# **<**elastimold

### **Molded Vacuum Switches and Interrupters**

Spring-energy, load-switching devices that make, carry and interrupt load currents through 600A on 5 to 38kV distribution systems.

## **MVS Molded Vacuum Switches**

- EPDM molded rubber insulation MVSs are fully sealed and submersible
- Vacuum switching and vacuum interruption components are maintenance-free and require no gas or oil
- Small footprint enables MVSs to fit in tight padmount, subsurface, vault or riser pole installations

MVS Molded Vacuum Switches include molded-in elbow connection interfaces and spring-energy mechanisms. Available in both single- and three-phase models, units are manually operated with a hotstick. Motor operator, SCADA and auto-transfer control options are available.

### Single-Phase Switches Approximate Weight: 30 lbs.



Available with 600A one-piece bushings or 200A wells on either/both terminals.

Thomas&Betts

United States Tel: 901.252.8000 800.816.7809 Fax: 901.252.1354 Technical Services Tel: 888.862.3289

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H-122



### **Molded Vacuum Switches and Interrupters**

#### Three-Phase Switches Approximate Weight: 135 lbs.



Available with 600A one-piece bushings or 200A wells on either/both terminals.

Ratings			
Maximum Design Voltage (kV)	15.5	27	38
Frequency (Hz)	50/60	50/60	50/60
BIL Impulse (kV)	95	125	150
One-Minute AC Withstand (kV)	35	60	70
Fifteen-Minute DC Withstand (kV)	53	78	103
Load Interrupting & Loop Switching (Amp)	600	600	600
Transformer Magnetizing Interrupting (Amp)	21	21	21
Capacitor or Cable Charging Interrupting (Amp)	10	15	20
Asymmetrical Momentary and 3-Operation Fault Close (Amp)	20,000	20,000	20,000
Symmetrical One-Second Rating (Amp)	12,500	12,500	12,500
Continuous Current (Amp)	600	600	600
Eight-Hour Overload Current (Amp)	900	900	900

### **Certified Tests**

MVS loadbreak switches have been designed and tested per applicable portions of IEEE, ANSI, NEMA and other industry standards, including:

**IEEE C37.74** Standard for Subsurface, Vault and Padmounted Load-Interrupting Switches

**IEEE 386** Standard for Separable Connectors and Bushing Interfaces

**IEC 265** International Standards for Load-Interrupting Switches

ANSI C57.12.28 Standard for Padmount Enclosures

### Application Information

Construction: Submersible, corrosion resistant, fully shielded Ambient Temperature Range: -40° C to 65° C





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### Molded Vacuum Switches and Interrupters

Make, carry and automatically interrupt currents through 25,000A symmetrical on 5 to 38kV distribution systems.

## **MVI Molded Vacuum Fault Interrupters**

- Vacuum interrupters, programmable, electronic, self-powered controls and EPDM rubber insulation provide compact, lightweight and submersible overcurrent protection
- Field programmable with a wide range of time-current characteristic (TCC) curves land trip settings
- TCC curves provide predictable tripping for ease of coordination with upstream and/or downstream protective devices
- Control monitors the circuit condition when the programmed parameters are exceeded, a signal is sent to the tripping mechanism
- · Available motor operators and controls enable radial feeders or loops to be reconfigured, either manually or via SCADA

MVI Molded Vacuum Fault Interrupters include molded-in elbow connection interfaces and trip-free mechanisms. They are available in single- and three-phase models. Units are self-powered and include current-sensing and electronic control.



327/8'

(156mm)

### **Front View Single-Phase**





### 51/2 (140mm)

61/4"

Front View Three-Phase

Ground

Lug



143/32

(358mm)

### **600A T Elbow Interface**



**600A Bushings** 





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### **Molded Vacuum Switches and Interrupters**

#### Ratings

Voltage Class (kV)	15.5	15.5	15.5	27	35	35
Maximum Design Voltage (kV)	17	17	15.5	29	38	38
Frequency (Hz)	50/60	50/60	50/60	50/60	50/60	50/60
BIL Impulse Withstand (kV)	95	95	95	125	150	150
One-Minute AC Withstand (kV)	35	35	35	40	50	50
Five-Minute DC Withstand (kV)	53	53	53	78	103	103
Continuous Current (Amp)	630	630	630	630	630	630
Load Interrupting & Loop Switching (Amp)	630	630	630	630	630	630
Capacitor or Cable Charging Interrupting (Amp)	10	10	10	25	40	40
Symmetrical/Asymmetrical Interrupting Capability (kA)	12.5/20	16/25.6	20/32	12.5/20	12.5/20	25/40
Current Sensor Ratio	1,000:1	1,000:1	1,000:1	1,000:1	1,000:1	1,000:1

#### **Application Information**

Meets ANSI C37.60 requirements

Ambient Temperature Range: -40° C to 65° C

#### **Certified Tests**

MVI Molded Vacuum Fault Interrupters have been designed and tested per applicable portions of IEEE, ANSI, NEMA and other industry standards, including:

ANSI C37.60 Standard for Fault Interrupters

IEEE 386 Standard for Separable Connectors and Bushing Interfaces ANSI C57.12.28 Standard for Padmounted Enclosures



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