



CUSTOM APPLICATIONS. INTEGRATED SOLUTIONS.

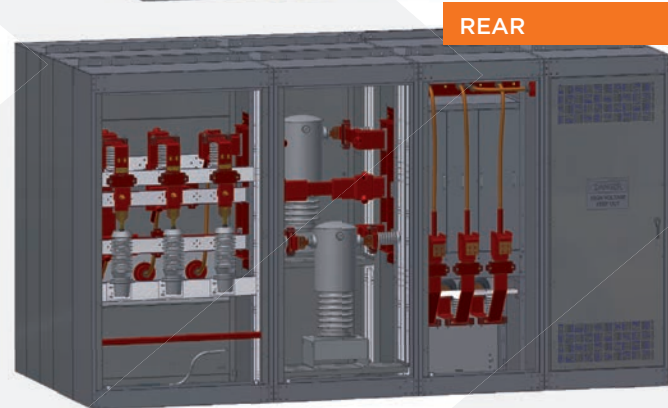
WWW.ESSMETRON.COM

» CUSTOM PRODUCT DESIGN & APPLICATION ENGINEERING SUPPORT

ESS Metron is at the forefront of Engineering Automation. We extract from our massive portfolio of 3-D modeled designs to provide our clients with drawings quickly. Early in the project design process you'll have detailed drawings specific to your parameters that meet the most demanding applications and standards. In addition, our broad engineering skill-set includes electrical, mechanical and structural disciplines; so you know you have the most skilled and state-of-the art engineering support at your disposal.



FRONT



REAR

COMMON RATINGS				KA RATED		MVA RATED			NEMA 1			NEMA 3R (NON WALK-IN)		
Rated Max RMS Voltage (kV)	Typical System Operating Voltages (kV)	Rated Withstand/Crest Voltage Impulse (kV)	Continuous RMS Current Rating (@ 60HZ) (AMPS)	Rated Short Time Circuit (kA)	Rated Interrupting Time (Cycles)	Nominal MVA Class	Short Circuit RMS Current @ Rated Max Voltage (KAIC)	Max Symmetrical Interrupting/3 sec Short Time Current Carrying Capability (KA)	Width (W)	Depth (D)	Height (H)	Width (W)	Depth (D)	Height (H)
38	34.5 or 26.4	150 or 170	1200 2000 3000FC	31.5 or 40	3 or 5	1500	21	35	42" or 48"	130"	110"	43" or 49"	161"	136"

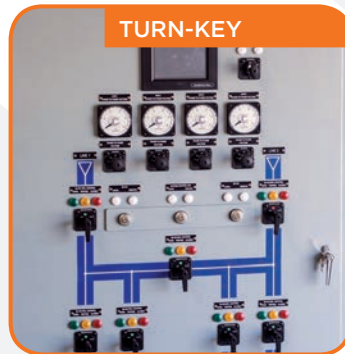
NOTES:

1. Add 30" to Depth for lineups with a Tie Breaker.
2. CPT and rollout fuse drawer require a dedicated section.
3. A single PT drawer (bus or line connected) can be installed above breaker.
4. NEMA 3R information above is a non-Walk-in type with a sloped roof. ESS Metron can provide custom NEMA 3R Walk-in or Power Distribution Center.
5. 3 cycle is only available in 48"W design.
6. Values above are for breaker ratings. A 4000A main bus rating is also available.
7. Air bushings will add a minimum 24" to overall height
8. All dimensions above are for single sections



# MEDIUM VOLTAGE SWITCHGEAR—38kV

Engineered, Manufactured, Assembled, and Tested to Meet Your Requirements



## STANDARD FEATURES

- 1 Safe, Reliable Quality Switchgear Which Meets or exceeds ANSI C37.20.2 Metal-Clad Switchgear Standards
- 2 Available in 1200, 2000 and 3000 Continuous Current, 31.5-40kA Short Circuit Ratings, 150kV and 170kV BIL
- 3 4000A Continuous Current Rating on Cross Bus Available
- 4 Silver Washed Copper Bus w/ Fluidized Bed Epoxy or Heat Shrink Insulation and Boots
- 5 NEMA 1 and NEMA 3R (Non-Walk-In) Enclosures
- 6 Rugged Powder Coated Steel Structures for Industrial, Commercial and Utility Applications
- 7 Robust Steel and Stainless Steel Construction
- 8 Exterior Paint Process Meeting ANSI C57.12.29 for Stainless Steel Construction
- 9 Various Configurations Including PT Above Breaker
- 10 Protective Relaying, Control Switches and Indicating Lights
- 11 Safety Interlocks, Breaker Position Indication and Grounded Safety Shutters
- 12 CPT and PTs in Various Ratings/Configurations all in Drawout Tray Configurations
- 13 Fully Tested to ANSI, IEEE and NEMA Standards/ 1 Year Standard Warranty on Entire Line-up

## OPTIONAL FEATURES

- 1 Utility Metering Enclosures
- 2 Custom Arrangements
- 3 Complex Mechanical and Electrical Interlocking
- 4 NEMA 3R Walk-in/Common Aisle Enclosures w/ Full Environmental and Utility Features
- 5 Power/Custom Metering
- 6 Automatic Transfer Schemes - Incoming Power Sources
- 7 Integration with Building Management Systems or Remote Monitoring Systems
- 8 Custom Bus Bar Configuration for Incoming/Outgoing or Matching to Existing/Other Equipment
- 9 Custom Mimic Bus
- 10 Complex Relay Protection
- 11 Special Paint Colors Available
- 12 Portable or Permanent Remote Control Stations
- 13 Arc Flash Mitigation
- 14 Custom Maintenance Switch Schemes for Arc Flash Reduction
- 15 Partial Discharge Analyzers
- 16 Ammeters/Test Button for Space Heaters
- 17 Remote Racking
- 18 42" W Footprint Available
- 19 Short Cycle Manufacturing Capabilities Available
- 20 Field Services Available
- 21 UL Listings Available
- 22 Turn Key Remote Substation or Remote Site Capabilities
  - Integrated Real Time Automation Control system
  - Reverse Power Monitoring
  - Embedded Computing Platform
  - Power Export Metering
  - Alarm monitoring
  - Remote Indication & Control
  - Fault Reporting & Logging
  - Generator Paralleling