

PowlVac-AR® Metal-Clad Switchgear

Arc Resistant Metal-Clad Switchgear For 5kV to 15kV Applications

STRINGENT CONSTRUCTION

Powell continues to be an industry leader in arc resistant switchgear design. Medium Voltage PowlVac-AR switchgear is tested to meet ANSI C37.20.2 and C37.20.7 Type 2 Arc Resistant standards. Powl-Vac-AR is designed to withstand an internal arcing fault and is able to direct the flow of the resulting gases and debris away from adjacent equipment and operating personnel. The result is increased operator safety and a minimization of damage to surrounding equipment.

ENHANCED SAFETY

PowlVac-AR is available with three degrees of arc resistant protection, as defined by C37.20.7

- Type 1 construction provides arc resistant protection from the front only.
- Type 2 construction provides arc resistant protection from the front, rear and sides.
- Type2B construction provides arc resistant protection from the front, back and side as well as low voltage controls compartment with open door

THERE IS NO EQUAL

PowlVac-AR switchgear is specifically engineered to meet each customers' specifications. It's the way Powell has built its switchgear for years. As a single source, in-house supplier Powell is able to manage the entire engineering and manufacturing process of our switchgear. The peace of mind brought by knowing Powell is handling your entire electrical project is often why they are preferred over the competition. Customers may arrange their switchgear in an array of combinations. One-high, two-high, one VT rollout or even two VT rollouts. The one-high arrangement allows for maximum variability in breaker cell dimensions.

Meets ANSI C37.20.2 and C37.20.7

Engineered to Order - 100% Unique

On-Board Racking® Option Available

One-High or Two-High Construction

Main Bus Tested to Withstand 174kA



ASSEMBLY OPTIONS

Customers may arrange their switchgear in an array of combinations. One-high, two-high, one VT rollout or even two VT rollouts. The one-high arrangement allows for maximum variability in breaker cell dimensions while the two-high arrangement consists of two circuit breakers per vertical section, maximizing the utilization of floor real estate. Other specific features include:

- Insulated bus bars with joint cover boots
- Optional Integrated High Resistance Grounding can be manual or automatic
- A fan-cooled 4000A circuit breaker is available for high continuous current applications
- Current transformers located in the circuit breaker compartment for easy maintenance
- Main Bus can be rated up to 174kA peak for generator applications
- Single action 8-pin door latching system to assure arc-resistant integrity

THE POWELL ADVANTAGE

A PowlVac-AR racking mechanism is included as a part of the circuit breaker assembly. This feature allows for preventive maintenance to be accomplished with the circuit breaker withdrawn from the switchgear assembly. Because Powell uses an umbilical secondary disconnect design, continuous control power is available throughout the racking process. PowlVac-AR switchgear provides safety advantages unmatched by the competition. Like the optional installation of a digitally controlled On-Board Racking device. Additional construction advantages include:

- All PowlVac-AR circuit breakers are rated as 3-cycle breakers. From trip initiation until arc extinguished is 3 cycles (50msec) or less.
- All PowlVac-AR circuit breakers have UL and C-UL Label as standard. PowlVac-AR switchgear testing has been witnessed and reviewed by Underwriter's Laboratory and can carry a UL or C-UL Classification label upon request.

Table 1

Equipment configuration options

Rating		Equipment Configuration				Instrument Door Usable Height (inches)	Depth ² (inches)	Total Height ³ (inches)
Type IEEE	Current (Amps)	Breaker Lower	Roll-out Lower	Breaker Upper	Roll-out Upper			
1 or 2	1200 - 2000	X				50 or 60	95 or 105	95 or 105
1 or 2	1200 - 2000	X			X	22 or 32	95 or 105	95 or 105
1 or 2	1200 - 2000	X		X		19	105	105
1 or 2	ALL		X			50 or 60	95 or 105	95 or 105
1 or 2	ALL		X		X	22 or 32	95 or 105	95 or 105
1 or 2	3000	X				50 or 60	105	95 or 105
1 or 2	3000 ¹	X			X	32	105	105
1 or 2	4000	X				32	105	105

¹ The 3000A breaker must be de-rated to 2900A when an upper rollout cell is used

² The equipment depth is shown for 50kA and below. All 63kA designs are 105" deep.

³ The total height for the equipment is shown for 50kA and below. All 63kA designs are 105" tall.

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