## 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)

Features

- Thermal-magnetic 15A through 800A
- Suitable for branch circuit protection
- Rated current of 15 to $800 \mathrm{~A}, \max 600 \mathrm{~V}$
- Standard type and high-interrupting capacities available in identically sized breakers
- Shunt Trip, Undervoltage Release and other accessories available
- Line and load luģ terminals included on all MCCBs
- Auxiliary switch, Alarm switch and Shunt Trip can be installed in the field
- Door-mounted or flange-mounted, flex shaft operating handles
- All frame sizes suitable for reverse-feed applications
- All breakers include mounting hardware
- Terminal covers included for BW125 and BW250 frames. Terminal covers available for BW400, BW630 and BW800 frames.



## (II) CE © (C) (II)

| Fuji Electric Molded Case Circuit Breakers Technical Specifications |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Circuit Breaker Type | Ampere Rating at $40^{\circ} \mathrm{C}$ | No. Poles | Volts |  | $\begin{aligned} & \text { Type } \\ & \text { of } \\ & \text { Trip* } \end{aligned}$ | UL 489 Interrupting Ratings (rms Symmetrical Amperes) (kA) |  |  |  |
|  |  |  | AC | DC |  | Volts AC (50/60 Hz) |  |  | Volts DC |
|  |  |  |  |  |  | 240 | 480 | 600 | 250** |
| BW125JAGU | 15-125 | 3 | 600 | 250 | N.I.T.U | 50 | 30 | 10 | 10 |
| BW250JAGU | 125-250 | 3 | 600 | 250 | N.I.T.U | 50 | 30 | 10 | 10 |
| BW400SAGU | 250-400 | 3 | 480 | 250 | N.I.T.U | 50 | 35 | - | 10 |
| BW630RAGU | 500-600 | 3 | 480 | 250 | N.I.T.U | 100 | 50 | - | 10 |
| BW800RAGU | 700-800 | 3 | 480 | 250 | N.I.T.U | 100 | 50 | - | 10 |

*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

|  |
| :---: |
| Company Information |
| Terminal Blocks |
| Power <br> Distribution Blocks |
| Wiring Accessories |
| ZIPLink Connection System |
| Multi-wire Connectors |
| Sensor Cables and Connectors |
| M12 Junction Blocks |
| Panel Interface Connectors |
| Wiring Duct |
| Cable Ties |
| Wire |
| Flexible Cord |
| Multi-conductor Flex Cable |
| Data Cables |
| Wire Management Products |
| Power Supplies |
| DC Converters |
| Transformers and Filters |
| Circuit Protection |
| Tools |
| Test Equipment |
| Enclosures |
| Enclosure Climate Control |
| Safety: Electrical Components |
| Safety: Protective Wear |
| Terms and Conditions |

## Fuji Molded Case Circuit Breakers 250A Frame

## F Fuji Electric



Fuji BW250A series MCCBs are 250 amp frame, 3-pole, non-adjustable magnetic trip, molded case circuit breakers (MCCB). The BW250 series is suitable for reverse feed
applications. Included with each MCCB are Line and Load-side lug terminals, terminal covers and mounting hardware. Accessories are not pre-installed and are sold separately.

