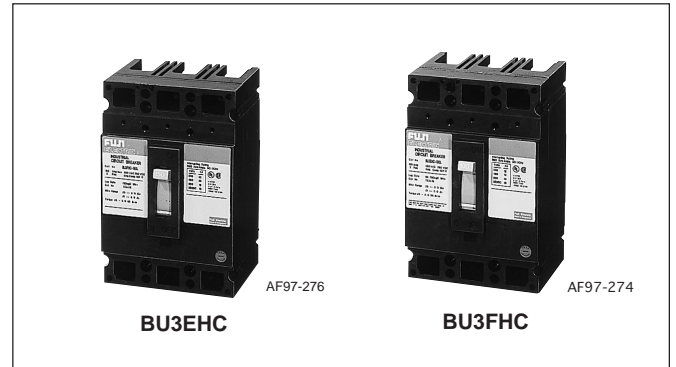


## UL 489 Listed, BU series FUJI Molded Case Circuit Breakers

### ■ UL 489 Listed, C22.2 No.5

- UL File No. E90584 Vol.1c Sec. 2
- CSA certificate No. LR701975



Frame	100A		150A	
Type	BU2EHC	BU3EHC	BU2FHC	BU3FHC
Pole	2	3	2	3
Rated insulation voltage (V) (UL 489)	AC	480	480	600
	DC	250	250	250
Rated current (A)	15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100		15, 20, 25, 30, 35, 40, 50 60, 70, 80, 90, 100	15, 20, 25, 30, 35, 40, 50 60, 70, 80, 90, 100, 125, 150
Rated interrupting capacity (kA)	600V AC	14	18	
	480V AC	14	25	
	UL489 240V AC	18	65 (125A–150A:42kA)	
	CSA22.2 250V DC	10	20	
Dimensions (mm)	a	70	105	105
	b	160	160	160
	c	86	86	86
	d	104	104	104
Tripping device	Thermal-magnetic		Thermal-magnetic	
Tripping button	Provided		Provided	
Auxiliary switch	W	●	●	●
Alarm switch	K	●	●	●
Shunt trip	F	–	●	●
Undervoltage trip	R	●	●	●
Operating handle *1	V	BU0VFH	BU0VFH	
	N	BU0NFH	BU0NFH	
Terminal cover *2	BZ-CFHB-2	BZ-CFHB-3	BZ-CFHB-3	BZ-CFHB-3

Notes: ● Factory-mounted optional accessories, specify the type number including optional accessories when ordering.

\*1 Customer-mountable optional accessories

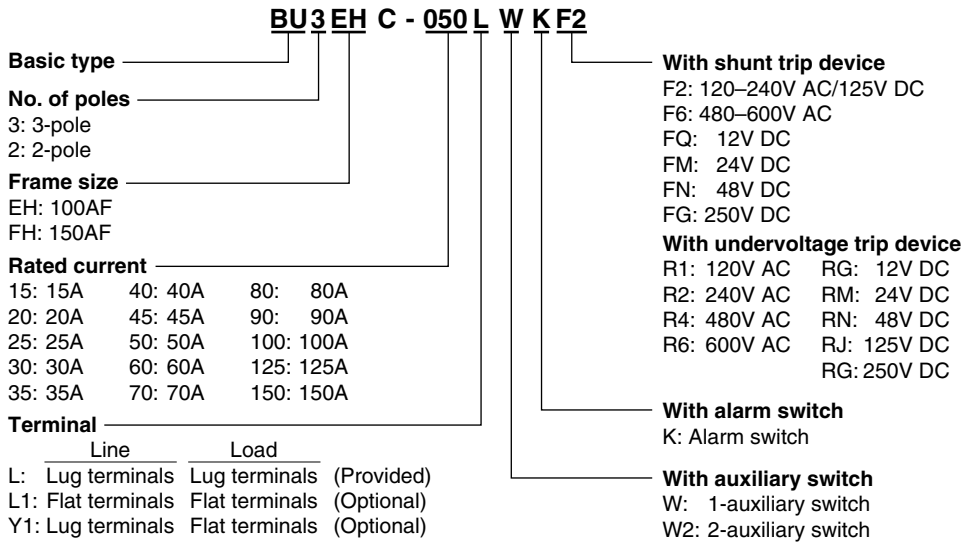
\*2 For using N type handle: BZ-CFHB-2-N, BZ-CFHB-3-N

For using V type handle: BZ-CFHB-2-V, BZ-CFHB-3-V

• If required insulation barrier, contact FUJI.

