

# Fuji Molded Case Circuit Breakers Overview

## Overview

Fuji Molded Case Circuit Breakers are more compact (especially 100A, 125A, 250A frames) than any breakers on the market, so they take up less space in control panels.

This product group maintains conformity to all Worldwide standards.

## Agency Approvals

- UL listed, MCCB, File: E90584
- UL listed, Accessories, File E93289
- CE marked
- CCC marked
- TUV certified

## Standards

- UL 489
- CSA C22.2 No.5
- IEC 60947-2
- EN 60947-2
- GB 14048.2
- JIS C8201-2-1, 2 (ANN.1, 2)



### Fuji Electric Molded Case Circuit Breakers Technical Specifications

| Circuit Breaker Type | Ampere Rating at 40°C | No. Poles | Volts |     | Type of Trip* | UL 489 Interrupting Ratings<br>(rms Symmetrical Amperes) (kA) |     |     |          |
|----------------------|-----------------------|-----------|-------|-----|---------------|---|-----|-----|----------|
|                      |                       |           | AC    | DC  |               | Volts AC (50/60 Hz)   |     |     | Volts DC |
|                      |                       |           |       |     |               | 240   | 480 | 600 | 250**    |
| <b>BW125JAGU</b>     | 15-125                | 3         | 600   | 250 | N.I.T.U       | 50  | 30  | 10  | 10       |
| <b>BW250JAGU</b>     | 125-250               | 3         | 600   | 250 | N.I.T.U       | 50  | 30  | 10  | 10       |
| <b>BW400SAGU</b>     | 250-400               | 3         | 480   | 250 | N.I.T.U       | 50  | 35  | –   | 10       |
| <b>BW630RAGU</b>     | 500-600               | 3         | 480   | 250 | N.I.T.U       | 100   | 50  | –   | 10       |
| <b>BW800RAGU</b>     | 700-800               | 3         | 480   | 250 | N.I.T.U       | 100   | 50  | –   | 10       |

Operating Range: -10 to 50°C [14 to 122°F]

\*Note: N.I.T.U denotes non-interchangeable trip unit.

\*\*Note: For DC or 1-phase AC applications, use the two outside poles of the 3-pole circuit breaker

# Fuji Molded Case Circuit Breakers 400A Frame



Fuji BW400A series MCCBs are 400 amp frame, 3-pole, non-adjustable magnetic trip, molded case circuit breakers (MCCB). The BW400 series is suitable for reverse feed applications. Included

with each MCCB are Line and Load-side lug terminals and mounting hardware. Accessories are not pre-installed and are sold separately.

**BW400SAGU-3P250SB**

| BW400-Frame Series Three-Pole Molded Case Circuit Breakers |            |           |                                  |  |                                  |                                    |                    |                    |                      |
|--|------------|-----------|----------------------------------|--|----------------------------------|------------------------------------|--------------------|--------------------|----------------------|
| Part Number  | Price      | Frequency | Rated Interrupting Capacity (kA) |  |                                  |                                    |                    |                    |                      |
|  |            |           | Rated Current                    | UL489 CAN/CSA C22.2 No. 5                        |                                  | IEC60947-2, JIS C 8201-2-1 Icu/Ics |                    | GB14048.2 Icu/Ics  |                      |
|  |            |           | Ampere Rating                    | Voltage  | Interrupt Capacity               | Voltage                            | Interrupt Capacity | Voltage            | Interrupt Capacity   |
| <a href="#">BW400SAGU-3P250SB</a>                          | \$1,043.00 | 50/60 Hz  | 250                              | 480V/Delta AC<br>480V/Y AC<br>240V AC<br>250V DC | 35 kA<br>35 kA<br>50 kA<br>10 kA | 690V AC                            | 10/5 kA            | 400V AC<br>230V AC | 36/18 kA<br>85/43 kA |
| <a href="#">BW400SAGU-3P300SB</a>                          | \$1,043.00 |           | 300                              |  |                                  | 500V AC                            | 20/10 kA           |                    |                      |
| <a href="#">BW400SAGU-3P350SB</a>                          | \$1,046.00 |           | 350                              |  |                                  | 440V AC                            | 36/18 kA           |                    |                      |
| <a href="#">BW400SAGU-3P400SB</a>                          | \$1,043.00 |           | 400                              |  |                                  | 400V AC                            | 36/18 kA           |                    |                      |

Note: SCCR = UL489 interrupting capacity

| BW400-Frame Accessory Selection Guide |          |  |
|---------------------------------------|----------|--|
| Part Number                           | Price    | Description  |
| <a href="#">BW9W1SHA</a>              | \$31.00  | Field installable auxiliary contact switch, use with BW400, BW630 and BW800 series MCCBs. SPDT. 20AWG lead wires, 19.69" long, left side mount only  |
| <a href="#">BW9FHA-R</a>              | \$69.00  | Field installable DC shunt trip, use with BW400, BW630 and BW800 series MCCBs; 24 VDC/AC, 20 AWG lead wires 19.69" long, left and right side mount   |
| <a href="#">BW9FHA-A</a>              | \$69.00  | Field installable AC shunt trip, use with BW400, BW630 and BW800 series MCCBs; 100-120 VAC, 20 AWG lead wires 19.69" long, left and right side mount |
| <a href="#">BW9RHA-R</a>              | \$67.00  | Field installable DC undervoltage release, for BW400, BW630 and BW800 series MCCBs; 24-48 VDC, 20AWG lead wires, 19.69" long, left side mount only   |
| <a href="#">BW9RHA-1</a>              | \$69.00  | Field installable AC undervoltage release, for BW400, BW630 and BW800 series MCCBs; 120-130 VAC, 20AWG lead wires, 19.69" long, left side mount only |
| <a href="#">BW9BTHA-L3W*</a>          | \$69.00  | Terminal cover for BW400-frame MCCBs, line and load side, package of 2   |
| <a href="#">BW9V0HA</a>               | \$94.00  | NEMA 12 rotary handle for BW400-Frame. Position indicating; lock-off feature. Shaft length: 0.39"  |
| <a href="#">BZ-VS2</a>                | \$12.00  | NEMA 12 rotary handle shaft for BW9V0HA and BW9V0JA, BW400, BW630 and BW800 Frames. Steel shaft length: 3.48" (88 mm)                                |
| <a href="#">BZ-VS2-24</a>             | \$40.50  | NEMA 12 rotary handle shaft for BW9V0HA and BW9V0JA, BW400, BW630 and BW800 Frames. Steel shaft length: 24" (610 mm)                                 |
| <a href="#">BW9F0HA-15A**</a>         | \$499.00 | NEMA 12 flexible shaft handle for BW400-Frame. Flange mounted. Lockable. Flex cable shaft length: 4.92' (1.5m)                                       |
| <a href="#">BW9F0HA-20A**</a>         | \$514.00 | NEMA 12 flexible shaft handle for BW400-Frame. Flange mounted. Lockable. Flex cable shaft length: 6.56' (2m)   |
| <a href="#">BW9QNHA</a>               | \$40.50  | Lockout attachment, use to lock out BW400, BW630 and BW800 series MCCBs. Lock not included.  |

\*Terminal covers are not supplied as standard.

