

DISTRIBUTION SOLUTIONS

VM1

Medium voltage vacuum circuit breaker with magnetic actuator



Reliable in extreme conditions

- Embedded electronic diagnostic
- Vacuum interrupters embedded in poles



Continuous operation

- Mechanical life up to 100,000 C-O cycles
- Minimal maintenance on the actuator



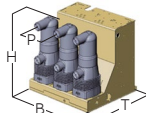
Optimum interface

- Fits same panels as VD4 and HD4 circuit breakers
- Withdrawable version in combination with PowerCube cassette

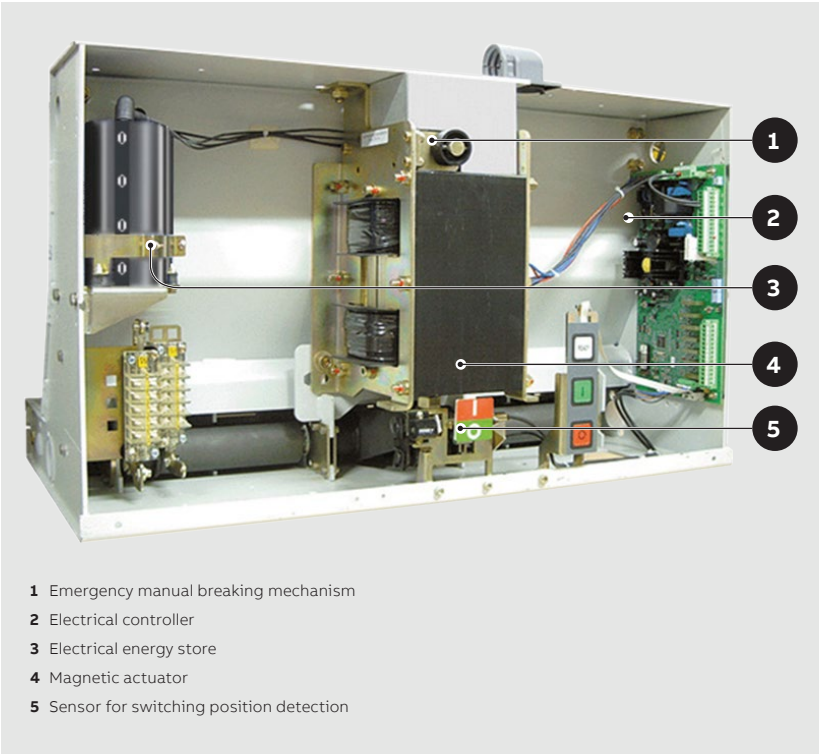
VM1 circuit breakers are used in primary air insulated switchgears where a high number of operations with minimal maintenance is required. Thanks to the magnetic actuator, VM1 can perform up to 100,000 close-open cycles.

Technical characteristics

Type tested according to IEC 62271-100

Circuit breaker		VM1 12	VM1 17	VM1 24	
Rated and insulation voltage	kV	12	17.5	24	
Rated power frequency withstand voltage 50 Hz (1 min.)	kV	28	38	50	
Rated lightning impulse withstand voltage	kV	75	95	125	
Rated frequency	Hz	50 – 60	50 – 60	50 – 60	
Rated current (40 °C)	A	...4000 ⁽¹⁾	...3150	...2500	
Rated short-circuit breaking current	kA	...50	...40	...25	
Rated short-circuit making current	kA	...125	...100	...63	
Rated operating sequence for autoreclosing		O-0,3s-CO-3min-CO	O-0,3s-CO-3min-CO	O-0,3s-CO-3min-CO	
Opening time ⁽²⁾	ms	35...50	35...50	35...50	
Arcing time (at 50 Hz)	ms	10...15	10...15	10...15	
Total break time	ms	45...65	45...65	45...65	
Closing time ⁽²⁾	ms	45...60	45...60	45...60	
Overall dimensions (fixed version)		H (mm)	461...668	461...668	631...662
		B (mm)	570...750	570...750	570...750
		T (mm)	424...459	424...459	424
		P (mm)	150...275	150...275	210/275
Operating temperature	°C	– 5...+ 40	– 5...+ 40	– 5...+ 40	

⁽¹⁾ 4000 A with fan cooling
⁽²⁾ 16 ms for VM1-T for High Speed Transfer systems



For more information please contact:

More product information:
abb.com/mediumvoltage
Your contact center:
abb.com/contactcenters
More service information:
abb.com/service