# UL 489 Listed Molded Case Circuit Breakers

## Type number nomenclature



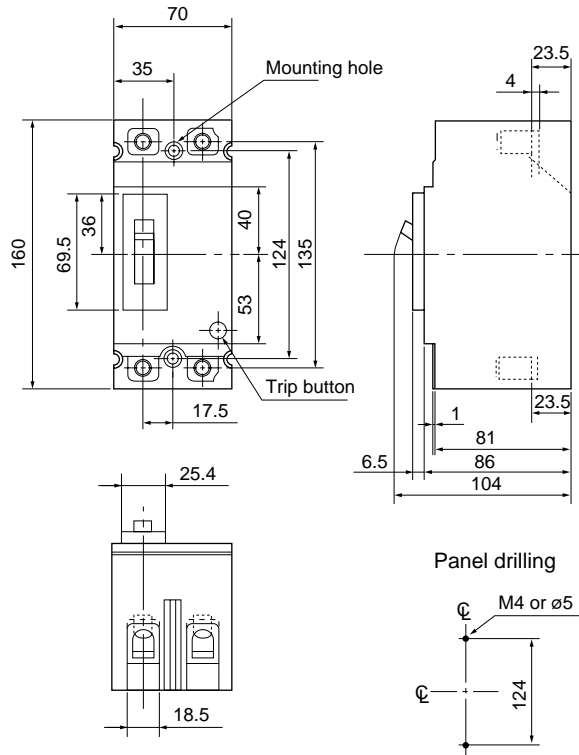
## Ordering information

Specify the following:

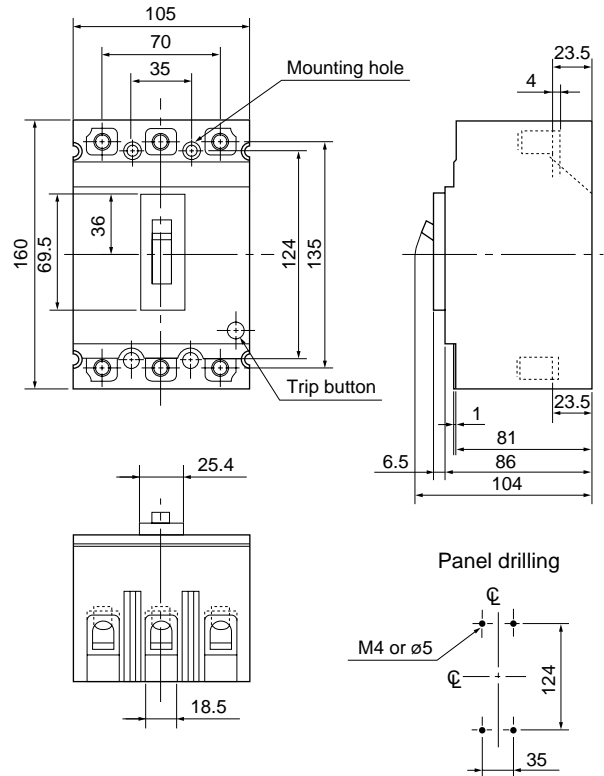
1. Type number of MCCB including factory-mounted optional accessories
2. Type number customer-mountable optional accessories