\*\*Terminal covers for line side and load side included with Flange Disconnects. 2/pk

Note: Terminals are factory-installed only. No replacement terminals available.



[BW9V0HA](#)



[BW9F0HA-15A](#)



[BW9FHA-R](#)



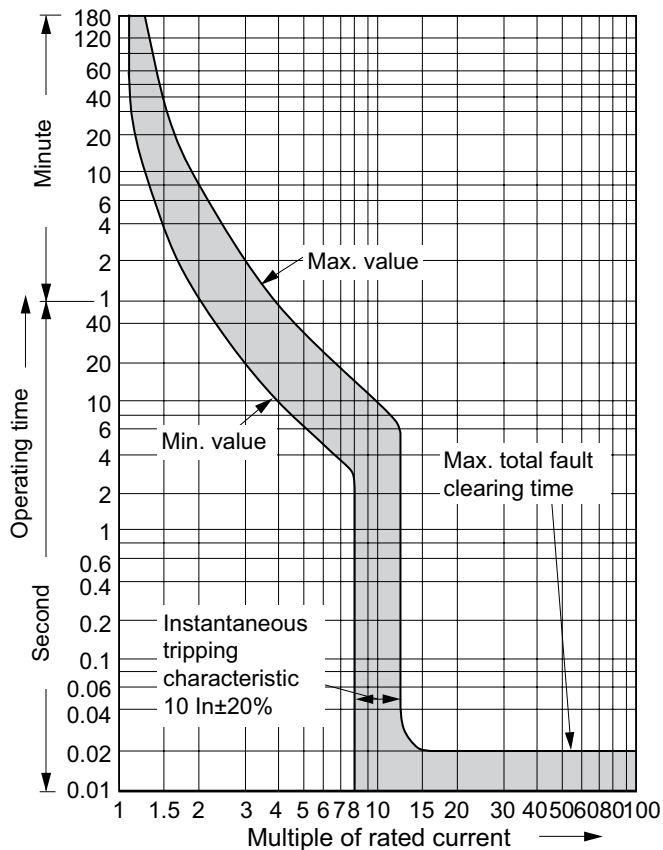
[BW9RHA-R](#)



[BW9QNHA](#)

# Fuji Molded Case Circuit Breakers 400A Frame Characteristic Curves

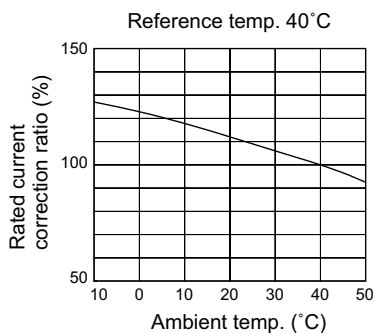
## BW400 Current Range 250 - 400A



Note: Instantaneous tripping =  $10 \times (\text{rated current}) \pm 20\%$   
 $I_n$  = rated current



## BW400 (Current Range: 250 - 400A)



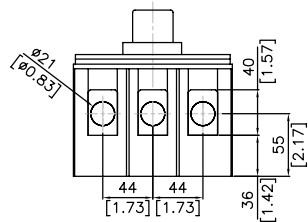
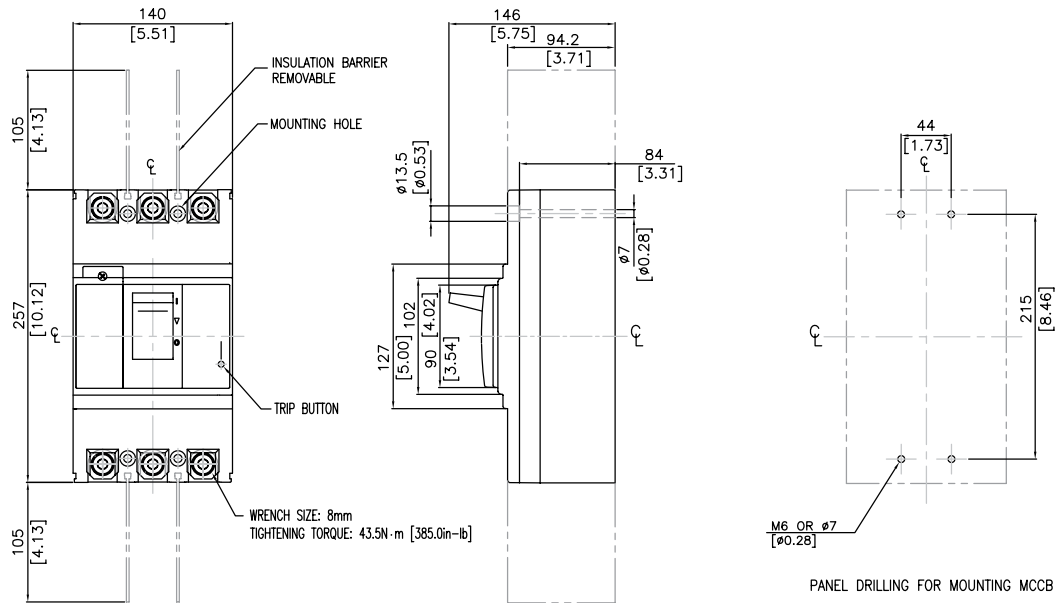
# Fuji Molded Case Circuit Breakers