BW250JAGU-3P125SB shown

| BW250-Frame Series Three-Pole Molded Case Circuit Breakers |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Part Number | Price | Frequency | Rated Interrupting Capacity (kA) |  |  |  |  |  |  |
|  |  |  | Rated Current | $\begin{gathered} \text { UL489 CAN/CSA } \\ \text { C22.2 No. } 5 \end{gathered}$ |  | $\begin{array}{\|c\|} \hline \text { IEC60947-2, JIS C } \\ 8201-2-1 \text { Icu//cs } \end{array}$ |  | $\begin{gathered} \text { GB14048.2 } \\ \text { Icu/lcs } \end{gathered}$ |  |
|  |  |  | Ampere Rating | Voltage | Interrupt Capacity | Voltage | Interrupt Capacity | Voltage | Interrupt Capacity |
| BW250JAGU-3P125SB | \$409.00 | $50 / 60 \mathrm{~Hz}$ | 125 | $600 \mathrm{~V} / \mathrm{Y}$ AC 480V/D AC 480V/Y AC 240 V AC 250V DC | $\begin{aligned} & 10 \mathrm{kA} \\ & 30 \mathrm{kA} \\ & 30 \mathrm{kA} \\ & 50 \mathrm{kA} \\ & 10 \mathrm{kA} \end{aligned}$ | 500 V AC 440 V AC 400 V AC 380 V AC 240 V AC250 V DC | $\begin{aligned} & 18 / 9 \mathrm{kA} \\ & 30 / 15 \mathrm{kA} \\ & 30 / 15 \mathrm{kA} \\ & 30 / 15 \mathrm{kA} \\ & 50 / 25 \mathrm{kA} \\ & 20 / 10 \mathrm{kA} \end{aligned}$ | $\begin{aligned} & 400 \mathrm{VAC} \\ & 230 \mathrm{VAC} \end{aligned}$ | 30/15 kA <br> 50/25 kA |
| BW250JAGU-3P150SB | \$409.00 |  | 150 |  |  |  |  |  |  |
| BW250JAGU-3P160SB | \$409.00 |  | 160 |  |  |  |  |  |  |
| BW250JAGU-3P175SB | \$409.00 |  | 175 |  |  |  |  |  |  |
| BW250JAGU-3P200SB | \$409.00 |  | 200 |  |  |  |  |  |  |
| BW250JAGU-3P225SB | \$409.00 |  | 225 |  |  |  |  |  |  |
| BW250JAGU-3P250SB | \$409.00 |  | 250 |  |  |  |  |  |  |
| Note: SCCR = UL489 interrupting capacity |  |  |  |  |  |  |  |  |  |


| BW250-Frame Accessory Selection Guide |  |  |
| :---: | :---: | :---: |
| Part Number | Price | Description |
| BW9W1SG0 | \$24.00 | Field installable auxiliary contact switch, use with BW125 and BW250 series MCCBs. SPDT. 20AWG lead wires, 19.69" long, left side mount only |
| BW9FRGO | \$49.50 | Field installable DC shunt trip, use with BW125 and BW250 series MCCBs; 24 VDC/AC, 20 AWG lead wires 19.69 " long, left and right side mount |
| BW9FAGO | \$49.50 | Field installable AC shunt trip, use with BW125 and BW250 series MCCBs; 100-120 VAC, 20 AWG lead wires 19.69" long, left and right side mount |
| BW9RGAR | \$49.50 | Field installable DC undervoltage release, use with BW125and BW250 series MCCBs; 24 VDC, 20AWG lead wires, 19.69" long, left side mount only |
| BWGRGAT | \$49.50 | Field installable AC undervoltage release, use with BW125and BW250 series MCCBs; 110-130 VAC, 20AWG lead wires, 19.69" long, leff side mount only |
| BW9SLOGA-3 | \$43.00 | Replacement lugs for BW250-frame MCCBs up to 175A, package of 3 |
| BW9SL1GA-3 | \$62.50 | Replacement lugs for BW250-frame MCCBs 175A to 250A, package of 3 |
| BW9VOGA | \$45.00 | NEMA 12 rotary handle for BW250-Frame. Position indicating; lock-off feature. Shaft length: 0.39 " |
| BWGVSGO | \$11.00 | NEMA 12 rotary handle shaft for BW9VOCA and BW9VOGA, BW125 and BW250 Frames. Steel shaft length: 6.06" (154 mm) |
| BWGVSGO-24 | \$29.00 | NEMA 12 rotary handle shaft for BW9VOCA and BW9VOGA, BW125 and BW250 Frames. Steel shaft length: $24^{\prime \prime}$ ( 610 mm ) |
| BW9FOGA-15A | \$247.00 | NEMA 12 flexible shaft handle for BW250-Frame. Flange mounted. Lockable. Flex cable shaft length: 4.92' (1.5m) |
| BW9FOGA-20A | \$257.00 | NEMA 12 flexible shatt handle for BW250-Frame. Flange mounted. Lockable. Flex cable shaft length: 6.56' (2m) |
| BW9Q1CA | \$12.00 | Lockout attachment, use to lock out BW125 and BW250 series MCCBs. Lock not included. |
| Note: Short-type terminal covers (gray-white) are supplied as standard. |  |  |