## Dimensions, mm

### BU2EHC



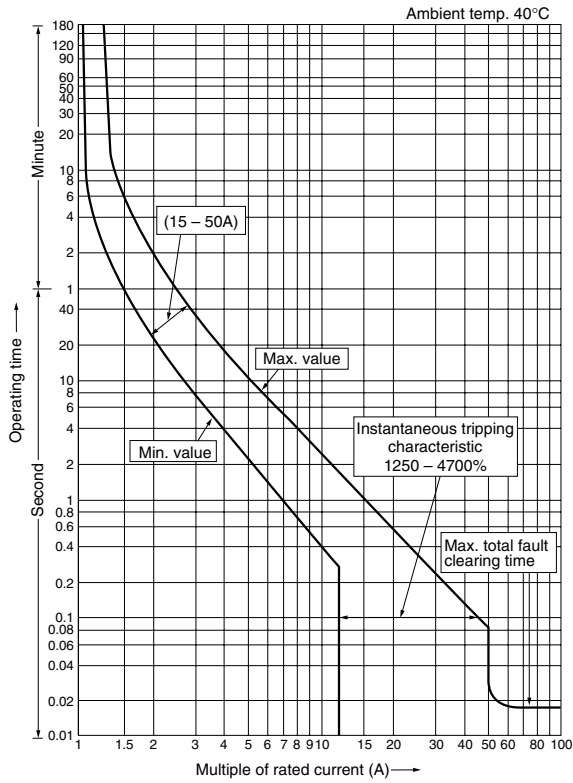
### BU2FHC BU3EHC BU3FHC



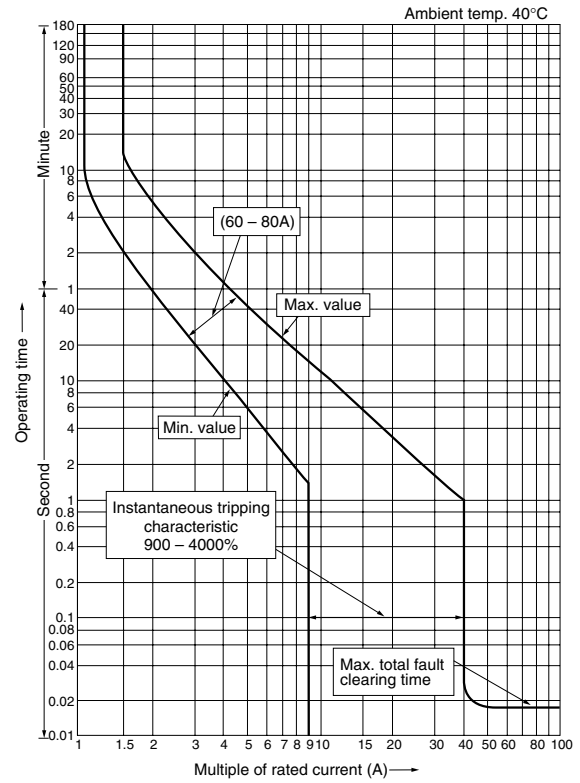
# UL 489 Listed Molded Case Circuit Breakers