## Dimensions

### Dimensions

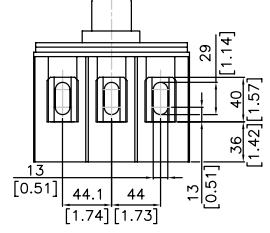
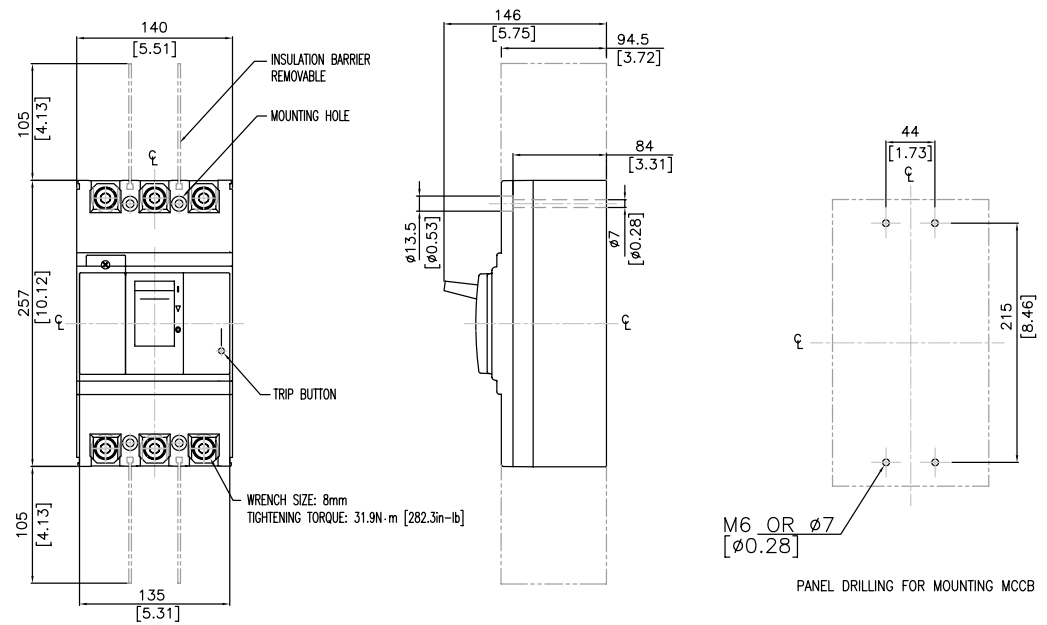
mm [inches]

**250A to 350A  
BW400 Frame**



RATED CURRENT 250, 300, 350A

**400A  
BW400 Frame**

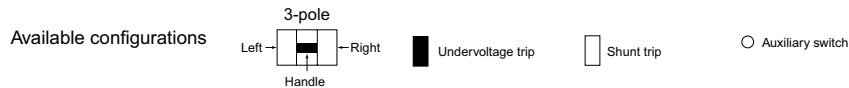


RATED CURRENT 400A

# Fuji Molded Case Circuit Breakers Products And Accessory Compatibility

| Match the Accessories with Fuji Molded Case Circuit Breakers |   |           |           |           |           |           |
|--|---|-----------|-----------|-----------|-----------|-----------|
| Part Number  | Description   | BW125JAGU | BW250JAGU | BW400SAGU | BW630RAGU | BW800RAGU |
| <b>BW9W1SG0</b>  | Auxiliary Switch (Mounting Left and right side)                           | X         | X         |           |           |           |
| <b>BW9W1SHA</b>  | Auxiliary Switch (Mounting Left side ONLY)                                |           |           | X         | X         | X         |
| <b>BW9FRG0</b>   | Shunt Trip 24 VAC/VDC (Mounting both Left and Right sides)                | X         | X         |           |           |           |
| <b>BW9FHA-R</b>  | Shunt Trip 24-48 VAC/VDC (Mounting Left side ONLY)                        |           |           | X         | X         | X         |
| <b>BW9FAG0</b>   | Shunt Trip 100-120 VAC, 100-110 VDC (Mounting both Left and Right sides)  | X         | X         |           |           |           |
| <b>BW9FHA-A</b>  | Shunt Trip 100-280 VAC, 100-220 VDC (Mounting Left side ONLY)             |           |           | X         | X         | X         |
| <b>BW9RGAR</b>   | UnderVoltage Release 24VDC (Left side ONLY)                               | X         | X         |           |           |           |
| <b>BW9RHA-R</b>  | UnderVoltage Release 24 VAC/VDC (Left side ONLY)                          |           |           | X         | X         | X         |
| <b>BW9RGAT</b>   | UnderVoltage Release 110-130 VAC (Left side ONLY)                         | X         | X         |           |           |           |
| <b>BW9RHA-1</b>  | UnderVoltage Release 120-130 VAC, 125VDC (Left side ONLY)                 |           |           | X         | X         | X         |
| <b>BW9SL0CA-3</b>  | Replacement Lugs Kit for 125 Amp frame                                    | X         |           |           |           |           |
| <b>BW9SL0GA-3</b>  | Replacement Lugs Kit for 250 Amp frame up to 175A                         |           | X         |           |           |           |
| <b>BW9SL1GA-3</b>  | Replacement Lugs Kit for 250 Amp frame 200A to 250A                       |           | X         |           |           |           |
| <b>BW9V0CA</b>   | Rotary Handle   | X         |           |           |           |           |
| <b>BW9V0GA</b>   | Rotary Handle   |           | X         |           |           |           |
| <b>BW9VSG0</b>   | Optional Shaft for <b>BW9V0CA</b> and <b>BW9V0GA</b> , 6.063"             | X         | X         |           |           |           |
| <b>BW9VSG0-24</b>  | Optional Shaft for <b>BW9V0CA</b> and <b>BW9V0GA</b> , 24"                | X         | X         |           |           |           |
| <b>BW9V0HA</b>   | Rotary Handle,  |           |           | X         |           |           |
| <b>BW9V0JA</b>   | Rotary Handle,  |           |           |           | X         | X         |
| <b>BZ-VS2</b>  | Optional Shaft for <b>BW9V0HA</b> and <b>BW9V0JA</b> , 3.48"              |           |           | X         | X         | X         |
| <b>BZ-VS2-24</b>   | Optional Shaft for <b>BW9V0HA</b> and <b>BW9V0JA</b> , H = 24"            |           |           | X         | X         | X         |
| <b>BW9F0CA-15A</b>   | Flange Handle (flex shaft), NEMA 12, 59" (1.5m) cable, 125 Amp frame      | X         |           |           |           |           |
| <b>BW9F0CA-20A</b>   | Flange Handle (flex shaft), NEMA 12, 78.7" (2.0m) cable, 125 Amp frame    | X         |           |           |           |           |
| <b>BW9F0GA-15A</b>   | Flange Handle (flex shaft), NEMA 12, 59" (1.5m) cable, 250 Amp frame      |           | X         |           |           |           |
| <b>BW9F0GA-20A</b>   | Flange Handle (flex shaft), NEMA 12, 78.7" (2.0m) cable, 250 Amp frame    |           | X         |           |           |           |
| <b>BW9F0HA-15A</b>   | Flange Handle (flex shaft), NEMA 12, 59" (1.5m) cable, 400 Amp frame      |           |           | X         |           |           |
| <b>BW9F0HA-20A</b>   | Flange Handle (flex shaft), NEMA 12, 78.7" (2.0m) cable, 400 Amp frame    |           |           | X         |           |           |
| <b>BW9F0JA-15A</b>   | Nema 12 flexible shaft handle for 630A or 800A frame. 59.06" (1.5m) cable |           |           |           | X         | X         |
| <b>BW9F0JA-20A</b>   | Nema 12 flexible shaft handle for 630A or 800A frame. 78.74" (2m) cable   |           |           |           | X         | X         |
| <b>BW9BTHA-L3W</b>   | Terminal Cover for the 400A frame   |           |           | X         |           |           |
| <b>BW9BTJA-L3W</b>   | Terminal Cover for the 630A AND 800A frame                                |           |           |           | X         | X         |
| <b>BW9Q1CA</b>   | Lockout Attachment 125A and 250A frames                                   | X         | X         |           |           |           |
| <b>BW9QNHA</b>   | Lockout Attachment 400A, 630A and 800A frames                             |           |           | X         | X         | X         |

