

IEC medium voltage vacuum circuit breakers 12 kV, 17.5 kV and 24 kV

W-VACi MV circuit breakers

A safe choice from a reliable source



- High-performance
- Safe and reliable
- Compact and cost effective
- Environmentally friendly
- Versatile and flexible

EATON

Powering Business Worldwide



Automotive



Aerospace



Truck



Hydraulics



Electrical

Powering business worldwide

Eaton delivers the power inside hundreds of products that are answering the demand of today's fast changing world. We help our customers worldwide manage the power they need for buildings, aircraft, trucks, cars, machinery and entire businesses. And we do it in a way that consumes fewer resources.

Next generation transportation

Eaton is driving the development of new technologies – from hybrid drivetrains and emission control systems to advanced engine components – that reduce fuel consumption and emissions in trucks and cars.

Higher expectations

We continue to expand our aerospace solutions and services to meet the needs of new aviation platforms, including the highflying light jet and very light jet markets.

Building on our strengths

Our hydraulics business combines localized service and support with an innovative portfolio of fluid power solutions to answer the needs of global infrastructure projects, including locks, canals and dams.

Powering Greener Buildings and Businesses

Eaton's Electrical Group is a leading provider of power quality, distribution and control solutions that increase energy efficiency and improve power quality, safety and reliability. Our solutions offer a growing portfolio of "green" products and services, such as energy audits and real-time energy consumption monitoring. Eaton's Uninterruptible Power Supplies (UPS), variable-speed drives and lighting controls help conserve energy and increase efficiency.



MV Switchgear Technology is in our DNA

Eaton Corporation is a worldwide leader in the design, manufacture, and sale of safe, reliable and high-performance medium voltage power distribution equipment in accordance with IEC, GB and ANSI standards.

Complete Global Medium Voltage Switchgear Solutions

Eaton, a premier leader in designing and manufacturing power distribution and protection equipment in the electrical industry, offers a comprehensive range of medium voltage (MV) solutions to meet the needs of virtually every application. From products that feature cutting-edge design that allow for easy access, maintenance and space savings, to arc-resistant products that enhance safety, Eaton's medium voltage solutions provide a variety of products for every need. Additionally, Eaton's global service network provides maximum customer support in all regions of the world.

As one of the few completely vertically integrated and diversified industrial manufacturers in the world, Eaton designs not only MV assemblies, but also the key components that comprise the MV solutions – from steel housing and circuit breaker compartments to vacuum interrupters, circuit breakers, bus systems and fuses.

Eaton's MV heritage, strengthened by acquisitions such as Westinghouse DCBU, Cutler Hammer, MEM and Holec, has resulted in breakthrough MV technologies and numerous international patents over the years.

Integral to Eaton's complete electrical PowerChain Solutions – which help businesses increase reliability, efficiency and safety – Eaton's medium voltage equipment meets all applicable standards and certifications such as IEC, NEMA / ANSI, GB, UL, IEEE, KEMA and CSA.

When it comes to medium voltage solutions, you can trust the one name with a long history of proven performance: Eaton.





W-VACi IEC 12 kV, 17.5 kV and 24 kV

Environmentally-friendly, reliable performance in a compact package

The new and extensive line of W-VACi compact MV vacuum circuit breakers with IEC ratings of 12 kV, 17.5 kV and 24 kV are part of Eaton's comprehensive global product portfolio. It serves both 50 Hz and 60 Hz end-user segments of the electrical industry such as industrial, commercial, utility, mining, marine and off-shore.

Eaton has combined global innovation and substantial design investments to deliver a complete IEC vacuum circuit breaker portfolio for your targeted applications. W-VACi circuit breakers provide you with:

Reliability, safety, and performance.

The W-VACi IEC circuit breakers offer numerous safety features for maximum protection. Eaton's extensive innovation and experience in the electrical industry deliver world-class product reliability and quality. Each W-VACi circuit breaker is tested mechanically and electrically before it leaves the ISO 9001 certified factory. W-VACi circuit breakers are compact, user-friendly and cost effective.

