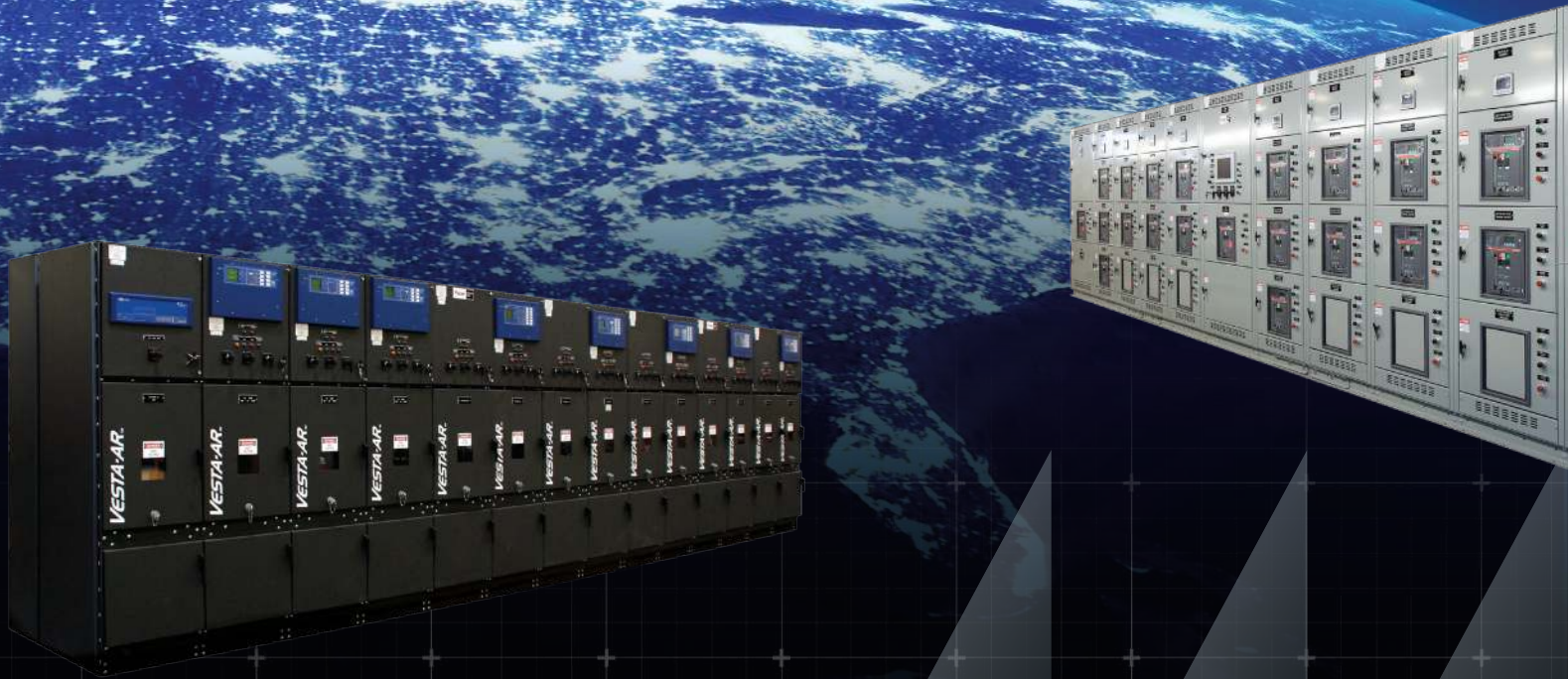




*Industrial Electric Mfg*

IEM Delivers Advanced Electrical Distribution Products and Systems



**Tradition. Technology. Innovation.**



*Industrial Electric Mfg*

IEM designs and manufactures specialized electrical distribution equipment and power control systems throughout the U.S. and Canada. Responsiveness, engineering and quality results remain the key to maintaining a loyal group of satisfied customers.

**At IEM, tradition and technology still drive innovation.**

Based in the heart of Silicon Valley, IEM has been solving power distribution challenges for Hewlett-Packard, Apple, and dozens of high tech pioneers since they were start-ups.

These companies realized that IEM products were superior to any the multi-nationals could offer, and that a faster, more flexible manufacturing system could provide them with the electrical equipment they needed in time to meet their demanding power requirements.

