

# Molded Case Circuit Breakers

## Modifications

## General/Selection

A variety of internal and external accessories, as well as modifications, are available to adapt Siemens circuit breakers to special installation requirements. UL listed internal accessories for 100 through 2000A circuit breakers are field-addable.

Internal accessories fine tune an electrical distribution system, allowing control of the circuit breakers to meet special application requirements. For example, emergency situations may dictate tripping critically placed circuit breakers quickly. Shunt trips accomplish this conveniently and efficiently. Or, when voltage drops are a concern, undervoltage trips automatically open the circuit breaker at a predetermined voltage level.

A wide range of external operating and mounting accessories is also available. For example, face, shallow, and back mounting plates are ideal for tailoring BQ circuit breakers to OEM applications. A complete line of operating handles and handle-blocking devices meet switchboard, enclosure and safety needs. Plug-in mounting assemblies, which simplify switchboard mounting of circuit breakers and permit breaker removal without disconnecting bus or cable connections, are available.

### UL 489 Supplement SB Naval Use Breakers

Breakers tested to UL 489 Supplement SB are qualified for use on non combat and auxiliary naval vessels.

Siemens molded case breakers, including BL, NGB and Sentron ED through RD frames can be labeled "NAVAL" in compliance with UL 489 Supplement SB.

Supplement SB testing comprises two sets of vibration tests. The first is to find mechanical resonances in the product and to subject the breaker to extreme testing at each resonant frequency. The second is a swept frequency test, in which the frequency of excitation is changed in intervals of 1Hz, and held at each frequency for five minutes. The excitation frequencies run from 4 to 33Hz, and the test is conducted in each of the three orthogonal axes of the breaker.

During these tests, the breaker must not trip from the closed position, nor may the contacts touch from the open position. Calibration and insulation resistance are also verified during the test.

For detailed information, refer to UL 489, Supplement SB.

#### 50°C Ambient Calibration — Not UL listed and not available for solid state, 100% rated breakers or 400HZ calibrated breakers.

For BL Type Circuit Breakers	
— Add suffix 'M' to catalog number (Example: B120M).....	No Charge
For BQ, QJ2, and ED Frame Circuit Breakers	
— Replace 'B' in catalog number with 'M'.....	No Charge
(Example: BQ3M060, QJ23M200, ED63M060)	
For FD, JD, LD, LMD, MD, ND, PD, and RD Frame Circuit Breakers	
Non-Interchangeable Trip (3-pole only) .....	No Charge
— Replace 'B' in catalog number with 'M' (Example: FXD63M225, JXD63M400)	

#### 400 HZ Calibration

UL Listed (5KA IR)	
For BQ & BL Type Circuit Breakers (200A max.).....	Add 25% to list price
— Add suffix 'Y' to catalog number	
Not UL Listed	
For all other Circuit Breakers, see derating tables on page 6-152 and order standard circuit breakers.	

#### Fungus Proofing

All BQD, CQD, GB, GG, ED, FD, JD, LD, LMD, MD, ND, PD, RD, DG, FG, JG, LG, MG, NG, and PG Frame Circuit Breakers are inherently fungus resistant and do not require special treatment.	
For BL, and BQ Type Circuit Breakers.....	Add \$10.00 net per pole
— Consult Sales Office for Availability	
For all other Circuit Breaker Types.....	Add \$160.00 net per device
— Consult Sales Office for Availability	

#### Certificate of Compliance with Test Report (catalog number CERT OF COMP.) Add \$210.00 net

Certificate of compliance testing must be performed on the actual device being shipped. The certificate cannot be provided after initial shipment. Order for devices with COC requirement must be placed directly with the factory by the sales office and shipped directly to the end user.

#### Ordering Information

For "NAVAL" label, add **\$75.** net per catalog number per order. Order must be placed directly with the factory by Siemens Sales Office.

Types	UL File
BQD/CQD	E10848, Vol 10, Sec 1
GG	E10848, Vol 10, Sec 2
GB	E10848, Vol 10, Sec 3
ED2, ED4, IIED4, HED6	E10848, Vol 4, Sec 11
CED6	E10848, Vol 4, Sec 13
FD6, FXD6, HFD6, HFXD6	E10848, Vol 4, Sec 17
CFD6	E10848, Vol 4, Sec 18
JXD2, JD6, JXD6, LXD6, LD6, HJD6, HJXD6, HLD6, HLXD6	E10848, Vol 4, Sec 8
HHJD6, HHJXD6, HHLD6, HHLXD6	E10848, Vol 4, Sec 20
CJD6, CLD6	E10848, Vol 4, Sec 14
MD6, MXD6, HMD6, HMXD6, CMD6, ND6, NXD6, HND6, HNXD6, CND6	E10848, Vol 4, Sec 15
PD6, PXD6, HPD6, HPXD6, CPD6, RD6, RXD6, HRD6, HRXD6	E10848, Vol 4, Sec 19

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## External Accessories

*Selection*

### Handle Ties with Padlock Device

Provide simultaneous switching of 2 or 3 adjacent handles.  
Do not provide common trip.

For Use With Breaker Frame(s)	Catalog Number	Standard Package	Wt Lb/Std Pkg
BQD, NGB, HGB, LGB	<b>BQDHT2</b>	10	½
	<b>BQDHT3</b>	10	½

### Padlocking Devices

For locking breaker in "OFF" position.

All QJ	<b>HL9419</b>	10	¼
All BQD, CQD, NGB, HGB, LGB	<b>BQDPLD</b>	1	⅙
NGG, HGG, LGG	<b>HPLG</b>	1	¼
EB, 1- thru 3-pole	<b>HPLEB</b>	1	⅙
EG, 3- and 4-pole only	<b>HPLE</b>	1	¼
All ED	<b>ED2HPL</b>	1	¼
All FD	<b>FD6PL1</b>	1	¼
All JD, LD, LMD	<b>JD6HPL</b>	1	¼
All MD, ND, PD, RD	<b>MN6PLD</b>	1	¼

### Handle Blocking Devices

For holding breaker in "ON" or "OFF" position.  
Not a lockout/tagout device.

All QJ	<b>QJHS1</b> <sup>Ⓞ</sup>	25	1
All BQD, CQD, GG, GB	<b>BQDHBD</b>	1	¼
EG	<b>HBDE</b>	1	¼
All ED	<b>E2HBL</b>	1	¼
All FD	<b>FD6HB1</b>	1	½
All JD, LD, LMD	<b>JD6HBL</b>	1	½
All MD, ND, PD, RD	<b>MN6BL</b>	1	½

### Handle Extensions

For replacement. One extension shipped with breaker.

All MD, ND, PD, RD	<b>EX11</b>	1	2
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### Terminal Shields

Breaker Type	Poles	Catalog Number	Standard Package
NGG, HGG, LGG	3	<b>TSSG3A</b>	1

■ Built to order. Allow 2-3 weeks for delivery.

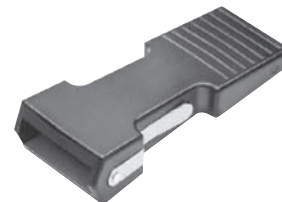
Ⓞ Sold only in standard package quantities.



FD Padlocking Device  
**FD6PL1**



FD Handle Blocking Device  
**FD6HB1**



Handle Extension  
**EX11**