



G-TWIN STANDARD



G-TWIN STANDARD



G-TWIN STANDARD



G-TWIN GLOBAL



G-TWIN GLOBAL



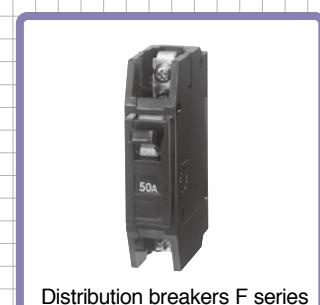
G-TWIN GLOBAL



ACB DH series



Handle-operated type



Distribution breakers F series

- MOLDED CASE CIRCUIT BREAKERS
- AIR CIRCUIT BREAKERS

LOW VOLTAGE EQUIPMENT  
Up to 600 Volts

## INDIVIDUAL CATALOG 06

from D&C CATALOG 20th Edition

01 02 03 04 05 06 07 08 09 10 11 12



# The Twin Breakers have advanced to an entirely new stage.

## Conforming to IEC & local Standards

Conforming to certifications and standards in major world markets  
Expanded frame sizes in G-TWIN Global Series



G-TWIN  
Standard series  
MCCB

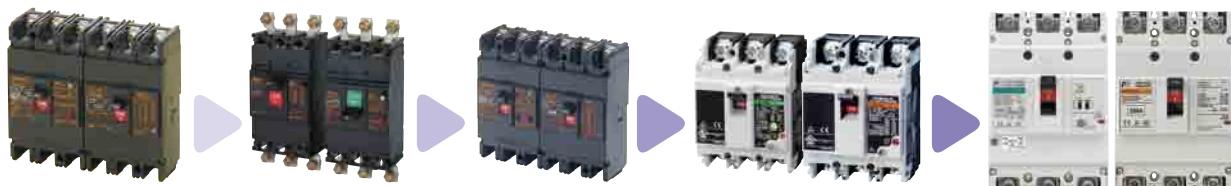


G-TWIN  
Global series  
MCCB

## Compact & High performance

Compact models with unified dimensions meeting UL489 480V and IEC 440V requirements

## GLOBAL TWIN History



1990 TWIN Breaker

1992 Super TWIN

1995 Super 60

2001 α-TWIN

**2006 G-TWIN**

# FUJI MCCB and ELCB

## GLOBAL TWIN

### Ecology

Lower environmental impact  
Advanced green engineering and energy-saving support  
Conforming to the RoHS Directive



G-TWIN  
Standard series  
MCCB



G-TWIN  
Global series  
MCCB

Fuji Electric launched the Twin Breaker Series to world markets in 1990, in which molded case circuit breaker (MCCB) and earth leakage circuit breaker (ELCB) types were unified in external dimensions for the first time in the world. The Twin Breaker Series was highly evaluated and gained strong support, and the concept of Twin Breakers was established as Japan's de facto standards for MCCBs and ELCBs.

In 1992, Fuji Electric released the Super Twin Breaker Series, which enabled user installation of internal accessories for the first time in Japan.

In 1995, Fuji Electric released the Super 60 Series and advanced modularization via uniform external dimensions. In 2001, Fuji Electric launched the α-Twin Series to further advance the miniaturization and modularization of economic types with 100A frame or less as Japan's first multi-standard circuit breakers satisfying domestic and international standards. Since then, Fuji Electric has been making further product improvements by predicting market trends.

In recent years, market globalization has increasingly accelerated. At the end of 2004, the Japanese Industrial Standards (JIS) were aligned with the IEC standards, and the globalization in this field has been further accelerated.

Based on the Twin Breaker Series, Fuji Electric has expanded the range of its products conforming to and approved by international standards for global markets, always advanced the innovative development of fundamental technologies in response to the market demand, and developed the G-TWIN Series of MCCBs and ELCBs.

### Usefulness

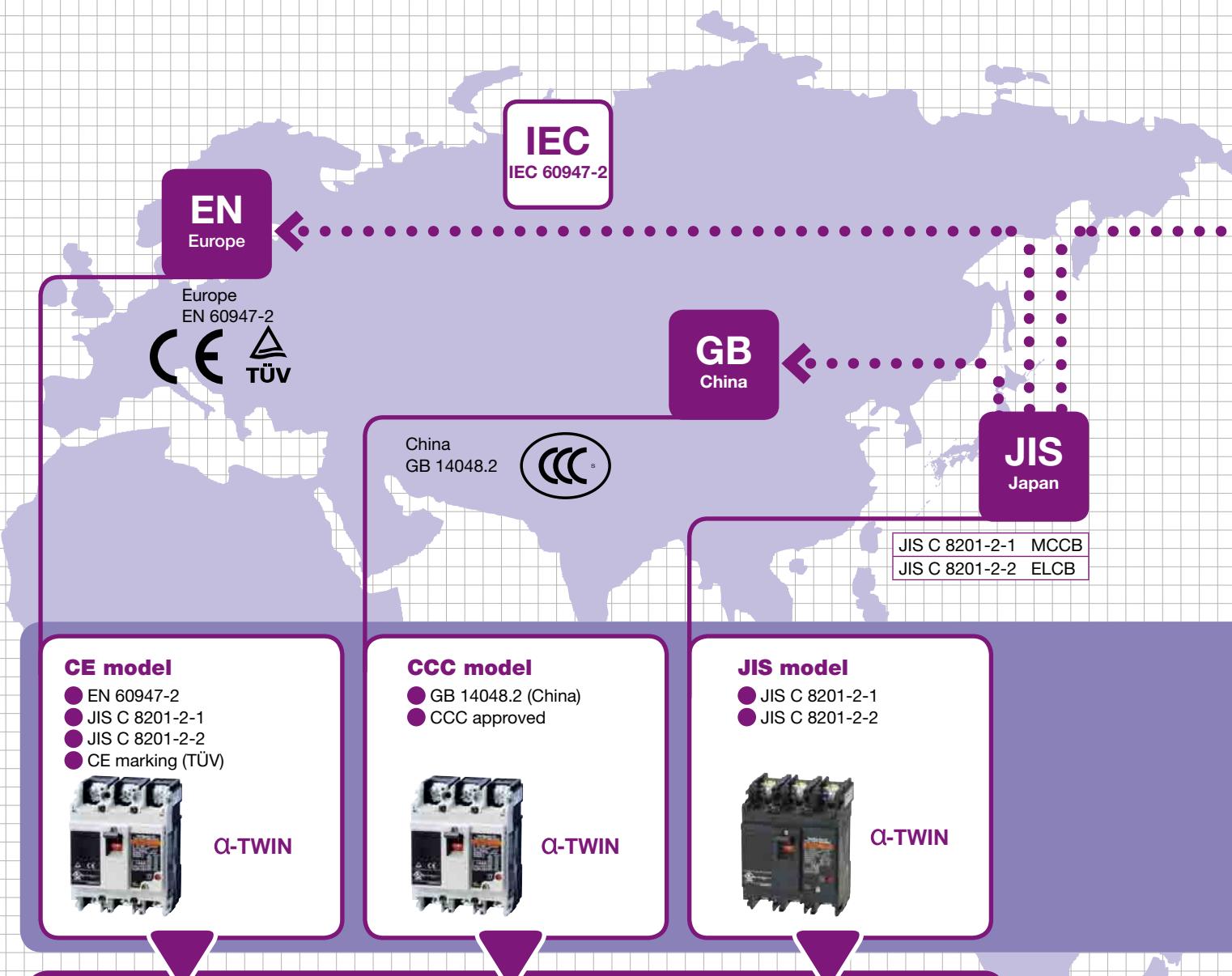
Leading the way in user-friendliness



# GLOBAL-TWIN

## Conforming to IEC & local Standards

The G-TWIN series is a global breaker series that satisfies all major standards.



**CE marking (TÜV) + CCC approved + JIS**

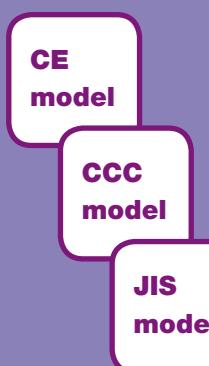
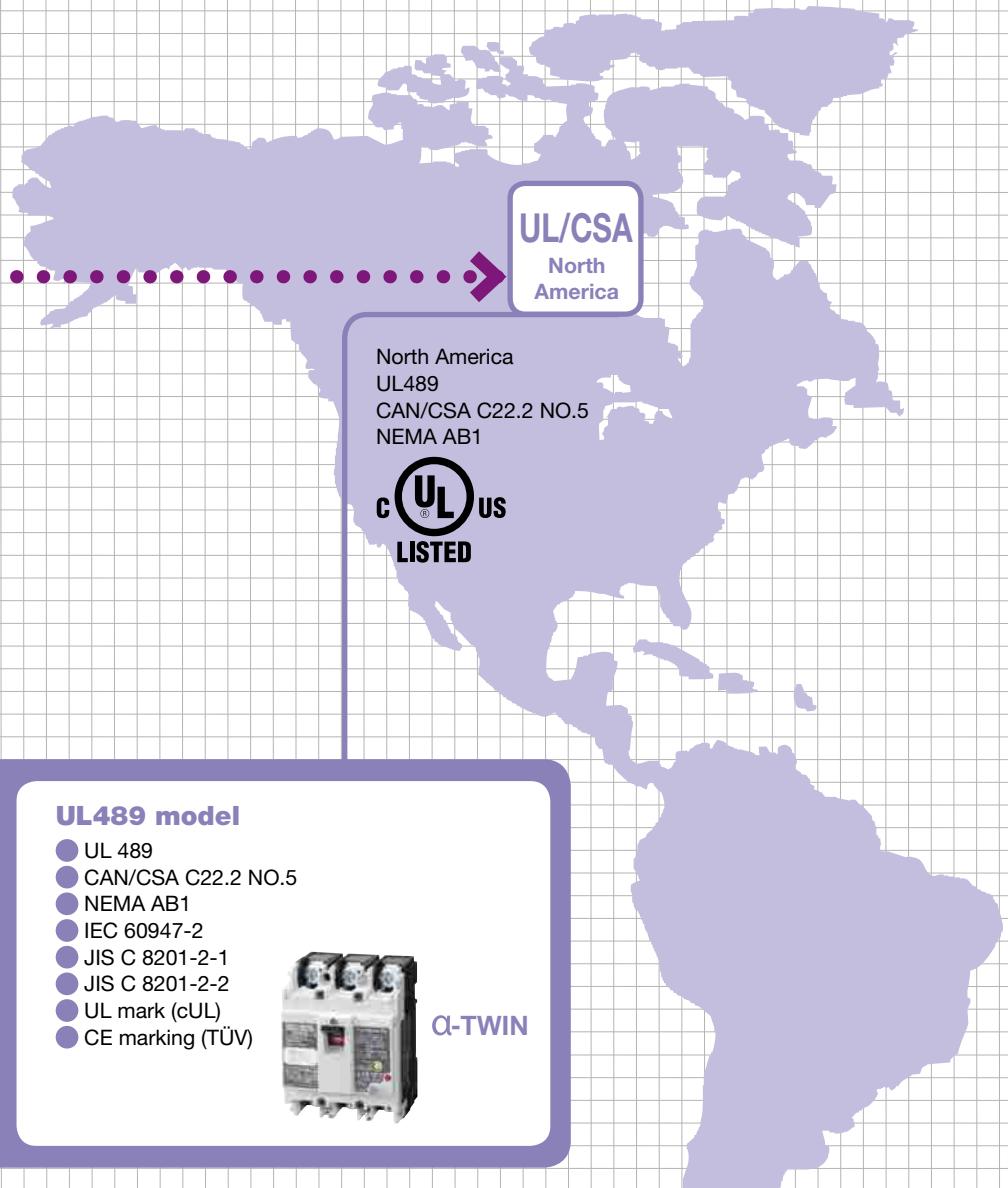
### G-TWIN Standard series



- IEC 60947-2
- EN 60947-2 (CE marking)
- GB 14048.2 (CCC)
- JIS C 8201-2-1
- JIS C 8201-2-2

Ampere frame size (AF)

32	50	63	100	125	160	250	400	630	800
----	----	----	-----	-----	-----	-----	-----	-----	-----



#### UL489 model

- UL 489
- CAN/CSA C22.2 NO.5
- NEMA AB1
- IEC 60947-2
- JIS C 8201-2-1
- JIS C 8201-2-2
- UL mark (cUL)
- CE marking (TÜV)



G-TWIN

**UL mark (cUL) + CE marking (TÜV) + CCC approved + JIS**



## G-TWIN Global series

- IEC 60947-2
- EN 60947-2 (CE marking)
- GB 14048.2 (CCC)
- JIS C 8201-2-1
- JIS C 8201-2-2

- UL 489
- CAN/CSA C22.2 NO.5
- NEMA AB1

Ampere frame size (AF)

50	100	125	250	400	630	800
----	-----	-----	-----	-----	-----	-----

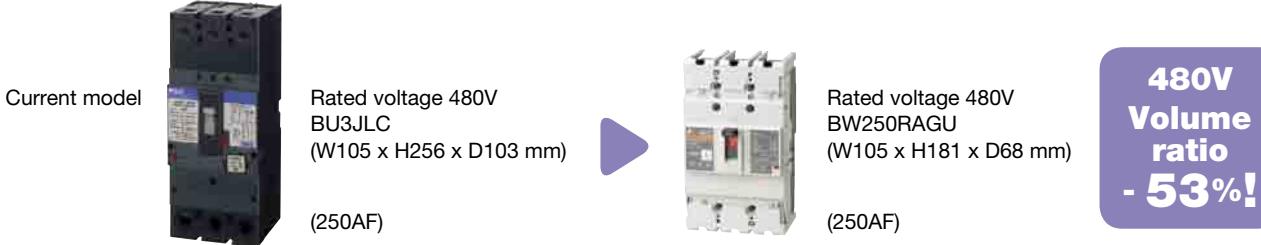


# GLOBAL-TWIN

Compact models with unified dimensions meeting UL489 480V and IEC 440V requirements

## Compact & High performance

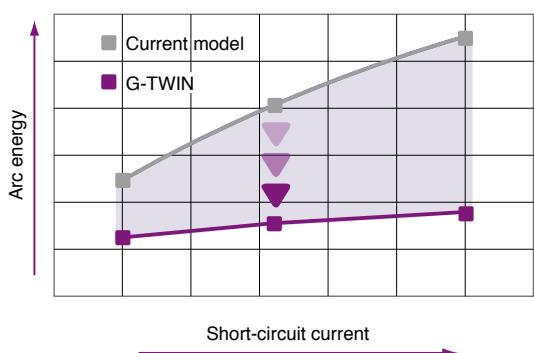
### Compact size meeting UL489 480V requirements



### Technical innovation

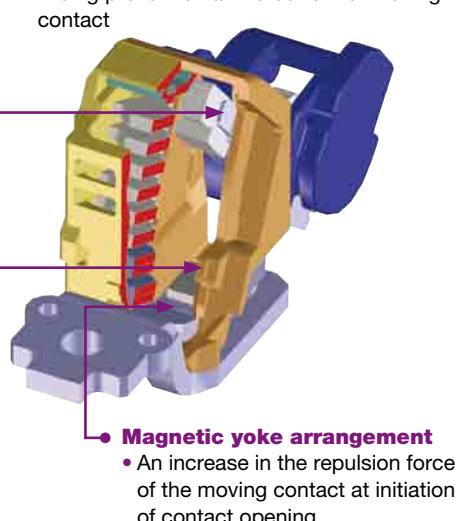
Arc and gas flow control technology

Effect of "ablation breaking technology"



**Decrease by 30%!**

- Narrow slit resin**
  - Increased arc voltage due to narrow slit effect
  - Increased arc voltage and high-speed moving contact opening by ablation effect
  - Suppression of internal pressure rise by adjusting the narrow slit width



## Ecology

### Advanced environmental technology Conforming to the RoHS Directive

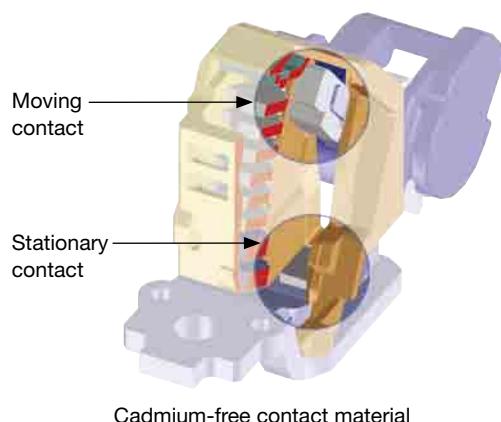
The G-TWIN Series is designed to lower environmental impact.

#### Recycling

- For easier recycling, all major parts are marked with the names of the materials used.

#### Conforming to the RoHS Directive

- Lead-free (Pb-free) solder is used.
- Free of hexavalent chromium (Cr<sup>6+</sup>-free) (125 to 800AF)



# Usefulness

## Leading the way in user-friendliness

### Unifying and reducing the types of internal accessories

#### 32~100AF

- Internal and external accessories
- A wider range of customer-mountable accessories



MCCB



Shunt trip device



Undervoltage trip device



Auxiliary switch



Alarm switch

#### 125~250AF

- Sharing internal accessories of 125/160/250AF breakers.



MCCB



Shunt trip device



Undervoltage trip device



Auxiliary switch



Alarm switch

Number of types of internal accessories

AF	α-TWIN	G-TWIN
125	8	
160/250	8	

#### 400~800AF

- The number of types of internal accessories of 400/630/800AF has been significantly reduced.



