



# MOTORTRONICS™

*Solid State AC Motor Control*

## MVF Series 7.2 kV<sub>400A</sub>

**Motortronics** 7.2kV Class, 'Non-Latching' and 'Latching' Series of medium voltage three-phase indoor vacuum contactors can be used in power systems with a rated voltage of up to 7.2 kV and can be used for continuous AC operating currents of up to 400 amperes. Available in 110/220V AC or DC control voltage for the contactor.



**Non-Latching** - uses constant-on electromagnetic coils to close, and hold closed the vacuum bottle contacts. When the power to the electromagnetic coil is removed, the vacuum chamber contacts spring open (termed as; electrically held contacts or non-latching contacts).

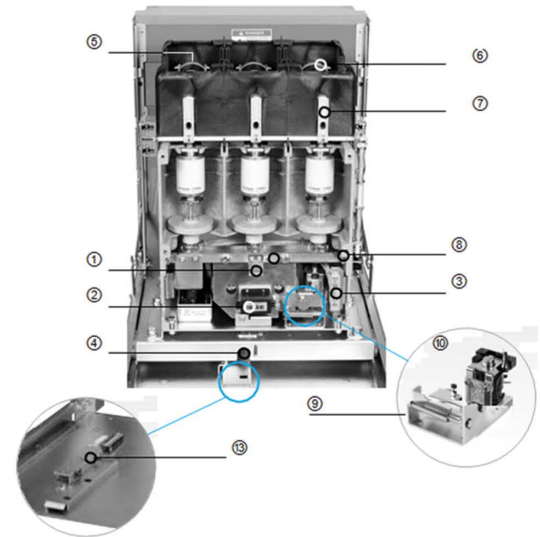
**Latching** - uses separate coils and mechanisms to both close and open the vacuum bottle contacts (termed as; mechanically held or latching, contacts).



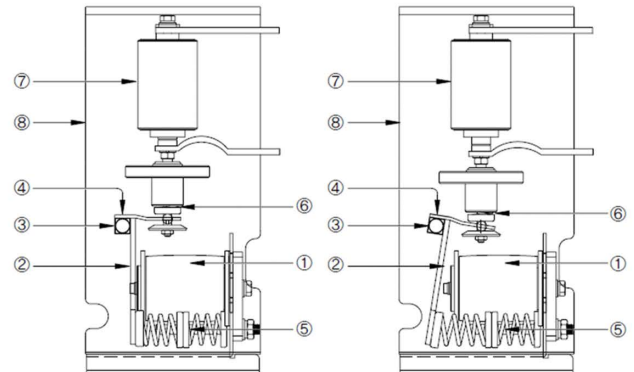
***Latching and Non-Latching  
BIL 60kV***

***MVF Series Medium Voltage Contactor***

Specification		Fixed type without fuse	Draw-out type without fuse				
Type	Continuously energized	34-72-4-C-X-0-3-0-12	34-72-4-C-B-F1-0-12				
	Latched	34-72-4-L-X-0-3-0-12	34-72-4-L-B-F1-0-12				
Rated insulation voltage (kV)		7.2 kV					
Rated operation voltage (kV)		6.6 kV					
Rated frequency (Hz)		50/60 Hz					
Rated current (A)		400 A					
Impulse withstand voltage (kV) (BIL)		60 kV					
Power frequency withstand voltage (kV/min)		20 kV/min					
Control dielectric strength (kV/min)		2 kV/min					
Making and breaking capability (kA)		4 kA					
Breaking Capacity	E1	4 (50 MVA@7.2 kV)					
(kA, O-3min-CO-3min-CO)	E2	50 @7.2 kV **					
Peak current (kA)	1 sec	6.3 kA					
	30 sec	3 kA					
Mechanical Endurance	Continuously energized	1,000,000 operations					
	Latched	300,000 operations					
Control voltage(V)		AC/DC 100~125 V					
Auxiliary contact		3 Normally Open and 2 Normally Closed Contacts					
Applicable load capacity	Motor (kW)	3000 kW					
	Transformer (kVA)	4000 kVA					
	Condenser (KVAR)	2000 KVAR					
Weight (kg / lbs.)		19 kg / 42 lbs.	35 kg / 77 lbs.				
Operating Time and Current		Control Voltage	Closing Current (A)	Holding Current (A)	Opening Current (A)	Closing Time(ms)	Opening Time(ms)
Continuously Energized Type		110 VDC	2.5	1	N/A	80 Max.	40 Max.
		220 VDC	1.6	0.7	N/A	80 Max.	
		110 VAC	2	0.8	N/A	80 Max.	
		220 VAC	1	0.5	N/A	80 Max.	
Latched Type		110 VDC	2.7	N/A	5	120 Max.	25 Max.
		220 VDC	1.7	N/A	4	120 Max.	
		110 VAC	1.9	N/A	3.5	80 Max.	
		220 VAC	1.2	N/A	3	80 Max.	
Control Voltage							
Closing		85~110 % of rated voltage					
Opening		70~110 % of rated voltage					
Rated Current of Auxiliary Contact							
Voltage		110 VAC		220 VAC			
Rated Current		5A		2A			
Operation condition							
Altitude		Less than 1,000 A.S.L					
Relative humidity		Below 85 %					
Ambient temperature		-5C ~ +40C					
Switching frequency		Not faster than 20 operations / 1 minute					
Required mounting direction		Horizontal or Vertical					
Additional Ratings							
Drop-out control voltage		AC/DC 25 V					
Chopping current		1A					



- ① ON/OFF indicator
- ② Counter
- ③ Control plug
- ④ Draw-out button
- ⑤ Fuse
- ⑥ Fuse holder
- ⑦ Fuse melting detector
- ⑧ Manual checking hole
- ⑨ Emergency trip button
- ⑩ Latch device
- ⑪ Front cover
- ⑫ Name plate
- ⑬ Position switch.



Close Condition

- ① Closing coil
- ② Moving core
- ③ Main shaft
- ④ Pressing plate

Open Condition

- ⑤ Tripping spring
- ⑥ Pressing spring
- ⑦ Vacuum interrupter
- ⑧ Insulation frame

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