IEM has since expanded beyond North America to deliver advanced electrical power systems for critical applications worldwide. IEM started IEM Power Systems in 2013 to provide the most reliable and efficient continuous power systems in the world.

From system conception to site installation and commissioning, count on the invaluable experience, integrity, and flexibility of IEM to help with your power distribution and system needs.





For over 60 years, IEM has delivered innovative electrical solutions to meet the demanding needs of today's growing power markets.



**OUR TECHNOLOGY:**

- Panelboards
- UL 891 Switchboards
- UL 1558 Switchgear
- Medium Voltage Switchgear
- Arc-Resistant Switchgear
- Paralleling Switchgear
- Unit Substations
- Custom Assemblies
- Retrofitting Services
- Custom Control Solutions
- Retrofitting Services
- Rotary UPS Systems
- Marine Switchboards and Controls



Fremont, CA

Vancouver, BC

Jacksonville, FL

Battice, BE

VESTA-AR™

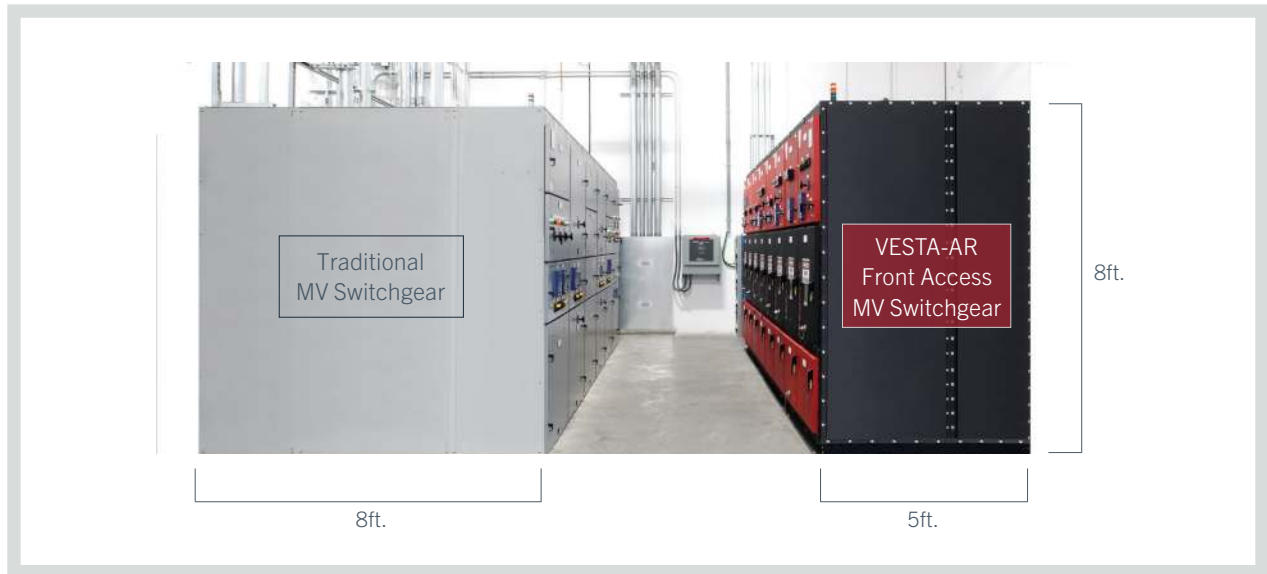


## VESTA-AR Medium Voltage Metal-Clad Arc-Resistant Switchgear

Vesta-AR medium voltage metal-clad, arc-resistant switchgear is designed to meet the needs of customers who demand the highest quality power distribution assembly with the smallest footprint in the industry.



# IEM's Innovative VESTA-AR Design Delivers A Significantly Reduced On-site Footprint



## Front Accessible, Arc-Resistant Metal-Clad Switchgear



The result of IEM's innovative design and rigorous testing is a new class of MV Arc-Resistant Metal-Clad Switchgear.

Vesta's plenum design redirects dangerous arc flash energy away from operating personnel, front-facing current transformers simplify maintenance, and magnetically actuated breakers operate up to 100K times, greatly reducing the need for service. In all, over a dozen key features were built into this revolutionary new switchgear.

