

GE Consumer & Industrial  
Electrical Distribution

# BreakMaster™ Load Interrupter Switch



imagination at work

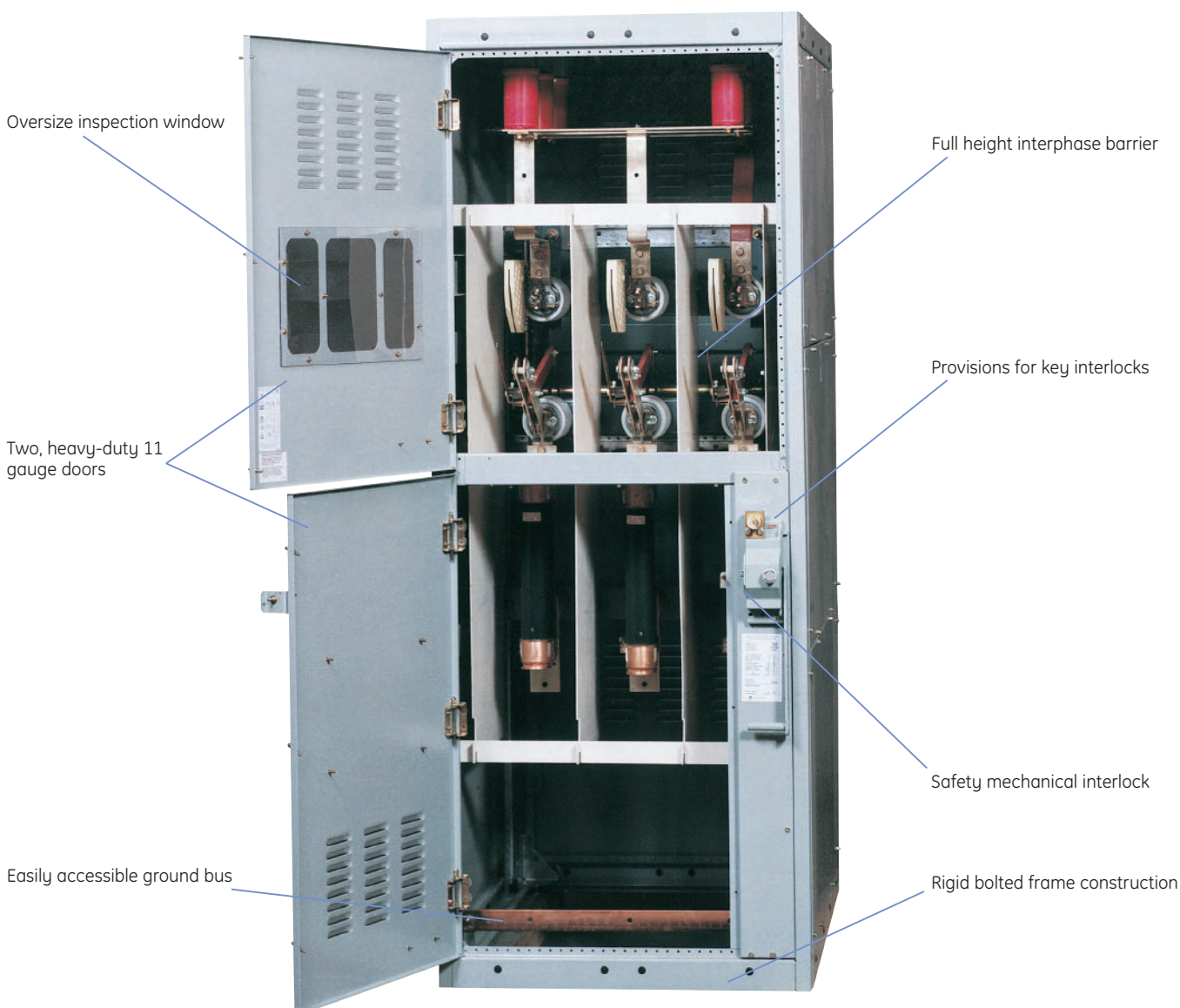
# BreakMaster: rugged, efficient, versatile load switching and protection

GE's BreakMaster™ load interrupter switches provide dependable, economical load switching and protection for medium voltage circuit applications from 2.4kV through 15kV in 600 or 1200 ampere load interrupting ratings.

