

Metal-Clad Medium Voltage Switchgear

Vacuum Circuit Breakers

IEM's Metal-Clad Medium Voltage Switchgear vacuum circuit breaker product line is available in the 2.4kV, 5kV, 15kV, 27kV and 38kV classes in outdoor non-walk-in, outdoor walk-in and indoor enclosures.

Selection of specific protective relays, metering devices and circuit breakers for specific applications is optional. This customizable feature makes IEM an ideal choice for unique projects and for matching or upgrading existing installations.

FEATURES & BENEFITS

- Voltage 2.4kV – 38kV
- Ampacity 600A – 3000A
- Optimal breaker selection includes any commercially available vacuum circuit breaker from industry leading manufacturers
- Rear access for load and incoming connections
- Compartmentalized construction with top or bottom breaker compartment for each device
- One-high or two-high construction
- Unit substation primaries
- Indoor or Outdoor applications
- Component and metering selections are based on value engineering for the application and optimized to meet specifications.

Full Customization and Design Flexibility

Component and Metering Selection Options

Fully Rated Bus Based on Density Ratings

Standard Mechanical Circuit Breakers

Seismic Tested to Worst Case Response Spectrum

Indoor and Outdoor Applications

Meets ANSI, CSA, IEEE, and NEMA Standards



Tradition. Technology. Innovation.

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Product Sheet
MV SWITCHGEAR

IEM DIFFERENCE

Fully rated bus is based on density ratings, not UL heat rise tests, resulting in more bus and lower operating temperatures.

All enclosures are designed for specific application with improved dimensional flexibility and finished using state of the art powder coating system providing an indoor finish that exceeds the 1500 hour salt spray testing requirement for outdoor equipment to 3000 hours.

TECHNICAL SPECIFICATIONS

IEM Switchgear meets or exceeds all ANSI, IEEE, and NEMA standards applicable to metal clad switchgear including: C37.20.1, C37.20.2, C37.20.3, C37.55, C37.57, and NEMA SG-4.

IEM Switchgear meets seismic testing, circuit requirements as outlined by IEEE344 and ICC-ES-AC156.

NEMA 1 and 3R

IEM MEDIUM VOLTAGE COMPONENT SELECTION RATINGS BASED ON KA RATING

5kV									
Nominal Voltage kV rms	Nominal 3-phase class (kA) Voltage Factor k=1.0	Continuous Current A rms	Power Withstand Frequency kV rms	BIL Crest Impulse Voltage (kV)	Momentary Close & Latch Asym (1.55x1) kA rms	Momentary Close & Latch Peak (2.6x1) kA peak	Rated Interrupting Time (cycle/ms) 3 Cycles	Maximum Symmetrical Interrupting Capability	Short Time Current 3 Sec Carrying Capability(kA)
4.76	40	1200, 2000, 3000	19	60	62	104	5/83	40	40
4.76	50	1200, 2000, 3000, 4000 FC	19	60	78	130	5/83	50	50
4.76	63	1200, 2000, 3000, 4000 FC	19	60	98	164	5/83	63	63
15kV									
Nominal Voltage kV rms	Nominal 3-phase class (kA) Voltage Factor k=1.0	Continuous Current A rms	Power Withstand Frequency kV rms	BIL Crest Impulse Voltage (kV)	Momentary Close & Latch Asym (1.55x1) kA rms	Momentary Close & Latch Peak (2.6x1) kA peak	Rated Interrupting Time (cycle/ms) 3 Cycles	Maximum Symmetrical Interrupting Capability	Short Time Current 3 Sec Carrying Capability(kA)
15	25	1200, 2000, 3000	36	95	39	65	5/83	25	25
15	40	1200, 2000, 3000	36	95	62	104	5/83	40	40
15	50	1200, 2000, 3000 4000FC	36	95	78	130	5/83	50	50
15	63	1200, 2000, 3000, 4000 FC	36	95	98	164	5/83	63	63
27kV									
Nominal Voltage kV rms	Nominal 3-phase class (kA) Voltage Factor k=1.0	Continuous Current A rms	Power Withstand Frequency kV rms	BIL Crest Impulse Voltage (kV)	Momentary Close & Latch Asym (1.55x1) kA rms	Momentary Close & Latch Peak (2.6x1) kA peak	Rated Interrupting Time (cycle/ms) 3 Cycles	Maximum Symmetrical Interrupting Capability	Short Time Current 3 Sec Carrying Capability(kA)
27	16	1200, 2000, 2750	60	125	25	43	5/50	23	23
27	25	1200, 2000, 2750	60	125	39	68	5/50	36	36
27	40	1200, 2000, 2750	60	125	62	108	5/50	48	48
38kV									
Nominal Voltage kV rms	Nominal 3-phase class (kA) Voltage Factor k=1.0	Continuous Current A rms	Short Circuit Current Rating kA	Power Withstand Frequency kV rms	BIL Crest Impulse Voltage (kV)	Momentary Close & Latch kAp	Rated Interrupting Time (cycle/ms)	Maximum Symmetrical Interrupting Capability	
38	40	1200, 2000	40	80	170	104	3	40	

Industrial Electric Mfg.™ (IEM)

Headquartered in Fremont, CA, IEM is the largest independent full-line manufacturer of electrical distribution and integrated control systems in the U.S. For over half a century, IEM has delivered customer-specific solutions to meet the ever changing power requirements of growth industries in North America. At IEM, tradition and technology still drive innovation. An experienced engineering staff and one of the most flexible design and manufacturing systems in the industry set IEM apart from standard product manufacturers.



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