BW9VOGA


BW9FOGA-15A


BW9FRGO


BW9RGAR


BW9Q1CA

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## Fuji Molded Case Circuit Breakers 250A Frame Characteristic Curves




Note: Instantaneous tripping = $10 \times$ (rated current) $\pm 20 \%$ In = rated current

## Fuji Molded Case Circuit Breakers Dimensions

## Dimensions

Units: mm [inches]
15 to 125A BW125A Frame


125 to 250A BW250A Frame


## 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 |
| BW9W1SGO | Auxiliary Switch (Mounting Left and right side) | X | X |  |  |  |
| BW9W1SHA | Auxiliary Switch (Mounting Left side ONLY) |  |  | X | X | X |
| BW9FRGO | Shunt Trip 24 VAC/NDC (Mounting both Left and Right sides) | X | X |  |  |  |
| BW9FHA-R | Shunt Trip 24-48 VAC/VDC (Mounting Left side ONLY) |  |  | X | X | X |
| BW9FAGO | Shunt Trip 100-120 VAC, 100-110 VDC (Mounting both Left and Right sides) | X | X |  |  |  |
| BW9FHA-A | Shunt Trip 100-280 VAC, 100-220 VDC (Mounting Left side ONLY) |  |  | X | X | X |
| BW9RGAR | UnderVoltage Release 24VDC (Left side ONLY) | X | X |  |  |  |
| BW9RHA-R | UnderVoltage Release 24 VAC/VDC (Left side ONLY) |  |  | X | X | X |
| BWGRGAT | UnderVoltage Release 110-130 VAC (Left side ONLY) | X | X |  |  |  |
| BW9RHA-1 | UnderVoltage Release 120-130 VAC, 125VDC (Left side ONLY) |  |  | X | X | X |
| BW9SLOCA-3 | Replacement Lugs Kit for 125 Amp frame | X |  |  |  |  |
| BW9SLOGA-3 | Replacement Lugs Kit for 250 Amp frame up to 175A |  | X |  |  |  |
| BW9SL1GA-3 | Replacement Lugs Kit for 250 Amp frame 200A to 250A |  | X |  |  |  |
| BW9VOCA | Rotary Handle | X |  |  |  |  |
| BW9VOGA | Rotary Handle |  | X |  |  |  |
| BWGVSGO | Optional Shatt for BW9VOCA and BW9VOGA, 6.063" | X | X |  |  |  |
| BWVVSGO-24 | Optional Shatt for BW9VOCA and BW9VOGA, 24" | X | X |  |  |  |
| BW9VOHA | Rotary Handle, |  |  | X |  |  |
| BW9VOJA | Rotary Handle, |  |  |  | X | X |
| BZ-VS2 | Optional Shaft for BW9VOHA and BW9VOJA, 3.48" |  |  | X | X | X |
| BZ-VS2-24 | Optional Shaft for BW9VOHA and BW9VOJA, $\mathrm{H}=24$ " |  |  | X | X | X |
| BW9FOCA-15A | Flange Handle (flex shaft), NEMA 12, 59" (1.5m) cable, 125 Amp frame | X |  |  |  |  |
| BW9FOCA-20A | Flange Handle (flex shatt), NEMA 12, 78.7" (2.0m) cable, 125 Amp frame | X |  |  |  |  |
| BW9FOGA-15A | Flange Handle (flex shaft), NEMA 12, 59" (1.5m) cable, 250 Amp frame |  | X |  |  |  |
| BW9FOGA-20A | Flange Handle (flex shatt), NEMA 12, 78.7" (2.0m) cable, 250 Amp frame |  | X |  |  |  |
| BW9FOHA-15A | Flange Handle (flex shaft), NEMA 12, 59" (1.5m) cable, 400 Amp frame |  |  | X |  |  |
| BW9FOHA-20A | Flange Handle (flex shatt), NEMA 12, 78.7" (2.0m) cable, 400 Amp frame |  |  | X |  |  |
| BW9FOJA-15A | Nema 12 flexible shatt handle for 630 A or 800 A frame. $59.06^{\prime \prime}$ (1.5m) cable |  |  |  | X | X |
| BW9FOJA-20A | Nema 12 flexible shaft handle for 630 A or 800 A frame. $78.74^{\prime \prime}(2 \mathrm{~m})$ cable |  |  |  | X | X |
|  |  |  |  |  |  |  |
| BW9BTHA-L3W | Terminal Cover for the 400A frame |  |  | X |  |  |
| BW9BTJA-L3W | Terminal Cover for the 630A AND 800A frame |  |  |  | X | X |
|  |  |  |  |  |  |  |
| BW9QNHA | Lockout Attachment 400A, 630A and 800A frames |  |  | X | X | X |

