



27 kV POWER/VAC[®] BREAKERS

and Available OEM Frame Elements

**27 kV, 16 & 25 kA, 125 kV Bil,
1200A & 2000A**



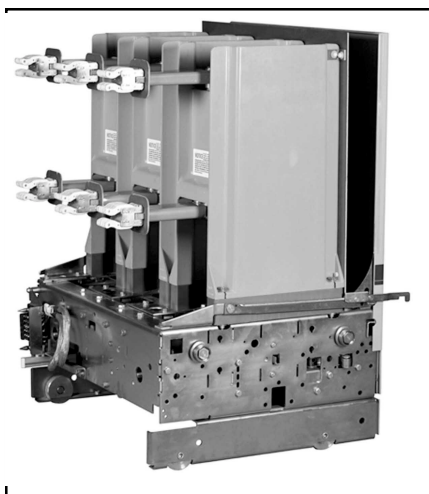
***From the Pioneers of
Vacuum Interruption
Technology. . .***

***27 kV POWER/VAC[®]
Breaker that is. . .***

- ***Designed and based on customer input***
- ***Loaded with new features***
- ***Perfect for today's climbing power density***

***Satisfy all of your
breaker needs with
one source!***

Type VBB POWER/VAC[®] Vacuum Circuit Breaker



Breaker (rear view)

STANDARD BREAKER FEATURES

- **11-GAUGE FRONT PANEL** provides for a rugged flat front cover on the breaker. Once installed into the box frame, complete isolation is obtained between the secondary and primary compartments, ensuring operator protection from live parts.
- **PRIMARY DISCONNECT FINGERS** consist of silver plated copper tested for continuous and momentary currents. These disconnects provide proper contact throughout the life of the gear for the critical primary disconnect function.
- **INTERRUPTER SUPPORTS** are a rugged high strength, track-resistant polyester glass support assembly which firmly positions and holds the interrupters and primary conductors while providing insulation to ground and between phases.
- **ML-20 BREAKER MECHANISM** utilizes a spring-charged, stored energy design that is mechanically and electrically trip-free and can be operated by dc control voltages of 48V, 125V, or 250V, or AC voltages of 120V or 240V.
- **ROLL-IN DESIGN** of the breaker allows insertion of the breaker into the box frame without the need for a lift truck.

ANSI C37.06, C37.09, C37.54, C37.55, CSA Approved, UL Listed

NEW FEATURES!

27kV POWER/VAC[®] Breaker



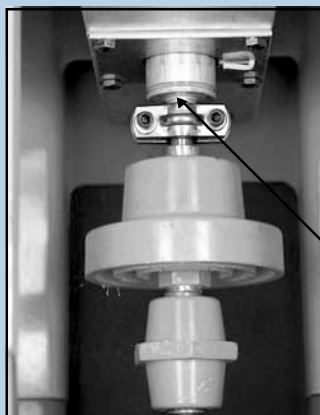
Second motor cut-off switch on negative interlock to prevent premature charge of motor



Increased motor life through improved performance of charging system

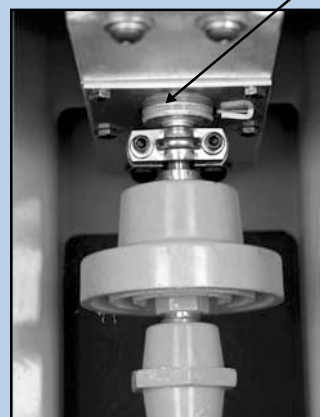


Insulation provided on breaker runbacks as standard



Open Position

Erosion indicator relocated to vacuum bottle



Closed Position

Increased stroke on all phases! Increased opening speed!

Many other mechanical design changes to improve performance, reliability with less maintenance!

POWER/VAC® Box Frame Elements

Power/Vac® 27kV Breaker Ratings
27 kV, 16 & 25 kA, 125 kV Bil, 1200A & 2000A

Available 27 kV Circuit Breaker Ratings as per ANSI C 37.06

Rated Maximum Voltage kV, rms	Rated Voltage Range Factor, K	Rated Continuous Current Amperes, rms	Rated Short Circuit and Short-Time Current kA, rms	Rated Transient Recovery Voltage		Interrupting Time Cycles	Rated Permissible Tripping Delay Time Y sec	Rated Closing and Latching Current kA peak
				Rated Peak Voltage E ₂ kV, Peak	Rated Time to Peak T ₂ micro sec			
27.0	1.0	1200	16.0	51.0	105	5	2.0	42.0
27.0	1.0	2000	16.0	51.0	105	5	2.0	42.0
27.0	1.0	1200	25.0	51.0	105	5	2.0	65.0
27.0	1.0	2000	25.0	51.0	105	5	2.0	65.0

Control Voltage and Operating Currents for ML-20 Mechanism

Control Voltage Source	Closing Range	Tripping Range	Closing Coil Current		Tripping Coil Current	Motor Inrush Current	Motor Windup Current	Fuse Size Close CKT Protection	
			W/O FBT	With FBT	5 Cycle			W/O FBT	With FBT
48 VDC	38-56	28-56	13.7	-	17.0	34	17.0	30	-
125 VDC	100-140	70-140	6.0	35.7	5.9	23	8.0	20	30
250 VDC	200-280	140-280	2.4	12.0	4.7	18	3.8	15	20
120 VAC	104-127	295-360 VDC ⁴	6.0	-	3.7	35	15.0	20	-
240 VAC	208-254	295-360 VDC ⁴	2.4	-	3.7	20	6.0	20	30

Notes

1. Approximate Spring Charge Time for ML-20 = 4 sec.
2. Fuses for tripping circuit should have ampere rating of at least 2 times the tripping current and not less than 35 amperes. Tripping Circuit Fuse is 35A except for 240 VAC with Capacitor Trip - Use 10A.
3. FBT is fast bus transfer.
4. Capacitor trip, 120/240 VAC requires the capacitor trip to operate a 340 VDC trip coil.