MCCB



Shunt trip device



Undervoltage trip device



Auxiliary switch



Alarm switch

Number of types of internal accessories

AF	α-TWIN	G-TWIN
400		
630	26	
800		6

# Molded Case Circuit Breakers

## Type of MCCBs

### ■ Type of MCCBs

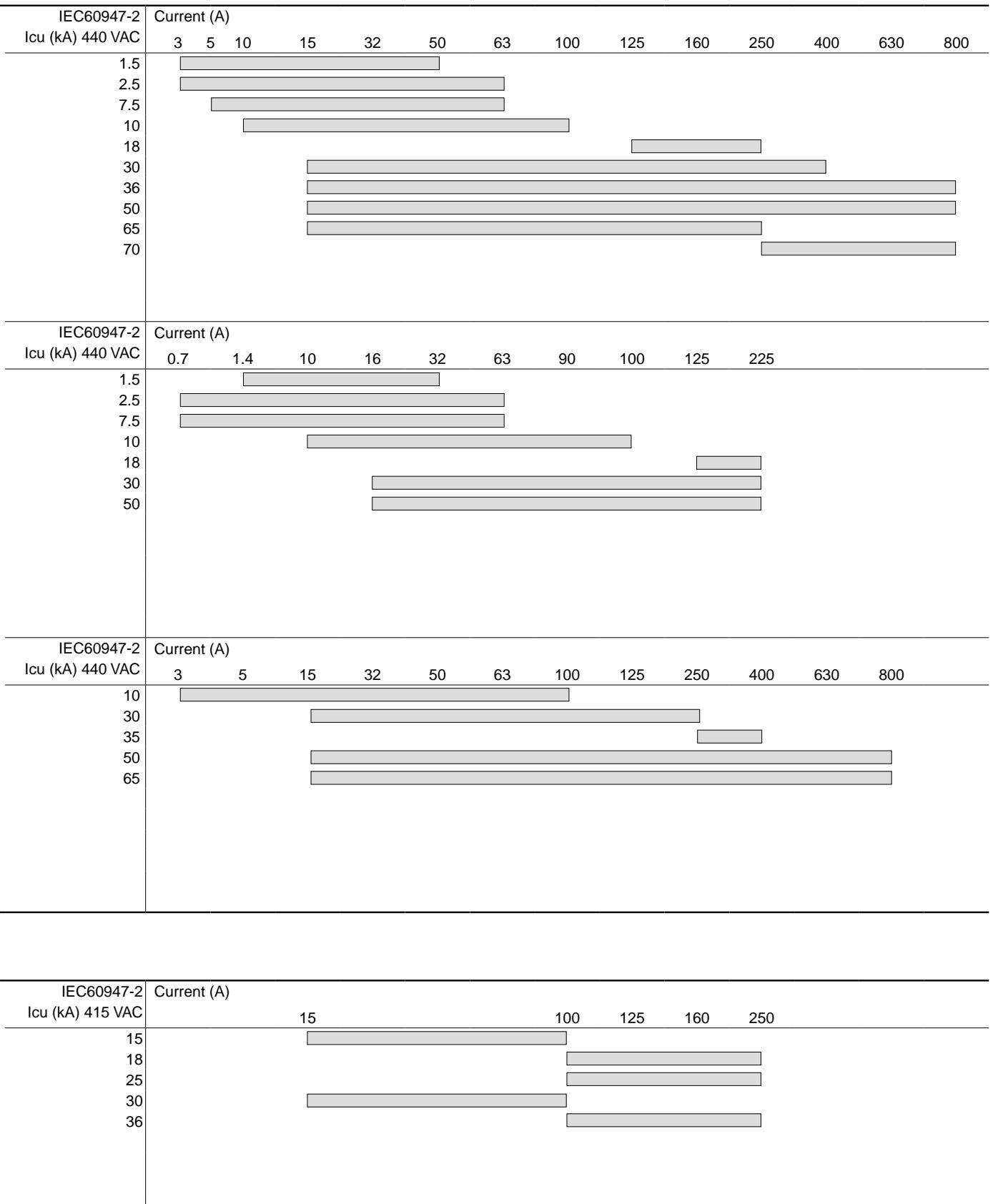
#### G-TWIN Series

Line protection	Page	Feature	Type																																												
	06/04	<ul style="list-style-type: none"> <li>Models from 3A to 800A</li> <li>Conforming to international standard IEC/EN(CE)/GB(CCC)/JIS</li> <li>Most accessories can be installed by the user.</li> </ul>	<p>BW ① ② A G- ③ ④</p> <table> <tr><td>①AF</td><td>②Breaking capacity</td><td>③Pole</td><td>④Rated current</td></tr> <tr><td>32</td><td>A</td><td>2P</td><td>003</td></tr> <tr><td>50</td><td>E</td><td>3P</td><td>.</td></tr> <tr><td>63</td><td>J</td><td>4P</td><td>.</td></tr> <tr><td>100</td><td>S</td><td></td><td>.</td></tr> <tr><td>125</td><td>R</td><td></td><td>800</td></tr> <tr><td>160</td><td>H</td><td></td><td></td></tr> <tr><td>250</td><td></td><td></td><td></td></tr> <tr><td>400</td><td></td><td></td><td></td></tr> <tr><td>630</td><td></td><td></td><td></td></tr> <tr><td>800</td><td></td><td></td><td></td></tr> </table>	①AF	②Breaking capacity	③Pole	④Rated current	32	A	2P	003	50	E	3P	.	63	J	4P	.	100	S		.	125	R		800	160	H			250				400				630				800			
①AF	②Breaking capacity	③Pole	④Rated current																																												
32	A	2P	003																																												
50	E	3P	.																																												
63	J	4P	.																																												
100	S		.																																												
125	R		800																																												
160	H																																														
250																																															
400																																															
630																																															
800																																															
Motor-protection	Page	Feature	Type																																												
	06/18	<ul style="list-style-type: none"> <li>Models from 0.7A to 225A</li> <li>Line &amp; Motor protection</li> <li>Conforming to international standard IEC/EN(CE)/GB(CCC)/JIS</li> </ul>	<p>BW ① ② A M- ③ ④</p> <table> <tr><td>①AF</td><td>②Breaking capacity</td><td>③Pole</td><td>④Rated current</td></tr> <tr><td>32</td><td>E</td><td>2P</td><td>0P7</td></tr> <tr><td>50</td><td>J</td><td>3P</td><td>.</td></tr> <tr><td>63</td><td>S</td><td></td><td>.</td></tr> <tr><td>100</td><td>R</td><td></td><td>.</td></tr> <tr><td>125</td><td></td><td></td><td>225</td></tr> <tr><td>250</td><td></td><td></td><td></td></tr> </table>	①AF	②Breaking capacity	③Pole	④Rated current	32	E	2P	0P7	50	J	3P	.	63	S		.	100	R		.	125			225	250																			
①AF	②Breaking capacity	③Pole	④Rated current																																												
32	E	2P	0P7																																												
50	J	3P	.																																												
63	S		.																																												
100	R		.																																												
125			225																																												
250																																															

#### BW0 Series

Line protection	Page	Feature	Type																				
	06/96	<ul style="list-style-type: none"> <li>Compact: depth 60mm</li> <li>Cassette: All accessories can be assembled by user.</li> <li>Global: Conforming to IEC/EN(CE) standard.</li> </ul>	<p>BW ① ② ③ 0/ ④</p> <table> <tr><td>①AF</td><td>②Breaking capacity</td><td>③Pole</td><td>④Rated current</td></tr> <tr><td>10:100AF</td><td>E</td><td>2:2P</td><td>15</td></tr> <tr><td>16:160AF</td><td>J</td><td>3:3P</td><td>.</td></tr> <tr><td>25:250AF</td><td>S</td><td></td><td>.</td></tr> <tr><td></td><td></td><td></td><td>250</td></tr> </table>	①AF	②Breaking capacity	③Pole	④Rated current	10:100AF	E	2:2P	15	16:160AF	J	3:3P	.	25:250AF	S		.				250
①AF	②Breaking capacity	③Pole	④Rated current																				
10:100AF	E	2:2P	15																				
16:160AF	J	3:3P	.																				
25:250AF	S		.																				
			250																				

Molded Case Circuit Breakers  
Type of MCCBs



# 06 Molded Case Circuit Breakers



	Page
<b>Molded Case Circuit Breakers</b>	
G-TWIN series	
List of products .....	06/1
Type number nomenclature .....	06/2
Quick reference guide .....	06/4
Mounting modifications .....	06/22
Terminal connection .....	06/24
Wire size and terminal .....	06/25
Type number .....	06/29
Arc space .....	06/38
Dimensions .....	06/39
Characteristic curves .....	06/58
Accessories .....	06/63
BW0 series	
General information .....	06/94
Breaking capacities .....	06/95
Quick reference guide .....	06/96
Terminal connection .....	06/99
Dimensions .....	06/100
Characteristic curves .....	06/102
Internal accessories .....	06/104
External accessories .....	06/107
H series	
General information .....	06/110
Quick reference guide .....	06/111
Mounting modifications .....	06/115
Wire size and terminal .....	06/116
Type number .....	06/117
Dimensions .....	06/118
Characteristic curves .....	06/123
Accessories .....	06/125
Solid-state trip types	
Description .....	06/147
Quick reference guide .....	06/148
Protection function .....	06/149
Terminal connection .....	06/151
Internal accessories .....	06/152
External accessories .....	06/156
Characteristic curves .....	06/162
Dimensions .....	06/163
Distribution breakers F series	
Description .....	06/165
 <b>Air Circuit Breakers</b>	
DH series	
General information .....	06/167
Features .....	06/168
Type number nomenclature .....	06/171
Specifications and ratings .....	06/172
Appearance / Internal construction .....	06/174
Mounting / Connection methods .....	06/175
Closing method .....	06/176
Tripping devices .....	06/177
Overcurrent trip device .....	06/179
Supplied accessories .....	06/192
Optional accessories .....	06/193
Applicable maximum rated current by main circuit terminal connection .....	06/199
Technical data .....	06/199
Dimensions .....	06/202
Wiring diagrams .....	06/214

## **MINIMUM ORDERS**

Orders amounting to **less than ¥10,000** net per order will be charged as ¥10,000 net per order plus freight and other charges.

## **WEIGHTS AND DIMENSIONS**

Weights and dimensions appearing in this catalog are the best information available at the time of going to press. FUJI ELECTRIC FA has a policy of continuous product improvement, and design changes may make this information out of date.

Please confirm such details before planning actual construction.

**INFORMATION IN THIS CATALOG IS SUBJECT TO  
CHANGE WITHOUT NOTICE.**

# Molded Case Circuit Breakers

## List of products

06

### ■ G-TWIN Standard Series (IEC/EN/GB/JIS conformed)

#### Line protection

AC415V Icu	BW32	BW50	BW63	BW100	BW125	BW160	BW250	BW400	BW630	BW800
1.5kA	AAG	AAG		AAG						
2.5kA	SAG	EAG	EAG							
7.5kA		SAG	SAG							
10kA	RAG	RAG	EAG							
18kA				EAG	EAG					
30kA				JAG	JAG	JAG	EAG			
36kA				SAG	SAG	SAG	SAG	EAG	EAG	
50kA				RAG	RAG	RAG	RAG	RAG	RAG	
65kA		HAG*			HAG*		HAG*			
70kA						HAG	HAG	HAG		

Note: \* There are no performance indications for GB standards for the BW50HAG, BW125HAG, and BW250HAG.

### ■ G-TWIN Global Series (IEC/EN/GB/JIS/UL/CSA conformed)

#### Line protection

AC415V Icu	BW50	BW100	BW125	BW250	BW400	BW630	BW800
10kA	RAGU	EAGU					
18kA			EAGU				
30kA		JAGU	JAGU	EAGU			
36kA				SAGU			
50kA		RAGU	RAGU	RAGU	RAGU	RAGU	
70kA				HAGU	HAGU	HAGU	

#### Motor protection

AC415V Icu	BW32	BW50	BW63	BW100	BW125	BW250
1.5kA	AAM					
2.5kA	SAM	EAM	EAM			
7.5kA		SAM	SAM			
10kA		RAM		EAM		
18kA						EAM
30kA					JAM	JAM
50kA				RAM	RAM	

### ■ S, H Series

#### Line protection

AC415V Icu	50AF	100AF	225AF	400AF	600AF	800AF	1000AF	1200AF	1600AF
65kA	H52BA H53BA	H102BA H103BA	H202BA H203BA				SA1003E SA1004E	SA1203E SA1204E	
85kA		H103R	H203R						SA1603E SA1604E
125kA				H403R	H603R	H803R			

### ■ H Series

#### Motor protection

AC415V Icu	50AF
65kA	H53BAM

### ■ F Series

#### Distribution Breakers

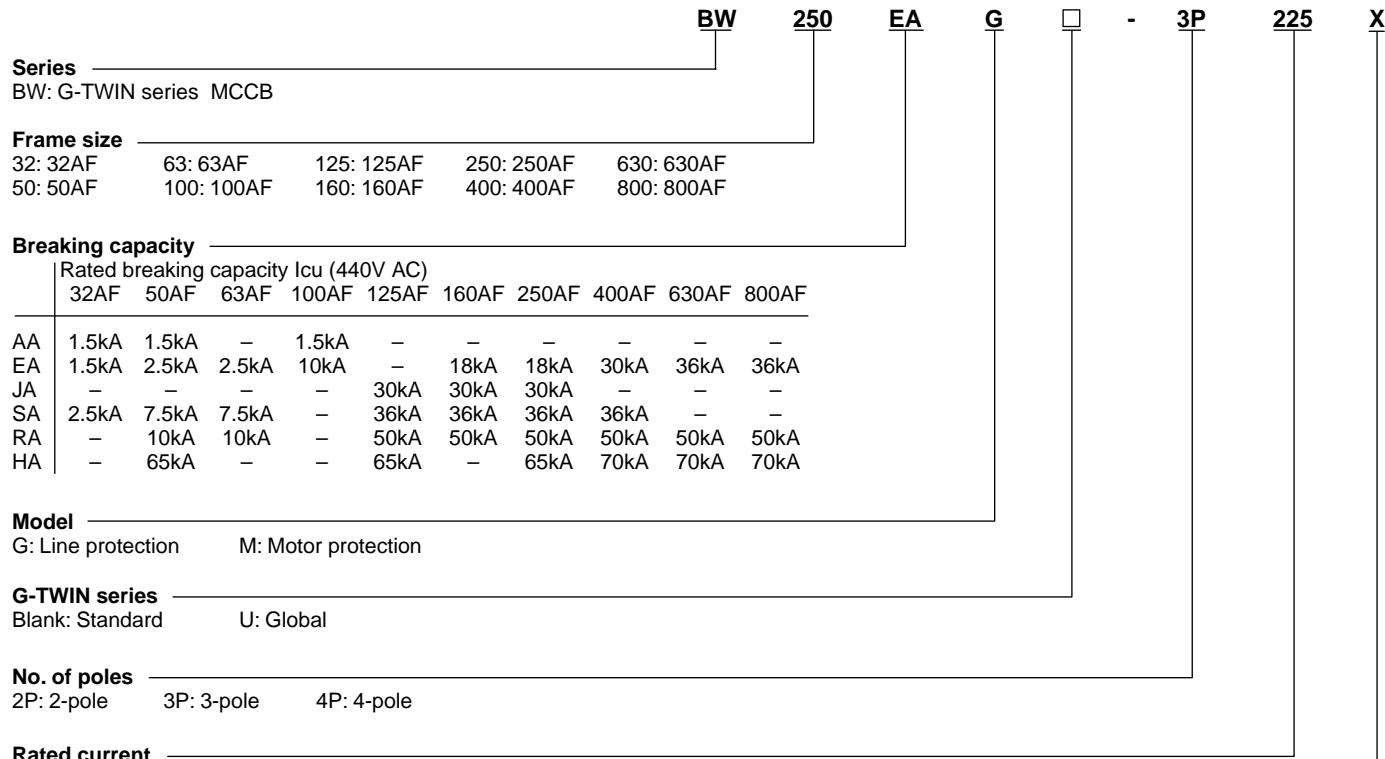
AC240V Icu	50AF	100AF
3kA	F51B F52B F53B	F102B F103B

# Molded Case Circuit Breakers

## G-TWIN series

### Type number nomenclature

#### ■ Type number nomenclature



#### Terminal combination (Global type)

Code	Terminal position		Applicable breaker type		
	Line	Load	BW50	BW100, 125, 250	BW400, 630, 800
Blank	Screw	Screw	●	●	—
Blank	Flat terminal	Flat terminal	—	—	●
SB	Block terminal	Block terminal	—	●	●
SF	Flat terminal	Flat terminal	●	●	—
S3	Screw	Flat terminal	●	●	—
S4	Flat terminal	Screw	●	●	—
S5	Screw	Block terminal	—	●	—
S6	Block terminal	Screw	—	●	—
S7	Flat terminal	Block terminal	—	●	●
S8	Block terminal	Flat terminal	—	●	●

#### Mounting and connection

##### • Standard type

Blank: Front mounting front connection

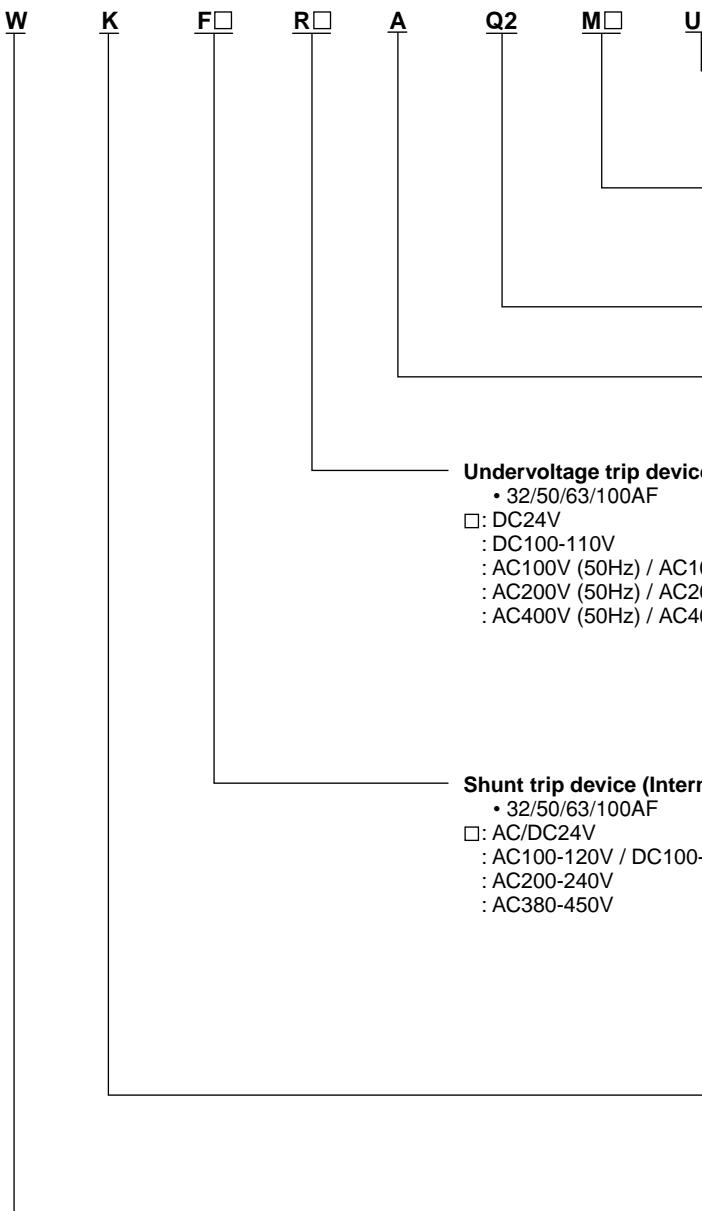
X: Front mounting rear connection

E: Flush mounting rear connection

Y: Flush mounting , top & bottom connection

P: Plug-in mounting

Molded Case Circuit Breakers  
G-TWIN series  
Type number nomenclature



\* For the available configuration of accessory,  
see page 06/68.

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Standard Series

Ampere frame	32A			
Type	<b>BW32AAG</b>		<b>BW32SAG</b>	
Pole	2	3	2	3
Rated current Reference amb. temp. (40°C)	In(A)		3, 5, 10, 15, 20, 30, 32	
Rated impulse withstand voltage	Uimp(kV)		6	6
Isolation compliant	●		●	
Rated insulation voltage Ui (V)	AC	500	690	
	DC	-	250* <sup>1</sup>	
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	500V	-
			440V	1.5/1
			415V	1.5/1
			400V	1.5/1
			380V	1.5/1
			240V	2.5/2
			230V	2.5/2
	GB14048.2	DC	250V	-
		AC	400V	1.5/1
			230V	2.5/2
Conforming to standards	CE Marking		● (TÜV)	● (TÜV)
	CCC certificate		●	●
	Electrical Appliance and Material Safety Law <PS>E <sup>*2</sup>		●	●
Dimensions (mm)			a	50
		b	100	75
		c	60	50
		d	84	75
Mass (kg)		0.4	0.5	0.4
Tripping device	Hydraulic-magnetic			
Front mounting, front connection	No-mark	○	○	○
Front mounting, rear connection	X	○	○	○
Flush mounting, front connection	E	○	○	○
Flush mounting, top & bottom connection	Y	○	○	○
Plug-in mounting	P	○	○	○
IEC 35mm wide rail mounting	No-mark	○	○	○
Internal accessories	Page 06/63			
Alarm switch	K	○	○	○
Auxiliary switch	W	○	○	○
Undervoltage trip	R	○	○	○
Shunt trip	F	○	○	○
External accessories	Page 06/66			
Handle padlocking device Cap type	QN	○	○	○
Handle padlocking device Plate type	Q2	▲	▲	▲
Operating handle N-type	N	○	○	○
Operating handle V-type	V	○	○	○
Terminal cover Short	BTOS	○	○	○
Terminal cover Long	BTOL	○	○	○
Insulation barrier Interphase	BP	○	○	○
Earth	BL	○	○	○
Handle locking cover	L1	○	○	○
Flat terminal	SS	○	○	○
Block terminal	SL	-	-	-

●: Approved ○: Available -: Not available ▲: Factory-mounted accessory

Note: \*<sup>1</sup> Specify DC only when ordering circuit breakers for DC circuit.

\*<sup>2</sup> Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Standard Series

Ampere frame			50A										
Type	BW50AAG		BW50EAG		BW50SAG		BW50RAG		BW50HAG				
Pole	2	3	2	3	2	3	2	3	2	3			
Rated current Reference amb. temp. (40°C)	In(A)		5, 10, 15, 20, 30, 32, 40, 50						10, 15, 20, 30, 32, 40, 50		15, 20, 30, 40, 50		
Rated impulse withstand voltage	Uiimp(kV)		6			6			6		6		
Isolation compliant													
Rated insulation voltage Ui (V)	AC		500		690		690		690		690		
	DC		-		250* <sup>1</sup>		250* <sup>1</sup>		250* <sup>1</sup>		250		
Rated breaking capacity Icu/lcs (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	500V	-	1.5/1	5/3	7.5/4	25/7					
			440V	1.5/1	2.5/2	7.5/4	10/5	65/17					
			415V	1.5/1	2.5/2	7.5/4	10/5	65/17					
			400V	1.5/1	2.5/2	7.5/4	10/5	65/17					
			380V	1.5/1	2.5/2	7.5/4	10/5	65/17					
			240V	2.5/2	5/3	10/5	25/13	125/63					
			230V	2.5/2	5/3	10/5	25/13	125/63					
	GB14048.2	AC	250V	-	2.5/2* <sup>1</sup>	5/3* <sup>1</sup>	5/3* <sup>1</sup>	40/20					
			400V	1.5/1	2.5/2	7.5/4	10/5	-					
			230V	2.5/2	5/3	10/5	25/13	-					
Conforming to standards	CE Marking												
	CCC certificate									-			
	Electrical Appliance and Material Safety Law <PS>E <sup>*2</sup>												
Dimensions (mm)				a	50	75	50	75	50	75	90		
				b	100		100		100		155		
				c	60		60		60		68		
				d	84		84		84		95		
	Mass (kg)			0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.5		
Tripping device			Hydraulic-magnetic										
Front mounting, front connection			No-mark										
Front mounting, rear connection			X										
Flush mounting, front connection			E										
Flush mounting, top & bottom connection			Y								-		
Plug-in mounting			P										
IEC 35mm wide rail mounting			No-mark								-		
Internal accessories			Page 06/63										
Alarm switch			K										
Auxiliary switch			W										
Undervoltage trip			R										
Shunt trip			F										
External accessories			Page 06/66										
Handle padlocking device Cap type			Q1/QN										
Handle padlocking device Plate type			Q2										
Operating handle N-type			N										
Operating handle V-type			V										
Terminal cover Short			BTDS										
Terminal cover Long			BTDL										
Insulation barrier Interphase			BP										
Earth			BL								-		
Handle locking cover			L1										
Flat terminal			SS										
Block terminal			SL	-	-	-	-	-	-	-			

●: Approved ○: Available -: Not available ▲ : Factory-mounted accessory

Note: \*<sup>1</sup> Specify DC only when ordering circuit breakers for DC circuit.

