

# PowVac® 38kV Metal-Clad Switchgear

## *Metal-Clad Switchgear Solutions for 27kV and 38kV Applications*

### DEFINITION

A state-of-the-art ANSI metal-clad switchgear system utilizing advanced vacuum circuit breaker technology. Designs are available for both 27kV and 38kV applications.

### OVERVIEW

PowVac 38 switchgear was first introduced in 1995 and Powell has continued to enhance this design with new capabilities, functionality and ratings. The advanced design axial-magnetic vacuum interrupter utilizes a copper-chrome alloy contacts. This breaker has been fully qualified for 40kA interrupting duty and back-to-back capacitor switching at KEMA. The design incorporates the look and function of today's 5kV and 15kV switchgear with advanced materials and vacuum interrupters for the demands of a greater medium voltage application.

### DESIGN FEATURES

The PowVac 38 breaker is designed with the same basic stored energy operating mechanism utilized in other breakers of the PowVac family. Bus designs utilize silver-plated tubular copper with a fully rated 38kV epoxy insulation. Bolted main bus joints utilize specially configured vinyl cover boots which have also been fully qualified for 38kV service. Cycloaliphatic epoxy insulators are utilized for main bus support as well as the breaker pole support of the vacuum interrupters. Custom design clamping type stand-off insulators are molded of urethane for tubular bus support. The breakers are Type CDS which feature true closed-door racking with remote operated electrical racking device option available. All PowVac circuit breakers are now tested per the 2 second Short-time Current rating standard. Secondary control interface to the breaker element utilizes a manually inserted plug and socket with an umbilical cable which is up front and visible for verification of connection.

*Most Space Efficient Design  
40" wide for 1200A/2000A  
54" wide for 3000A*

*Silver-Plated Tubular Copper Main Bus*

*Cycloaliphatic Epoxy Insulation System*

*Vinyl Joint Bus Boots*

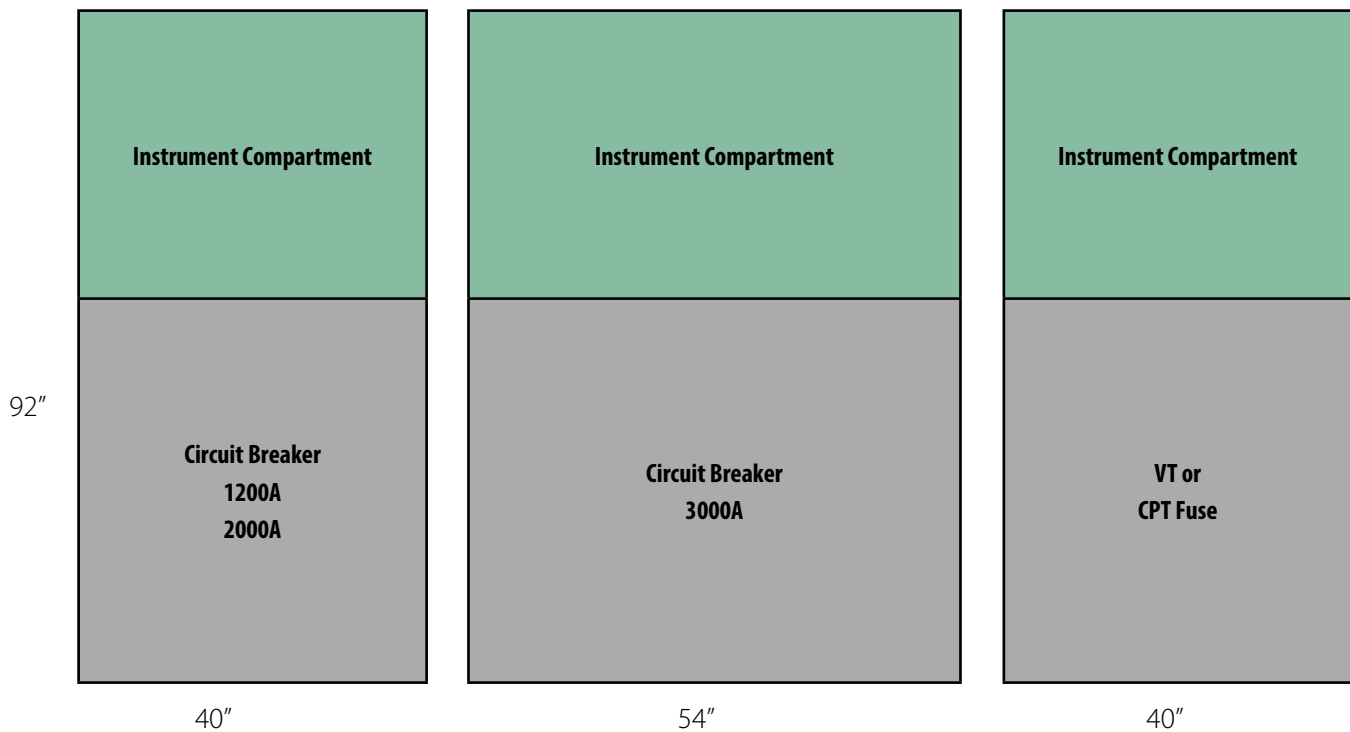
*Closed-Door Racking*

*Secondary control umbilical for positive verification*



## PowlVac® 38kV Metal-Clad Switchgear

Ratings		Configuration	Dimensions			
Voltage (kV)	Continuous Current (A)	Circuit Breaker Lower	Width (inches)	Standard Height (inches)	Standard Depth (inches)	Instrument Door Height
27	1200/2000	X	40	92	116.5	40
27	3000	X	54	92	127.5	40
38	1200/2000	X	40	92	116.5	40
38	3000	X	54	92	127.5	40



### DESIGN CONSIDERATIONS

- Height may be increased to 104" for added Instrument Compartment space or to allow for cable top entry termination.
- Depth may be increased to accommodate auxiliary devices, bus duct or cable entry.
- 3000A circuit breaker extends 11" in front of 40" wide cubicles, transition spacer may be necessary to accommodate door swing in some configurations.
- All Control Power Transformers are rear fixed mounted with fuses mounted in roll-out.

Powered by Safety®

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