### Internal Accessory Combinations for BW Series



| MCCB                            | BW125<br>BW250 | BW400<br>BW630<br>BW800 |
|---------------------------------|----------------|-------------------------|
| Pole                            | 3              | 3                       |
| Auxiliary switch                |                |                         |
| SPDT                            |                |                         |
| Shunt trip                      |                |                         |
| Undervoltage trip               |                |                         |
| Auxiliary Switch + Shunt Trip   |                |                         |
| Undervoltage + Auxiliary Switch |                |                         |

# Fuji Molded Case Circuit Breakers Wire Range Specifications



## Wiring

- When connecting the wires, follow NEC (National Electric Code, USA) or CEC (Canadian Electrical code Part 1, Canada) instructions.
- Use copper wire rated for 75°C (167°F) for connecting. UL or CSA approved wire is recommended.
- Tighten the wire connections adequately, as a very large electromagnetic force will be generated when short circuit current is generated.
- Perform additional tightening of the terminal screws periodically.



- Adhere to the allowable number of strands of wire indicated in the table on the left.
- Two wires cannot be connected together to a single connecting hole of lug terminal except BW400SAGU-3P400SB.
- Follow the number of strands of wire indicated on the table. (Wire size and number of wire strands not listed on table can not be connected)
- Do not solder the end of the wire.

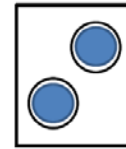
| Allowable Wire Specifications for Lug Terminals |                        |
|---|------------------------|
| Wire Size AWG or MCM (mm <sup>2</sup> )         | Number of Wire Strands |
| 14 to 2 (2.1 to 33.6)                           | 7                      |
| 1 to 4/0 (42.4 to 107.2)                        | 19                     |
| 250 to 500 (127 to 250)                         | 37                     |



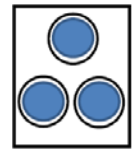
Rated current  
15A to 350A



Rated current  
400A  
3/0 AWG x 2  
19 strands each



Rated current  
500A to 700A



Rated current  
800A  
300 MCM x 3  
37 strands each

| Allowable Wire Sizes and Tightening Torque |                   |   |                          |
|--|-------------------|---|--------------------------|
| Type                                       | Rated Current (A) | Wire Size (AWG or MCM [mm <sup>2</sup> ]) | Tightening Torque        |
|  |                   |   | Lug Terminal*            |
| BW125                                      | 15                | 14 AWG [2.1 mm <sup>2</sup> ]             | 51 lb•in<br>[5.8 N•m]    |
|  | 20                | 12 AWG [3.3 mm <sup>2</sup> ]             |                          |
|  | 30                | 10 AWG [5.3 mm <sup>2</sup> ]             |                          |
|  | 40                | 8 AWG [8.4 mm <sup>2</sup> ]              |                          |
|  | 50                | 8 AWG [8.4 mm <sup>2</sup> ]              |                          |
|  | 60                | 6 AWG [13.3 mm <sup>2</sup> ]             |                          |
|  | 70                | 4 AWG [21.1 mm <sup>2</sup> ]             |                          |
|  | 75                | 4 AWG [21.1 mm <sup>2</sup> ]             |                          |
|  | 80                | 4 AWG [21.1 mm <sup>2</sup> ]             |                          |
|  | 90                | 3 AWG [26.7 mm <sup>2</sup> ]             |                          |
|  | 100               | 3 AWG [26.7 mm <sup>2</sup> ]             |                          |
| BW250                                      | 125               | 1 AWG [42.4 mm <sup>2</sup> ]             | 204 lb•in<br>[23 N•m]    |
|  | 150               | 1/0 AWG [53.5 mm <sup>2</sup> ]           |                          |
|  | 175               | 2/0 AWG [67.4 mm <sup>2</sup> ]           |                          |
|  | 200               | 3/0 AWG [85.0 mm <sup>2</sup> ]           |                          |
|  | 225               | 4/0 AWG [107.2 mm <sup>2</sup> ]          |                          |
|  | 250               | 250 MCM [127 mm <sup>2</sup> ]            |                          |
| BW400                                      | 250               | 250 MCM [127mm <sup>2</sup> ]             | 385 lb•in<br>[43.5 N•m]  |
|  | 300               | 350 MCM [177mm <sup>2</sup> ]             |                          |
|  | 350               | 500 MCM [253mm <sup>2</sup> ]             |                          |
|  | 400               | 3/0 AWGx2 [85.0 mm <sup>2</sup> x2]       |                          |
| BW630                                      | 500               | 250 MCMx2                                 | 275 lb•in<br>[31.07 N•m] |
|  | 600               | 350 MCMx2                                 |                          |
| BW800                                      | 700               | 500 MCMx2                                 | 275 lb•in<br>[31.07 N•m] |
|  | 800               | 300 MCMx3                                 |                          |

\*Lug terminals are supplied as standard.  
Note: Terminals are factory-installed only for BW400, BW630 and BW800 series.  
No replacement terminals available.