\*<sup>2</sup> Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Standard Series

Ampere frame	63A					
Type	<b>BW63EAG</b>		<b>BW63SAG</b>		<b>BW63RAG</b>	
Pole	2	3	2	3	2	3
Rated current Reference amb. temp. (40°C)	In(A)			60, 63		
Rated impulse withstand voltage	Ui <sub>imp</sub> (kV)			6	6	6
Isolation compliant	●			●	●	●
Rated insulation voltage $U_i$ (V)	AC	690	690	690	690	690
	DC	250* <sup>1</sup>	250* <sup>1</sup>	250* <sup>1</sup>	250* <sup>1</sup>	250* <sup>1</sup>
Rated breaking capacity $I_{cu}/I_{cs}$ (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	500V 440V 415V 400V 380V 240V 230V DC	1.5/1 2.5/2 2.5/2 2.5/2 2.5/2 5/3 5/3 250V/2.5/2*	5/3 7.5/4 7.5/4 7.5/4 7.5/4 10/5 10/5 5/3* <sup>1</sup>	7.5/4 10/5 10/5 10/5 10/5 25/13 25/13 5/3* <sup>1</sup>
Conforming to standards	CE Marking CCC certificate Electrical Appliance and Material Safety Law <PS>E* <sup>2</sup>	GB14048.2	AC	● (TÜV) ● ●	● (TÜV) ● ●	● (TÜV) ● ●
Dimensions (mm)			a	50      75	50      75	50      75
	b	100		100		100
	c	60		60		60
	d	84		84		84
Mass (kg)			0.4      0.5	0.4      0.5	0.4      0.5	
Tripping device	Hydraulic-magnetic					
Front mounting, front connection	No-mark	○	○	○	○	○
Front mounting, rear connection	X	○	○	○	○	○
Flush mounting, front connection	E	○	○	○	○	○
Flush mounting, top & bottom connection	Y	○	○	○	○	○
Plug-in mounting	P	○	○	○	○	○
IEC 35mm wide rail mounting	No-mark	○	○	○	○	○
Internal accessories	Page 06/63					
Alarm switch	K	○	○	○	○	○
Auxiliary switch	W	○	○	○	○	○
Undervoltage trip	R	○	○	○	○	○
Shunt trip	F	○	○	○	○	○
External accessories	Page 06/66					
Handle padlocking device Cap type	QN	○	○	○	○	○
Handle padlocking device Plate type	Q2	▲	▲	▲	▲	▲
Operating handle N-type	N	○	○	○	○	○
Operating handle V-type	V	○	○	○	○	○
Terminal cover Short	BTOS	○	○	○	○	○
Terminal cover Long	BTOL	○	○	○	○	○
Insulation barrier Interphase	BP	○	○	○	○	○
Earth	BL	○	○	○	○	○
Handle locking cover	L1	○	○	○	○	○
Flat terminal	SS	○	○	○	○	○
Block terminal	SL	-	-	-	-	-

●: Approved ○: Available -: Not available ▲: Factory-mounted accessory

Note: \*<sup>1</sup> Specify DC only when ordering circuit breakers for DC circuit.

\*<sup>2</sup> Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Standard Series

Ampere frame			100A				
Type			<b>BW100AAG</b>		<b>BW100EAG</b>		
Pole		2	3		2	3	
Rated current Reference amb. temp. (40°C)		In(A)	60, 63, 75, 100		50, 60, 63, 75, 100		
Rated impulse withstand voltage		Uiimp(kV)	6		6		
Isolation compliant			●				
Rated insulation voltage Ui (V)		AC	500		690		
		DC	-		250 <sup>*1</sup>		
Rated breaking capacity Icu/lcs (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	500V	-	7.5/4		
			440V	-	10/5		
			415V	-	10/5		
			400V	1.5/1	10/5		
			380V	1.5/1	10/5		
			240V	5/3	25/13		
			230V	5/3	25/13		
	GB14048.2	DC	250V	-	5/3 <sup>*1</sup>		
			400V	1.5/1	10/5		
			230V	5/3	25/13		
Conforming to standards	CE Marking		● (TÜV)		● (TÜV)		
	CCC certificate		●		●		
	Electrical Appliance and Material Safety Law <PS>E <sup>*2</sup>		●		●		
Dimensions (mm)			a	50	75	50	
			b	100		100	
			c	60		60	
			d	84		84	
Mass (kg)			0.4	0.5	0.4	0.5	
Tripping device		Thermal -magnetic					
Front mounting, front connection		No-mark	○	○	○	○	
Front mounting, rear connection		X	○	○	○	○	
Flush mounting, front connection		E	○	○	○	○	
Flush mounting, top & bottom connection		Y	○	○	○	○	
Plug-in mounting		P	○	○	○	○	
IEC 35mm wide rail mounting		No-mark	○	○	○	○	
Internal accessories		Page 06/63					
Alarm switch		K	○	○	○	○	
Auxiliary switch		W	○	○	○	○	
Undervoltage trip		R	○	○	○	○	
Shunt trip		F	○	○	○	○	
External accessories		Page 06/66					
Handle padlocking device Cap type		QN	○	○	○	○	
Handle padlocking device Plate type		Q2	▲	▲	▲	▲	
Operating handle N-type		N	○	○	○	○	
Operating handle V-type		V	○	○	○	○	
Terminal cover Short		BTOS	○	○	○	○	
Terminal cover Long		BTOL	○	○	○	○	
Insulation barrier Interphase		BP	○	○	○	○	
Earth		BL	○	○	○	○	
Handle locking cover		L1	○	○	○	○	
Flat terminal		SS	○	○	○	○	
Block terminal		SL	-	-	-	-	

●: Approved ○: Available -: Not available ▲ : Factory-mounted accessory

Note: <sup>\*1</sup> Specify DC only when ordering circuit breakers for DC circuit.

<sup>\*2</sup> Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Standard Series

Ampere frame			125A									
Type	<b>BW125JAG</b>				<b>BW125SAG</b>			<b>BW125RAG</b>			<b>BW125HAG</b>	
Pole	2	3	4	2	3	4	2	3	4	2	3	
Rated current Reference amb. temp. (40°C)	In(A)	15, 20, 30, 40, 50, 60, 75, 100, 125										
Rated impulse withstand voltage	Uimp(kV)	6		6		6		6		6		
Isolation compliant		●		●		●		●		●		
Rated insulation voltage Ui (V)	AC	690		690		690		690		690		
	DC	250		250		250		250		250		
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	690V	—	—	—	—	—	—	—	—	
			500V	5/3	8/4	10/5		10/5		25/7		
			440V	30/15	30/15	36/18		50/25		65/17		
			415V	30/15	30/15	36/18		50/25		65/17		
			400V	30/15	30/15	36/18		50/25		65/17		
			380V	30/15	30/15	36/18		50/25		65/17		
			240V	50/25	50/25	85/43		100/50		125/63		
			230V	50/25	50/25	85/43		100/50		125/63		
		DC	250V	15/8	15/8	30/15		40/20		40/20		
	GB14048.2	AC	400V	30/15	30/15	36/18		50/25		—		
			230V	50/25	50/25	85/43		100/50		—		
Conforming to standards	CE Marking	● (TÜV)		● (TÜV)		● (TÜV)		● (TÜV)		●		
	CCC certificate	●		●		●		●		—		
	Electrical Appliance and Material Safety Law <PS>E <sup>2</sup>	● (except for 125A)		● (except for 125A)		● (except for 125A)		● (except for 125A)		● (except for 125A)		
Dimensions (mm)			a	60	90	120	90	90	120	90	90	90
			b	155			155			155		155
			c	68			68			68		68
			d	95			95			95		95
Mass (kg)		0.8	1.2	1.6	1.0	1.2	1.6	1.0	1.2	1.6	1.0	1.2
Tripping device	Thermal-magnetic											
Front mounting, front connection	No-mark	○	○	○	○	○	○	○	○	○	○	○
Front mounting, rear connection	X	○	○	○	○	○	○	○	○	○	○	○
Flush mounting, front connection	E	○	○	○	○	○	○	○	○	○	○	○
Plug-in mounting	P	○	○	—	○	○	—	○	○	—	○	○
Internal accessories	Page 06/64											
Alarm switch	K	○	○	○	○	○	○	○	○	○	○	○
Auxiliary switch	W	○	○	○	○	○	○	○	○	○	○	○
Undervoltage trip	R	—	○	○	○	○	○	○	○	○	○	○
Shunt trip	F	○	○	○	○	○	○	○	○	○	○	○
External accessories	Page 06/66											
Handle padlocking device Cap type	Q1	○	○	○	○	○	○	○	○	○	○	○
Handle padlocking device Plate type	Q2	—	○	○	○	○	○	○	○	○	○	○
Operating handle N-type	N	○	○	○	○	○	○	○	○	○	○	○
Operating handle V-type	V	○	○	○	○	○	○	○	○	○	○	○
Terminal cover Short	BTOS	○	○	○	○	○	○	○	○	○	○	○
Terminal cover Long	BTOL	○	○	○	○	○	○	○	○	○	○	○
Insulation barrier Interphase	BP	○	○	○	○	○	○	○	○	○	○	○
Handle locking cover	L1	○	○	○	○	○	○	○	○	○	○	○
Flat terminal	SS	○	○	○	○	○	○	○	○	○	○	○
Block terminal	SL	○	○	○	○	○	○	○	○	○	○	○

●: Approved ○: Available —: Not available

Note: \* Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Standard Series

Ampere frame			160A													
Type	<b>BW160EAG</b>			<b>BW160JAG</b>			<b>BW160SAG</b>			<b>BW160RAG</b>						
Pole	2	3		2	3	4	2	3	4	2	3	4				
Rated current Reference amb. temp. (40°C)	In(A)		125, 150, 160													
Rated impulse withstand voltage	Uiimp(kV)		6		6		6		6							
Isolation compliant																
Rated insulation voltage Ui (V)	AC		690		690		690		690							
	DC		250		250		250		250							
Rated breaking capacity Icu/lcs (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	690V	-		-		-		-						
			500V	5/3		8/4		10/5		10/5						
			440V	18/9		30/15		36/18		50/25						
			415V	18/9		30/15		36/18		50/25						
			400V	18/9		30/15		36/18		50/25						
			380V	18/9		30/15		36/18		50/25						
			240V	36/18		50/25		85/43		100/50						
			230V	36/18		50/25		85/43		100/50						
	GB14048.2	AC	250V	10/5		20/10		30/15		30/15						
			400V	18/9		30/15		36/18		50/25						
Conforming to standards	CE Marking															
	CCC certificate															
	Electrical Appliance and Material Safety Law <PS>E*			-		-		-		-						
Dimensions (mm)				a	105	105	105	105	140	105	105	140	105	105	140	
				b	165		165			165		165				
				c	68		68			68		68				
				d	95		95			95		95				
Mass (kg)				1.4	1.6	1.4	1.6	2.2	1.4	1.6	2.2	1.4	1.6	2.2		
Tripping device			Thermal-magnetic													
Front mounting, front connection			No-mark													
Front mounting, rear connection			X													
Flush mounting, front connection			E													
Plug-in mounting			P													
Internal accessories			Page 06/64													
Alarm switch			K													
Auxiliary switch			W													
Undervoltage trip			R													
Shunt trip			F													
External accessories			Page 06/66													
Handle padlocking device Cap type			Q1													
Handle padlocking device Plate type			Q2													
Operating handle N-type			N													
Operating handle V-type			V													
Terminal cover Short			BTDS													
Terminal cover Long			BTDL													
Insulation barrier Interphase			BP													
Handle locking cover			L1													
Flat terminal			SS													
Block terminal			SL													

●: Approved ○: Available -: Not available

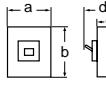
Note: \* Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Standard Series

Ampere frame				250A																
Type				<b>BW250EAG</b>		<b>BW250JAG</b>			<b>BW250SAG</b>			<b>BW250RAG</b>			<b>BW250HAG</b>					
Pole				2	3	2	3	4	2	3	4	2	3	4	2	3				
Rated current Reference amb. temp. (40°C)		In(A)		175, 200, 225, 250												125,150,160,175 200,225,250				
Rated impulse withstand voltage				Ui <sup>imp</sup> (kV)		6	6	6	6	6	6	6	6	6	6	6				
Isolation compliant				●	●	●	●	●	●	●	●	●	●	●	●	●				
Rated insulation voltage Ui (V)				AC		690	690	690	690	690	690	690	690	690	690	690				
				DC		250	250	250	250	250	250	250	250	250	250	250				
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC		690V	—	—	—	—	—	—	—	—	—	—	—	—				
		500V		5/3	8/4	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	10/5	25/7				
		440V		18/9	30/15	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	65/17				
		415V		18/9	30/15	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	65/17				
		400V		18/9	30/15	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	65/17				
		380V		18/9	30/15	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	65/17				
		240V		36/18	50/25	85/43	85/43	85/43	85/43	85/43	85/43	100/50	100/50	100/50	100/50	125/63				
		230V		36/18	50/25	85/43	85/43	85/43	85/43	85/43	85/43	100/50	100/50	100/50	100/50	125/63				
	GB14048.2	DC		250V	10/5	20/10	30/15	30/15	30/15	30/15	30/15	30/15	30/15	30/15	30/15	40/20				
		AC		400V	18/9	30/15	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	36/18	—				
Conforming to standards				CE Marking		● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	●				
				CCC certificate		●	●	●	●	●	●	●	●	●	●	—				
				Electrical Appliance and Material Safety Law <PS>E*		—	—	—	—	—	—	—	—	—	—	—				
Dimensions (mm)																105				
				a	105	105	105	105	140	105	105	140	105	105	140	105				
				b	165	165	165	165	165	165	165	165	165	165	165	165				
				c	68	68	68	68	68	68	68	68	68	68	68	68				
				d	95	95	95	95	95	95	95	95	95	95	95	95				
Mass (kg)				1.4	1.6	1.4	1.6	2.2	1.4	1.6	2.2	1.4	1.6	2.2	1.4	1.6				
Tripping device				Thermal-magnetic																
Front mounting, front connection				No-mark		○	○	○	○	○	○	○	○	○	○	○				
Front mounting, rear connection				X		○	○	○	○	○	○	○	○	○	○	○				
Flush mounting, front connection				E		○	○	○	○	○	○	○	○	○	○	○				
Plug-in mounting				P		○	○	○	○	—	○	○	—	○	—	○				
Internal accessories				Page 06/64																
Alarm switch				K		○	○	○	○	○	○	○	○	○	○	○				
Auxiliary switch				W		○	○	○	○	○	○	○	○	○	○	○				
Undervoltage trip				R		○	○	○	○	○	○	○	○	○	○	○				
Shunt trip				F		○	○	○	○	○	○	○	○	○	○	○				
External accessories				Page 06/66																
Handle padlocking device				Cap type		Q1	○	○	○	○	○	○	○	○	○	○				
				Plate type		Q2	○	○	○	○	○	○	○	○	○	○				
Operating handle				N-type		N	○	○	○	○	○	○	○	○	○	○				
				V-type		V	○	○	○	○	○	○	○	○	○	○				
Terminal cover				Short		BT <sup>□</sup> S	○	○	○	○	○	○	○	○	○	○				
				Long		BT <sup>□</sup> L	○	○	○	○	○	○	○	○	○	○				
Insulation barrier				Interphase		BP	○	○	○	○	○	○	○	○	○	○				
Handle locking cover				L1		○	○	○	○	○	○	○	○	○	○	○				
Flat terminal				SS		○	○	○	○	○	○	○	○	○	○	○				
Block terminal				SL		○	○	○	○	○	○	○	○	○	○	○				

●: Approved ○: Available —: Not available

Note: \* Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Standard Series

Ampere frame			400A								
Type			<b>BW400EAG</b>			<b>BW400SAG</b>			<b>BW400RAG</b>		
Pole	2	3	2	3	2	3	4	2	3	4	
Rated current Reference amb. temp. (40°C)	In(A)		250, 300, 350, 400								
Rated impulse withstand voltage	Ui <sub>imp</sub> (kV)		8	8	8	8	8	8	8	8	
Isolation compliant											
Rated insulation voltage Ui (V)	AC		690	690	690	690	690	690	690	690	
	DC		250	250	250	250	250	250	250	250	
Rated breaking capacity Icu/lcs (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	690V	–	10/5	15/8	15/8	15/8	15/8	15/8	
			500V	18/9	20/10	36/18	36/18	36/18	36/18	36/18	
			440V	30/15	36/18	50/25	50/25	50/25	50/25	50/25	
			415V	30/15	36/18	50/25	50/25	50/25	50/25	50/25	
			400V	30/15	36/18	50/25	50/25	50/25	50/25	50/25	
			380V	30/15	36/18	50/25	50/25	50/25	50/25	50/25	
			240V	50/25	85/43	100/50	100/50	100/50	100/50	100/50	
			230V	50/25	85/43	100/50	100/50	100/50	100/50	100/50	
	GB14048.2	DC	250V	20/10	20/10	40/20	40/20	40/20	40/20	40/20	
		AC	400V	30/15	36/18	50/25	50/25	50/25	50/25	50/25	
			230V	50/25	85/43	100/50	100/50	100/50	100/50	100/50	
Conforming to standards	CE Marking										
	CCC certificate										
	Electrical Appliance and Material Safety Law <PS>E <sup>1</sup>			–	–	–	–	–	–	–	
Dimensions (mm)				a	140	140	140	140	140	140	185
				b	257	257	257	257	257	257	
				c	103	103	103	103	103	103	
				d	146	146	146	146	146	146	
Mass (kg)				4.6	5.6	4.6	5.6	4.6	5.6	7.4	4.6
Tripping device			Thermal-magnetic								
Front mounting, front connection			No-mark								
Front mounting, rear connection			X								
Flush mounting, front connection			E								
Plug-in mounting			P								
Internal accessories			Page 06/65								
Alarm switch			K								
Auxiliary switch			W								
Undervoltage trip			R								
Shunt trip			F								
External accessories			Page 06/66								
Handle padlocking device Cap type			QN								
Handle padlocking device Plate type			Q2								
Operating handle N-type			N								
Operating handle V-type			V								
Terminal cover Short			BT <sub>□</sub> S								
Terminal cover Long			BT <sub>□</sub> L								
Insulation barrier Interphase			BP								
Handle locking cover			L1								
Flat terminal			SS								
Block terminal			SL								

●: Approved   ○: Available   -: Not available

Note: \*<sup>1</sup> Electrical Appliance and Material Safety Law of Japan

\*<sup>2</sup> Standard provided

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Standard Series

Ampere frame			630A				800A						
Type	BW630EAG	BW630RAG	BW630HAG	BW800EAG	BW800RAG	BW800HAG							
Pole	3	3	4	3	4	3	3	4	3	4			
Rated current Reference amb. temp. (40°C)	In(A)		500, 600, 630				700, 800						
Rated impulse withstand voltage	Uimp(kV)		8	8	8		8	8	8				
Isolation compliant			●	●	●		●	●	●				
Rated insulation voltage Ui (V)	AC		690	690	690		690	690	690				
	DC		250	250	250		250	250	250				
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC	690V	—	15/8	15/8	—	15/8	15/8	15/8			
			600V	—	—	—	—	—	—	—			
			500V	18/9	36/18	42/21	18/9	36/18	42/21	42/21			
			440V	36/18	50/25	70/35	36/18	50/25	70/35	70/35			
			415V	36/18	50/25	70/35	36/18	50/25	70/35	70/35			
			400V	36/18	50/25	70/35	36/18	50/25	70/35	70/35			
			380V	36/18	50/25	70/35	36/18	50/25	70/35	70/35			
			240V	50/25	100/50	125/63	50/25	100/50	125/63	125/63			
			230V	50/25	100/50	125/63	50/25	100/50	125/63	125/63			
		DC	250V	20/10	40/20	40/20	20/10	40/20	40/20	40/20			
	GB14048.2	AC	400V	36/18	50/25	70/35	36/18	50/25	70/35	70/35			
			230V	50/25	100/50	125/63	50/25	100/50	125/63	125/63			
Conforming to standards	CE Marking		● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)	● (TÜV)			
	CCC certificate		●	●	●	●	●	●	●	●			
	Electrical Appliance and Material Safety Law <PS>E <sup>†</sup>		—	—	—	—	—	—	—	—			
Dimensions (mm)				a	210	210	280	210	280	210	280		
				b	275	275	275	275	275	275	275		
				c	103	103	103	103	103	103	103		
				d	146	146	146	146	146	146	146		
Mass (kg)					7.8	7.8	10.3	7.8	10.3	8.3	11		
Tripping device				Thermal-magnetic									
Front mounting, front connection			No-mark	○	○	○	○	○	○	○	○		
Front mounting, rear connection			X	○	○	○	○	○	○	○	○		
Flush mounting, front connection			E	○	○	○	○	○	○	○	○		
Plug-in mounting			P	○	—	○	—	○	—	○	—		
Internal accessories			Page 06/65										
Alarm switch			K	○	○	○		○	○	○			
Auxiliary switch			W	○	○	○		○	○	○			
Undervoltage trip			R	○	○	○		○	○	○			
Shunt trip			F	○	○	○		○	○	○			
External accessories			Page 06/66										
Handle padlocking device Cap type			QN	○	○	○		○	○	○			
Handle padlocking device Plate type			Q2	○	○	○		○	○	○			
Operating handle N-type			N	○	○	○		○	○	○			
Operating handle V-type			V	○	○	○		○	○	○			
Terminal cover Long			BTDL	○	○	○		○	○	○			
Insulation barrier Interphase			BP	○	○	○		○	○	○			
Handle locking cover			L1	○	○	○		○	○	○			
Flat terminal			SS	○ <sup>‡</sup>	○ <sup>‡</sup>	○ <sup>‡</sup>		○ <sup>‡</sup>	○ <sup>‡</sup>	○ <sup>‡</sup>	○ <sup>‡</sup>		
Block terminal			SL	○	○	○		○	○	○			

