



Power/Vac® 28kV Outdoor Vacuum Distribution Circuit Breaker

GE ED&C Switchgear Operation introduces the Power/Vac 28kV vacuum distribution breaker, an addition to the proven 15.5kV vacuum distribution breaker product line.

Applications:

Utility substations for distribution feeder protection and control

Capacitor bank switching

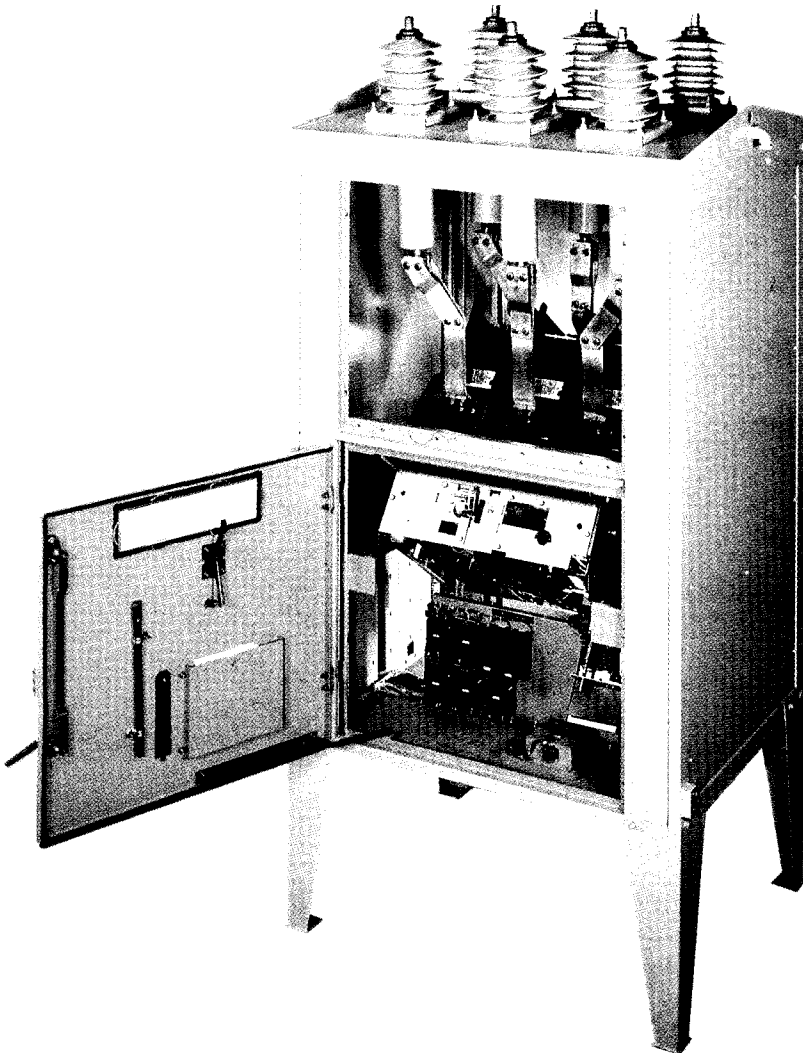
Reactor switching

Bus tie breaker protection

Overcurrent protection of transformers

Load distribution and reclosing applications

Industrial sites for main breaker requirements



GE Electrical Distribution & Control

GE Electrical Distribution & Control Power/Vac® 28kV Outdoor Vacuum Distribution Circuit Breaker

Product Description

- 28kV, 1200A and 2000A
- Standard porcelain bushings (epoxy optional) — 125kV B.I.L. and 150kV B.I.L.
- Includes space for up to two sets of double accuracy CT's per bushing, swing-out panel, and optional undervoltage trip device
- Spring-charged, stored energy ML-18 mechanism
- Built to current applicable ANSI, NEMA and IEEE standards

Benefits

COMPACT DESIGN

Rugged, lightweight construction is only 11 inches wider than the GE 15.5kV vacuum distribution breaker (unit height may vary depending on bushing type and breaker legs).

REDUCED MAINTENANCE

GE vacuum interrupters require minimum maintenance and servicing due to the absence of oil or SF₆ as an insulating and interrupting medium. Electrical contact maintenance is eliminated because the high vacuum environment isolates the contacts from exposure to dirt, moisture and other pollutants.

SAFETY

Used instead of oil as the primary insulation medium, hermetically sealed vacuum bottles significantly reduce the risk of fire or explosion.

DUTY CYCLE

No derating of interrupting capability is required regardless of the reclosing duty cycle.

LONG SERVICE LIFE

The breaker experiences no significant contact erosion during normal duty. It is designed and tested to meet or exceed performance requirements of applicable ANSI, NEMA and IEEE standards.

INSTALLATION COSTS

The breaker is shipped completely assembled — breaker legs are quickly bolted on during installation.

OPTIONAL OVERCURRENT PROTECTION

Designed to accommodate all control protection and indication functions.

OPTIONAL STAINLESS STEEL CONSTRUCTION

Offers excellent corrosion and exposure protection.

Technical Data

Breaker Type	PVDB-2
Rated Maximum Voltage	28kV
Nominal Voltage	25.8kV
Voltage Range Factor (K)	1.0
Frequency	60Hz
Low Frequency Withstand 60Hz dry for 1 minute 60Hz wet for 10 seconds	60kV 50kV
Fullwave Withstand — B.I.L.	125kV and 150kV
Continuous Current Rating @ 60Hz	1200A, 2000A
Standard Duty Cycle	0 + 0sec + CO + 15sec + CO
Interrupting Time	5 Cycles (3 Cycles Optional)
Closing Time	5 Cycles
Rated Short Circuit Current (RMS)	12.5kA, 20kA, 25kA
Close and Latch Rating RMS Asymmetrical Peak	20kA, 32kA, 40kA 34kA, 54kA, 68kA
2-Second Short Time Current Rating (RMS)	12.5kA, 20kA, 25kA
Reclosing Time	20 Cycles
Permissible Tripping Delay	2 Seconds
Capacitance Current Switching General Purpose Duty Line Charging Current Isolated Cable Charging Current Isolated Capacitor Bank Rating	5A 160A 160A
Transient Recovery Voltage Peak	52kV
Time to Crest of Transient Recovery Voltage	52 microseconds
Number of Operations Load Current Switching Full Fault Current Switching	2500 Before Servicing 15 Before Servicing
Control Voltages	DC: 48V, 125V, 250V AC: 120V, 240V (60Hz)



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DET-094 1294 BL