



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

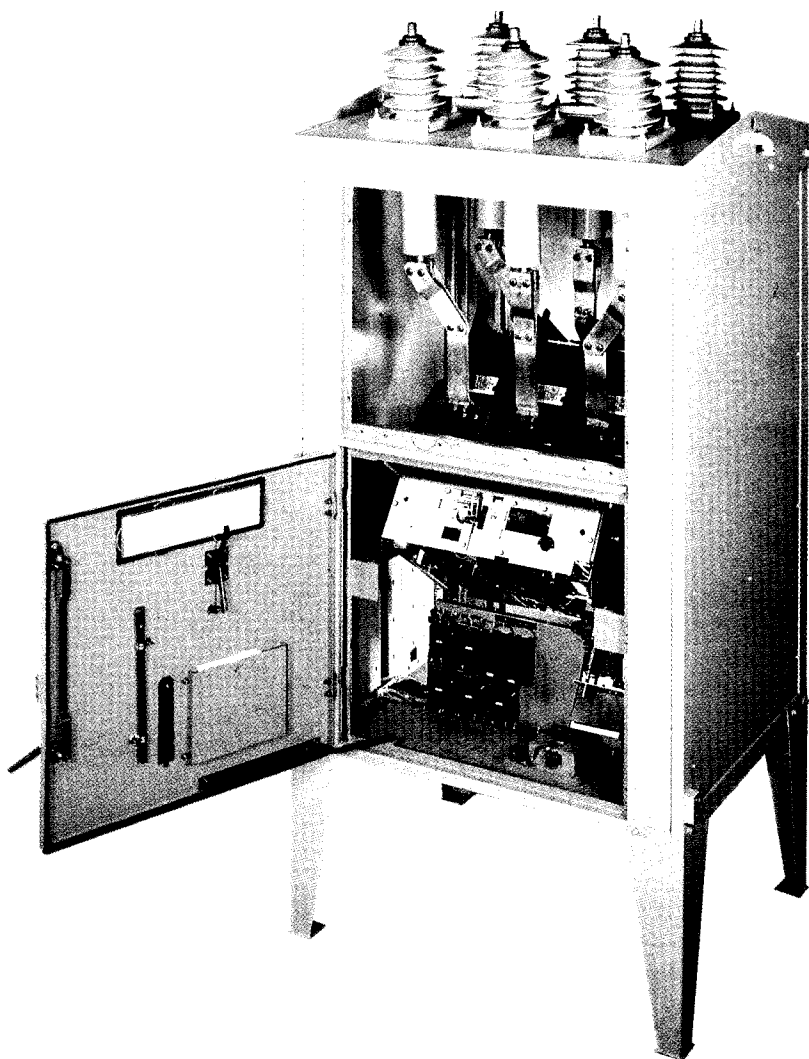
Reactor switching

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

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| 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 | 60kV |
| 60Hz wet for 10 seconds | 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 | 5A |
| Isolated Cable Charging Current | 160A |
| Isolated Capacitor Bank Rating | 160A |
| Transient Recovery Voltage Peak | 52kV |
| Time to Crest of Transient Recovery Voltage | 52 microseconds |
| Number of Operations | |
| Load Current Switching | 2500 Before Servicing |
| Full Fault Current Switching | 15 Before Servicing |
| Control Voltages | DC: 48V, 125V, 250V AC: 120V, 240V (60Hz) |



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