●: Approved ○: Available —: Not available

Note: <sup>†</sup> Electrical Appliance and Material Safety Law of Japan

\*<sup>2</sup> Standard provided

■ G-TWIN Global Series

Ampere frame		50A				100A			
Type		<b>BW50RAGU</b>				<b>BW100EAGU</b>			
Pole		2		3		2			
Rated current Reference amb. temp. (40°C)		In(A)		3, 5   10, 15, 20, 30, 32, 40, 50		3, 5   10, 15, 20, 30, 32, 40, 50			
Rated impulse withstand voltage		Uiimp(kV)		6		6			
Isolation compliant		●				●			
Rated insulation voltage Ui (V)		AC		690		690			
Rated breaking capacity	IEC 60947-2 EN 60947-2 JIS C 8201-2-1 Icu/lcs (kA)	AC	500V	7.5/4	7.5/4				
			440V	10/5	10/5				
			415V	10/5	10/5				
			400V	10/5	10/5				
			380V	10/5	10/5				
			240V	25/13	25/13				
			230V	25/13	25/13				
	GB14048.2 Icu/lcs(kA)	AC	400V	7/4   10/5	7/4	10/5	10/5		
			230V	14/7   25/13	14/7	25/13	25/13		
	UL489 CAN/CSA C22.2 NO.5 (kA)	AC	240V	14	-		14		
Conforming to standards	CE Marking		● (TÜV)				● (TÜV)		
	CCC certificate		●				●		
	UL Listed (NEMA AB1)		●				●		
	Electrical Appliance and Material Safety Law <PS>E*1		●				●		
Dimensions (inch(mm))			a	1.969 (50)	2.953 (75)	1.969 (50)	2.953 (75)		
			b	4.724 (120)		4.724 (120)			
			c	2.362 (60)		2.362 (60)			
			d	3.307 (84)		3.307 (84)			
Mass (kg)				0.5	0.6	0.5	0.6		
Tripping device									
Connecting terminal		Page 06/26							
Screw		S□		○	○	○	○		
Flat				○	○	○	○		
Block		-		-	-	○	○		
Internal accessories		Page 06/63							
Alarm switch		K		○	○	○	○		
Auxiliary switch		W		○	○	○	○		
Undervoltage trip		R		○	○	○	○		
Shunt trip		F		○	○	○	○		
External accessories		Page 06/66							
Handle padlocking device		Cap type		QN	○	○	○		
Operating handle N-type		N		○	○	○	○		
Operating handle V-type		V		○	○	○	○		
Terminal cover Short		BT□S		○* <sup>2</sup>	○	○	○		
Terminal cover Long		BT□L		○	○	○	○		
Insulation barrier Interphase		BP		○	○	○	○		
Handle locking cover		L1		○	○	○	○		

●: Approved ○: Available -: Not available

Note: \*<sup>1</sup> Electrical Appliance and Material Safety Law of Japan

\*<sup>2</sup> Standard provided

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Global Series

Ampere frame	125A				
Type	<b>BW125JAGU</b>	<b>BW125RAGU</b>			
Pole	2	3	2	3	
Rated current Reference amb. temp. (40°C)	In(A)	15, 20, 30, 40, 50, 60, 70, 75, 80, 90, 100, 125			
Rated impulse withstand voltage	Uimp(kV)	6	6		
Isolation compliant		●	●		
Rated insulation voltage Ui (V)	AC	690	690		
	DC	250	250		
Rated breaking capacity	IEC 60947-2 EN 60947-2 JIS C 8201-2-1 Icu/Ics (kA)	AC	690V –	5/3	
			500V 15/8	36/18	
			440V 30/15	50/25	
			415V 30/15	50/25	
			400V 30/15	50/25	
			380V 30/15	50/25	
			240V 50/25	100/50	
			230V 50/25	100/50	
	GB14048.2 Icu/Ics(kA)	DC	250V 15/8	40/20	
		AC	400V 30/15	50/25	
UL489 CAN/CSA C22.2 NO.5 (kA)			230V 50/25	100/50	
		AC	600V/Y 10	10	
			480V/Δ –	30	
			480V/Y 30	50	
			240V 50	100	
		DC	125/250V 10	10	
Conforming to standards	CE Marking	● (TÜV)	● (TÜV)		
	CCC certificate	●	●		
	UL Listed (NEMA AB1)	●	●		
	Electrical Appliance and Material Safety Law <PS>F*	● (except for 125A)	● (except for 125A)		
Dimensions (inch(mm))		a	2.362 (60)	3.543 (90)	
		b	6.732 (171)	6.732 (171)	
		c	2.677 (68)	2.677 (68)	
		d	3.740 (95)	3.740 (95)	
Mass (kg)		0.8	1.2	1.0	
Tripping device		Thermal-magnetic			
Connecting terminal	Page 06/26				
Screw	S□	○	○	○	
Flat		○	○	○	
Block		○	○	○	
Internal accessories	Page 06/64				
Alarm switch	K	○	○	○	
Auxiliary switch	W	○	○	○	
Undervoltage trip	R	–	○	○	
Shunt trip	F	○	○	○	
External accessories	Page 06/66				
Handle padlocking device Cap type	Q1	○	○	○	
Handle padlocking device Plate type	Q2	○	○	○	
Operating handle N-type	N	–	○	○	
Operating handle V-type	V	–	○	○	
Operating handle F-type	F	–	○	○	
Terminal cover Short	BT□S	○	○	○	
Terminal cover Long	BT□L	○	○	○	
Insulation barrier Interphase	BP	○	○	○	
Handle locking cover	L1	○	○	○	

●: Approved ○: Available –: Not available

Note: \* Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Global Series

Ampere frame		250A					
Type	<b>BW250EAGU</b>			<b>BW250JAGU</b>		<b>BW250RAGU</b>	
Pole	2		3	2	3	2	3
Rated current Reference amb. temp. (40°C)	In(A)			125, 150, 160, 175, 200, 225, 250			
Rated impulse withstand voltage	Uiimp(kV)		6	6		6	
Isolation compliant	●		●	●		●	
Rated insulation voltage Ui (V)	AC		690	690		690	
	DC		250	250		250	
Rated breaking capacity	IEC 60947-2 EN 60947-2 JIS C 8201-2-1 Icu/lcs (kA)	AC	690V	—	—	5/3	
			500V	10/5	18/9	36/18	
			440V	18/9	30/15	50/25	
			415V	18/9	30/15	50/25	
			400V	18/9	30/15	50/25	
			380V	18/9	30/15	50/25	
			240V	36/18	50/25	100/50	
			230V	36/18	50/25	100/50	
	GB14048.2 Icu/lcs(kA)	DC	250V	10/5	20/10	40/20	
		AC	400V	18/9	30/15	50/25	
	UL489 CAN/CSA C22.2 NO.5 (kA)	AC	230V	36/18	50/25	100/50	
			600V/Y	—	10	25	
			480V/Δ	—	30	50	
			480V/Y	—	30	50	
			240V	22	50	100	
		DC	125/250V	10	10	10	
Conforming to standards	CE Marking		● (TÜV)		● (TÜV)		● (TÜV)
	CCC certificate		●		●		●
	UL Listed (NEMA AB1)		●		●		●
	Electrical Appliance and Material Safety Law <PS>E*		—		—		—
Dimensions (inch(mm))			a	4.134 (105)	4.134 (105)	4.134 (105)	
			b	7.126 (181)	7.126 (181)	7.126 (181)	
			c	2.677 (68)	2.677 (68)	2.677 (68)	
			d	3.740 (95)	3.740 (95)	3.740 (95)	
Mass (kg)			1.4	1.6	1.4	1.6	1.4
Tripping device		Thermal-magnetic					
Connecting terminal		Page 06/26					
Screw		S□		○	○	○	○
Flat				○	○	○	○
Block				○	○	○	○
Internal accessories		Page 06/64					
Alarm switch		K		○	○	○	○
Auxiliary switch		W		○	○	○	○
Undervoltage trip		R		○	○	○	○
Shunt trip		F		○	○	○	○
External accessories		Page 06/66					
Handle padlocking device Cap type		Q1		○	○	○	○
Handle padlocking device Plate type		Q2		○	○	○	○
Operating handle N-type		N		○	○	○	○
Operating handle V-type		V		○	○	○	○
Operating handle F-type		F		○	○	○	○
Terminal cover Short		BTDS		○	○	○	○
Terminal cover Long		BTDL		○	○	○	○
Insulation barrier Interphase		BP		○	○	○	○
Handle locking cover		L1		○	○	○	○

●: Approved ○: Available -: Not available

Note: \* Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Global Series

Ampere frame	400A						
Type	<b>BW400EAGU</b>		<b>BW400SAGU</b>		<b>BW400RAGU</b>		<b>BW400HAGU</b>
Pole	2	3	2	3	2	3	2
Rated current Reference amb. temp. (40°C)	In(A)		250, 300, 350, 400				
Rated impulse withstand voltage	Uimp(kV)		8	8	8	8	
Isolation compliant	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
Rated insulation voltage Ui (V)	AC	690	690	690	690	690	
	DC	250	250	250	250	250	
Rated breaking capacity	IEC 60947-2 EN 60947-2 JIS C 8201-2-1 Icu/lcs (kA)	AC	690V	—	10/5	15/8	15/8
			500V	18/9	20/10	36/18	42/21
			440V	30/15	36/18	50/25	70/35
			415V	30/15	36/18	50/25	70/35
			400V	30/15	36/18	50/25	70/35
			380V	30/15	36/18	50/25	70/35
			240V	50/25	85/43	100/50	125/63
			230V	50/25	85/43	100/50	125/63
	GB14048.2 Icu/lcs(kA)	DC	250V	20/10	20/10	40/20	40/20
		AC	400V	30/15	36/18	50/25	70/35
			230V	50/25	85/43	100/50	125/63
		UL489 CAN/CSA C22.2 NO.5 (kA)	AC	600V/ $\Delta$	—	—	25
			600V/Y	—	—	—	25
			480V/ $\Delta$	—	35	50	65 (With block terminal:50)
			480V/Y	—	35	50	65 (With block terminal:50)
			240V	22	50	100	125
	DC	125/250V	10	10	10	10	10
Conforming to standards	CE Marking		<input checked="" type="checkbox"/> (TÜV)	<input checked="" type="checkbox"/> (TÜV)	<input checked="" type="checkbox"/> (TÜV)	<input checked="" type="checkbox"/> (TÜV)	
	CCC certificate		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	UL Listed (NEMA AB1)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	Electrical Appliance and Material Safety Law <PS>E*		—	—	—	—	—
Dimensions (inch(mm))			a b c d	5.512 (140) 10.12 (257) 4.055 (103) 5.748 (146)			
Mass (kg)			4.6	5.6	4.6	5.6	4.6
Tripping device							
Connecting terminal		Page 06/26					
Flat		<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Block		<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Internal accessories		Page 06/65					
Alarm switch		K	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Auxiliary switch		W	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Undervoltage trip		R	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Shunt trip		F	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
External accessories		Page 06/66					
Handle padlocking device Cap type		QN	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Handle padlocking device Plate type		Q2	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Operating handle N-type		N	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Operating handle V-type		V	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Operating handle F-type		F	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Terminal cover Short		BT $\square$ S	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Terminal cover Long		BT $\square$ L	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Insulation barrier Interphase		BP	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>
Handle locking cover		L1	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>	<input type="circle"/>

Approved    Available   —: Not available

Note: \* Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Global Series

Ampere frame		630A		800A	
Type		<b>BW630RAGU</b>		<b>BW630HAGU</b>	
Pole		3		3	
Rated current Reference amb. temp. (40°C)		In(A) 500, 600, 630 <sup>*1</sup>			700, 800 <sup>*2</sup>
Rated impulse withstand voltage		Uiimp(kV)	8	8	8
Isolation compliant			●	●	●
Rated insulation voltage Ui (V)		AC	690	690	690
		DC	250	250	250
Rated breaking capacity	IEC 60947-2 EN 60947-2 JIS C 8201-2-1 Icu/lcs (kA)	AC	690V 15/8	15/8	15/8
			500V 36/18	42/21	36/18
			440V 50/25	70/35	50/25
			415V 50/25	70/35	70/35
			400V 50/25	70/35	50/25
			380V 50/25	70/35	50/25
			240V 100/50	125/63	100/50
			230V 100/50	125/63	125/63
		DC	250V 40/20	40/20	40/20
		AC	400V 50/25	70/35	50/25
UL489 CAN/CSA C22.2 NO.5 (kA)	Icu/lcs(kA)		230V 100/50	125/63	100/50
		AC	600V/A -	25	-
			600V/Y -	25	-
			480V/A 50	65 (With block terminal:50)	50
			480V/Y -	65 (With block terminal:50)	50
			240V 100	125	100
		DC	125/250V 10	10	10
Conforming to standards	CE Marking		● (TÜV)	● (TÜV)	● (TÜV)
	CCC certificate		●	●	●
	UL Listed (NEMA AB1)		●	●	●
	Electrical Appliance and Material Safety Law <PS> <sup>*3</sup>		-	-	-
Dimensions (inch(mm))			a 8.268 (210)	8.268 (210)	8.268 (210)
			b 10.83 (275)	10.83 (275)	10.83 (275)
			c 4.055 (103)	4.055 (103)	4.055 (103)
			d 5.748 (146)	5.748 (146)	5.748 (146)
Mass (kg)			8.9	8.9	9.4
Tripping device		Thermal-magnetic			
Connecting terminal		Page 06/26			
Flat			○	○	○
Block			○	○	○
Internal accessories		Page 06/65			
Alarm switch		K	○	○	○
Auxiliary switch		W	○	○	○
Undervoltage trip		R	○	○	○
Shunt trip		F	○	○	○
External accessories		Page 06/66			
Handle padlocking device Cap type		QN	○	○	○
Handle padlocking device Plate type		Q2	○	○	○
Operating handle N-type		N	○	○	○
Operating handle V-type		V	○	○	○
Terminal cover		BTCL	○	○	○
Insulation barrier Interphase		BP	○	○	○
Handle locking cover		L1	○	○	○

●: Approved ○: Available -: Not available

Note: \*<sup>1</sup> Breakers for 630A cannot be manufactured with block terminals.

\*<sup>2</sup> Block terminals are standard for Breakers for 800A.

\*<sup>3</sup> Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### Motor protection breakers

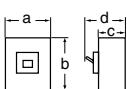
Motors are normally controlled by MCCBs and magnetic starters. In this case the MCCB carries out overcurrent or short-circuit current protection while the starter deals with ON-OFF switching

of the motor and offers protection against sustained overload currents. These are the motor breakers which combine the two functions.

FUJI motor breakers are designed to

eliminate erroneous operations due to the rush current produced at the time of starting the motor. They will trip in the face of sustained overcurrent when the integrated bimetal relay has operated.

#### ■ G-TWIN Standard Series / Motor protection

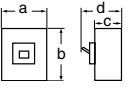
Ampere frame	32A			
Type	BW32AAM	BW32SAM		
Pole	3	2	3	
Rated current Reference amb. temp. (40°C)	In(A)	1.4, 2.6, 4, 8, 10, 16, 24, 32	(2), (4), 5, 8, 10, 16	0.7, 1.4, 2, 2.6, 4, 5, 8, 10, 12, 16, 24, 32
Rated impulse withstand voltage	Uimp(kV)	6	6	6
Isolation compliant		●	●	●
Rated insulation voltage Ui (V)	AC	500	690	690
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC 690V 500V 440V 415V 400V 380V 240V 230V	— 1.5/1 2.5/2 2.5/2 2.5/2 2.5/2 5/3 5/3	— 1.5/1 2.5/2 2.5/2 2.5/2 2.5/2 5/3 5/3
GB14048.2	AC	400V 230V	1.5/1 2.5/2	2.5/2 5/3
Conforming to standards	CE Marking CCC certificate Electrical Appliance and Material Safety Law <PS>E <sup>2</sup>	● ● ●	● ● ●	● ● ●
Dimensions (mm)			a b c d	75 100 60 84
Mass (kg)		0.5	0.4	0.5
Tripping device		Hydraulic-magnetic	Hydraulic-magnetic	Hydraulic-magnetic
Front mounting, front connection	No-mark	○	○	○
Front mounting, rear connection	X	○	○	○
Flush mounting, front connection	E	○	○	○
Flush mounting, top & bottom connection	Y	○	○	○
Plug-in mounting	P	○	○	○
IEC 35mm wide rail mounting	○	○	○	○
Internal accessories	Page 06/63			
Alarm switch	K	○	○	○
Auxiliary switch	W	○	○	○
Undervoltage trip	R	○	○	○
Shunt trip	F	○	○	○
External accessories	Page 06/66			
Handle padlocking device Cap type	QN	○	○	○
Handle padlocking device Plate type	Q2	▲	▲	▲
Operating handle N-type	N	○	○	○
Operating handle V-type	V	○	○	○
Terminal cover Short	BTDS	○	○	○
Terminal cover Long	BTDL	○	○	○
Insulation barrier Interphase	BP	○	○	○
Insulation barrier Earth	BL	○	○	○
Handle locking cover	L1	○	○	○
Flat terminal	SS	○	○	○
Block terminal	SL	—	—	—

●: Approved ○: Available —: Not available ▲: Factory-mounted accessory

Note: \*<sup>1</sup> Specify DC only when ordering circuit breakers for DC circuit.

\*<sup>2</sup> Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Standard Series / Motor protection

Ampere frame		50A	
Type		BW50EAM	BW50SAM
Pole	3	3	3
Rated current Reference amb. temp. (40°C)	In(A)	24, 32, 40, 45	0.7, 1.4, 2, 2.6, 4, 5, 8, 10, 12, 16, 24, 32, 40, 45
Rated impulse withstand voltage	Uimp(kV)	6	6
Isolation compliant		●	●
Rated insulation voltage Ui (V)	AC	500	690
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC 690V	—
		500V 1.5/1	5/3
		440V 2.5/2	7.5/4
		415V 2.5/2	7.5/4
		400V 2.5/2	7.5/4
		380V 2.5/2	7.5/4
		240V 5/3	10/5
		230V 5/3	10/5
		GB14048.2 AC 400V 2.5/2	7.5/4
		230V 5/3	10/5
Conforming to standards	CE Marking	●	●
	CCC certificate	●	●
	Electrical Appliance and Material Safety Law <PS>E <sup>*2</sup>	●	●
Dimensions (mm)		a 75 b 100 c 60 d 84	75 100 60 84
Mass (kg)		0.5	0.5
Tripping device		Hydraulic-magnetic	Hydraulic-magnetic
Front mounting, front connection	No-mark	○	○
Front mounting, rear connection	X	○	○
Flush mounting, front connection	E	○	○
Flush mounting, top & bottom connection	Y	○	○
Plug-in mounting	P	○	○
IEC 35mm wide rail mounting		○	○
Internal accessories	Page 06/63		
Alarm switch	K	○	○
Auxiliary switch	W	○	○
Undervoltage trip	R	○	○
Shunt trip	F	○	○
External accessories	Page 06/66		
Handle padlocking device Cap type	QN	○	○
Handle padlocking device Plate type	Q2	▲	▲
Operating handle N-type	N	○	○
Operating handle V-type	V	○	○
Terminal cover Short	BT□S	○	○
Terminal cover Long	BT□L	○	○
Insulation barrier Interphase	BP	○	○
Insulation barrier Earth	BL	○	○
Handle locking cover	L1	○	○
Flat terminal	SS	○	○
Block terminal	SL	—	—

●: Approved ○: Available —: Not available ▲: Factory-mounted accessory

Note: \*1 Specify DC only when ordering circuit breakers for DC circuit.

