



# 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).

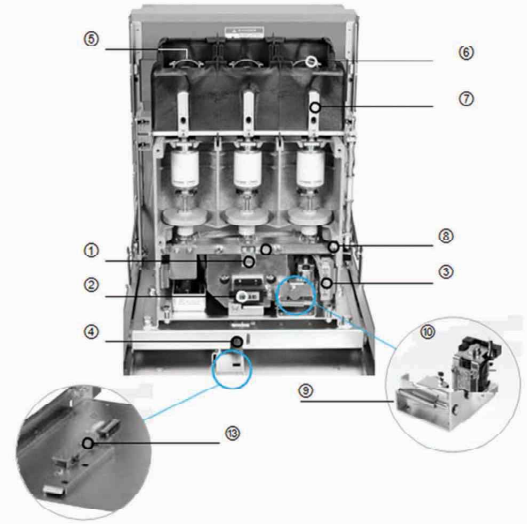
**Latching** - uses separate coils and mechanisms to both close and open the vacuum bottle contacts (termed as; mechanically held or latching, contacts).



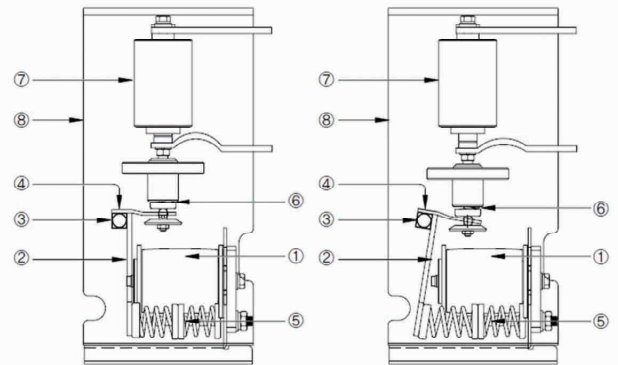
***Latching and Non-Latching  
BIL 60kV***

***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)					
	E2 (kA, 0-3min-CO-3min-CO)	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			
	110 VAC	2	0.8	N/A	80 Max.		
	220 VAC	1	0.5	N/A			
Latched Type	110 VDC	2.7	N/A	5	120 Max.	25 Max.	
	220 VDC	1.7	N/A	4			
	110 VAC	1.9	N/A	3.5	80 Max.		
	220 VAC	1.2	N/A	3			
Control Voltage		Closing					
		85~110 % of rated voltage					
		Opening					
		70~110 % of rated voltage					
Rated Current of Auxiliary Contact		Voltage					
		110 VAC			220 VAC		
		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

Open Condition

- ① Closing coil
- ② Moving core
- ③ Main shaft
- ④ Pressing plate
- ⑤ Tripping spring
- ⑥ Pressing spring
- ⑦ Vacuum interrupter
- ⑧ Insulation frame

### USA HEADQUARTERS

#### Motortronics / Phasetronics

1600 Sunshine Drive  
Clearwater, Florida 33765  
USA

Tel: + 727-573-1819 / 888-767-7792

Fax: + 727-573-1803 / 800-548-4104

E-mail: sales@motortronics.com

[www.motortronics.com](http://www.motortronics.com)

### UNITED KINGDOM

#### Motortronics UK

Bristow House,  
Gillard Way, Ivybridge,  
Devon, PL21 9GG,  
United Kingdom

Tel: +44 (0)1752-894554

[www.motortronics-uk.co.uk](http://www.motortronics-uk.co.uk)

### SOUTH KOREA

#### Motortronics Int'l Korea Co Ltd

#1607, 128 Gasan digital 1-ro,  
Gasan digital 1-ro,  
Geumcheon-gu,  
Seoul 08507, Republic of Korea

Tel: 82-2-867-5808

Fax: 82-2-867-6004

[www.motortronics-korea.com](http://www.motortronics-korea.com)

### CHINA

#### M & P Machinery & Electronics Control

Part of the Motortronics Group

32 Jiaxin Road,  
Jimo,

Qingdao, China 266229

Tel: 86-532-81725028

Fax: 86-532-81725038

[www.mp-cn.com](http://www.mp-cn.com)

### UNITED ARAB EMIRATES

#### Motortronics MEA, LLC

Sharjah Media City,  
Sharjah,  
United Arab Emirates

Tel: +1 971-50 763 4920

[www.motortronics.com](http://www.motortronics.com)

PN: CTR7P2-080620