

PowVac - ND[®] 27kV Switchgear

Standard Non Arc Resistant and Arc Resistant Type 2B and 2C Construction

REDUCED FOOTPRINT AT 27/29.8kV

PowVac-ND[®] 27kV Metal-Clad Switchgear is the space-saving switchgear solution you need for your 27kV power distribution system.

APPLICATION

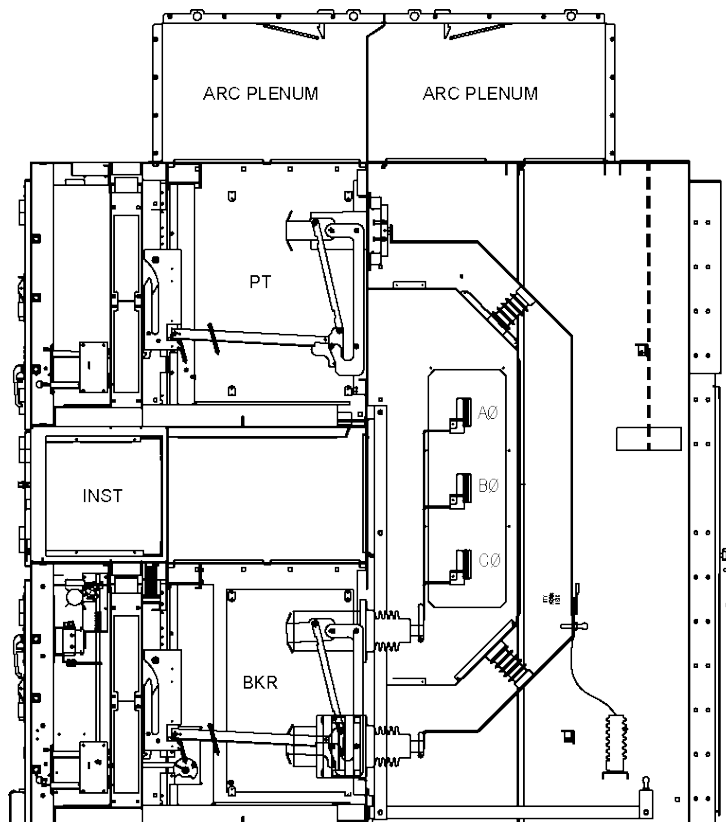
Designed for applications on 27kV distribution systems with available short circuit capabilities up to 25kA symmetrical, it can also be applied on power systems up to 29.8kV.

DESIGN CONCEPT

The design of the PowVac-ND[®] 27 is based extensively upon the 36-inch wide 5/15kV PowVac product line. The design is modular with circuit breaker and auxiliary compartments being stackable in approved arrangements, in both one-high and two-high construction.



PowVac-ND 27kV Series 4 Circuit Breaker Element



Typical Section View of PowVac-ND 27kV Vertical Section

- Space-saving 36-inch width cubicle design*
- 125kV Impulse Withstand Voltage (BIL)*
- 60kV Power Frequency Withstand Voltage*
- 1200/2000 Amp Continuous Current Rating*
- One-High or Two-High Construction*
- 25kA Arc Resistant, Type 2B and Type 2C*
- Breaker frame, mechanism, operating Springs, pushrods and primary insulating supports utilize Powell's reliable and proven 5/15kV PowVac[®] series 4 breaker design*

PowVac-ND 27kV Circuit Breaker Rated on Symmetrical Rating Basis (IEEE C37.04)

Rated Maximum Voltage	Rated Voltage Range Factor	Insulated Withstand Test Voltage		Rated Continuous Current at 60Hz	Rated Short Circuit (at Rated Short Maximum kV)	Rated Interrupting Time	Maximum Symmetrical Interrupting Capacity and Short Time Current	Close and Latching Capability 2.6 Times Rated Short Circuit Current
		Test Voltages Low Frequency	Full Wave Impulse					
kV rms	K	kV rms	kV Crest	Amps rms	kA rms	Cycles	kA rms	kA Crest
27.0/29.8	1.0	60	125	1200	25	3	25	65
27.0/29.8	1.0	60	125	2000	25	3	25	65

Tested to a maximum voltage rating of 29.8kV, Powell's design meets all applicable industry standards, ANSI, IEEE and CSA C22.2. Closed door racking and remote racking options available. Safety features include: closed-door racking interlock, shutter position indicator, breaker position door-lock, closed-door emergency trip actuator and optional rear door breaker position interlock. Closed door racking of PT and CPT roll-outs utilizing a circuit breaker style racking device is standard. Third-party UL or CSA certifications available with an on-site or factory inspection visit. Seismic ratings available as an option.

Standard PowVac-ND 27kV Cubicle Configurations

105" Tall (without plenum)	Arc Plenum				
	1200A BKR	PT R/O	PT R/O	1200/2000A BKR	Blank Space
	Instruments	Instruments	Instruments	Instruments	Instruments
	1200A BKR	1200/2000A BKR	Fuse R/O	PT R/O	1200/2000A BKR
	36" Wide (typ)		Standard Cubicle Depth = 110"		

PowVac-ND 27kV is compatible with Powell's complete line of Intelligent Devices, including:

- BriteSpot® - Fiber optic based thermal monitoring system
- PinPoint® - Partial discharge detection and location technology, using radio frequency transmissions
- Circuit Breaker Monitor (CBM) - Real time breaker monitoring device
- On-Board Racking - Utilizing a Powell Sentry® communications module
- Eco-Visor® - Real time environmental monitoring device to detect humidity and dust

Powered by Safety®