\*2 Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Quick reference guide

#### ■ G-TWIN Standard Series / Motor protection

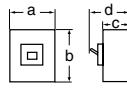
Ampere frame	63A			100A
Type	BW63EAM	BW63SAM	BW100EAM	
Pole	3	3	3	
Rated current Reference amb. temp. (40°C)	In(A)	63	63	63, 75, 90
Rated impulse withstand voltage	Uiimp(kV)	6	6	6
Isolation compliant		●	●	●
Rated insulation voltage Ui (V)	AC	690	690	690
Rated breaking capacity Icu/Ics (kA)	IEC 60947-2 EN 60947-2 JIS C 8201-2-1	AC 690V	—	—
		500V	1.5/1	5/3
		440V	2.5/2	7.5/4
		415V	2.5/2	7.5/4
		400V	2.5/2	7.5/4
		380V	2.5/2	7.5/4
		240V	5/3	10/5
		230V	5/3	10/5
		GB14048.2	AC 400V 2.5/2	7.5/4
			230V 5/3	10/5
Conforming to standards	CE Marking	●	●	●
	CCC certificate	●	●	●
	Electrical Appliance and Material Safety Law <PS> <sup>2</sup>	●	●	●
Dimensions (mm)		a	75	75
		b	100	100
		c	60	60
		d	84	84
Mass (kg)		0.6	0.6	0.6
Tripping device	Hydraulic-magnetic			Hydraulic-magnetic
Front mounting, front connection	No-mark	○	○	○
Front mounting, rear connection	X	○	○	○
Flush mounting, front connection	E	○	○	○
Flush mounting, top & bottom connection	Y	○	○	○
Plug-in mounting	P	○	○	○
IEC 35mm wide rail mounting	○	○	○	○
Internal accessories	Page 06/63			
Alarm switch	K	○	○	○
Auxiliary switch	W	○	○	○
Undervoltage trip	R	○	○	○
Shunt trip	F	○	○	○
External accessories	Page 06/66			
Handle padlocking device Cap type	QN	○	○	○
Handle padlocking device Plate type	Q2	▲	▲	▲
Operating handle N-type	N	○	○	○
Operating handle V-type	V	○	○	○
Terminal cover Short	BTDS	○	○	○
Terminal cover Long	BTDL	○	○	○
Insulation barrier Interphase	BP	○	○	○
Insulation barrier Earth	BL	○	○	○
Handle locking cover	L1	○	○	○
Flat terminal	SS	○	○	○
Block terminal	SL	○	○	○

●: Approved ○: Available -: Not available ▲: Factory-mounted accessory

Note: \*<sup>1</sup> Specify DC only when ordering circuit breakers for DC circuit.

\*<sup>2</sup> Electrical Appliance and Material Safety Law of Japan

■ G-TWIN Standard Series / Motor protection

Ampere frame			125A	250A			
Type			BW125JAM	BW125RAM	BW250EAM	BW250JAM	BW250RAM
Pole			3	3	3	3	3
Rated current	Reference amb. temp. (40°C)		In(A)	16, 24, 32, 40, 45, 60, 75, 90	125, 150, 175, 225		
Rated impulse withstand voltage	Uiimp(kV)		6	6	6	6	6
Isolation compliant			●	●	●	●	●
Rated insulation voltage Ui (V)	AC		690	690	690	690	690
Rated breaking capacity	IEC 60947-2	AC	690V	—	—	—	—
Icu/Ics (kA)	EN 60947-2		500V	8/4	10/5	5/3	8/4
	JIS C 8201-2-1		440V	30/15	50/25	18/9	30/15
			415V	30/15	50/25	18/9	30/15
			400V	30/15	50/25	18/9	30/15
			380V	30/15	50/25	18/9	30/15
			240V	50/25	100/50	36/18	50/25
			230V	50/25	100/50	36/18	50/25
	GB14048.2	AC	400V	30/15	50/25	18/9	30/15
			230V	50/25	100/50	36/18	50/25
Conforming to standards	CE Marking		●	●	●	●	●
	CCC certificate		●	●	●	●	●
	Electrical Appliance and Material Safety Law <PS>E <sup>**</sup>		●	●	—	—	—
Dimensions (mm)			a	90	90	105	105
			b	155	155	165	165
			c	68	68	68	68
			d	95	95	95	95
Mass (kg)				1.2	1.2	1.6	1.6
Tripping device			Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic	Thermal-magnetic
Front mounting, front connection	No-mark	O	O	O	O	O	O
Front mounting, rear connection	X	O	O	O	O	O	O
Flush mounting, front connection	E	O	O	O	O	O	O
Flush mounting, top & bottom connection	Y	O	O	O	O	O	O
Plug-in mounting	P	O	O	O	O	O	O
IEC 35mm wide rail mounting	O	O	O	O	O	O	O
Internal accessories	Page 06/64						
Alarm switch	K	O	O	O	O	O	O
Auxiliary switch	W	O	O	O	O	O	O
Undervoltage trip	R	O	O	O	O	O	O
Shunt trip	F	O	O	O	O	O	O
External accessories	Page 06/66						
Handle padlocking device Cap type	Q1	O	O	O	O	O	O
Handle padlocking device Plate type	Q2	O	O	O	O	O	O
Operating handle N-type	N	O	O	O	O	O	O
Operating handle V-type	V	O	O	O	O	O	O
Terminal cover Short	BT□S	O	O	O	O	O	O
Terminal cover Long	BT□L	O	O	O	O	O	O
Insulation barrier Interphase	BP	O	O	O	O	O	O
Handle locking cover	L1	O	O	O	O	O	O
Flat terminal	SS	O	O	O	O	O	O
Block terminal	SL	O	O	O	O	O	O

●: Approved   O: Available   -: Not available   ▲: Factory-mounted accessory

Note: \*<sup>1</sup> Specify DC only when ordering circuit breakers for DC circuit.

\*<sup>2</sup> Electrical Appliance and Material Safety Law of Japan

# Molded Case Circuit Breakers

## G-TWIN series

### Mounting modifications

#### ■ Mounting modifications

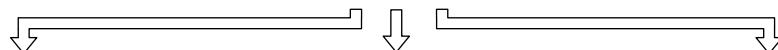
##### • Standard series

Standard type FUJI breakers are front mounting with front connections. The standard breaker can easily be modified to become front mounting rear connection type, flush mounting type and plug-in type. The additional parts such as insulation bases, barriers, covers and similar parts are added as required.

**Front mounting  
Front connection**



**BASIC DESIGN**



Additional main parts	Front mounting Rear connection (X type)	Additional main parts	Flush mounting Rear connection (E type)	Additional main parts	Plug-in mounting (P type)
Bar stud terminal	BW32 BW50 BW63 BW100	Bar stud terminal	BW32 BW50 BW63 BW100	Bar stud terminal	BW32 BW50 BW63 BW100
Bar stud terminal	BW50HAG BW125 BW160 BW250 BW400 BW630 BW800  Each stud can be turned by 90°	Bar stud terminal	BW50HAG BW125 BW160 BW250 BW400 BW630 BW800  Each stud can be turned by 90°	Round stud terminal	BW50HAG BW125
				Bar stud terminal	BW160 BW250 BW400 BW630 BW800  Each stud can be turned by 90°
		Additional main parts	Flush mounting Top and bottom connection (Y type)	Decorative flush plate	BW32 BW50 BW63 BW100

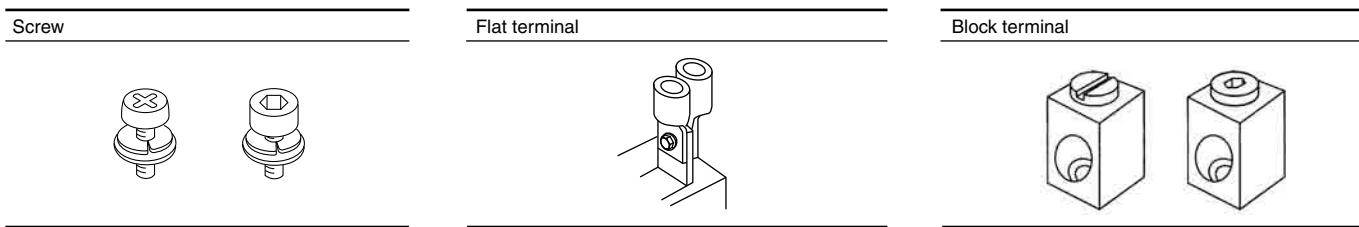
Molded Case Circuit Breakers  
**G-TWIN series**  
Mounting modifications

• Global series

Front mounting  
Front connection



BASIC DESIGN



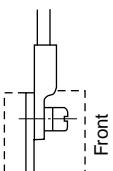
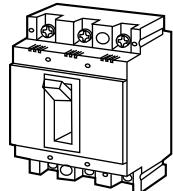
# Molded Case Circuit Breakers

## G-TWIN series

### Terminal connection

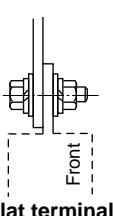
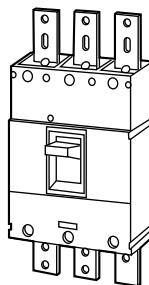
#### ■ Terminal connection/Front mounting, front connection

##### • 32AF to 100AF



Flat terminal

##### • 400AF to 800AF

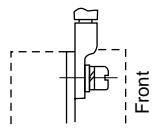
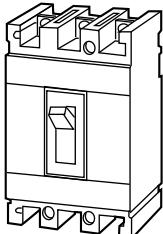


Flat terminal

Self lifting screw	Breaker type	Tightening torque (N·m)	Size
	BW32 BW50 BW100*	2.3 to 2.8	M5 × 14
	BW63 BW100	5.5 to 7.5	M8 × 15

\* Breaker of rated current : 50A

##### • 125AF to 250AF



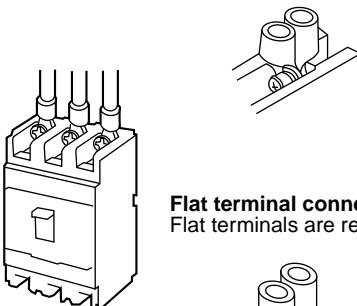
Pan-head screw	Breaker type	Tightening torque (N·m)	Size (mm)
	BW50HAG BW125	5.5 to 7.5	M8 × 16
Hexagonal socket head bolt	BW160 BW250	8.0 to 13.0	M8 × 16

Hexagonal head bolt	Breaker type	Tightening torque (N·m)	Size (mm)
	BW400	40 to 50	M12 × 35
	BW630 BW800	40 to 50	M12 × 40

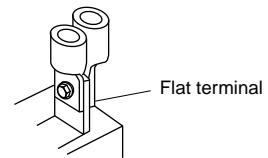
#### Type of connection/up to 250AF

##### Front mounting front connection

###### Direct connection



Flat terminal connection  
Flat terminals are required.



###### Flat bar studs/1-hole type

Breaker type	Pole	Type of flat terminal
BW32 BW50	2 3	BZ6S10C502 BZ6S10C503
BW63 BW100*	2 3	BZ6S10C1002 BZ6S10C1003
BW50HAG BW125	2 3 4	BW9SS0CA-2 BW9SS0CA-3 BW9SS0CA-4
BW160 BW250	2 3 4	BZ-S50B-2252 BZ-S50B-2253 BW9SS0GA-4

\* BW100 breaker of rated current 50A: BZ6S10C502 or 503.

Molded Case Circuit Breakers  
G-TWIN series  
Wire size and terminal

■ Wire size and crimp terminal

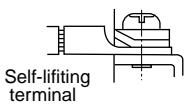
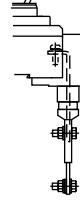
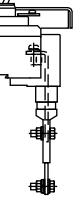
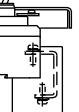
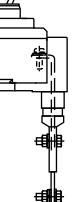
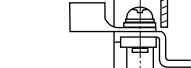
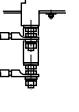
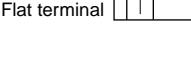
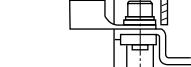
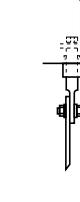
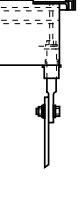
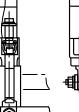
The following is the size recommendations for crimp terminals.

Crimp terminal R : JIS C2805  
CB : JEM-1399  
JST : Product of Japan Crimp Terminal Co., Ltd.

Ampere frame	Breaker	Wire size( $\text{mm}^2$ )											
		1.04 2.63	2.63 6.64	6.64 10.52	10.52 16.78	16.78 26.66	26.66 42.42	42.42 60.57	96.3 117.2	117.2 152.05	192.6 242.27	242.27 325	
32	BW32	R2-5	R5.5-5	R8-5	R14-5								
50	BW50AAG,EAG,SAG	R2-5	R5.5-5	R8-5	R14-5								
	BW50HAG	R2-8	R5.5-8	R8-8	R14-8	R22-8	JST38-S8	CB60-8					
63	BW63	R2-8	R5.5-8	R8-8	R14-8	JST22-S8							
100	BW100	R2-8	R5.5-8	R8-8	R14-8	JST22-S8	JST38-S8						
125	BW125	R2-8	R5.5-8	R8-8	R14-8	R22-8	JST38-S8	CB60-8					
160	BW160					R22-8	R38-8	R60-8	CB100-8				
250	BW250												
400	BW400						R38-12	R60-12	R100-12	R150-12	R200-12	JST325-12	
630	BW630								R100-12	R150-12	R200-12	JST325-12	
800	BW800								R100-12	R150-12	R200-12	JST325-12	

■ Breaker termination

• Standard

MCCB type	Front connection	Rear connection X	Flush mounting E	Y	Plug-in mounting P
BW32 BW50					
BW63 BW100					
BW50HAG BW125					
BW160 BW250					
BW400 BW630 BW800					

# Molded Case Circuit Breakers

## G-TWIN series

### Wire size and terminal

#### ■ Notes on wiring (global series)

##### Notes on connecting wires (conductors)

- Connect wires to the UL breaker according to NEC (National Electric Code) or CEC (Canadian Electrical Code) Part 1.
- Use 75°C copper wires for wiring. UL-certified or CSA-certified wires are recommended.
- If a large current (for example, a short-circuit current) flows, it causes a huge electromagnetic force between wires. Therefore, be sure to secure the wires sufficiently.
- Re-tighten terminal screws periodically.

Code	Terminal position		Applicable breaker type		
	Line	Load	BW50	BW100, 125, 250	BW400, 630, 800
Blank	Screw	Screw	●	●	—
Blank	Flat terminal	Flat terminal	—	—	●
SB	Block terminal	Block terminal	—	●	●
SF	Flat terminal	Flat terminal	●	●	—
S3	Screw	Flat terminal	●	●	—
S4	Flat terminal	Screw	●	●	—
S5	Screw	Block terminal	—	●	—
S6	Block terminal	Screw	—	●	—
S7	Flat terminal	Block terminal	—	●	●
S8	Block terminal	Flat terminal	—	●	●

#### Wire size and crimp terminal

##### • Crimp terminal connection

MCCB	Rated current (A)	Applicable crimp terminal 75°C wire			Connectable wire size (AWG) 75°C wire	Tightening torque (N·m)	Type of screw head and size (mm)					
		J.S.T Mfg. Co., Ltd.	Nichifu Co., Ltd.	Daido Solderless Terminal Mfg. Co., Ltd.								
BW50RAGU	3	R2-5	R2-5M R2-5	2-S5, 2-5	14AWG	2.3-2.8	Cross/straight slotted pan-head screw M5 x 14					
	5											
	10											
	15											
	20			R3.5-5S, R3.5-5L, 5.5-6N, R5.5-5S, R5.5-5	3.5-5, 5.5-S5, 5.5-5, 5.5-L5	12AWG 10AWG						
	30											
	40	R8-5	R8-5S, R8-5									
	50											
BW100EAGU	60	R14-8	R14-8S, R14-8	R14-S8, R14-8	6AWG	5.5-7.5	Cross/straight slotted pan-head screw M8 x 15					
	75	22-S8	R22-8S, R22-8	R22-S8, 22-8	4AWG							
	100	38-S8	R38-8S	38-S8	3AWG							
BW125JAGU BW125RAGU	15	R2-8	R2-8	2-8, 2-B8	14AWG	5.8 (5.3-6.4)	Cross/straight slotted pan-head screw M8 x 16					
	20	5.5-S8, R5.5-8	R3.5-8, R5.5-8	3.5-8, 5.5-8	12AWG							
	30	R5.5-8	5.5-8	10AWG								
	40	8-8NS, R8-8	R8-8	8-8	8AWG							
	50											
	60	14-8NS, 14-S8, R14-8	R14-8S, R14-8	14-S8, 14-8	6AWG							
	70	22-S8, R22-8, CB22-S8	R22-8S, R22-8, CB22-8S	R22-S8, 22-8, CB22-8	4AWG							
	75											
	80											
	90	38-S8	R38-8S	38-S8	3AWG							
	100											
	125											
BW250EAGU BW250JAGU BW250RAGU	125	38-S8, R38-8	R38-8S, R38-8	38-S8, 38-8	1AWG	10.5 (8-13)	Hexagon socket head bolt M8 x 16					
	150	60-S8, R60-8	R60-8, CB60-8, CB60-8S	60-8, CB60-8	1/0AWG							
	175	70-8	R70-8	70-8	2/0AWG							
	200	CB80-S8	CB80-8	3/0AWG								
	225	CB100-S8	CB100-8	4/0AWG								
	250	CB150-S8	CB150-8	CB150-8	250MCM							

Notes: • AWG/MCM is the UL approved wire unit.

• The allowable temperature of wire is 75°C. (UL CSA approved)

• Be sure to use UL-certified or CSA-certified crimp tools commercially available.

#### Block terminal connection

- Choose from the stranded wires shown in Table.

Wire size: AWG or MCM [mm <sup>2</sup> ]	No. of wires stranded
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

Values in [ ] are those converted from AWG or MCM sizes to mm<sup>2</sup>.

\* See the instruction manual that comes with the breaker for more details.

#### Precautions

- Two wires of different sizes cannot be connected to the same block terminal.
- Be sure to use stranded wires according to Table "Number of wires stranded."
- Multi-conductor wires cannot be connected.
- Do not solder wires together.

Molded Case Circuit Breakers  
G-TWIN series  
Wire size and terminal

• Flat terminal connection

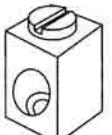
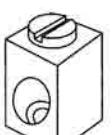
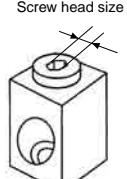
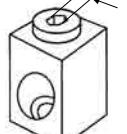
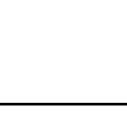
MCCB	Rated current (A)	Applicable crimp terminal 75°C wire			Connectable wire size (AWG) 75°C wire	Tightening torque (N·m)		Type of screw head and size (mm)
BW50RAGU	3	R2-5	R2-5M R2-5	2-S5, 2-5	14AWG	3.5 to 4.5	2.3 to 2.8	Hexagon socket head bolt M5 x 16
	5							
	10							
	15							
	20		R5.5-5	R3.5-5S, R3.5-5L, 5.5-6N. R5.5-5S, R5.5-5	3.5-5, 5.5-S5 5.5-5, 5.5-L5	12AWG	8 to 10	5.5 to 7.5
	30							
	40		R8-5	R8-5S, R8-5	8-S5, 8-5	8AWG		
	50							
BW100EAGU	60	R14-8	R14-8S, R14-8	R14-S8, R14-8	6AWG	8 to 10	5.5 to 7.5	Hexagon socket head bolt M8 x 22
	75							
	100							
BW125JAGU BW125RAGU	15	R2-8	R2-8	2-8, 2-B8 3.5-8, R5.5-8 R5.5-8	14AWG 12AWG 10AWG 8AWG 6AWG 4AWG 3AWG 3AWG 1AWG	9 (8 to 10)	5.8 (5.3 to 6.4)	Cross/straight slotted pan-head screw M8 x 16
	20							
	30							
	40							
	50							
	60							
	70							
	75							
	80							
	90							
BW250EAGU BW250JAGU BW250RAGU	100							
	125	38-S8, R38-8	R38-8S, R38-8	38-S8, 38-8	1AWG 1/0AWG 2/0AWG CB80-8 CB100-8 CB150-8	9 (8 to 10)	10.5 (8 to 13)	Hexagon socket head bolt M8 x 16
	150							
	175							
	200							
	225							
	250							
BW400EAGU BW400SAGU BW400RAGU BW400HAGU	250	150-12	R150-12	250MCM	45 (40 to 50)	43.5 (39.2 to 48)	Hexagon head bolt M12 x 35	
	300							
	350							
	400							
BW630RAGU BW630HAGU	500	R150-12	R150-12	250MCM(x2)	47.04 (42.4 to 51.7)	47.04 (42.4 to 51.7)	Hexagon head bolt M12 x 40	
	600							
	630							
BW800RAGU BW800HAGU	700	325-12		R325-12 □	500MCM(x2)	47.04 (42.4 to 51.7)	47.04 (42.4 to 51.7)	Hexagon head bolt M12 x 40

Notes: • AWG/MCM is the UL approved wire unit.