The BreakMaster switch consists of a 2-position (open, closed), 3-pole, gang-operated, air interrupter switch utilizing a spring charged mechanism for both closing and opening functions. It is operated externally from the front of the cubicle and is equipped with a quick make/quick break mechanism that opens and closes the switch regardless of the speed at which the operating handle is moved.

Used mainly as a primary or secondary disconnect switch for transformers, the variety of configurations in which BreakMaster is available also make it useful for specific distribution needs. It can, for example, be inserted as a main or feeder switch in PowerVac switchgear or LimitAmp motor controller lineups, or used to automatically transfer the incoming source to an emergency generator. Fault current protection is available using a complete line of current limiting or expulsion fuses.

BreakMaster components are manufactured under strict quality guidelines, and they meet or exceed all applicable ANSI, NEMA, and IEEE standards (see "Standards" table, plus IEC 60265 for limited purpose switches. UL Listed switches are available for most standard configurations and options. When required, BreakMaster switches also meet the seismic requirements of the UBC and CBC Zone 4 building codes. All steel surfaces are chemically cleaned prior to painting with an ANSI 61 finish that is rated for 1000-hour salt spray.

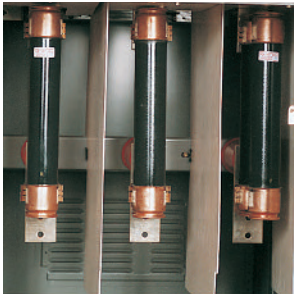




An array of optional multi-function meters measure volts, amps, frequency, power factor, watts and VARs, and can communicate via RS-232, RS-485, Commnet and Modbus. For safety, an enclosed, low voltage panel completely isolates metering components.



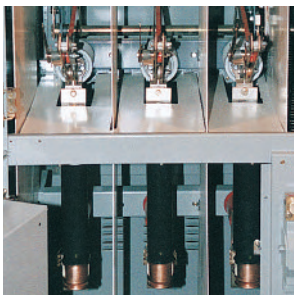
While accessing fuses, split door prevents access to the live side of the switch when the lower door is open. Oversized viewing window and switch position markers allow visual verification of switch position.



Full height interphase barriers are standard on all switches. Both current limiting and expulsion fuses are available.



Standard 50" section depth provides substantial space for incoming or outgoing cables. 60" depth is also available when customer preference and/or specific options require additional space.



Horizontal barriers between the switch mechanism and fuse compartment are a standard safety feature.



Convenient split rear covers provide easy access to cable terminations or devices located in the rear of the section.

## Standard Features

- Copper silver-plated bus
- Full length ground bus
- Polyester coat paint
- ANSI 61 paint color (gray)
- Oversized viewing window
- Full height interphase barriers
- 11 gauge doors, barriers and covers
- Generous cable termination area
- Permanent non-corrosive nameplate
- Individual doors over switch and fuses
- Concealed door hinges
- Switch padlock provisions
- Key interlock provisions
- Split rear and side covers
- Tungsten-tipped arc interrupting blade
- Mechanical switch and door interlocking
- Louvered ventilation at top and bottom
- Safety horizontal barrier

## Standard Outdoor Features

- Removable filters for louvers
- Long life space heaters
- 4" channel base
- Sloped roof
- Bottom closure plates
- Rodent barriers

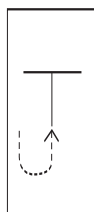
## Optional Accessories and Features

- UL / cUL listing
- Copper tin-plated bus
- Insulated bus and bus boots over joints
- 80kA momentary bus rating
- Automatic transfer switch
- Weather resistant
- Dust resistant
- NEMA 2 drip-proof enclosure
- Rear doors (full height or double)
- Vertical barriers
- Rodent barriers
- Bottom closure plates
- Seismic Zone 4 bracing
- Tamper resistant hardware
- Auxiliary switches (2NO-2NC)
- Thermostat
- Space heater (standard on outdoor, optional on indoor)
- Porcelain insulators
- Customer metering
- Surge arresters
- Mimic bus
- Space heater switch
- Ground studs
- Convenience light
- Duplex receptacle
- Top hat
- Run back bus
- And more!