# Fuji Molded Case Circuit Breakers Field-mountable Accessories



| Rotary Operating Handles for Fuji MCCBs – Selection Guide |               |          |                    |   |  |   |  |                |                             |
|---|---------------|----------|--------------------|---|--|---|--|----------------|-----------------------------|
| Breaker Type  | V-type Handle | Price    | V-type Handle      | With the optional shaft (x= 3.504 (89)) |  | With the optional shaft (x= 24 (609.6)) |  | Mounting Screw | V-type Handle Mass lb. (kg) |
|   |               |          | H: inch(mm)        | Max. Mounting Depth H: inch(mm)         | Range in which the hinge with H can be installed | Max. Mounting Depth H: inch(mm)         | Range in which the hinge with H can be installed |                |                             |
| BW400   | BW9V0HA       | \$94.00  | 7.48±0.078 (190±2) | 9.843±0.078 (250±2)                     | 7.95 to 9.843 (202to 250)                        | 30.35±0.078 (771±2)                     | 7.95 - 30.35 (202 - 771)                         | M4 x 3.35 (85) | 1.48 (0.67)                 |
| BW630   | BW9V0JA       | \$111.00 |                    |   |  |   |  |                |                             |
| BW800   |               |          |                    |   |  |   |  |                |                             |

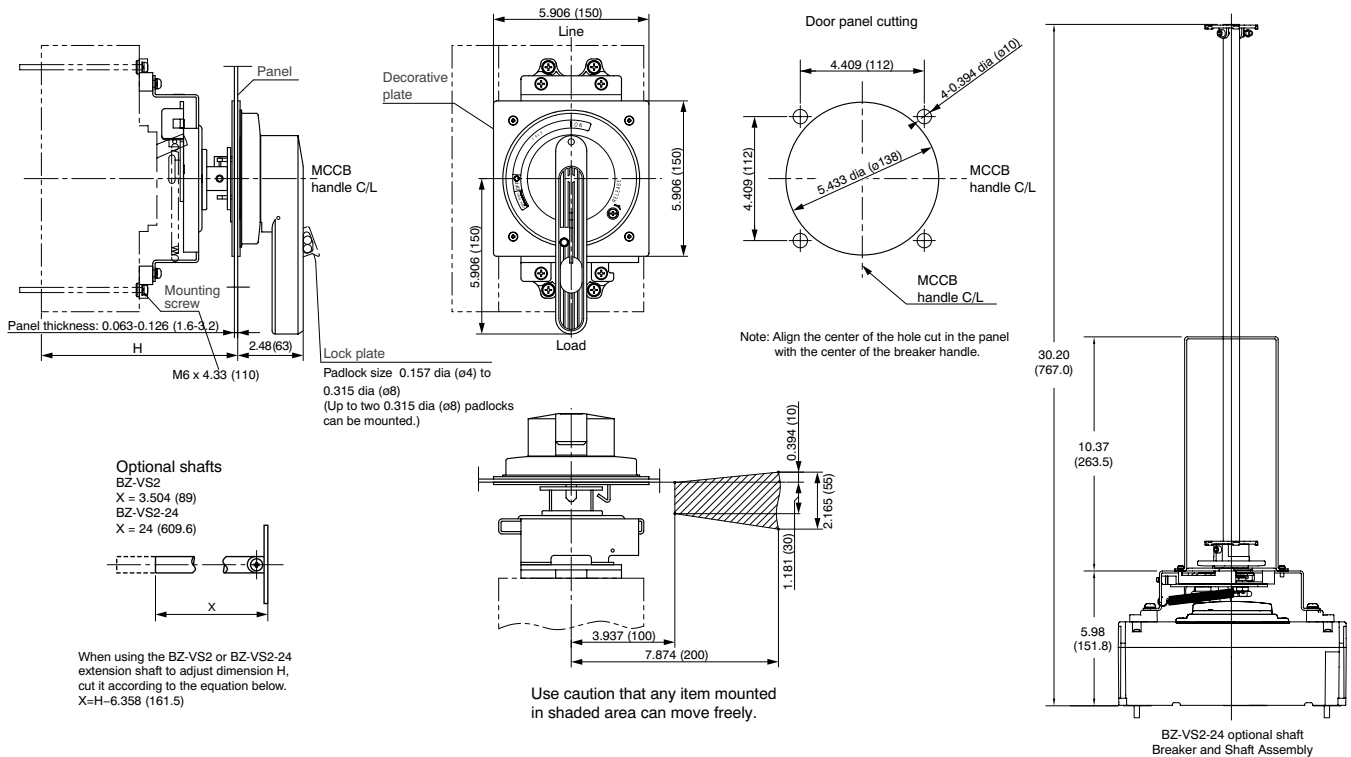
- Notes:
- Handle is an operating mechanism only; not for sealing enclosure door.
  - Not available for side mounting

## Dimensions

mm [inches]

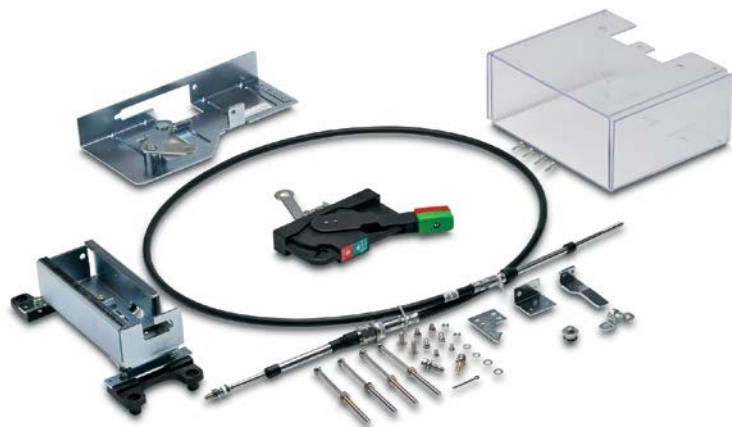
### 400A, 630A, 800A Frame V type handle

- BW9V0HA, BW9V0JA (BZ-VS2, BZ-VS2-24: optional shafts)



