



# **27 kV POWER/VAC<sup>®</sup> BREAKERS**

and Available OEM Frame Elements

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



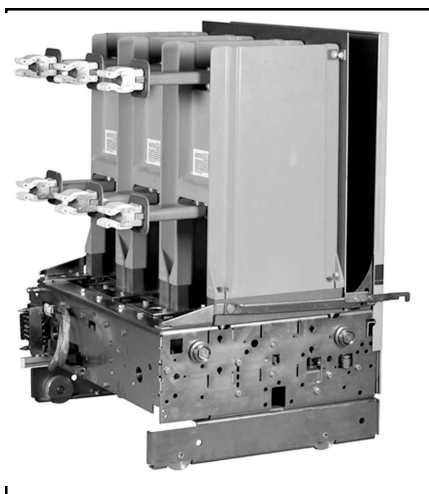
***From the Pioneers of  
Vacuum Interruption  
Technology. . .***

***27 kV POWER/VAC<sup>®</sup>  
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<sup>®</sup> 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<sup>®</sup> Breaker



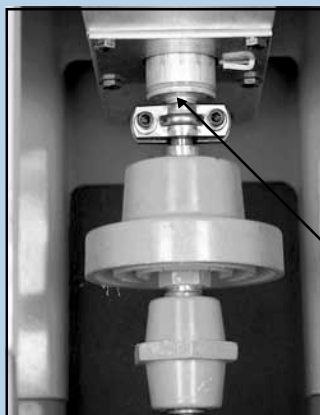
**Second motor cut-off switch on negative interlock to prevent premature charge of motor**



**Increased motor life through improved performance of charging system**

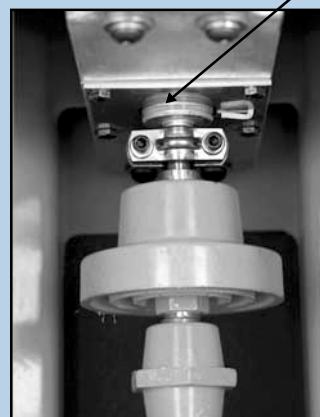


**Insulation provided on breaker runbacks as standard**



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 <sub>2</sub> kV, Peak	Rated Time to Peak T <sub>2</sub> 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 <sup>4</sup>	6.0	-	3.7	35	15.0	20	-
240 VAC	208-254	295-360 VDC <sup>4</sup>	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

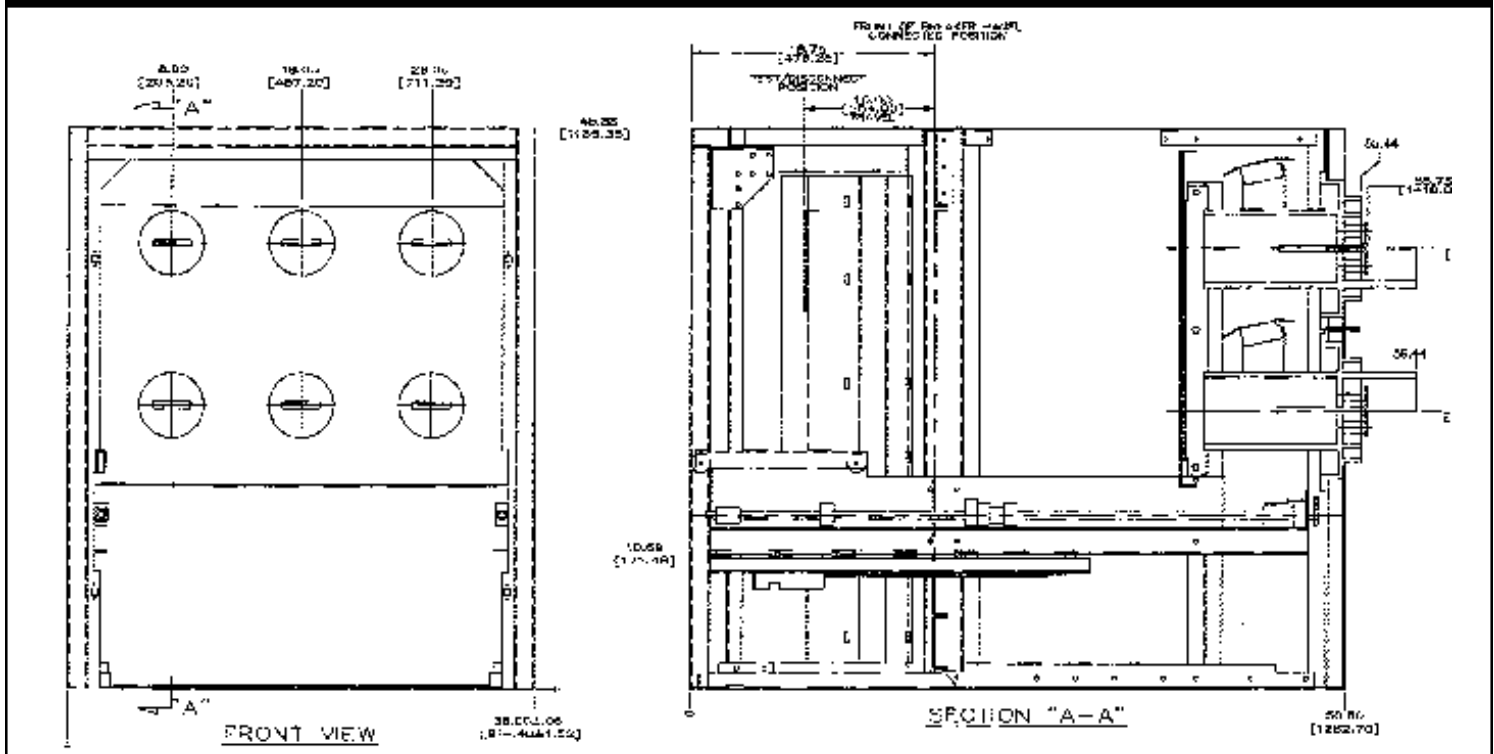
### Box Frame assembled options

- 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