Environmentally friendly design.

Eaton's vacuum and solid insulation technology is free of SF₆-gas. SF₆-gas contributes significantly to the greenhouse effect and associated climate change.

Conformance to the latest IEC standards.

W-VACi IEC circuit breakers are designed and third party tested to the latest IEC 62271-100 and IEC 62271-1 standards. All W-VACi circuit breakers meet or exceed the electrical and mechanical endurance requirements of E2 and M2 in accordance with IEC 62271-100.

Versatility and flexibility.

W-VACi circuit breakers can be used in an extensive scope of applications such as the protection of transformers, capacitor banks, motors and cables. The circuit breakers can be used in a wide range of applications including high altitude, shock, vibration and high ambient temperature.



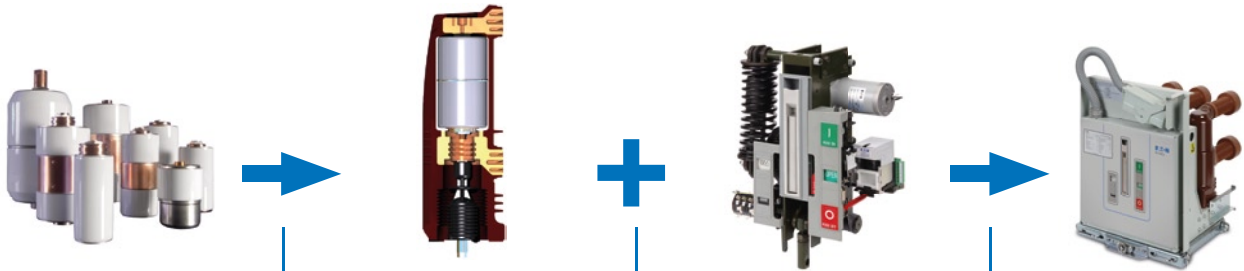


W-VACi Building Blocks

The W-VACi IEC circuit breakers are comprised of three key building blocks: vacuum interrupter (VI), epoxy resin encapsulated pole unit (EPU), and universal mechanism assembly (UMA). Each building block offers a set of specific benefits to construct a circuit breaker assembly of extreme safety, reliability and performance.

The W-VACi IEC circuit breakers are available globally in both withdrawable and fixed configurations for maximum flexibility. They are offered in Eaton's new Power Xpert® UX IEC switchgear design and can also be packaged with Eaton's circuit breaker compartments for use by panel builders.

The W-VACi portfolio of products is complemented by a full line of breaker accessories for maximum safety and ease of use. Additionally, Eaton's global service network provides extensive customer support in all regions of the world.



Vacuum interrupters (VI)	Encapsulated pole unit (EPU)	Universal mechanism assembly (UMA)	W-VACi circuit breaker
<ul style="list-style-type: none"> • High electrical life • Maintenance free • Sealed for life • Negligible contact erosion 	<ul style="list-style-type: none"> • High-performance • Durable • Compact • High mechanical strength 	<ul style="list-style-type: none"> • Long life and reliable • Minimal inspection • Easy to use • Standard modular design for all frames 	<ul style="list-style-type: none"> • Combines all building block features • High performance • Safe and reliable • Cost effective