Internal Accessory Combinations for BW Series


## Fuji Molded Case Circuit Breakers Wire Range Specifications <br> Fuji Electric

## 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 $75^{\circ} \mathrm{C}$ 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.


## Allowable Wire Specifications for Lug Terminals

Wire Size AWG or MCM (mm²) 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 |



- 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.


Rated current 15A to 350A


Rated current 400A 3/0 AWG $\times 2$ $3 / 0$ AWG $\times 2$
19 strands each


Rated current 500A to 700A


Rated current 800A 300 MCM x 3 37 strands each

| Maximum Wire Sizes and Tightening Torque |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Rated | Wire Size | Tightening Torque |
| Type | Current (A) | AWG or MCM (mm2) | $\begin{aligned} & \text { Lug } \\ & \text { Terminal* } \end{aligned}$ |
| BW125 | 15 | 14 AWG (2.1mm²) | $\begin{aligned} & 51 \mathrm{lb} \text {-in. } \\ & (5.8 \mathrm{~N}-\mathrm{m}) \end{aligned}$ |
|  | 20 | 12 AWG (3.3mm²) |  |
|  | 30 | 10 AWG (5.3mm²) |  |
|  | 40 | 8 AWG (8.4mm²) |  |
|  | 50 | 8 AWG ( $8.4 \mathrm{~mm}^{2}$ ) |  |
|  | 60 | 6 AWG (13.3mm²) |  |
|  | 70 | 4 AWG (21.1mm²) |  |
|  | 75 | 4 AWG (21.1mm²) |  |
|  | 80 | 4 AWG (21.1mm²) |  |
|  | 90 | 3 AWG ( $26.7 \mathrm{~mm}^{2}$ ) |  |
|  | 100 | 3 AWG (26.7mm²) |  |
|  | 125 | 1 AWG (42.4mm²) |  |
| BW250 | 125 | 1 AWG (42.4mm²) | $\begin{aligned} & 204 \mathrm{lb} .-\mathrm{in} . \\ & (23 \mathrm{~N}-\mathrm{m}) \end{aligned}$ |
|  | 150 | 1/0 AWG ( $53.5 \mathrm{~mm}{ }^{2}$ ) |  |
|  | 175 | 2/0 AWG (67.4mm) |  |
|  | 200 | 3/0 AWG (85.0mm²) |  |
|  | 225 | 4/0 AWG ( $107.2 \mathrm{~mm}^{2}$ ) |  |
|  | 250 | 250 MCM ( 127 mm 2) |  |
| BW400 | 250 | $250 \mathrm{MCM}\left(127 \mathrm{~mm}{ }^{2}\right)$ | $\begin{aligned} & 385 \mathrm{lb} .-\mathrm{in} \\ & (43.5 \mathrm{~N}-\mathrm{m}) \end{aligned}$ |
|  | 300 | $350 \mathrm{MCM}\left(177 \mathrm{~mm}{ }^{2}\right)$ |  |
|  | 350 | $500 \mathrm{MCM}\left(253 \mathrm{~mm}{ }^{2}\right)$ |  |
|  | 400 | 3/0 AWGx2 (85.0mm²x2) | $\begin{aligned} & 282 \text { lb-in } \\ & (31.9 \mathrm{~N}-\mathrm{m}) \end{aligned}$ |
| BW630 | 500 | $250 \mathrm{MCMx2}$ | $\begin{aligned} & 275 \mathrm{lb} . \mathrm{-in} . \\ & (31.07 \mathrm{~N}-\mathrm{m}) \end{aligned}$ |
|  | 600 | 350 MCMx2 |  |
| BW800 | 700 | $500 \mathrm{MCMx2}$ | $\begin{aligned} & 275 \mathrm{lb} .-\mathrm{in} . \\ & \text { (31.07 N-m) } \end{aligned}$ |
|  | 800 | $300 \mathrm{MCM} \times 3$ |  |