• The allowable temperature of wire is 75°C. (UL CSA approved)

Molded Case Circuit Breakers  
**G-TWIN series**  
**Wire size and terminal**

• Block terminal connection

MCCB	Rated current (A)	Connectable wire size (AWG)	Tightening torque (N·m)	Type of screw head and size (mm)	Figure
BW100EAGU	60	6AWG	5.8 (5.5 to 6.5)	Slotted set screw	
	70	4AWG			
	75				
	80				
	90	3AWG			
	100				
BW125JAGU	15	14AWG	5.8 (5.8 to 6.4)	Slotted set screw	
BW125RAGU	20	12AWG			
	30	10AWG			
	40	8AWG			
	50				
	60	6AWG			
	70	4AWG			
	75				
	80				
	90	3AWG			
	100				
	125	1AWG			
BW250EAGU	125	1AWG	23 (23 to 25.3)	Hexagon socket head setscrew: 8 mm (5/16 inch)	
BW250JAGU	150	1/0AWG			
	175	2/0AWG			
	200	3/0AWG			
	225	4/0AWG			
	250	250MCM			
BW400EAGU	250	250MCM	43.5 (43.5 to 48)	Hexagon socket head setscrew: 9.53 mm (3/8 inch)	
BW400SAGU	300	350MCM			
BW400RAGU	350	500MCM			
BW400HAGU	400	3/0AWG(x2)			
BW630RAGU	500	250MCM(x2)	31.1 (31.1 to 34.2)	Hexagon socket head setscrew: 8 mm (5/16 inch)	
BW630HAGU	600	350MCM(x2)			
BW800RAGU	700	500MCM(x2)	31.1 (31.1 to 34.2)	Hexagon socket head setscrew: 8 mm (5/16 inch)	
BW800HAGU	800	300MCM(x3)			

Notes: • AWG/MCM is the UL approved wire unit.

• The allowable temperature of wire is 75°C. (UL CSA approved)

Molded Case Circuit Breakers  
G-TWIN series  
Type number/Line protection

**■ Type number, Standard series (Line protection)**

**● AAG series, 2-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
32	3	BW32AAG-2P003□	Blank, X, E, Y, P
	5	BW32AAG-2P005□	
	10	BW32AAG-2P010□	
	15	BW32AAG-2P015□	
	20	BW32AAG-2P020□	
	30	BW32AAG-2P030□	
	32	BW32AAG-2P032□	
50	5	BW50AAG-2P005□	Blank, X, E, Y, P
	10	BW50AAG-2P010□	
	15	BW50AAG-2P015□	
	20	BW50AAG-2P020□	
	30	BW50AAG-2P030□	
	32	BW50AAG-2P032□	
	40	BW50AAG-2P040□	
	50	BW50AAG-2P050□	

Mounting	Connection	<input type="checkbox"/>
Front	Front	Blank
Front	Rear	X
Flush	Rear	E
Flush	Top and bottom	Y
Plug-in		P

**● EAG series, 2-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
50	5	BW50EAG-2P005□	Blank, X, E, Y, P
	10	BW50EAG-2P010□	
	15	BW50EAG-2P015□	
	20	BW50EAG-2P020□	
	30	BW50EAG-2P030□	
	32	BW50EAG-2P032□	
	40	BW50EAG-2P040□	
	50	BW50EAG-2P050□	
	63	BW63EAG-2P060□	
	63	BW63EAG-2P063□	
100	50	BW100EAG-2P050□	Blank, X, E, Y, P
	60	BW100EAG-2P060□	
	63	BW100EAG-2P063□	
	75	BW100EAG-2P075□	
	100	BW100EAG-2P100□	
160	125	BW160EAG-2P125□	Blank, X, E, P
	150	BW160EAG-2P150□	
	160	BW160EAG-2P160□	
250	175	BW250EAG-2P175□	Blank, X, E, P
	200	BW250EAG-2P200□	
	225	BW250EAG-2P225□	
	250	BW250EAG-2P250□	
400	250	BW400EAG-2P250□	Blank, X, E, P
	300	BW400EAG-2P300□	
	350	BW400EAG-2P350□	
	400	BW400EAG-2P400□	

**● JAG series, 2-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
125	15	BW125JAG-2P015□	Blank, X, E, P
	20	BW125JAG-2P020□	
	30	BW125JAG-2P030□	
	40	BW125JAG-2P040□	
	50	BW125JAG-2P050□	
	60	BW125JAG-2P060□	
	75	BW125JAG-2P075□	
	100	BW125JAG-2P100□	
	125	BW125JAG-2P125□	
	160	BW160JAG-2P125□	
160	125	BW160JAG-2P150□	Blank, X, E, P
	150	BW160JAG-2P160□	
	160	BW160JAG-2P160□	
	250	BW250JAG-2P175□	Blank, X, E, P
250	175	BW250JAG-2P200□	
	200	BW250JAG-2P225□	
	225	BW250JAG-2P250□	
	250	BW250JAG-2P250□	

**Molded Case Circuit Breakers**  
**G-TWIN series**  
**Type number/Line protection**

● **SAG series, 2-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
32	3	BW32SAG-2P003□	Blank, X, E, Y, P
	5	BW32SAG-2P005□	
	10	BW32SAG-2P010□	
	15	BW32SAG-2P015□	
	20	BW32SAG-2P020□	
	30	BW32SAG-2P030□	
	32	BW32SAG-2P032□	
50	5	BW50SAG-2P005□	Blank, X, E, Y, P
	10	BW50SAG-2P010□	
	15	BW50SAG-2P015□	
	20	BW50SAG-2P020□	
	30	BW50SAG-2P030□	
	32	BW50SAG-2P032□	
	40	BW50SAG-2P040□	
63	60	BW63SAG-2P060□	Blank, X, E, Y, P
	63	BW63SAG-2P063□	
125	15	BW125SAG-2P015□	Blank, X, E, P
	20	BW125SAG-2P020□	
	30	BW125SAG-2P030□	
	40	BW125SAG-2P040□	
	50	BW125SAG-2P050□	
	60	BW125SAG-2P060□	
	75	BW125SAG-2P075□	
	100	BW125SAG-2P100□	
	125	BW125SAG-2P125□	
160	125	BW160SAG-2P125□	Blank, X, E, P
	150	BW160SAG-2P150□	
	160	BW160SAG-2P160□	
250	175	BW250SAG-2P175□	Blank, X, E, P
	200	BW250SAG-2P200□	
	225	BW250SAG-2P225□	
	250	BW250SAG-2P250□	
400	250	BW400SAG-2P250□	Blank, X, E, P
	300	BW400SAG-2P300□	
	350	BW400SAG-2P350□	
	400	BW400SAG-2P400□	

● **HAG series, 2-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
400	250	BW400HAG-2P250□	Blank, X, E, P
	300	BW400HAG-2P300□	
	350	BW400HAG-2P350□	
	400	BW400HAG-2P400□	

\* See page 06/29.

● **RAG series, 2-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
50	10	BW50RAG-2P010□	Blank, X, E, Y, P
	15	BW50RAG-2P015□	
	20	BW50RAG-2P020□	
	30	BW50RAG-2P030□	
	32	BW50RAG-2P032□	
	40	BW50RAG-2P040□	
	50	BW50RAG-2P050□	
63	60	BW63RAG-2P060□	Blank, X, E, Y, P
	63	BW63RAG-2P063□	
125	15	BW125RAG-2P015□	Blank, X, E, P
	20	BW125RAG-2P020□	
	30	BW125RAG-2P030□	
	40	BW125RAG-2P040□	
	50	BW125RAG-2P050□	
	60	BW125RAG-2P060□	
	75	BW125RAG-2P075□	
160	125	BW160RAG-2P125□	Blank, X, E, P
	150	BW160RAG-2P150□	
	160	BW160RAG-2P160□	
	200	BW250RAG-2P175□	
	225	BW250RAG-2P200□	
	250	BW250RAG-2P225□	
	250	BW250RAG-2P250□	
400	250	BW400RAG-2P250□	Blank, X, E, P
	300	BW400RAG-2P300□	
	350	BW400RAG-2P350□	
	400	BW400RAG-2P400□	

● **HAG series, 2-pole IEC/EN/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
50	15	BW50HAG-2P015□	Blank, X, E, P
125	20	BW50HAG-2P020□	
	30	BW50HAG-2P030□	
	40	BW50HAG-2P040□	
	50	BW50HAG-2P050□	
	15	BW125HAG-2P015□	
250	20	BW125HAG-2P020□	
	30	BW125HAG-2P030□	
	40	BW125HAG-2P040□	
	50	BW125HAG-2P050□	
	60	BW125HAG-2P060□	
	75	BW125HAG-2P075□	
	100	BW125HAG-2P100□	
125	125	BW125HAG-2P125□	
	150	BW250HAG-2P125□	
	160	BW250HAG-2P150□	
	175	BW250HAG-2P175□	
	200	BW250HAG-2P200□	
	225	BW250HAG-2P225□	
	250	BW250HAG-2P250□	

Molded Case Circuit Breakers  
**G-TWIN series**  
**Type number/Line protection**

● AAG series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
32	3	BW32AAG-3P003□	Blank, X, E, Y, P
	5	BW32AAG-3P005□	
	10	BW32AAG-3P010□	
	15	BW32AAG-3P015□	
	20	BW32AAG-3P020□	
	30	BW32AAG-3P030□	
	32	BW32AAG-3P032□	
50	5	BW50AAG-3P005□	Blank, X, E, Y, P
	10	BW50AAG-3P010□	
	15	BW50AAG-3P015□	
	20	BW50AAG-3P020□	
	30	BW50AAG-3P030□	
	32	BW50AAG-3P032□	
	40	BW50AAG-3P040□	
100	50	BW50AAG-3P050□	Blank, X, E, Y, P
	60	BW100AAG-3P060□	
	63	BW100AAG-3P063□	
	75	BW100AAG-3P075□	
	100	BW100AAG-3P100□	
	125	BW160AAG-3P125□	
	150	BW160AAG-3P150□	
250	160	BW160AAG-3P160□	Blank, X, E, P
	175	BW250AAG-3P175□	
	200	BW250AAG-3P200□	
	225	BW250AAG-3P225□	
	250	BW250AAG-3P250□	
	250	BW400AAG-3P250□	
	300	BW400AAG-3P300□	
630	350	BW400AAG-3P350□	Blank, X, E, P
	400	BW400AAG-3P400□	
	500	BW630AAG-3P500□	
	600	BW630AAG-3P600□	
	630	BW630AAG-3P630□	
	700	BW800AAG-3P700□	
	800	BW800AAG-3P800□	

● EAG series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
50	5	BW50EAG-3P005□	Blank, X, E, Y, P
	10	BW50EAG-3P010□	
	15	BW50EAG-3P015□	
	20	BW50EAG-3P020□	
	30	BW50EAG-3P030□	
	32	BW50EAG-3P032□	
	40	BW50EAG-3P040□	
	50	BW50EAG-3P050□	
	63	BW63EAG-3P060□	
	63	BW63EAG-3P063□	
100	50	BW100EAG-3P050□	Blank, X, E, Y, P
	60	BW100EAG-3P060□	
	63	BW100EAG-3P063□	
	75	BW100EAG-3P075□	
	100	BW100EAG-3P100□	
160	125	BW160EAG-3P125□	Blank, X, E, P
	150	BW160EAG-3P150□	
	160	BW160EAG-3P160□	
	175	BW250EAG-3P175□	
250	200	BW250EAG-3P200□	Blank, X, E, P
	225	BW250EAG-3P225□	
	250	BW250EAG-3P250□	
	250	BW400EAG-3P250□	
400	250	BW400EAG-3P250□	Blank, X, E, P
	300	BW400EAG-3P300□	
	350	BW400EAG-3P350□	
	400	BW400EAG-3P400□	
630	500	BW630EAG-3P500□	Blank, X, E, P
	600	BW630EAG-3P600□	
	630	BW630EAG-3P630□	
800	700	BW800EAG-3P700□	Blank, X, E, P
	800	BW800EAG-3P800□	

● JAG series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
125	15	BW125JAG-3P015□	Blank, X, E, P
	20	BW125JAG-3P020□	
	30	BW125JAG-3P030□	
	40	BW125JAG-3P040□	
	50	BW125JAG-3P050□	
	60	BW125JAG-3P060□	
	75	BW125JAG-3P075□	
	100	BW125JAG-3P100□	
	125	BW125JAG-3P125□	
	125	BW160JAG-3P125□	
160	125	BW160JAG-3P150□	Blank, X, E, P
	150	BW160JAG-3P160□	
	160	BW160JAG-3P160□	
	175	BW250JAG-3P175□	
250	200	BW250JAG-3P200□	Blank, X, E, P
	225	BW250JAG-3P225□	
	250	BW250JAG-3P250□	

\* See page 06/29.

**Molded Case Circuit Breakers**  
**G-TWIN series**  
**Type number/Line protection**

● **SAG series, 3-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
32	3	BW32SAG-3P003□	Blank, X, E, Y, P
	5	BW32SAG-3P005□	
	10	BW32SAG-3P010□	
	15	BW32SAG-3P015□	
	20	BW32SAG-3P020□	
	30	BW32SAG-3P030□	
	32	BW32SAG-3P032□	
50	5	BW50SAG-3P005□	Blank, X, E, Y, P
	10	BW50SAG-3P010□	
	15	BW50SAG-3P015□	
	20	BW50SAG-3P020□	
	30	BW50SAG-3P030□	
	32	BW50SAG-3P032□	
	40	BW50SAG-3P040□	
63	50	BW50SAG-3P050□	Blank, X, E, Y, P
	60	BW63SAG-3P060□	
125	63	BW63SAG-3P063□	Blank, X, E, Y, P
	15	BW125SAG-3P015□	
	20	BW125SAG-3P020□	
	30	BW125SAG-3P030□	
	40	BW125SAG-3P040□	
	50	BW125SAG-3P050□	
	60	BW125SAG-3P060□	
	75	BW125SAG-3P075□	
	100	BW125SAG-3P100□	
	125	BW125SAG-3P125□	
160	125	BW160SAG-3P125□	Blank, X, E, P
	150	BW160SAG-3P150□	
	160	BW160SAG-3P160□	
	175	BW250SAG-3P175□	
250	200	BW250SAG-3P200□	Blank, X, E, P
	225	BW250SAG-3P225□	
	250	BW250SAG-3P250□	
	250	BW400SAG-3P250□	
400	250	BW400SAG-3P300□	Blank, X, E, P
	300	BW400SAG-3P350□	
	350	BW400SAG-3P400□	
	400	BW400SAG-3P400□	

● **RAG series, 3-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
50	10	BW50RAG-3P010□	Blank, X, E, Y, P
	15	BW50RAG-3P015□	
	20	BW50RAG-3P020□	
	30	BW50RAG-3P030□	
	32	BW50RAG-3P032□	
	40	BW50RAG-3P040□	
	50	BW50RAG-3P050□	
63	60	BW63RAG-3P060□	Blank, X, E, Y, P
	63	BW63RAG-3P063□	
125	15	BW125RAG-3P015□	Blank, X, E, P
	20	BW125RAG-3P020□	
	30	BW125RAG-3P030□	
	40	BW125RAG-3P040□	
	50	BW125RAG-3P050□	
	60	BW125RAG-3P060□	
	75	BW125RAG-3P075□	
160	100	BW125RAG-3P100□	Blank, X, E, P
	125	BW125RAG-3P125□	
	125	BW160RAG-3P125□	
250	150	BW160RAG-3P150□	Blank, X, E, P
	160	BW160RAG-3P160□	
	175	BW250RAG-3P175□	
400	200	BW250RAG-3P200□	Blank, X, E, P
	225	BW250RAG-3P225□	
	250	BW250RAG-3P250□	
	250	BW400RAG-3P250□	
630	300	BW400RAG-3P300□	Blank, X, E, P
	350	BW400RAG-3P350□	
	400	BW400RAG-3P400□	
	500	BW630RAG-3P500□	
800	600	BW630RAG-3P600□	Blank, X, E, P
	630	BW630RAG-3P630□	
	700	BW800RAG-3P700□	
800	800	BW800RAG-3P800□	

● **HAG series, 3-pole IEC/EN/GB/JIS conformed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
400	250	BW400HAG-3P250□	Blank, X, E, P
	300	BW400HAG-3P300□	
	350	BW400HAG-3P350□	
	400	BW400HAG-3P400□	
630	500	BW630HAG-3P500□	Blank, X, E, P
	600	BW630HAG-3P600□	
	630	BW630HAG-3P630□	
800	700	BW800HAG-3P700□	Blank, X, E, P
	800	BW800HAG-3P800□	

\* See page 06/29.

Molded Case Circuit Breakers  
**G-TWIN series**  
**Type number/Line protection**

● JAG series, 4-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
125	15	BW125JAG-4P015□	Blank, X, E
	20	BW125JAG-4P020□	
	30	BW125JAG-4P030□	
	40	BW125JAG-4P040□	
	50	BW125JAG-4P050□	
	60	BW125JAG-4P060□	
	75	BW125JAG-4P075□	
	100	BW125JAG-4P100□	
	125	BW125JAG-4P125□	
160	125	BW160JAG-4P125□	Blank, X, E
	150	BW160JAG-4P150□	
	160	BW160JAG-4P160□	
250	175	BW250JAG-4P175□	Blank, X, E
	200	BW250JAG-4P200□	
	225	BW250JAG-4P225□	
	250	BW250JAG-4P250□	

● RAG series, 4-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
125	15	BW125RAG-4P015□	Blank, X, E
	20	BW125RAG-4P020□	
	30	BW125RAG-4P030□	
	40	BW125RAG-4P040□	
	50	BW125RAG-4P050□	
	60	BW125RAG-4P060□	
	75	BW125RAG-4P075□	
	100	BW125RAG-4P100□	
	125	BW125RAG-4P125□	
160	125	BW160RAG-4P125□	Blank, X, E
	150	BW160RAG-4P150□	
	160	BW160RAG-4P160□	
250	175	BW250RAG-4P175□	Blank, X, E
	200	BW250RAG-4P200□	
	225	BW250RAG-4P225□	
	250	BW250RAG-4P250□	
400	250	BW400RAG-4P250□	Blank, X, E
	300	BW400RAG-4P300□	
	350	BW400RAG-4P350□	
	400	BW400RAG-4P400□	
630	500	BW630RAG-4P500□	Blank, X, E
	600	BW630RAG-4P600□	
	630	BW630RAG-4P630□	
800	700	BW800RAG-4P700□	Blank, X, E
	800	BW800RAG-4P800□	

● SAG series, 4-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
125	15	BW125SAG-3P015□	Blank, X, E
	20	BW125SAG-3P020□	
	30	BW125SAG-3P030□	
	40	BW125SAG-3P040□	
	50	BW125SAG-3P050□	
	60	BW125SAG-3P060□	
	75	BW125SAG-3P075□	
	100	BW125SAG-3P100□	
	125	BW125SAG-3P125□	
160	125	BW160SAG-3P125□	Blank, X, E
	150	BW160SAG-3P150□	
	160	BW160SAG-3P160□	
250	175	BW250SAG-3P175□	Blank, X, E
	200	BW250SAG-3P200□	
	225	BW250SAG-3P225□	
	250	BW250SAG-3P250□	

● HAG series, 4-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
400	250	BW400HAG-4P250□	Blank, X, E
	300	BW400HAG-4P300□	
	350	BW400HAG-4P350□	
	400	BW400HAG-4P400□	
630	500	BW630HAG-4P500□	Blank, X, E
	600	BW630HAG-4P600□	
	630	BW630HAG-4P630□	
800	700	BW800HAG-4P700□	Blank, X, E
	800	BW800HAG-4P800□	

\* See page 06/29.