- Rated voltage: 5 - 15kV; 95kV BIL
- Ampacity: 600A - 2000A; 25, 31.5, 40 & 50kA
- Dimensions 600A/1200A; 25/31kA: 24" x 96" x 60"
- Dimensions 1200A; 40/50kA: 30" x 96" x 72"
- Dimensions 2000A; 25/31.5/40/50kA: 30" x 96" x 72"
- Magnetically actuated breaker – up to 100,000 operations
- Front accessibility; Rear access required for maintenance

- Draw out breaker, PT & CPT
- Shortest breaker pole spacing between phases
- Infrared viewing ports – allow access to thermal monitoring
- Front and rear viewing windows
- Epoxy insulated bus bar configuration optimized for maximum heat dissipation
- Plenum design incorporated into structural configuration – No additional height requirement
- UL & cUL listed; Type 2A and 2B in accordance with ANSI/IEEE standards 37.20.7

## Panelboards

A wide variety of components can be integrated into IEM panelboards including surge suppression equipment, custom metering, receptacles, and more.

- Voltage: Up to 600Vac, 250Vdc maximum
- Ampacity: 100A to 600A
- 65kA at 480V
- UL or CSA listed
- Single phase and three phase
- Vertically mounted main and sub-feed circuit breakers
- Up to 84 circuits in one panel
- Interiors available in silver plated copper or aluminum bus



## Switchboards

Switchboards can be custom designed or utilize a standard configuration to meet specific dimensional and electrical requirements. Circuit breakers and fusible switches can be group or individually mounted.

- Voltage: Up to 600Vac, Up to 250Vdc maximum
- Ampacity: 400A to 12000A maximum bus rating
- Switchboard ratings through 12000A, 200kAIC up to 480V, 100kAIC up to 600V
- Front, rear, and side accessibility
- Devices can be individually (vertically) or group (panel/horizontally) mounted
- Custom sheet metal and bus flexibility for busway and transformer connections
- UL Listed; NEMA Type 1 or 3R enclosures
- UL891 and NEMA PB-2



## Low Voltage Switchgear

Designed to meet custom indoor or outdoor requirements. Meets applicable ANSI and UL1558 standards. Allows the use of popular power circuit breakers, mounted in fixed or draw-out configuration.

- Voltage: Up to 600Vac
- Ampacity: Up to 5000A
- Through the door breaker operation
- Available in NEMA 3R outdoor enclosures
- UL 1066 circuit breaker; or CSA
- Front accessibility to control and communication wiring
- Circuit breakers are available in various levels of interrupting ratings from 42–200kA up to 480V and 130kA at 600V



## Medium Voltage Switchgear Metal-Clad/Metal-Enclosed

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Available with vacuum circuit breakers and load interrupter switches in the 2.4kV, 5kV, 15kV, 27kV, and 38kV classes. Metal-clad and Metal-enclosed exceeding all ANSI, IEEE, and NEMA standards for indoor or outdoor installations.

- Voltage: 2400V to 38kV
- Ampacity: 600A to 3000A
- Optimal component selection includes any commercially available vacuum circuit breakers from industry leading manufacturers
- Rear access for load and incoming connections
- Compartmentalized construction with breaker compartment for each device
- One-high or two-high construction
- Indoor or outdoor applications



## Unit Substations

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Designed for industrial applications to convert distribution voltages to utilization voltages. Easy interface with both primary and secondary switchgear. Outdoor or indoor. Primary voltage from 38kV, secondary voltage > 5kV.

- Primary – Air terminal chamber, vacuum circuit breaker or load interrupter switch to 27kV
- Transformer – Any commercially available transformer
- Secondary – Vacuum circuit breaker or load interrupter switches, UL 891, UL 1558, or CSA switchgear
- Maximum flexibility with wide range of components and ratings to meet application specifics
- Indoor or outdoor assemblies/construction
- Configures to any commercially available transformer by leading manufacturers



## Paralleling Switchgear and Control Systems

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Designed and manufactured to deliver full control of custom-configured power generation systems. They integrate all facets of metering, protection, communication and controls to deliver peak performance, system reliability and operating economy.

- Prime power
- Emergency standby
- Distributed generation systems
- Intrinsic system features – Load priority controls
- PLC integrations
- Remote monitoring communications
- UL and CSA listed; Meets ANSI, IEEE, and NEMA standards



## Custom Control Systems

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IEM's custom control solutions utilize fully integrated data acquisition and control systems to ensure effective and efficient operation of your system at all times.