Product information

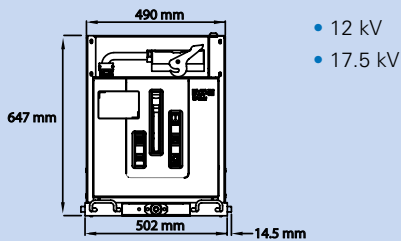
W-VACi IEC withdrawable



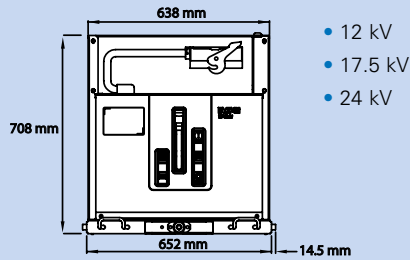
W-VACi IEC fixed



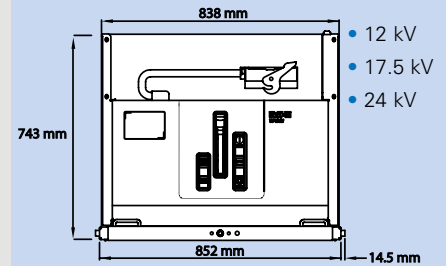
Breaker pole space: 150 mm



Breaker pole space: 210 mm



Breaker pole space: 275 mm



For information on detailed drawings of all available breakers, please see product guide W-VACi circuit breakers (publication number PG022060001U).

W-VACi IEC product portfolio overview

Circuit breaker designation	12 kV			17.5 kV			24 kV			
	Rated voltage	U_r	kV	12			17.5			24
Rated frequency	f_r	Hz	50 / 60							
Rated normal current	I_r	A	630 / 800 / 1250 / 1600 / 2000 / 2500 / 3150 / 4000 ^{[1] [2] [3]}						800 / 1250 / 1600 / 2000 / 2500 ^{[2] [3]}	
Rated short-time withstand current	I_k	kA rms	25 / 26.3 ^[4] / 31.5 / 40 / 50 ^{[2] [3]}			25 / 31.5 / 40 / 50 ^{[2] [3]}			20 / 25 ^{[2] [3]}	
Rated duration of short circuit	t_k	s	3							
Rated supply voltage		V	24 - 48 - 60 - 110 - 125 - 220 - 250 VDC / 120 - 220 - 230 VAC ^[3]							
Pole-center distance		mm	150	210	275	150	210	275	210	275
Upper-to-lower terminal spacing		mm	205 / 275	310	310	205 / 275	275	310	310	310

[1] 4000 A rating with forced cooling

[2] See product guide W-VACi circuit breakers (publication number PG022060001U) for exact technical information and configurations

[3] Please contact Eaton for availability

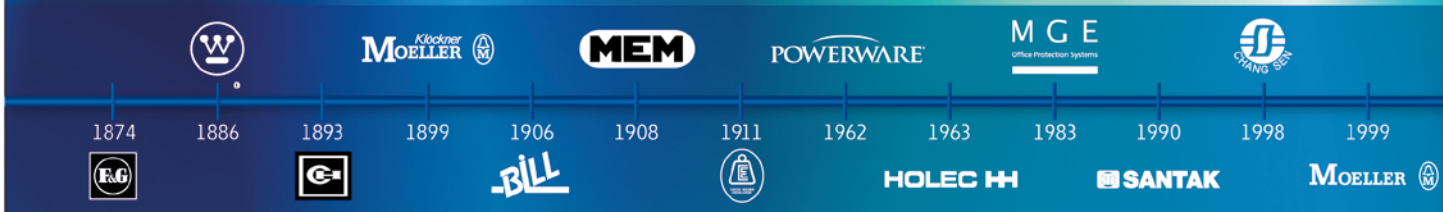
[4] Tested at 50 Hz

More information

For a complete overview of our range of W-VACi circuit breakers, a Product Guide with extensive technical information and dimensional drawings is available (publication number PG022060001U).



The power of fusion.



EAT•N

Powering Business Worldwide

There's a certain energy at Eaton. It's the power of uniting some of the world's most respected names to build a brand you can trust to meet every power management need. The energy created supports our commitment to powering business worldwide.

From power distribution to power quality and control, Eaton allows you to proactively manage your complete power system by providing electrical solutions that make your applications safer, more reliable, and highly efficient. Visit www.eaton.com/electrical.

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PowerChain™ solutions help enterprises achieve sustainable and competitive advantages through proactive management of the power system as a strategic, integrated asset throughout its life cycle, resulting in enhanced safety, greater reliability and energy efficiency. For more information, visit www.eaton.com/electrical.

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