</td>
<td>3000 A</td>
<td>28&quot; Wide New Metal-Clad Switchgear or Upgrades to Existing Switchgear</td>
</tr>
<tr>
<td>DHP-VR</td>
<td>ANSI 5-15 kV</td>
<td>60-95 kV</td>
<td>250-1000 MVA</td>
<td>12000-20000 A</td>
<td>DHP Metal-Clad Switchgear Technology Upgrades with the DHP-VR Direct Roll-in Vacuum Replacement Breakers from the Original Manufacturer</td>
</tr>
<tr>
<td>VCP-WR</td>
<td>ANSI 5-15 kV</td>
<td>60-95 kV</td>
<td>2500 MVA</td>
<td>12000-20000 A</td>
<td>Modular Fixed Vacuum Circuit Breakers in 18&quot;, 20&quot;, and 29&quot; Widths for Commissions/Refineries, Metal Enclosed Switchgear and Mining Switchgear</td>
</tr>
<tr>
<td>VCP-WL</td>
<td>ANSI 5-15 kV</td>
<td>95kV</td>
<td>25-400 A</td>
<td>12000-20000 A</td>
<td>30&quot; Wide Metal-Clad Switchgear</td>
</tr>
<tr>
<td>VCP-WL</td>
<td>IEC 3.6-7.2 kV</td>
<td>95kV</td>
<td>25-400 A</td>
<td>12000-20000 A</td>
<td>30&quot; Wide Metal-Clad Switchgear</td>
</tr>
<tr>
<td>VCP-WL</td>
<td>ANSI 5-15 kV</td>
<td>95kV</td>
<td>16-250 A</td>
<td>900-1200 A</td>
<td>Smaller frame breaker</td>
</tr>
<tr>
<td>VCP-WL</td>
<td>IEC 3.6-7.2 kV</td>
<td>95kV</td>
<td>16-250 A</td>
<td>930-1250 A</td>
<td>Smaller frame breaker</td>
</tr>
</tbody>
</table>

Type VCP-W Vacuum Circuit Breakers

ANSI 5/15 kV at 1200-3000 Amperes
250-1500 MVA, 60-95 kV BIL

IEC 3.6/17.5 kV at 630-2000 Amperes
25-40 kA, 40-95 kV BIL

The leading value-added modular approach for assembling metal-clad switchgear featuring Cutler-Hammer medium voltage vacuum circuit breakers, structures and accessories.