*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



Defeatable Rotary Handle Operating Mechanisms

## BW9V0CA shown

| Rotary Operating Handles for Fuji MCCBs - Selection Guide |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{array}{\|c\|} \hline \text { Breaker } \\ \text { Type } \end{array}$ | V-type Handle | Price | V-type Handle | With the optional shaft$(x=6.102(155))$ |  | With the optional shaft ( $x=24.567$ (624)) |  | Mounting Screw | V-type <br> Handle <br> Mass <br> 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 |  |  |
| BW125 | BW9VOCA | \$45.00 | $4.134 \pm 0.078$ | $9.843 \pm 0.078$ | 5.512 to 9.843 | $28.307 \pm 0.078$ | 28.307-5.591 |  |  |
| BW250 | BW9VOGA | \$45.00 | (105 2 ) | (250土2) | (140 to 250) | $(719 \pm 2)$ | (124-719) | M $\times 3$. | 1.48 |

## Dimensions

Notes: • Handle is an operating mechanism only; not for sealing enclosure door.

- Not available for side mounting
- For BW250 Series only: When mounting a terminal cover, cut away part of it because it hides the mounting screws for the breaker.

125A, 250A Frame V type handle

- BW9V0CA, BW9V0GA (BW9VSG0, BW9VSG0-24: optional shafts)


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| Company Information |
| Teminal Blocks |
| Power <br> Distribution <br> Blocks |
| Wiring Accessories |
| ZIPLink <br> Connection System |
| Multi-wire Connectors |
| Sensor Cables and Connectors |
| M12 Junction Blocks |
| Panel Interface Connectors |
| Wiring Duct |
| Cable Ties |
| Wire |
| Flexible Cord |
| Multi-conductor Flex Cable |
| Data Cables |
| Wire <br> Management Products |
| Power Supplies |
| DC Converters |
| Transformers and Filters |
| Circuit Protection |
| Tools |
| Test Equipment |
| Enclosures |
| Enclosure <br> Climate Control |
| Safety: Electrical Components |
| Safety: Protective Wear |
| Terms and Conditions |

## Fuji Molded Case Circuit Breakers -Field-mountable Accessories

## Defeatable Flexible Handle Operating Mechanisms



## Fer <br> Fuji Electric

## BW9F0JA-20A shown

| Flex Shaft Handles for Fuji MCCBs - Selection Guide |  |  |  |
| :---: | :---: | :---: | :---: |
| Breaker Type | Handle Type | Price | Description |
| BW125 | BW9FOCA-15A | \$237.00 | Nema 12 flexible shaft handle for 125 A frame. $59.06^{\prime \prime}(1.5 \mathrm{~m})$ cable |
|  | BW9FOCA-20A | \$247.00 | Nema 12 flexible shaft handle for 125 A frame. $78.74^{\prime \prime}(2 \mathrm{~m})$ cable |
| BW250 | BW9FOGA-15A | \$247.00 | Nema 12 flexible shaft handle for 250A frame. 59.06" $(1.5 \mathrm{~m})$ cable |
|  | BW9FOGA-20A | \$257.00 | Nema 12 flexible shaft handle for 250 A frame. $78.74^{\prime \prime}(2 \mathrm{~m})$ cable |
| BW400* | BW9FOHA-15A | \$359.00 | Nema 12 flexible shaft handle for 400A frame. 59.06" $(1.5 \mathrm{~m}) \mathrm{cable}$ |
|  | BW9FOHA-20A | \$369.00 | Nema 12 flexible shaft handle for 400A frame. $78.74{ }^{\prime \prime}(2 \mathrm{~m})$ cable |
| $\begin{aligned} & B W 630^{*} \& \\ & B W 800^{*} \end{aligned}$ | BW9FOJA-15A | \$388.00 | Nema 12 flexible shaft handle for 630A or 800A frame. $59.06{ }^{\prime \prime}(1.5 \mathrm{~m})$ cable |
|  | BW9FOJA-20A | \$399.00 | Nema 12 flexible shaft handle for 630A or 800A frame. $78.744^{\prime \prime}(2 \mathrm{~m})$ cable |
| ${ }^{*}$ Terminal covers for line side and load side inc/uded with Flange Disconnects. 2/pk |  |  |  |


