

Vacuum circuit-breaker.

In the vacuum circuit-breaker type VD4, the complete pole and the maintenance-free vacuum interrupter form a positive unit.

Disruptive external effects on the switching element are therefore extensively precluded.

For very high rated short circuit breaking currents the assembled poles are still used.

The vacuum circuit-breaker of type VD4 with manual mechanism is fundamentally suitable for autoreclosing, the version with motorized mechanism for multi-shot autoreclosing.

Highly reliable operating mechanism thanks to featuring a low number of components and manufactured using production systems for large quantities. Extremely limited maintenance.

In addition, the breaker can be fitted with all standard releases and auxiliary switches required for the particular switching function to be performed.

VD4 can also be supplied as a withdrawable module with interlocks. Isolating contact arms can be fitted to the upper and lower terminals without additional support for installation on the withdrawable module.



VD4 Vacuum circuit-breaker

Contact

ABB AG
Calor Emag Medium Voltage Products
Oberhausener Strasse 33
40472 Ratingen, Germany
Phone: +49(0)21 02/12-0
Fax: +49(0)21 02/12-17 77
E-Mail: powertech@de.abb.com

ABB S.p.A.
Power Products Division
Unità Operativa Sace-MV
Via Friuli, 4
I-24044 Dalmine
Phone: +39 035 6952 111
Fax: +39 035 6952 874
E-Mail: info.mv@it.abb.com

www.abb.com/mediumvoltage

Note:

We reserve the right to make technical changes or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB AG does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

We reserve all rights in this document and in the subject matter and illustrations contained therein. Any reproduction, disclosure to third parties or utilization of its contents – in whole or in parts – is forbidden without prior written consent of ABB AG.

Copyright© 2013 ABB
All rights reserved

DEABB 2485 13 gb (02.13 - 1000 AMC)



VD4 – Vacuum circuit-breaker

VD4 Vacuum circuit-breaker.

The reliable solution in power distribution.

With its advanced technology, the vacuum circuit-breaker type VD4 ranks the leading position in utility and industrial application. The rated data are dimensioned to suit the users requirements and fulfils the high demands in all respects.

Leadership based on:

- Availability
- Safety
- Robustness
- Extreme Maintainability

Einsatzgebiete:

- Power stations
- Transformer stations
- Chemical industry
- Steel industry
- Automotive industry
- Airport power supply
- Shipbuilding power supply
- Building power supply

Rated Voltage ¹⁾	kV	12	12	12	12	17.5	17.5	17,5	24	36	40.5
Rated frequency	Hz	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60	50 - 60
Rated normal current	A	630 ... 4000 ²⁾	630 ... 4000 ²⁾	630 ... 4000 ²⁾	630 ... 4000 ²⁾	630 ... 4000 ²⁾	630 ... 4000 ²⁾	630 ... 4000 ²⁾	630 ... 2500	630 ... 3150 ⁸⁾	630 ... 3150 ⁸⁾
Rated short-circuit breaking current (symm.)	kA	16 ... 31.5	40	50	63	16 ... 31.5	40	50	16 ... 31.5	16 ... 40	16 ... 40
Rated short-circuit making current	kA	40 ... 80	100	125 ³⁾	158	40 ... 80	100	125 ³⁾	40 ... 80	40 ... 100	40 ... 100
Rated duration of short-circuit	s	3	3	3	3	3	3	3	3	3	4
Fixed / withdrawable Version		■ / ■	■ / ■	■ / ■	■ / -	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■	■ / ■
Max. overall dimensions	p (mm)	150 - 275	210 - 275	210 - 275	275	150 - 275	210 - 275	210 - 275	210 - 275	280 / 360 ⁴⁾	280 / 360 ⁴⁾
(fixed Version)	H (mm)	205 - 310	310	310	310	205 - 310	310	310	310	328	328
	a (mm)	450 - 700	570 - 700	600 - 750	750	450 - 700	570 - 700	600 - 750	570 - 700	895 ⁸⁾ / 1000	895 ⁸⁾ / 1000
	b (mm)	424	424	459	459	424	424	459	424	555 - 686 ⁸⁾	555 - 686 ⁸⁾
	c (mm)	461 - 599 ⁵⁾	599 ⁵⁾	608 ⁷⁾	677	461 - 599 ⁵⁾	599 ⁵⁾	608 ⁷⁾	631 - 661	1575	1575
Weight	kg	73 - 105	94 - 180	147 - 260	265	73 - 105	94 - 180	147 - 260	100 - 110	290 - 365	290 - 365
Embedded Pole		■	■	■		■	■	■	■	■	■
Assembled Pole					■					■	■

- 1) Test voltage according to DIN VDE 0670, - part 1000, list 2
 2) 4000 A with forced cooling
 3) Higher values on request
 4) 360 mm for fixed, 280 mm for withdrawable Version
 5) Circuit-breaker with heat sink 616 mm
 6) Withdrawable Version
 7) Circuit-breaker with heat sink 634 mm
 8) ...2500 A, ...40 kA with embedded pole
 3150 A, ...31.5 kA with assembled pole

VD4 is designed for switching:

- Short-circuit currents
- Cables and overhead lines under load and no-load conditions
- Transformers and generators under load and no-load conditions
- Ripple control systems
- Capacitor banks, and
- Motors

The vacuum circuit-breaker VD4 with the following specifications in according with DIN VDE and relevant IEC publications:

VDE 00670, part 1000 and IEC 60694-100
 VDE 00671, part 100 and IEC 62271-100