## Characteristic curves

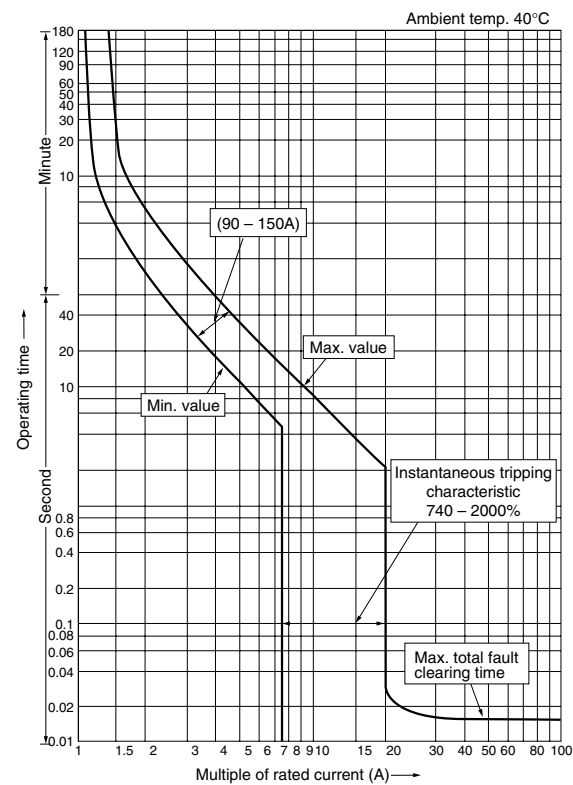
### 15 to 50A



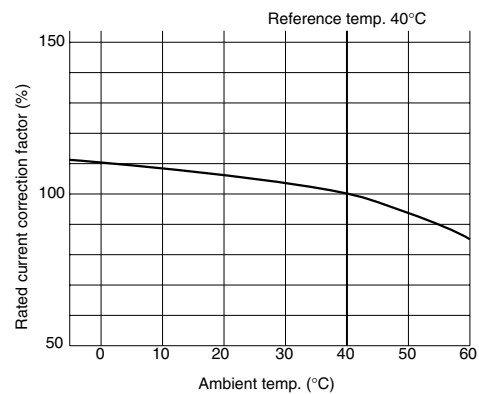
### 60 to 80A



### 90 to 150A



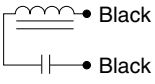
### Temperature compensation curve



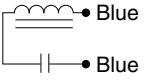
# UL 489 Listed Molded Case Circuit Breakers

## ■ Optional accessories

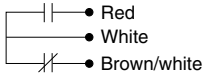
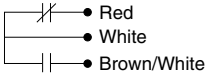
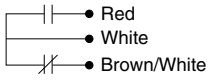
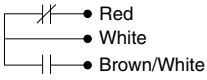
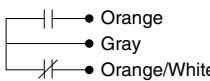
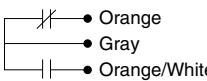
### ● Shunt trip devices (F)

Type	Rated voltage (V)		Inrush current (A)		Wiring
	AC	DC	AC	DC	
<b>F2</b>	120 – 240	125	1.0 – 1.9	1.0	
<b>F6</b>	480 – 600	–	1.5 – 1.9	–	
<b>FQ</b>	–	12	–	7.5	
<b>FM</b>	–	24	–	4.6	
<b>FN</b>	–	48	–	2.4	
<b>FG</b>	–	250	–	0.4	

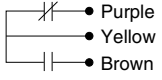
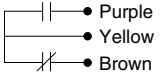
### ● Undervoltage trip devices (R)

Type	Rated voltage (V)		Rated current (mA)	Wiring
	AC	DC		
<b>R1</b>	120	–	18	
<b>R2</b>	240	–	18	
<b>R4</b>	480	–	18	
<b>R6</b>	600	–	18	
<b>RQ</b>	–	12	200	
<b>RM</b>	–	24	100	
<b>RN</b>	–	48	50	
<b>RJ</b>	–	125	18	
<b>RG</b>	–	250	18	

### ● Auxiliary switches (W)

Type		Color of lead wire		Make/break current (A)		
		MCCB/ON	MCCB/OFF, Trip	Voltage	Resistive	Inductive
<b>W</b>	SPDT			120V AC	5	6
				240V AC	–	6
<b>W2</b>	2PDT			125V DC	–	0.5
				250V DC	–	0.25
				120V AC	5	6
				240V AC	–	6
				125V DC	–	0.5
				250V DC	–	0.25

### ● Alarm switches (K)

Type		Color of lead wire		Make/break current (A)		
		MCCB/ON	MCCB/OFF, Trip	Voltage	Resistive	Inductive
<b>K</b>	SPDT			240V AC	5	5
				28V DC	5	2.5