# Fuji Molded Case Circuit Breakers Field-mountable Accessories

## Defeatable Flexible Handle Operating Mechanisms



**BW9F0JA-20A shown**

| Flex Shaft Handles for Fuji MCCBs – Selection Guide |                             |          |  |
|---|-----------------------------|----------|--|
| Breaker Type  | Handle Type                 | Price    | Description  |
| BW125   | <a href="#">BW9F0CA-15A</a> | \$330.00 | Nema 12 flexible shaft handle for 125A frame. 59.06" (1.5m)cable         |
|   | <a href="#">BW9F0CA-20A</a> | \$343.00 | Nema 12 flexible shaft handle for 125A frame. 78.74" (2m) cable          |
| BW250   | <a href="#">BW9F0GA-15A</a> | \$343.00 | Nema 12 flexible shaft handle for 250A frame. 59.06" (1.5m)cable         |
|   | <a href="#">BW9F0GA-20A</a> | \$360.00 | Nema 12 flexible shaft handle for 250A frame. 78.74" (2m) cable          |
| BW400*  | <a href="#">BW9F0HA-15A</a> | \$499.00 | Nema 12 flexible shaft handle for 400A frame. 59.06" (1.5m)cable         |
|   | <a href="#">BW9F0HA-20A</a> | \$514.00 | Nema 12 flexible shaft handle for 400A frame. 78.74" (2m) cable          |
| BW630* & BW800*                                     | <a href="#">BW9F0JA-15A</a> | \$540.00 | Nema 12 flexible shaft handle for 630A or 800A frame. 59.06" (1.5m)cable |
|   | <a href="#">BW9F0JA-20A</a> | \$554.00 | Nema 12 flexible shaft handle for 630A or 800A frame. 78.74" (2m) cable  |

\*Terminal covers for line side and load side included with Flange Disconnects. 2/pk

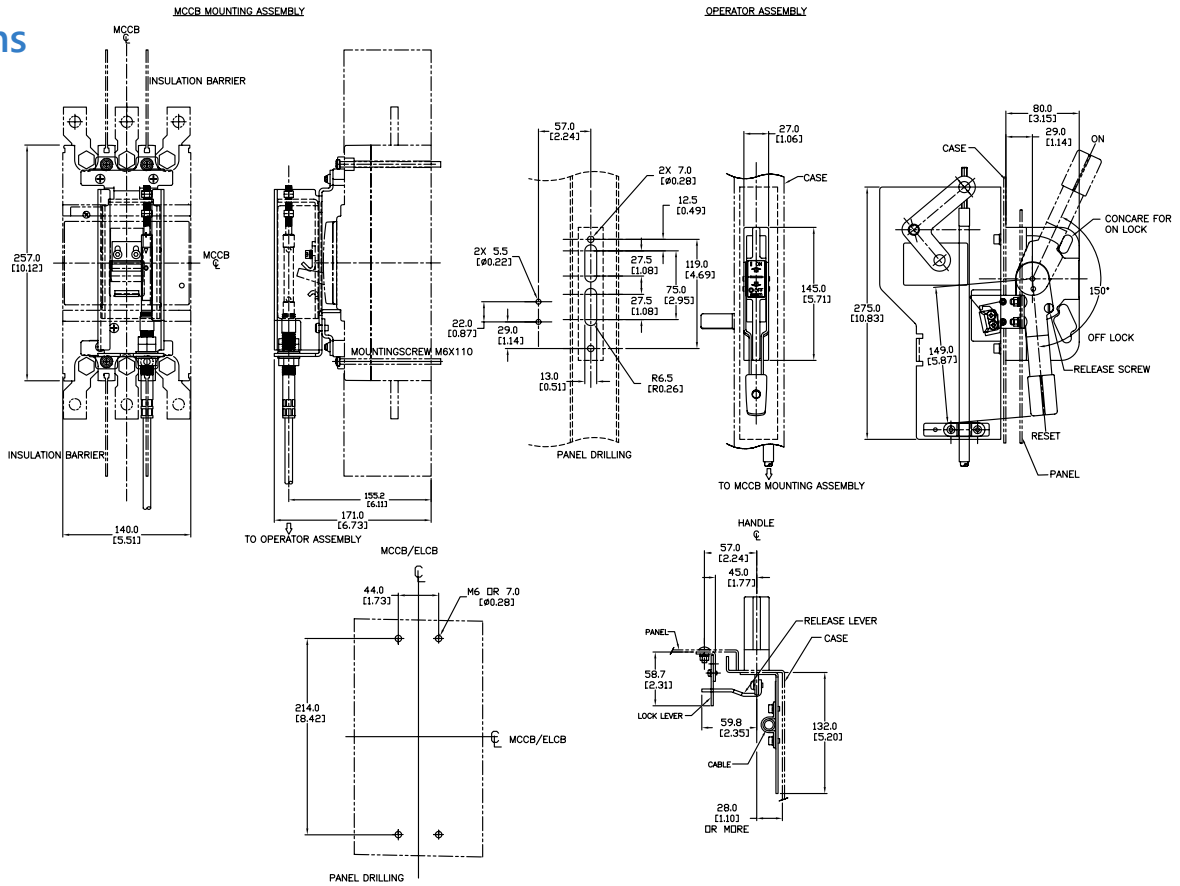
| Flex Handle Specifications    |  |            |            |                |
|-------------------------------|--|------------|------------|----------------|
| Operating instructions        | <ul style="list-style-type: none"> <li>• Operating handle facing up, Breaker is in ON position.</li> <li>• Operating handle facing down, Breaker is in OFF position or is reset.</li> <li>• Panel door cannot be opened when in ON, OFF or Trip position. In order to open the door, the handle must be turned toward reset position.</li> <li>• Release screw is standard. If you want to open a panel door in ON position, please turn the release screw using flat head screwdriver.</li> </ul> |            |            |                |
| Frame Size                    | 125A frame   | 250A frame | 400A frame | 630A/800 frame |
| Mechanical Endurance (cycles) | 10,000   | 8,000      | 6,000      | 6,000          |
| Ambient Temperature           | 14 to 140F (- 10 to 40°C)  |            |            |                |
| Relative Humidity             | less than 95% RH   |            |            |                |
| Protection                    | NEMA Type12 IP54 (IEC60529)  |            |            |                |
| Conforming Standards          | NFPA 79(2007), ANSI(Lockout), OSHA(1910.147, Lockout/tagout), UL489(cUL)   |            |            |                |
| Environment                   | No excessive dust, smoke, corrosive gases, flammable gases, steam or salt.   |            |            |                |