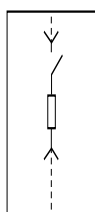
## Typical User Configurations

The complete line of BreakMaster load interrupter switches can fill most distribution system requirements. They are available in a variety of configurations to meet specific distribution needs, including: single switches, two-position no-load selector switches, duplex switches, and line-ups. Motor operators, customer metering and outdoor construction are also available.

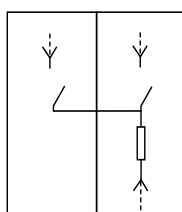
Standard Configuration Features	Single	Duplex	Selector	Line-up	ATS
35" width	●		●		
70" width		●			
115" width					●
90" indoor height, 99" outdoor height	●	●	●	●	
50" depth standard (includes arrester if required), 60" depth available	●	●		●	
60" depth standard					●
90" depth (requires rear access to equipment)			●		
Available section widths: 55" mains/tie; 35" branches; 20" / 35" incoming terminal compartments; 20" / 35" / 40" auxiliary sections				●	
Extension required for oil-filled transformers only (18" wide)	●	●	●	●	
Dry type and cast coil transformers require 3" in throat for outdoor enclosure	●	●	●	●	
Key interlocking standard between switches and fuse compartment		●	●		



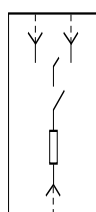
Incoming



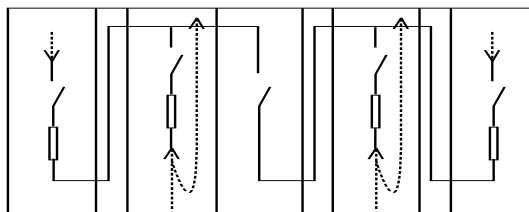
Single



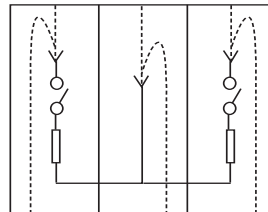
Duplex



Selector



Line-up (main-tie-main)



Automatic transfer

### Switch Ratings *(In accordance with Standards in table at bottom right)*

Max kV	Impulse Withstand kV (BIL)	Amperes Continuous and Interrupting	Momentary Switch Closed Asym	Fault Close Asym
5.0	60	600	40,000	40,000
		600	61,000	61,000
		1,200	40,000	40,000
		1,200	61,000	61,000
	95	600	40,000	40,000
		600	61,000	61,000
		1,200	40,000	40,000
		1,200	61,000	61,000
15.0	95	600	40,000	40,000
		600	61,000	61,000
		1,200	40,000	40,000
		1,200	61,000	61,000

### Typical Weights

Configuration	Weight (lbs.)	
	NEMA 1	NEMA 3R
Single	1200	1550
Selector	2500	3200
Duplex	2500	3200
Mains/Ties	1800	2400
Branch	1200	1550
ATS	3500	4200
20" wide incoming cable	600	850
35" wide incoming cable	1050	1400

### Standards

ANSI/IEEE	C37.20.3
	C37.20.4
	C37.22
NEMA	SG-6
IEC	60265
UL	See ANSI standards
CSA	C22.2, No. 31
	C22.2, No. 193

### Fuse Ratings

Fuse	Fuse Type	Voltage Class	Ampere Range
Current Limiting Fuses	EJO-1	5 kV	25A - 900A
		15 kV	20A - 300A
Expulsion Fuses	RBA200	5 kV - 15 kV	40E - 200E
	RBA400	5 kV - 15 kV	20E - 300E
	RBA800	5 kV - 15 kV	450E-720E

For a complete list of available fuses, contact factory or refer to publication DET-266.

For additional information, contact your local GE sales office or visit us at [www.geelectrical.com](http://www.geelectrical.com)

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