| Flex Handle Specifications |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Operating instructions | - Operating handle facing up, Breaker is in ON position. <br> - Operating handle facing down, Breaker is in OFF position or is reset. <br> - 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. <br> - Release screw is standard. If you want to open a panel door in ON position, please turn the release screw using flat head screwdriver. |  |  |  |
| 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 $140 \mathrm{~F}\left(-10\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |  |  |  |
| Relative Humidity | less than 95\% RH |  |  |  |
| Protection | NEMA Type12 IP54 (IEC60529) |  |  |  |
| Conforming Standards | NFPA 79(2007), ANSI(Lockout), OSHA(1910.147, Lockout/agout), UL489(cUL) |  |  |  |
| Environment | No excessive dust, smoke, corrosive gases, flammable gases, steam or salt. |  |  |  |

## Fuji Molded Case Circuit Breakers -Field-mountable Accessories

## Dimensions

MCCB MOUNTING ASSEMBLY
OPERATOR ASSEMBLY
Units: mm [inches]
BW9F0CA


## BW9F0GA



## Fuji Molded Case Circuit Breakers Accessories <br> \section*{Auxiliary Contacts} <br> $F_{\text {Fer }}$ Fuji Electric



BW9W1SHA shown
The auxiliary contacts are accessory contacts for the indication of circuit breaker openclosed or tripped.

| Auxiliary Contacts for Fuji MCCBs - Selection Guide |  |  |  |
| :--- | :--- | :--- | :--- |
| Breaker <br> Type | Part Number | Price | Description |
| BW125 <br> BW250 | BW9W1SGO | $\$ 24.00$ | Auxiliary switch for for 125A and 250A frame. Mounting left and right side |
| BW400 <br> BW630 <br> BW800 | $\underline{\text { BW9W1SHA }}$ | $\$ 22.50$ | Auxiliary switch for for 400A , 630A and 800A frame. Mounting left side ONLY |
|  |  |  |  |


| Ratings of Auxiliary Switohes |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 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 |  |
| BW125, BW250, BW400 BW630, BW800 | 5 | 24 | 5 | 5 | 24 | 4 | 3 | $5 V$ DC 160 mA $30 V$ DC 30 mA |
|  |  | 48 | 5 | 5 | 48 | 2.5 | 1 |  |
|  |  | 125 | 5 | 3 | 125 | 0.4 | 0.4 |  |
|  |  | 250 | 3 | 2 | 250 | 0.2 | 0.2 |  |

Operation of auxiliary switches

| Accessory | Handle position |  |  |
| :---: | :---: | :---: | :---: |
|  | ON | OFF | Trip |
| Auxiiary switch <br> SPDT <br> (1) |  |  |  |

## Shunt Trips

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

| Shunt Trips for Fuji MCCBS - Selection Guide |  |  |  |
| :--- | :---: | :--- | :---: |
| Part Number | Price | Description |  |
| BW9FRGO | $\$ 49.50$ | Field instalable 24 VACNDC shunt trip for BW125 and BW250 series MCCB. <br> Left and right side mounting. Lead wires 20AWG, 19.69" long. |  |
| BW9FHA-R | $\$ 35.75$ | Field installable 24/48 VACNDC shunt trip for BW400, BW630 and BW800 series MCCB. <br> Left side mounting only. Lead wires 20AWG, 19.69" long. |  |
| BW9FAGO | $\$ 49.50$ | Field installable 100/120 VAC, 100-110 VDC shunt trip for BW125 and BW250 series MCCB. <br> Left and right side mounting. Lead wires 20AWG, 19.69" long. |  |
| $\underline{\text { BW9FHA-A }}$ | $\$ 49.50$ | Field installable 100/240 VAC, 100-220 VDC shunt trip for BW400, BW630 and BW800 <br> series MCCB.Left side mounting only. Lead wires 20AWG, 19.69" long. |  |


| Ratings of Shunt Trips |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Breaker Type | AC |  | DC |  | Time Rating of Coil | Operating Time (ms) |
|  | Voltage (V) | VA | Voltage (V) | W |  |  |
| BW125, BW250 | 24 | 50 | 24 | 50 | Continuous (with 1 N.O. contact to prevent coil burnout) | 13-21 |
|  | 100-120 | 50 | 100-110 | 50 |  |  |
| BW400, BW630, BW800 | 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: $\mathbf{7 5 \%}$ 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 $(\mathrm{ON})$ when voltage is approximately $85 \%$ of rated voltage.