# Molded Case Circuit Breakers

## G-TWIN series

### Type number/Line protection

#### ■ Type number, Global series (Line protection)

##### ● EAGU series, 2-pole UL489 Listed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
100	60	BW100EAGU-2P060	Blank, SB, SF, S3 S4, S5, S6, S7, S8
	63	BW100EAGU-2P063	
	70	BW100EAGU-2P070	
	75	BW100EAGU-2P075	
	80	BW100EAGU-2P080	
	90	BW100EAGU-2P090	
	100	BW100EAGU-2P100	
250	125	BW250EAGU-2P125	Blank, SB, SF, S3 S4, S5, S6, S7, S8
	150	BW250EAGU-2P150	
	160	BW250EAGU-2P160	
	175	BW250EAGU-2P175	
	200	BW250EAGU-2P200	
	225	BW250EAGU-2P225	
	250	BW250EAGU-2P250	
400	250	BW400EAGU-2P250	Blank, SB, S7, S8
	300	BW400EAGU-2P300	
	350	BW400EAGU-2P350	
	400	BW400EAGU-2P400	

##### ● JAGU series, 2-pole UL489 Listed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
125	15	BW125JAGU-2P015	Blank, SB, SF, S3 S4, S5, S6, S7, S8
	20	BW125JAGU-2P020	
	30	BW125JAGU-2P030	
	40	BW125JAGU-2P040	
	50	BW125JAGU-2P050	
	60	BW125JAGU-2P060	
	70	BW125JAGU-2P070	
	75	BW125JAGU-2P075	
	80	BW125JAGU-2P080	
	90	BW125JAGU-2P090	
	100	BW125JAGU-2P100	
	125	BW125JAGU-2P125	
250	125	BW250JAGU-2P125	Blank, SB, SF, S3 S4, S5, S6, S7, S8
	150	BW250JAGU-2P150	
	160	BW250JAGU-2P160	
	175	BW250JAGU-2P175	
	200	BW250JAGU-2P200	
	225	BW250JAGU-2P225	
	250	BW250JAGU-2P250	

#### Terminal combination

<input type="checkbox"/>	Terminal position		Breaker type		
Code	Line	Load	BW50	BW100,125,250	BW400,630,800
Blank	Screw	Screw	●	●	—
Blank	Flat terminal	Flat terminal	—	—	●
SB	Block terminal	Block terminal	—	●	●
SF	Flat terminal	Flat terminal	●	●	—
S3	Screw	Flat terminal	●	●	—
S4	Flat terminal	Screw	●	●	—
S5	Screw	Block terminal	—	●	—
S6	Block terminal	Screw	—	●	—
S7	Flat terminal	Block terminal	—	●	●
S8	Block terminal	Flat terminal	—	●	●

##### ● SAGU series, 2-pole UL489 Listed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
400	250	BW400SAGU-2P250	Blank, SB, S7, S8
	300	BW400SAGU-2P300	
	350	BW400SAGU-2P350	
	400	BW400SAGU-2P400	

##### ● RAGU series, 2-pole UL489 Listed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
50	3	BW50RAGU-2P003	Blank, SF, S3, S4
	5	BW50RAGU-2P005	
	10	BW50RAGU-2P010	
	15	BW50RAGU-2P015	
	20	BW50RAGU-2P020	
	30	BW50RAGU-2P030	
	32	BW50RAGU-2P032	
	40	BW50RAGU-2P040	
	50	BW50RAGU-2P050	
125	15	BW125RAGU-2P015	Blank, SB, SF, S3 S4, S5, S6, S7, S8
	20	BW125RAGU-2P020	
	30	BW125RAGU-2P030	
	40	BW125RAGU-2P040	
	50	BW125RAGU-2P050	
	60	BW125RAGU-2P060	
	70	BW125RAGU-2P070	
	75	BW125RAGU-2P075	
	80	BW125RAGU-2P080	
	90	BW125RAGU-2P090	
250	100	BW125RAGU-2P100	
	125	BW125RAGU-2P125	
	125	BW250RAGU-2P125	Blank, SB, SF, S3 S4, S5, S6, S7, S8
	150	BW250RAGU-2P150	
	160	BW250RAGU-2P160	
400	175	BW250RAGU-2P175	
	200	BW250RAGU-2P200	
	225	BW250RAGU-2P225	
	250	BW250RAGU-2P250	
	250	BW400RAGU-2P250	
400	300	BW400RAGU-2P300	Blank, SB, S7, S8
	350	BW400RAGU-2P350	
	400	BW400RAGU-2P400	

##### ● HAGU series, 2-pole UL489 Listed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
400	250	BW400HAGU-2P250	Blank, SB, S7, S8
	300	BW400HAGU-2P300	
	350	BW400HAGU-2P350	
	400	BW400HAGU-2P400	

Molded Case Circuit Breakers  
**G-TWIN series**  
**Type number/Line protection**

● **EAGU series, 3-pole UL489 Listed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
100	60	BW100EAGU-3P060□	Blank, SB, SF, S3
	63	BW100EAGU-3P063□	S4, S5, S6, S7, S8
	70	BW100EAGU-3P070□	
	75	BW100EAGU-3P075□	
	80	BW100EAGU-3P080□	
	90	BW100EAGU-3P090□	
250	100	BW100EAGU-3P100□	
	125	BW250EAGU-3P125□	Blank, SB, SF, S3
	150	BW250EAGU-3P150□	S4, S5, S6, S7, S8
	160	BW250EAGU-3P160□	
	175	BW250EAGU-3P175□	
	200	BW250EAGU-3P200□	
400	225	BW250EAGU-3P225□	
	250	BW250EAGU-3P250□	
	250	BW400EAGU-3P250□	Blank, SB, S7, S8
	300	BW400EAGU-3P300□	
400	350	BW400EAGU-3P350□	
	400	BW400EAGU-3P400□	

● **JAGU series, 3-pole UL489 Listed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
125	15	BW125JAGU-3P015□	Blank, SB, SF, S3
	20	BW125JAGU-3P020□	S4, S5, S6, S7, S8
	30	BW125JAGU-3P030□	
	40	BW125JAGU-3P040□	
	50	BW125JAGU-3P050□	
	60	BW125JAGU-3P060□	
	70	BW125JAGU-3P070□	
	75	BW125JAGU-3P075□	
	80	BW125JAGU-3P080□	
	90	BW125JAGU-3P090□	
	100	BW125JAGU-3P100□	
	125	BW125JAGU-3P125□	
250	125	BW250JAGU-3P125□	Blank, SB, SF, S3
	150	BW250JAGU-3P150□	S4, S5, S6, S7, S8
	160	BW250JAGU-3P160□	
	175	BW250JAGU-3P175□	
	200	BW250JAGU-3P200□	
	225	BW250JAGU-3P225□	

● **SAGU series, 3-pole UL489 Listed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
400	250	BW400SAGU-3P250□	Blank, SB, S7, S8
	300	BW400SAGU-3P300□	
	350	BW400SAGU-3P350□	
	400	BW400SAGU-3P400□	

● **RAGU series, 3-pole UL489 Listed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
50	3	BW50RAGU-3P003□	Blank, SB, S3, S4
	5	BW50RAGU-3P005□	
	10	BW50RAGU-3P010□	
	15	BW50RAGU-3P015□	
	20	BW50RAGU-3P020□	
	30	BW50RAGU-3P030□	
	32	BW50RAGU-3P032□	
	40	BW50RAGU-3P040□	
	50	BW50RAGU-3P050□	
	125	BW125RAGU-3P015□	Blank, SB, SF, S3
	20	BW125RAGU-3P020□	S4, S5, S6, S7, S8
	30	BW125RAGU-3P030□	
250	40	BW125RAGU-3P040□	
	50	BW125RAGU-3P050□	
	60	BW125RAGU-3P060□	
	70	BW125RAGU-3P070□	
	75	BW125RAGU-3P075□	
	80	BW125RAGU-3P080□	
	90	BW125RAGU-3P090□	
	100	BW125RAGU-3P100□	
	125	BW125RAGU-3P125□	
	125	BW250RAGU-3P125□	Blank, SB, SF, S3
	150	BW250RAGU-3P150□	S4, S5, S6, S7, S8
	160	BW250RAGU-3P160□	
400	175	BW250RAGU-3P175□	
	200	BW250RAGU-3P200□	
	225	BW250RAGU-3P225□	
	250	BW250RAGU-3P250□	
630	250	BW400RAGU-3P250□	Blank, SB, S7, S8
	300	BW400RAGU-3P300□	
	350	BW400RAGU-3P350□	
	400	BW400RAGU-3P400□	
800	500	BW630RAGU-3P500□	Blank, SB, S7, S8
	600	BW630RAGU-3P600□	
	630	BW630RAGU-3P630□	
800	700	BW800RAGU-3P700□	Blank, SB, S7, S8
	800	BW800RAGU-3P800□	

● **HAGU series, 3-pole UL489 Listed**

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection*
400	250	BW400HAGU-3P250□	Blank, SB, S7, S8
	300	BW400HAGU-3P300□	
	350	BW400HAGU-3P350□	
	400	BW400HAGU-3P400□	
630	500	BW630HAGU-3P500□	Blank, SB, S7, S8
	600	BW630HAGU-3P600□	
	630	BW630HAGU-3P630□	
800	700	BW800HAGU-3P700□	Blank, SB, S7, S8
	800	BW800HAGU-3P800□	

\* See page 06/34.

Molded Case Circuit Breakers  
**G-TWIN series**  
**Type number/Motor protection**

■ Type number, Standard series (Motor protection)

● SAM series, 2-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
32	0.7	BW32SAM-2P0P7	<input type="checkbox"/>
	1.4	BW32SAM-2P1P4	<input type="checkbox"/>
	2.6	BW32SAM-2P2P6	<input type="checkbox"/>
	4	BW32SAM-2P004	<input type="checkbox"/>
	8	BW32SAM-2P008	<input type="checkbox"/>
	10	BW32SAM-2P010	<input type="checkbox"/>
	16	BW32SAM-2P016	<input type="checkbox"/>
	24	BW32SAM-2P024	<input type="checkbox"/>
	32	BW32SAM-2P032	<input type="checkbox"/>

● AAM series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
32	1.4	BW32AAM-3P1P4	<input type="checkbox"/>
	2.6	BW32AAM-3P2P6	<input type="checkbox"/>
	4	BW32AAM-3P004	<input type="checkbox"/>
	8	BW32AAM-3P008	<input type="checkbox"/>
	10	BW32AAM-3P010	<input type="checkbox"/>
	16	BW32AAM-3P016	<input type="checkbox"/>
	24	BW32AAM-3P024	<input type="checkbox"/>
	32	BW32AAM-3P032	<input type="checkbox"/>

● EAM series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
50	24	BW50EAM-3P024	<input type="checkbox"/>
	32	BW50EAM-3P032	<input type="checkbox"/>
	40	BW50EAM-3P040	<input type="checkbox"/>
	45	BW50EAM-3P045	<input type="checkbox"/>
	63	BW63EAM-3P063	<input type="checkbox"/>
	100	BW100EAM-3P063	<input type="checkbox"/>
	75	BW100EAM-3P075	<input type="checkbox"/>
	90	BW100EAM-3P090	<input type="checkbox"/>
	250	BW250EAM-3P125	<input type="checkbox"/>
	150	BW250EAM-3P150	<input type="checkbox"/>
	175	BW250EAM-3P175	<input type="checkbox"/>
	225	BW250EAM-3P225	<input type="checkbox"/>

● JAM series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	<input type="checkbox"/> Available mounting and connection
125	16	BW125JAM-3P016	<input type="checkbox"/>
	24	BW125JAM-3P024	<input type="checkbox"/>
	32	BW125JAM-3P032	<input type="checkbox"/>
	40	BW125JAM-3P040	<input type="checkbox"/>
	60	BW125JAM-3P060	<input type="checkbox"/>
	75	BW125JAM-3P075	<input type="checkbox"/>
	90	BW125JAM-3P090	<input type="checkbox"/>
	250	BW250JAM-3P125	<input type="checkbox"/>
	150	BW250JAM-3P150	<input type="checkbox"/>
	175	BW250JAM-3P175	<input type="checkbox"/>
	225	BW250JAM-3P225	<input type="checkbox"/>

Molded Case Circuit Breakers  
**G-TWIN series**  
**Type number/Motor protection**

● SAM series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	□: Available mounting and connection*
32	0.7	BW32SAM-3P0P7□	Blank, X, E, Y, P
	1.4	BW32SAM-3P1P4□	
	2.6	BW32SAM-3P2P6□	
	4	BW32SAM-3P004□	
	8	BW32SAM-3P008□	
	10	BW32SAM-3P010□	
	16	BW32SAM-3P016□	
	24	BW32SAM-3P024□	
	32	BW32SAM-3P032□	
50	0.7	BW50SAM-3P0P7□	Blank, X, E, Y, P
	1.4	BW50SAM-3P1P4□	
	2	BW50SAM-3P002□	
	2.6	BW50SAM-3P2P6□	
	4	BW50SAM-3P004□	
	5	BW50SAM-3P005□	
	8	BW50SAM-3P008□	
	10	BW50SAM-3P010□	
	12	BW50SAM-3P012□	
	16	BW50SAM-3P016□	
	24	BW50SAM-3P024□	
	32	BW50SAM-3P032□	
	40	BW50SAM-3P040□	
	45	BW50SAM-3P045□	
63	63	BW63SAM-3P063□	Blank, X, E, Y, P

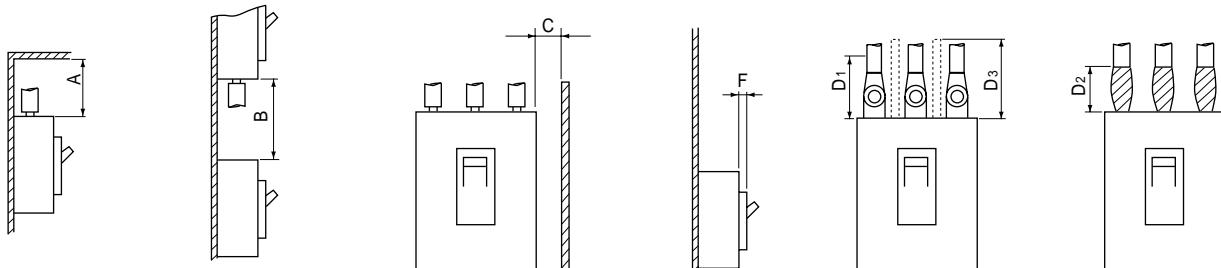
● RAM series, 3-pole IEC/EN/GB/JIS conformed

Breaker ampere frame	Rated current (A)	Type	□: Available mounting and connection*
50	0.7	BW50RAM-3P0P7□	Blank, X, E, Y, P
	1.4	BW50RAM-3P1P4□	
	2	BW50RAM-3P002□	
	2.6	BW50RAM-3P2P6□	
	4	BW50RAM-3P004□	
	5	BW50RAM-3P005□	
	8	BW50RAM-3P008□	
	10	BW50RAM-3P010□	
	12	BW50RAM-3P012□	
	16	BW50RAM-3P016□	
125	24	BW50RAM-3P024□	Blank, X, E, P
	32	BW50RAM-3P032□	
	40	BW50RAM-3P040□	
	45	BW50RAM-3P045□	
	60	BW125RAM-3P060□	
	75	BW125RAM-3P075□	
	90	BW125RAM-3P090□	
250	125	BW250RAM-3P125□	Blank, X, E, P
	150	BW250RAM-3P150□	
	175	BW250RAM-3P175□	
	225	BW250RAM-3P225□	

\* See page 06/36.

**Molded Case Circuit Breakers**  
**G-TWIN series**  
**Arc space**

■ Arc space, mm



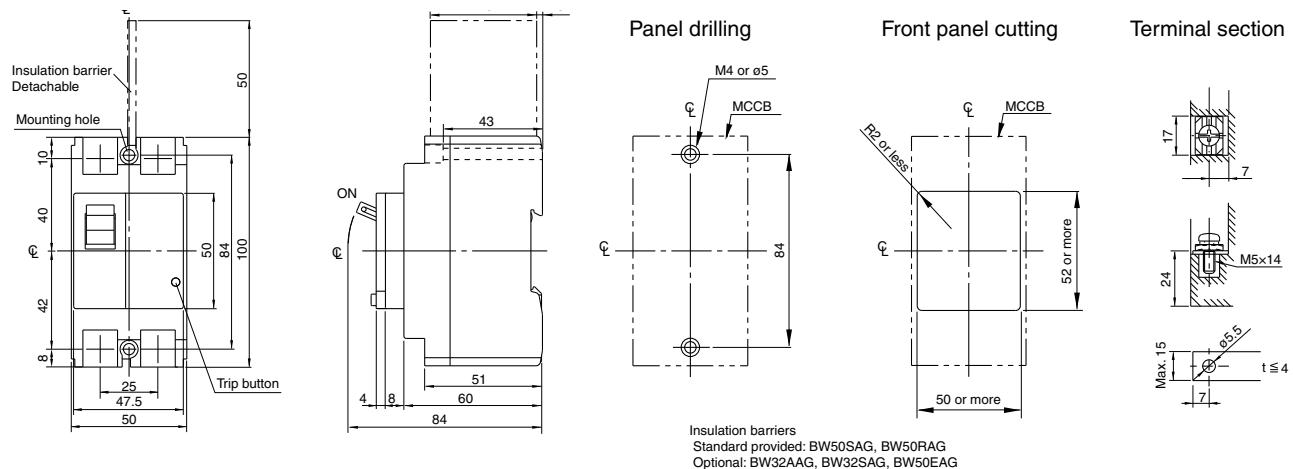
Frame size	MCCB basic type	Ceiling distance		Vertical distance		Side plate distance		Front plate distance		Taping		Barrier	
		440V	230V	440V	230V	440V	230V	440V	230V	440V	230V		
32A	BW32A	—	10	—	10	—	10	—	0	—	0	Exposed live part dimension +20	
	BW32S	10	10	30	30	20	15	0	0	0	0		
50A	BW50A	—	10	—	10	—	10	—	0	—	0	10	10
	BW50E	10	10	30	30	25	15	0	0	0	0	30	30
	BW50S	30	10	40	40	25	15	0	0	0	0	30	30
	BW50R	50	25	50	50	25	15	0	0	10	5	50	50
	BW50H	60	60	80	80	50	20	5	0	10	5	80	80
63A	BW63E	10	10	30	30	25	15	0	0	0	0	30	30
	BW63S	30	10	40	40	25	15	0	0	0	0	30	30
	BW63R	50	25	50	50	25	15	0	0	10	5	50	50
100A	BW100A	—	10	—	20	—	15	—	0	—	0	50	50
	BW100E	50	25	50	50	25	15	0	0	10	5	50	50
125A	BW125J	40	40	50	50	25	20	0	0	10	5	50	50
	BW125S	40	40	60	60	25	20	5	0	10	5	50	50
	BW125R	40	40	60	60	25	20	5	0	10	5	50	50
	BW125H	60	60	80	80	50	20	5	0	10	5	80	80
160A	BW160E	40	40	50	50	50	15	0	0	10	5	80	80
	BW160J	40	40	60	60	50	20	0	0	10	5	80	80
	BW160S	40	40	80	80	50	20	5	0	10	10	80	80
	BW160R	40	40	80	80	50	20	5	0	10	10	80	80
250A	BW250E	40	40	50	50	50	15	0	0	10	5	80	80
	BW250J	40	40	60	60	50	20	0	0	10	5	80	80
	BW250S	40	40	80	80	50	20	5	0	10	10	80	80
	BW250R	40	40	80	80	50	20	5	0	10	10	80	80
	BW250H	60	60	80	80	60	60	5	0	10	10	80	80
400A	BW400E	100	80	100	80	50	20	0	0	10	5	100	100
	BW400S	100	80	100	80	50	20	0	0	10	5	100	100
	BW400R	100	80	100	80	80	40	5	0	20	10	100	100
	BW400H	100	80	100	80	80	40	5	0	20	10	100	100
630A	BW630E	100	80	100	80	80	40	0	0	10	5	100	100
	BW630R	100	80	100	80	80	40	5	0	20	10	100	100
	BW630H	120	100	120	100	80	40	5	0	20	10	120	120
800A	BW800E	100	80	100	80	80	40	0	0	10	5	100	100
	BW800R	100	80	100	80	80	40	5	0	20	10	100	100
	BW800H	120	100	120	100	80	40	5	0	20	20	120	120