### ● Available configurations

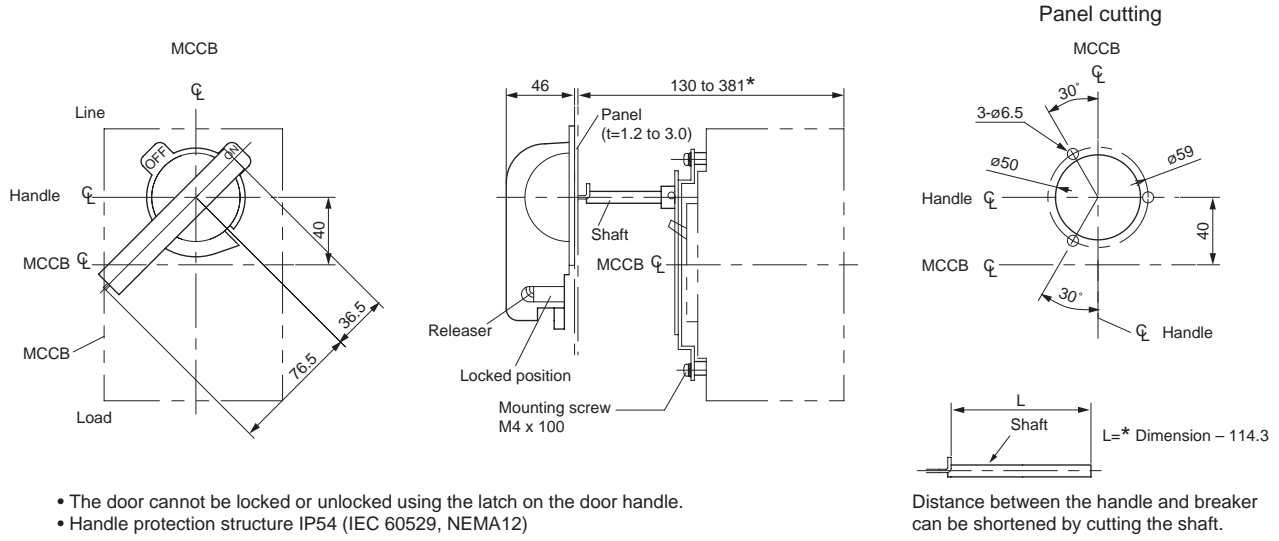
Accessory	Type	BU2EHC, BU2FHC		BU3EHC, BU3FHC	
		T	R	T	R
W Auxiliary switch	W	W	W	–	–
K Alarm switch	K	–	–	K	K
F Shunt trip	–	–	F	–	–
R Undervoltage trip	R	–	–	R	R
W2	W2	W2	W2	–	–
WK	–	–	W	–	K
W2K	–	–	W2	–	K
WF	–	–	F	–	W
W2F	–	–	F	–	W2
WR	–	–	W	–	R
W2R	–	–	W2	–	R
KF	–	–	F	–	K
KR	–	–	–	–	–
WKF	–	–	–	–	–
WKR	–	–	–	–	–

Note: Lead wiring

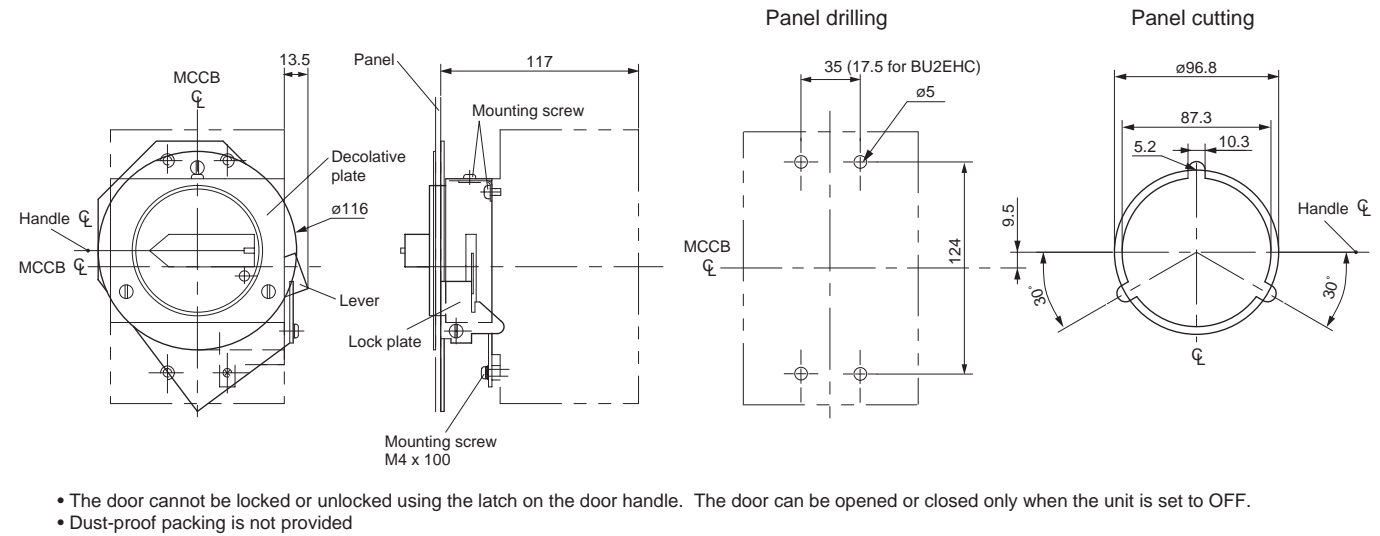
# UL 489 Listed Molded Case Circuit Breakers