| Undervoltage Releases for Fuji MCCBs - Selection Guide |  |  |  |
| :--- | :--- | :--- | :--- |
| Breaker Type | Part Number | Price | Description |
| BW125, BW250 | BW9RGAR | $\$ 49.50$ | Undervoltage Release 24V DC (Left side ONLY) |
| BW125, BW250 | $\underline{\text { BW9RGAT }}$ | $\$ 49.50$ | Undervoltage Release 110 to 130 VAC VAC/NDC (Left side ONLY) |
| BW400, BW630, BW800 | BW9RHA-R | $\$ 35.75$ | Undervoltage Release 24 VAC/VDC (Left side ONLY) |
| BW400, BW630, BW800 | BW9RHA-1 | $\$ 35.75$ | Undervoltage Release 120 to 130 VAC 125 VDC (Left side ONLY) |


| Ratings of Undervoltage Trip |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| Breaker Type | AC | DC |  |  |
|  | Voltage (V) | VA | Voltage (V) | W |
| BW125*1 <br> BW250*1 | - | - | 24 | 5 |
|  | $110-130$ | 5 | - | - |
| BW400*2 <br> BW630*2 <br> BW800*2 | 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 |  |
| BW9SLOCA-3 | $\$ 38.75$ | Replacement lug kit for BW125 series MCCB. $75^{\circ}$ C. Cu only <br> Package of 3 |  |
| BW9SLOGA-3 | $\$ 43.00$ | Replacement lug kit for BW250 series up to 175A MCCB. $75^{\circ} \mathrm{C}$. Cu only <br> Package of 3 |  |
| BW9SL1GA-3 | $\$ 62.50$ | Replacement lug kit for BW250 MCCB series 200A to 250A. $75^{\circ} \mathrm{C}$. Cu only <br> Package of 3 |  |

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


BW9RGAR shown

| Company Information |
| :---: |
| Terminal Block |
| Power Distribution Blocks |
| Wiring Accessories |
| ZIPLink <br> Connection System |
| Multi-wire Connectors |
| Sensor Cables and Connector |
| M12 Junction Blocks |
| Panel Interface Connectors |
| Wiring Duct |
| Cable Ties |
| Wire |
| Flexible Cord |
| Multi-conductor Flex Cable |
| Data Cables |
| Wire Management Products |
| Power Supplies |
| DC Converters |
| Transformers and Filters |

Circuit Protection

## Fuji Molded Case Circuit Breakers Accessories <br> Fuji Electric

## Terminal Covers

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


| Terminal Covers for Fuji MCCBs - Selection Guide |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Breaker Series | Part Number | Price | Description | Dimensions inch (mm) |  |  |
|  |  |  |  | A | B | C |
| BW400 | BW9BTHA-L3W | \$49.00 | 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) |
| BW630, BW800 | BW9BTJA-L3W | \$52.00 | 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. |  |  |  |  |  |  |

BW9BTHA-L3W shown

Dimensions of Terminal Covers: inch (mm)


## Lockout Attachment

| Lockout Attachments for Fuji MCCBs - Selection Guide |  |  |  |
| :--- | :--- | :---: | :--- |
| Breaker Series | Part Number | Price | Description |
| BW125 <br> BW250 | BW9Q1CA | $\$ 12.00$ | Use to lock out BW125 and BW 250 series MCCBs. <br> Lock not included |
| BW400, BW630, BW800 | BW9QNHA | $\$ 29.00$ | Use to lock out BW400, BW600 and BW800 MCCBs. <br> Lock not included. |



BW9Q1CA shown


[^0]:    Wiring Specifications chart is on page 31-33