- Touch-Screen PC/PLC control
- Generator Paralleling
- Utility Paralleling
- Data Acquisition
- System Integration
- Instrumentation
- Status Annunciation
- Remote Monitoring



## Custom Assemblies

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From Marine Substations to Emergency Fused Coordination Panels, we design products for our customers that increase power system capacity and improve the reliability, stability and flexibility of power delivery.

- Emergency fused coordination panels
- Marina substations
- Walk-in enclosures
- Generator cable tap boxes



## Retrofitting Services

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As assets age and power requirements increase, cost effective upgrades are necessary to ensure that facilities can replace outdated, inefficient and unreliable legacy equipment. Our retrofitting services provide a full range of custom options from simple component upgrades to the provision and integration of whole sections of new equipment.





IEM Power Systems Rotabloc UPS delivers high reliability and efficiency providing complete critical power protection and voltage conditioning ensuring continuous uptime while preventing load disturbances. Our simple, robust design allows for low maintenance while guaranteeing maximum reliability. IEM Power Systems is the only UPS manufacturer that will build, integrate and test your system in the factory as standard.

- Outstanding voltage conditioning
- Total power failure protection
- Robust rotary technology
- High efficiency
- High short-circuit power
- Modular and resilient  
“Plug & Run“ paralleling
- Easy interfacing
- Low maintenance



**Rotabloc RBT (400kVA - 2000kVA)**



For over 30 years, IEM Marine has been dedicated to the design, manufacture, and service of safe and dependable electrical power control, distribution and monitoring systems for the marine industry.

IEM Marine is qualified to build products that meet or exceed the standards of all major electrical regulatory bodies and associations including ABS, USCG, Bureau Veritas, Lloyd's Register, IEEE among others for marine applications. We offer product listed under UL 1558 & UL 891 for low voltage switchgear and UL 508 for industrial motor controls.

- Generator Control Switchgear
- Distribution Switchboards and Switchgear up to 15kV
- Engine/Generator Control Panels
- Shore Power Solutions
- Individual Controllers
- Pilot House Panels



# Out-of-the box thinking and a flexible manufacturing process enable IEM to meet some of the most challenging electrical distribution problems.

IEM's unique manufacturing process moves the development of all phases along in parallel, allowing for possible changes, easy integration and shorter cycles. This flexibility enables IEM to handle projects that call for standard equipment and those that present unique requirements or a challenging time frame.



- Full customization and design flexibility
- Component and metering selection options
- Superior enclosures
- Fully rated bus based on density ratings
- Custom powder coat paint line
- All equipment tested to industry standards
- UL/CSA listed; meets ANSI, IEEE, and NEMA standards
- OSHPD seismic certification

Long term reliability of products is ensured by testing them beyond the limits of standard testing.



Industry standard  
low voltage switchgear



## IEM Delivers Customer Specific Solutions

Amazon  
American Online (AOL)  
Apple  
AT&T  
Chevron Corp.  
Cisco  
Cox Communications  
Digital Reality Trust  
Dupont Fabros  
Google  
Hewlett Packard Co.  
IBM  
Intel Corp.  
Kaiser Permanente Medical Center  
Levi Stadium  
Lockhead Missles and Space Co.  
McCarron Int'l Airport - Las Vegas  
Metro Atlanta Rapid Transit (MARTA)

Microsoft  
NASA  
National Semiconductor Corp.  
Oakland International Airport  
Oracle  
Pacific Gas & Electric Co.  
Port of Oakland  
Qwest  
San Francisco International Airport  
Siemens Transportation  
Sprint  
Stanford University  
Sun Micro Systems  
United States Navy  
University of California, Berkeley  
Vantage Data Centers  
Verizon  
Yahoo!

# The largest independent full-line manufacturers of electrical distribution and control systems in North America

Data Centers  
Healthcare  
Oil & Gas  
Telecommunications  
Marine  
Industrial  
Manufacturing  
Government  
Waste Water Treatment  
Alternative Energy  
Education



Tradition. Technology. Innovation.

#### Corporate Headquarters

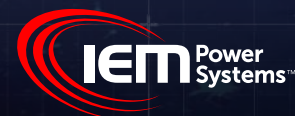
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