# Fuji Molded Case Circuit Breakers Field-mountable Accessories

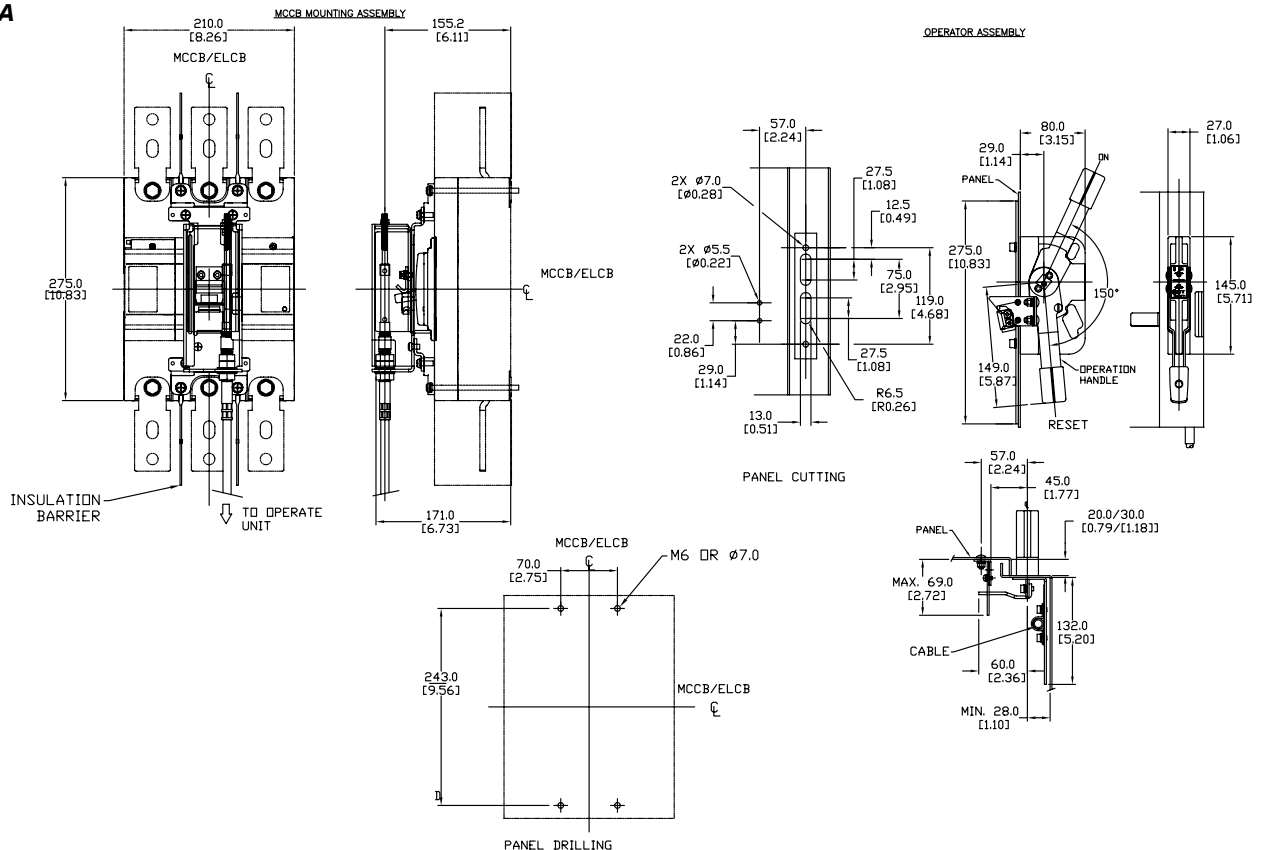
## Dimensions

mm [inches]

**BW9F0HA**



**BW9F0JA**



# Fuji Molded Case Circuit Breakers Accessories



## Auxiliary Contacts



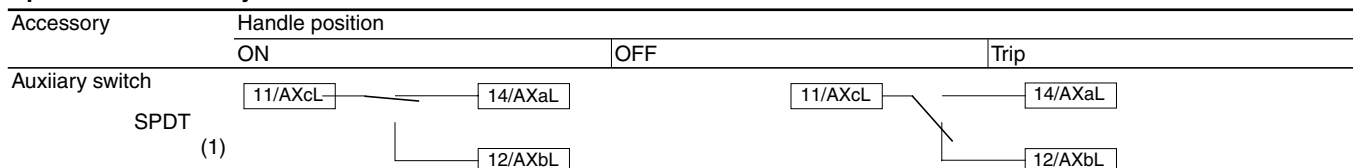
BW9W1SHA shown

The auxiliary contacts are accessory contacts for the indication of circuit breaker open-closed or tripped.

| Auxiliary Contacts for Fuji MCCBs – Selection Guide |                          |         |  |
|---|--------------------------|---------|--|
| Breaker Type  | Part Number              | Price   | Description  |
| <b>BW125<br/>BW250</b>                              | <a href="#">BW9W1SG0</a> | \$34.00 | Auxiliary switch for for 125A and 250A frame. Mounting left and right side   |
| <b>BW400<br/>BW630<br/>BW800</b>                    | <a href="#">BW9W1SHA</a> | \$31.00 | Auxiliary switch for for 400A , 630A and 800A frame. Mounting left side ONLY |

| Ratings of Auxiliary Switches                   |                           |                        |           |           |             |           |           |                      |
|---|---------------------------|------------------------|-----------|-----------|-------------|-----------|-----------|----------------------|
| Standard Type                                   |                           |                        |           |           |             |           |           |                      |
| Breaker Type                                    | Rated Thermal Current (A) | Make/Break Current (A) |           |           |             |           |           | Minimum Load Current |
|   |                           | AC                     |           |           | DC          |           |           |                      |
|   |                           | Voltage (V)            | Res. Load | Ind. Load | Voltage (V) | Res. Load | Ind. Load |                      |
| <b>BW125, BW250,<br/>BW400 BW630,<br/>BW800</b> | 5                         | 24                     | 5         | 5         | 24          | 4         | 3         | 5V DC 160 mA         |
|   |                           | 48                     | 5         | 5         | 48          | 2.5       | 1         |                      |
|   |                           | 125                    | 5         | 3         | 125         | 0.4       | 0.4       | 30V DC 30 mA         |
|   |                           | 250                    | 3         | 2         | 250         | 0.2       | 0.2       |                      |

### Operation of auxiliary switches



## Shunt Trips

Shunt Trip is for remote tripping (opening) of circuit breaker.