27 kV List Price Structure

Breaker Type	Rating	Amperage	KA	GE List Price
VB-27-16-1200	27 kv	1200a	16	\$19,900.00
VB-27-16-2000	27 kv	2000a	16	\$24,500.00
VB-27-25-1200	27 kv	1200a	25	\$26,100.00
VB-27-25-2000	27 kv	2000a	25	\$29,900.00

Box Frame List Price Structure

Box Frame	Rating	Amperage	GE List Price
1200a	27 kv	1200a	\$5,900.00
2000a	27 kv	2000a	\$7,100.00



Breaker With Box Frame



Box Frame Rear View

FEATURES:

- Grounded metal shutter mechanism to cover primary connections when breaker is racked out.
- Primary barrier is furnished in front of shutters.
- Racking mechanism for the breaker includes interlocks, key locking and padlocking capabilities.
- Ground shoe for breaker.
- Provision for stationary auxiliary switch (max. 10A, 10B contacts) and breaker position switch (max. 6A, 6B contacts).

Options

Box frame options

- Blank
- 1200 amp breaker compartment
- 2000 amp breaker compartment
- With or without front door

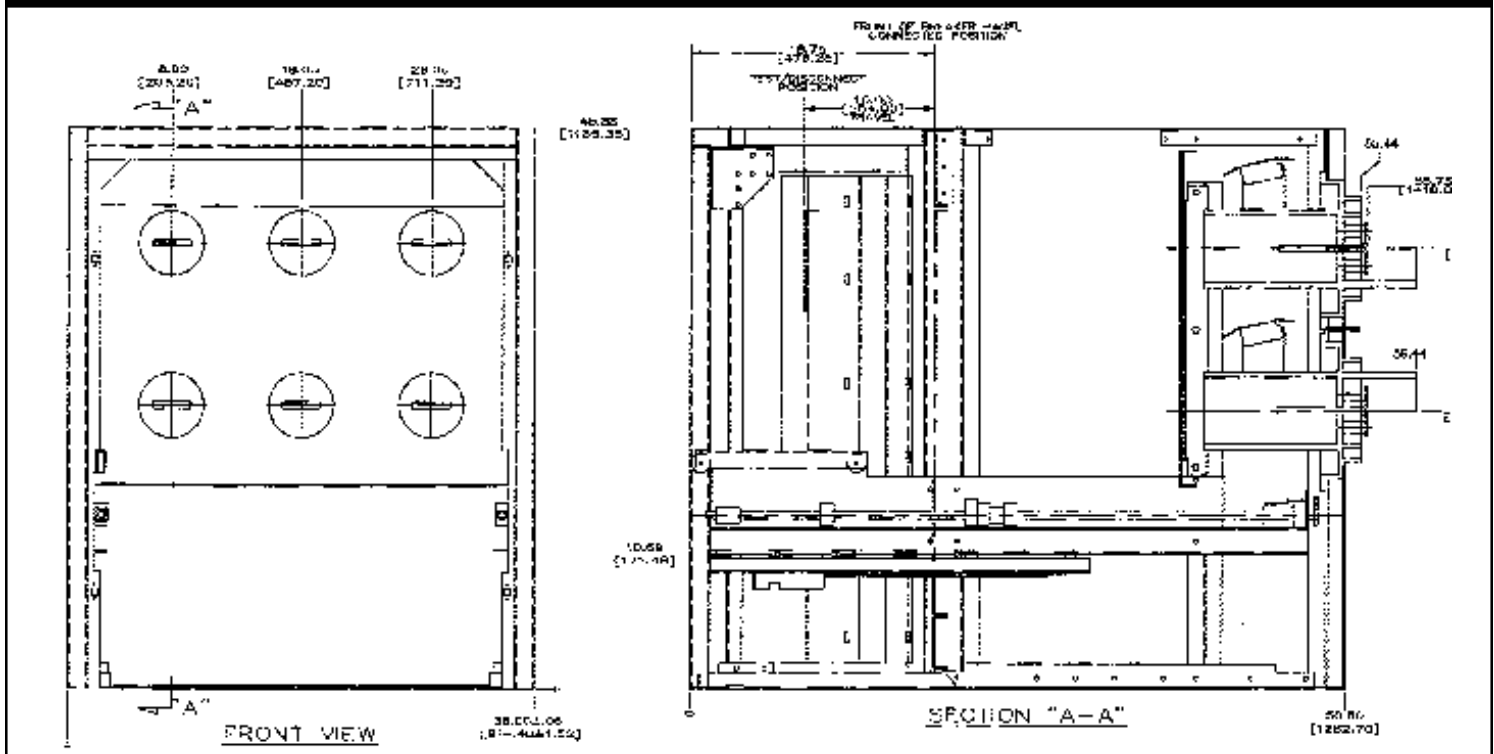
Box Frame assembled options

- Stationary auxiliary switch 3, 6, or 10 stage
- Position switch 3 or 6 stage

Accessories

- Test cabinet
- Manual racking handle
- Remote racking operator
- AC capacitor trip device
- Direct acting undervoltage for Vacuum breakers
- Breaker certified production test reports
- Primary boots

Box Frame Dimensions



GE Electrical Distribution & Control

General Electric Company
41 Woodford Avenue, Plainville, CT 06062

1993 General Electric Company