

## 38 kV VCPW-HD/HDR Vacuum circuit breakers



# Unmatched reliability, efficiency and safety



Eaton's medium voltage breaker platform features the ANSI-rated 38 kV VCPW-HD/HDR—our compact solution to your power management needs.

# EATON

Powering Business Worldwide

### Features

- 38 kV, up to 40 kA, up to 3000 A
- 40 percent smaller than 38 kV VCP-W breaker
- Back-to-back capacitor switching
- Roll-on-floor design
- Requires 31 percent less space than the traditional 38 kV VCP-W
- Fixed breaker available
- Designed to accommodate up to six front-access current transformer C200s per phase
- No fan cooling required <sup>1</sup>
- Breaker mini module available
- Automatic secondaries; the breaker secondaries are automatically made when moved from the Disconnect to the Test position

### Industry-leading vacuum and solid insulation technology

- Leading the industry for more than 80 years in vacuum interrupter innovation
- Reliably switches normal load currents and high-stress fault currents
- Features increased dielectric strength with solid insulation that is encapsulated in epoxy resin material, eliminating live conductors in the breaker cell

### Environmentally friendly

- Free of hazardous SF<sub>6</sub> gas that contributes to the greenhouse effect and associated climate change
- Tested and certified in accordance with IEEE® C37.06 and C37.09

### Reliability, efficiency and safety

- Encapsulated pole units are sealed from dust and contaminants, providing long, reliable equipment life
- Three distinct positions: Test, Disconnect and Connected
- Provides valuable space savings for applications, allowing VTs to be mounted on top of breaker or a two-high design
- Partial discharge-free

### Versatility

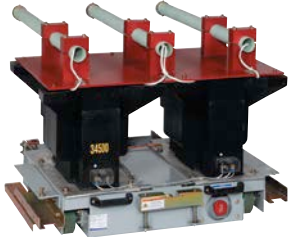
- Protects transformers, capacitor banks, motors, busbar sections and cables
- Well-suited for special environment conditions, such as high altitude, light shock, vibration and high ambient temperature

<sup>1</sup> At 40 kA, 3000 A breaker requires fan cooling.

Designed in conjunction with:



38 kV VT Module



38 kV VT Carriage



38 kV Breaker Mini Module



Tilt-Out Fuse Unit



VCPW-HDR

**38 kV VT module and carriage ❶**

- VT modules and VT carriages are available in one, two and three VT L-L and L-G ground configurations
- VT module and carriage are designed to accommodate single or dual secondary VTs
- VT carriage does not include the VT or fuse, but is designed to accommodate them
- The VT fuse assembly automatically grounds when it is in the Disconnect position

❶ All associated modules were tested in accordance with IEEE C37.20.2.

**38 kV breaker mini module ❶**

- The breaker has three distinct latched positions: Disconnect, Test and Connect
- Front-accessible epoxy spouts have embedded stress shields and are designed to allow up to six standard class C200, or two standard class C200 and two class C400 current transformers per phase
- The automatic secondary contacts are wired and identified with wire markers; 10-foot-long wires are then coiled for customer use
- Fully automatic, padlockable primary

**Tilt-out fuse unit ❶**

- Tilt-out fuse unit has been fully tested in accordance with IEEE C37.20.2
- Tilt-out fuse units are available in one-, two- and three-fuse configurations
- The fuse assembly automatically grounds when it is in the Disconnect position
- Tilt-out fuse unit can be ordered to accept either 31.5 kA or 50 kA fuses
- Tilt-out fuse unit is provided with padlocking provision and mounting of a Type D Kirk® keylock

**Note:** Fuses are not supplied and must be ordered by OEM.

**Ratings overview**

Circuit Breaker Type	Continuous Current (A)	Interrupting Current (kA rms)	Closed and Latch (kA Peak)	BIL (Impulse) Withstand kV Peak
<b>38 kV VCPW-HD</b>				
380VCPW-HD 16	600	16	42	150
	1200	16	42	150
	1600	16	42	150
	2000	16	42	150
	2500	16	42	150
	3000	16	42	150
380VCPW-HD 25	600	25	65	150
	1200	25	65	150
	1600	25	65	150
	2000	25	65	150
	2500	25	65	150
	3000	25	65	150
380VCPW-HD 32	600	31.5	82	150
	1200	31.5	82	150
	1600	31.5	82	150
	2000	31.5	82	150
	2500	31.5	82	150
	3000	31.5	82	150
380VCPW-HD 40	600	40	104	150
	1200	40	104	150
	1600	40	104	150
	2000	40	104	150
	2500	40	104	150
	3000 FC	40 ❶	104	150
<b>38 kV VCPW-HDR</b>				
380VCPW-HDR 40	3000	40	104	200

❶ At 40 kA, 3000 A breaker requires fan cooling.

**Note:** All breakers have voltage range K-Factor = 1.

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 Printed in USA  
 Publication No. PA01301024E / Z15793  
 November 2014

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