## ■ Dimensions, mm

### V type operating handle/BU0VFH



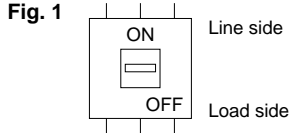
### N type operating handle/BU0NFH



# UL 489 Listed Molded Case Circuit Breakers

## ■ Wire connection

1. Make sure that no voltage is applied to the breaker.
2. Connect the breaker in the direction shown in Figure 1 so that the ON mark is on the line side and the OFF mark is on the load side.



3. The connections of wires must conform to the U.S. National Electric Code (NEC) or the Canadian Electrical Code Part 1 (CEC).
4. For connection, use 60°C copper wire (15A to 125A) or 75°C copper wire only. The use of UL-certified or CSA-certified wire is recommended.
5. As the occurrence of a short circuit current could result in the generation of a large electromagnetic force between wires, be sure to firmly support the wires.
6. Periodically retighten the terminal screws. Do not block the arc gas exhaust.

## Lug terminals

1. Table 1 lists the sizes of connectable wires. Use wires within this range.
2. The twist count for the wire must conform to Table 1. Multicore wires cannot be used.
3. Two different types of wires cannot be connected to the lug terminal together.
4. Do not solder the wire.
5. Use the tightening torque listed in Table 1 when securing the wire.

## Flat terminals

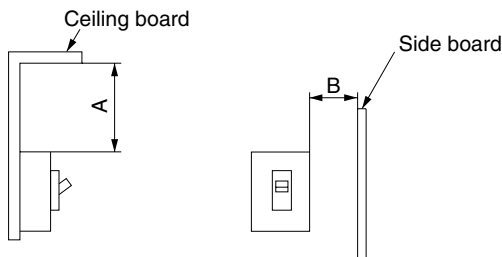
1. Order insulating barriers (interphase barriers).
2. Insulate the terminal part.

**Table 1 Max. wire sizes and tightening torque**

Rated current	Applicable lug terminal	Wire size	Tightening torque	Screw size
15A max.	<b>BU0L12HF</b>	14AWG (2.1mm <sup>2</sup> )	512N•cm	Slotted head screw
20A		12AWG	45Lb-in	
25A, 30A		10AWG		
35A–50A		8AWG		
60A		6AWG	623N•cm	
70A, 80A	<b>BU0L12AHF</b>	4AWG	55Lb-in	
90A		3AWG		
100A	<b>BU0L15HF</b>	3AWG		
110A		2AWG		
125A		1AWG		
150A		1/0AWG (53.5mm <sup>2</sup> )		

## ■ Mounting

Avoid mounting this breaker in an environment exposed to vibration, shock, dust, or excessive humidity. Secure the insulation distance between a board and the line side of the breaker as shown in Figure 2 and Table 2.



**Fig. 2 Insulation distance (line side)**

**Table 2 Insulation distance (line side)**

[Unit: mm]

Breaker type	Dimension A Breaker to ceiling board	Dimension B Breaker to side board
<b>BU□EHC</b>	100	25
<b>BU□FHC</b>	100	25



## **Safety Considerations**

- For safe operation, before using the product read the instruction manual or that comes with the product carefully or consult the Fuji sales representative from which you purchased the product.
- Some of the products listed in this catalog may have limits on their use or location or may require periodic inspections. Contact Fuji's sales representative for further information.
- For safe operation, wiring should be conducted only by qualified engineers who have sufficient technical knowledge about electrical work or wiring.

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