BW9FRG0 shown

| Shunt Trips for Fuji MCCBs – Selection Guide |         |   |
|--|---------|---|
| Part Number                                  | Price   | Description   |
| <a href="#">BW9FRG0</a>                      | \$69.00 | Field installable 24 VAC/VDC shunt trip for BW125 and BW250 series MCCB. Left and right side mounting. Lead wires 20AWG, 19.69" long.                 |
| <a href="#">BW9FHA-R</a>                     | \$69.00 | Field installable 24/48 VAC/VDC shunt trip for BW400, BW630 and BW800 series MCCB. Left side mounting only. Lead wires 20AWG, 19.69" long.            |
| <a href="#">BW9FAG0</a>                      | \$69.00 | Field installable 100/120 VAC, 100-110 VDC shunt trip for BW125 and BW250 series MCCB. Left and right side mounting. Lead wires 20AWG, 19.69" long.   |
| <a href="#">BW9FHA-A</a>                     | \$69.00 | Field installable 100/240 VAC, 100-220 VDC shunt trip for BW400, BW630 and BW800 series MCCB. Left side mounting only. Lead wires 20AWG, 19.69" long. |

| Ratings of Shunt Trips         |             |    |             |    |  |                     |
|--------------------------------|-------------|----|-------------|----|--|---------------------|
| Breaker Type                   | AC          |    | DC          |    | Time Rating of Coil<br>(with 1 N.O. contact to prevent coil burnout) | Operating Time (ms) |
|                                | Voltage (V) | VA | Voltage (V) | W  |  |                     |
| <b>BW125, BW250</b>            | 24          | 50 | 24          | 50 | Continuous   | 13-21               |
|                                | 100-120     | 50 | 100-110     | 50 |  |                     |
| <b>BW400, BW630,<br/>BW800</b> | 24-48       | 2  | 24-48       | 2  | Continuous   | 8-20                |
|                                | 100-240     | 3  | 100-220     | 3  |  |                     |

Note: Allowable operating voltage AC voltage: 85% to 110% of coil rated voltage  
DC voltage: 75% to 125% of coil rated voltage

# Fuji Molded Case Circuit Breakers Accessories



## Undervoltage Releases

Undervoltage Release will trip the circuit breaker when the connected voltage drops to less than 70% of undervoltage release voltage rating. It will allow the circuit breaker to close (ON) when voltage is approximately 85% of rated voltage.

| Undervoltage Releases for Fuji MCCBs – Selection Guide |                          |         |  |
|--|--------------------------|---------|--|
| Breaker Type   | Part Number              | Price   | Description  |
| <b>BW125, BW250</b>                                    | <a href="#">BW9RGAR</a>  | \$69.00 | Undervoltage Release 24V DC (Left side ONLY)                 |
| <b>BW125, BW250</b>                                    | <a href="#">BW9RGAT</a>  | \$69.00 | Undervoltage Release 110 to 130 VAC VAC/VDC (Left side ONLY) |
| <b>BW400, BW630, BW800</b>                             | <a href="#">BW9RHA-R</a> | \$67.00 | Undervoltage Release 24 VAC/VDC (Left side ONLY)             |
| <b>BW400, BW630, BW800</b>                             | <a href="#">BW9RHA-1</a> | \$69.00 | Undervoltage Release 120 to 130 VAC 125 VDC (Left side ONLY) |



[BW9RGAR](#) shown

| Ratings of Undervoltage Trip           |             |    |             |   |
|--|-------------|----|-------------|---|
| Breaker Type                           | AC          |    | DC          |   |
|  | Voltage (V) | VA | Voltage (V) | W |
| <b>BW125*1<br/>BW250*1</b>             | –           | –  | 24          | 5 |
|  | 110 - 130   | 5  | –           | – |
| <b>BW400*2<br/>BW630*2<br/>BW800*2</b> | 24          | 2  | 24          | 2 |
|  | 120 - 130   | 3  | 125         | 3 |

Note: Allowable operating voltage: AC voltage: 85% to 110% of coil rated voltage  
DC voltage: 75% to 125% of coil rated voltage.

\*1 Reset-allowed type: When the breaker handle is in the OFF or RESET state, tripping does not occur, even if the undervoltage trip coil is not energized.

Turning ON with the undervoltage trip coil not energized causes normal tripping.

\*2 Reset-prohibited type: When the undervoltage trip coil is not energized, reset operation cannot reset the tripped breaker to the OFF state.



[BW9SL0GA-3](#) shown

## Replacement Lugs

| Replacement Lug Kits for Fuji MCCBs – Selection Guide |         |   |
|---|---------|---|
| Part Number   | Price   | Description   |
| <a href="#">BW9SL0CA-3</a>                            | \$70.00 | Replacement lug kit for BW125 series MCCB. 75°C. Cu only<br>Package of 3              |
| <a href="#">BW9SL0GA-3</a>                            | \$79.00 | Replacement lug kit for BW250 series up to 175A MCCB. 75°C. Cu only<br>Package of 3   |
| <a href="#">BW9SL1GA-3</a>                            | \$87.00 | Replacement lug kit for BW250 MCCB series 200A to 250A. 75°C. Cu only<br>Package of 3 |

Note: Terminals are factory-installed only for BW400, BW630 and BW800 series. No replacement terminals available.

# Fuji Molded Case Circuit Breakers Accessories



## Terminal Covers

Terminal covers act as guards to shield the operator from touching live terminations. They fit either the line or load side.

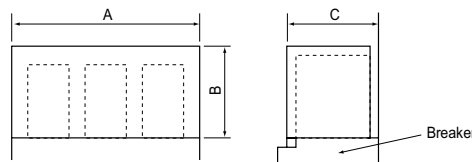


**BW9BTHA-L3W shown**

| Terminal Covers for Fuji MCCBs – Selection Guide |                             |         |   |                      |             |            |
|--|-----------------------------|---------|---|----------------------|-------------|------------|
| Breaker Type                                     | Part Number                 | Price   | Description   | Dimensions inch (mm) |             |            |
|  |                             |         |   | A                    | B           | C          |
| <b>BW400</b>                                     | <a href="#">BW9BTHA-L3W</a> | \$69.00 | Gray-white Long type terminal cover for Fuji MCCBs. For line side and load side. 2/pk | 6.772 (172)          | 4.331 (110) | 3.858 (98) |
| <b>BW630, BW800</b>                              | <a href="#">BW9BTJA-L3W</a> | \$72.00 | Gray-white Long type terminal cover for Fuji MCCBs. For line side and load side. 2/pk | 8.268 (210)          | 6.102 (155) | 3.858 (98) |

Note: Gray-white short type terminal covers are provided with breakers as standard for 125 and 250 Amp frames.

Dimensions of Terminal Covers: inch (mm)



## Lockout Attachment

| Lockout Attachments for Fuji MCCBs – Selection Guide |                         |         |  |
|--|-------------------------|---------|--|
| Breaker Type   | Part Number             | Price   | Description  |
| <b>BW125<br/>BW250</b>                               | <a href="#">BW9Q1CA</a> | \$16.50 | Use to lock out BW125 and BW 250 series MCCBs. Lock not included |
| <b>BW400, BW630,<br/>BW800</b>                       | <a href="#">BW9QNHA</a> | \$40.50 | Use to lock out BW400, BW600 and BW800 MCCBs. Lock not included. |



**BW9Q1CA shown**