Molded Case Circuit Breakers  
G-TWIN series  
Dimensions / Standard

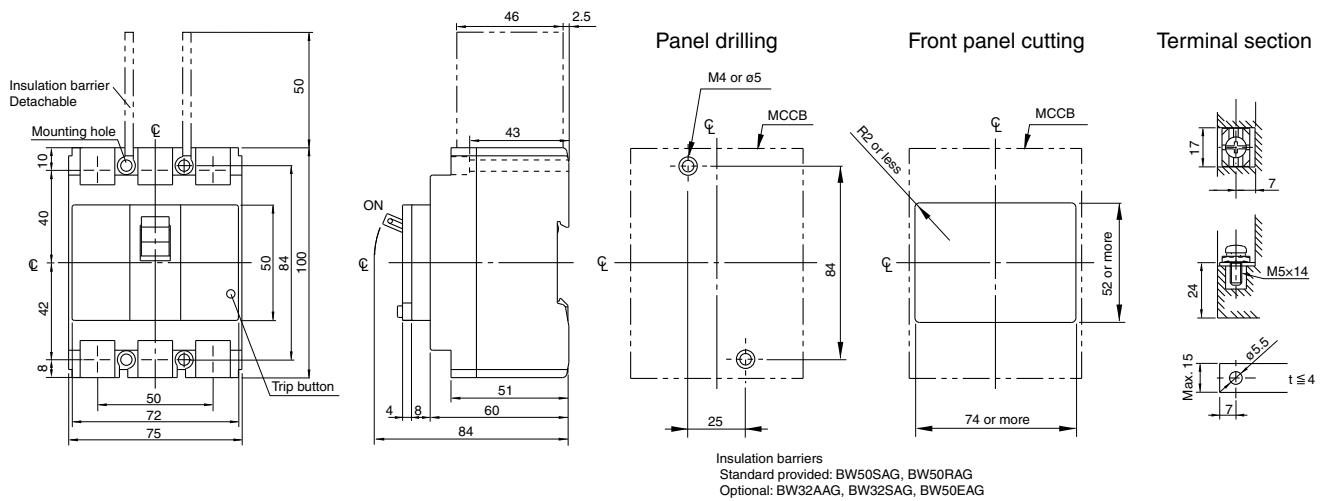
■ Dimensions, mm

● Front mounting, front connection

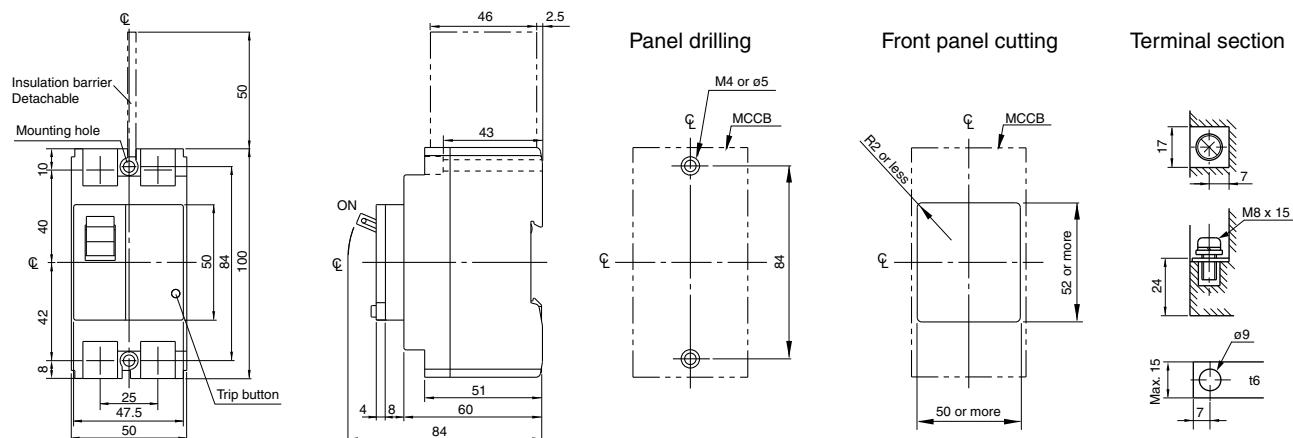
**BW32□-2P, BW50□-2P**



**BW32□-3P, BW50□-3P**



**BW63□-2P**



# Molded Case Circuit Breakers

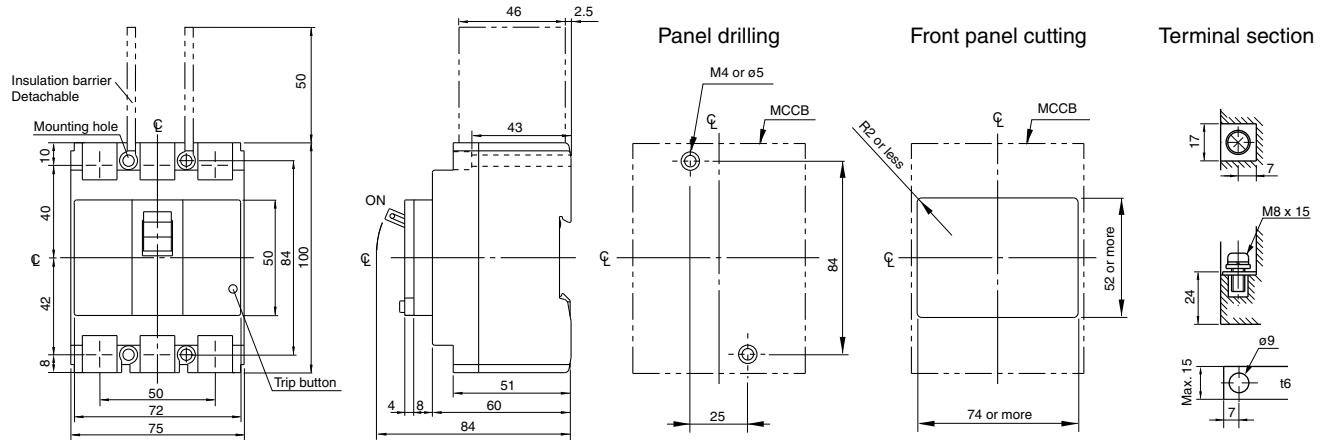
## G-TWIN series

### Dimensions / Standard

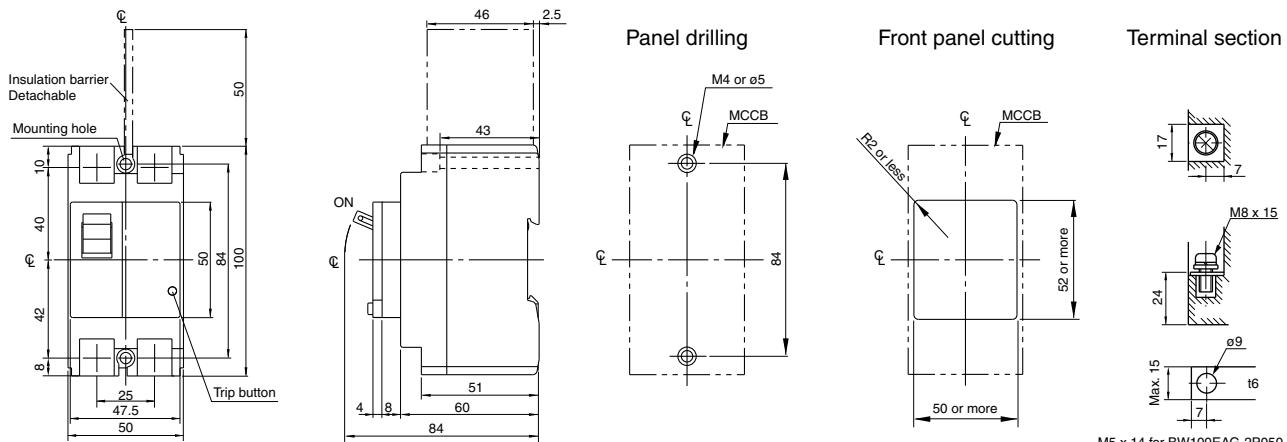
#### ■ Dimensions, mm

##### • Front mounting, front connection

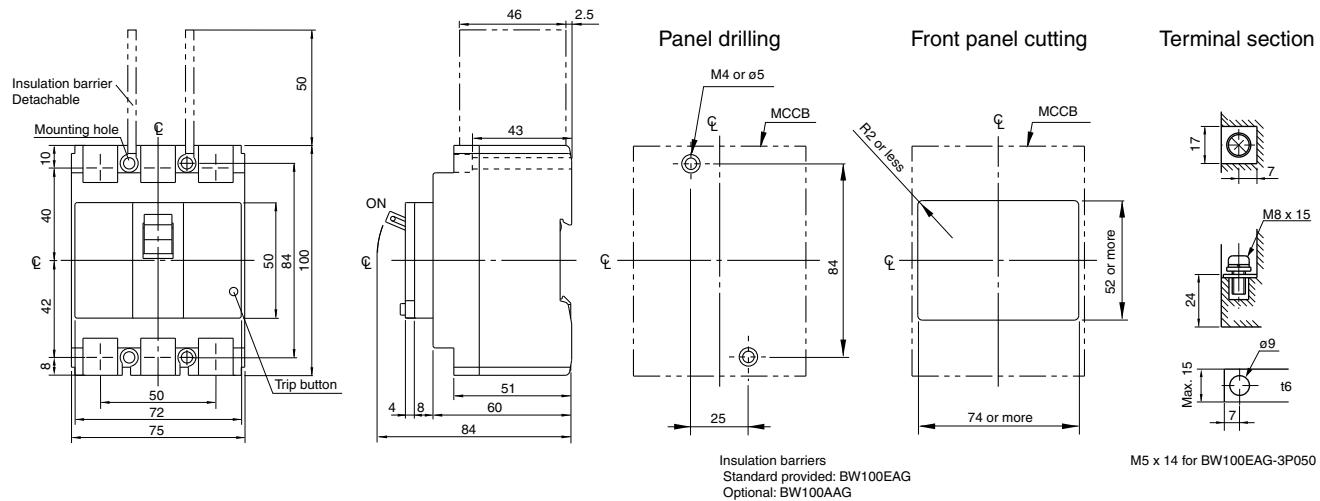
**BW63□-3P**



**BW100□-2P**



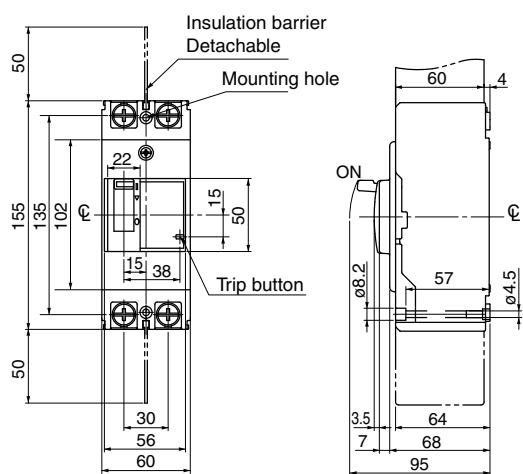
**BW100□-3P**



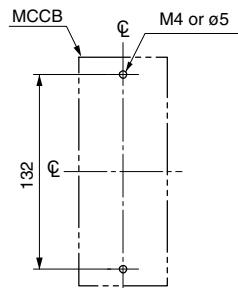
■ Dimensions, mm

● Front mounting, front connection

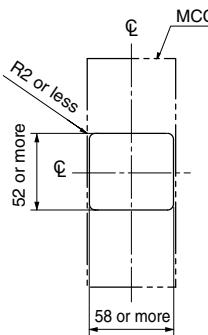
**BW125JAG-2P**



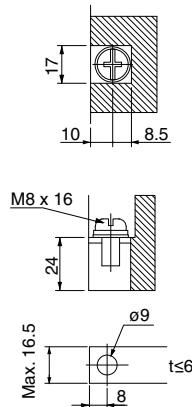
Panel drilling



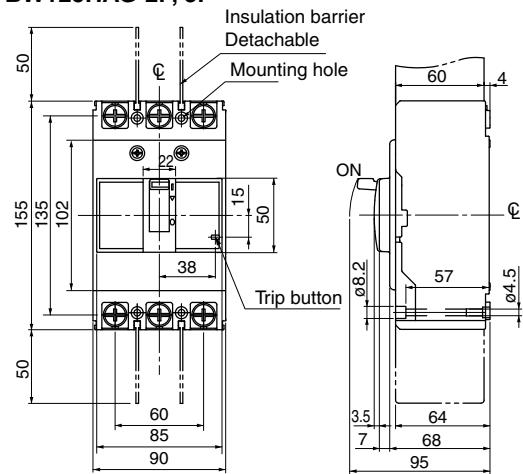
Front panel cutting



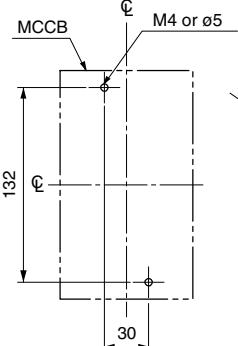
Terminal section



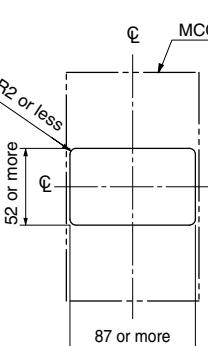
**BW50HAG-2P, 3P, BW125JAG-3P,  
BW125SAG-2P, 3P, BW125RAG-2P, 3P  
BW125HAG-2P, 3P**



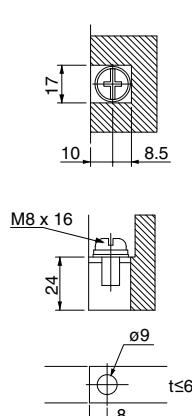
Panel drilling



Front panel cutting

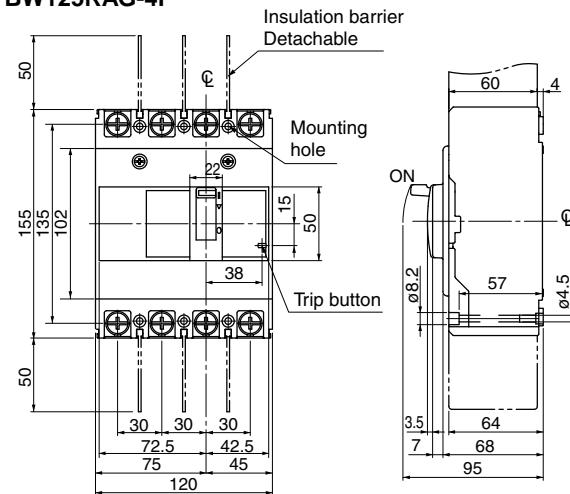


Terminal section

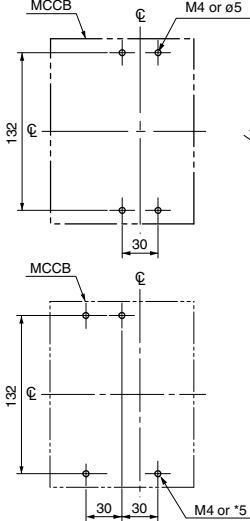


Note: 2-pole breaker is supplied in 3-pole frame with current carrying parts omitted from center pole.

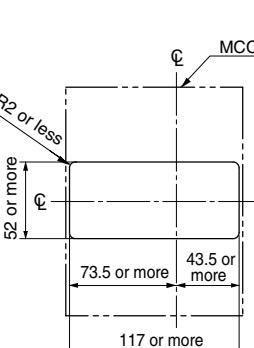
**BW125JAG-4P  
BW125SAG-4P  
BW125RAG-4P**



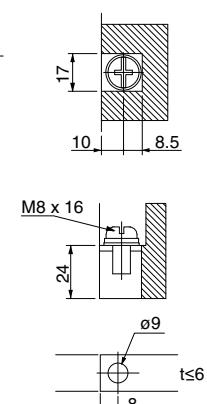
Panel drilling



Front panel cutting



Terminal section



# Molded Case Circuit Breakers

## G-TWIN series

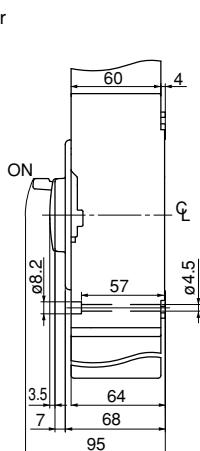
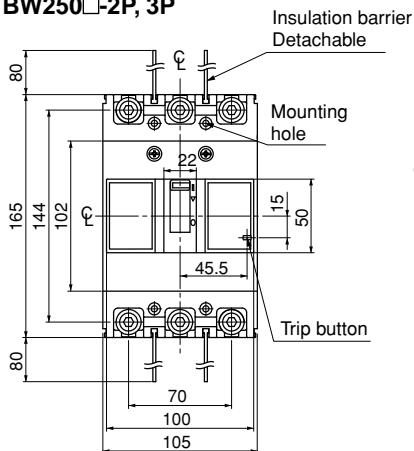
### Dimensions / Standard

#### ■ Dimensions, mm

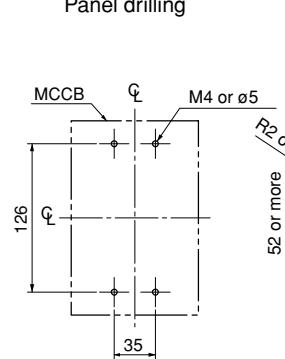
##### • Front mounting, front connection

**BW160□-2P, 3P**

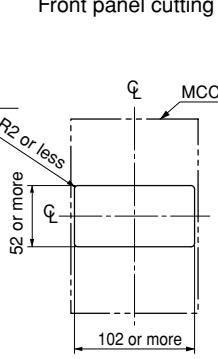
**BW250□-2P, 3P**



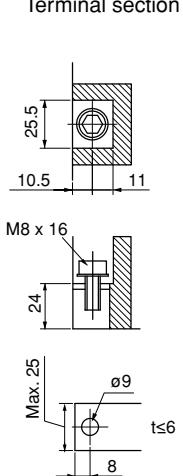
Panel drilling



Front panel cutting



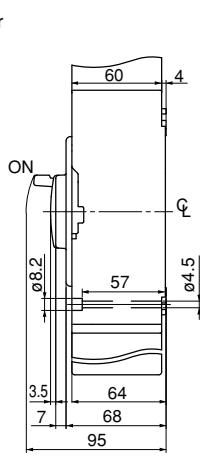
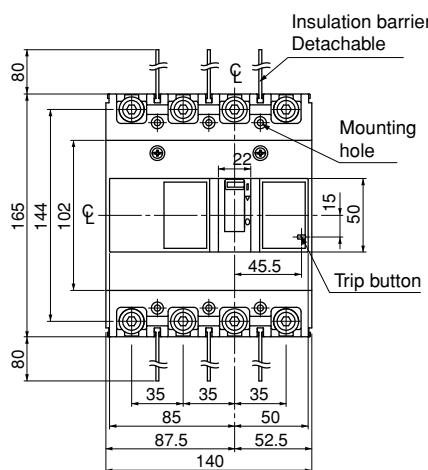
Terminal section



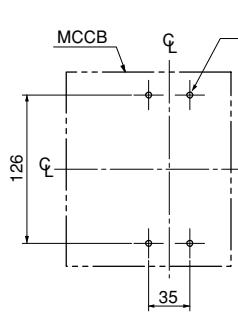
Note: 2-pole breaker is supplied in 3-pole frame with current carrying parts omitted from center pole.

**BW160□-4P**

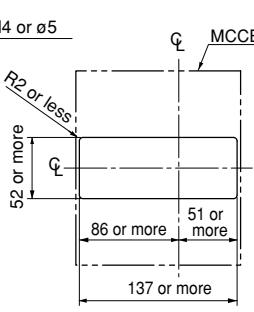
**BW250□-4P**



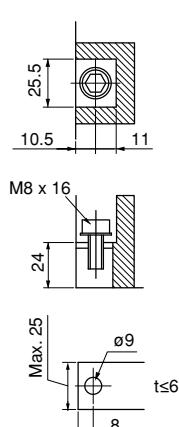
Panel drilling



Front panel cutting



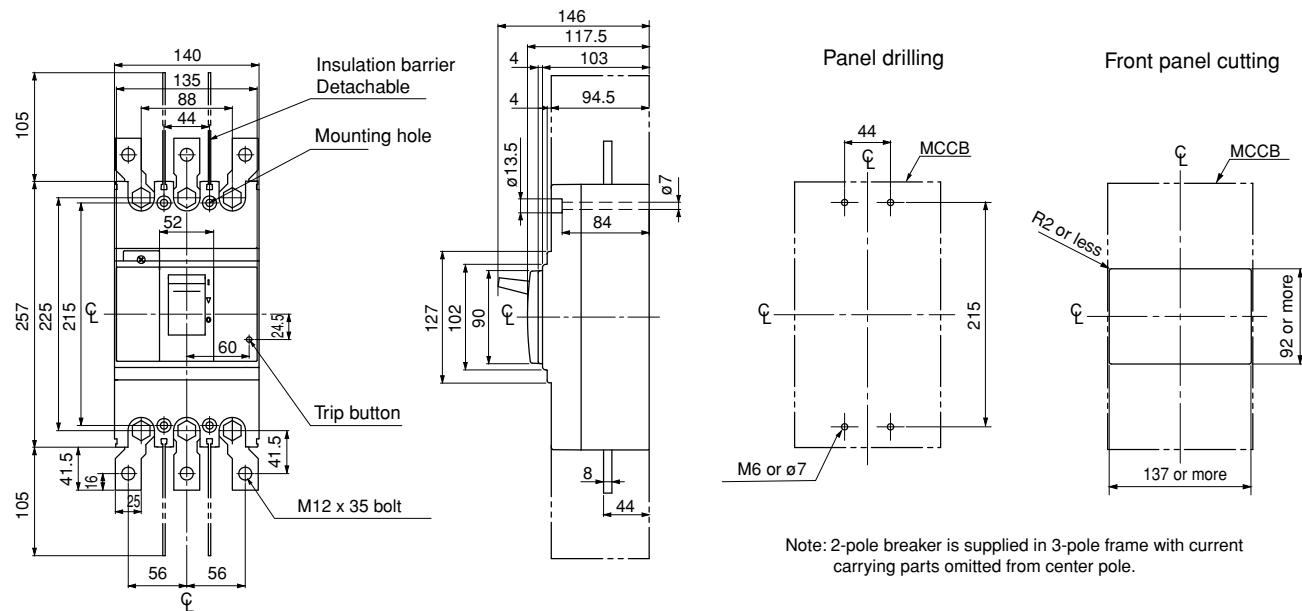
Terminal section



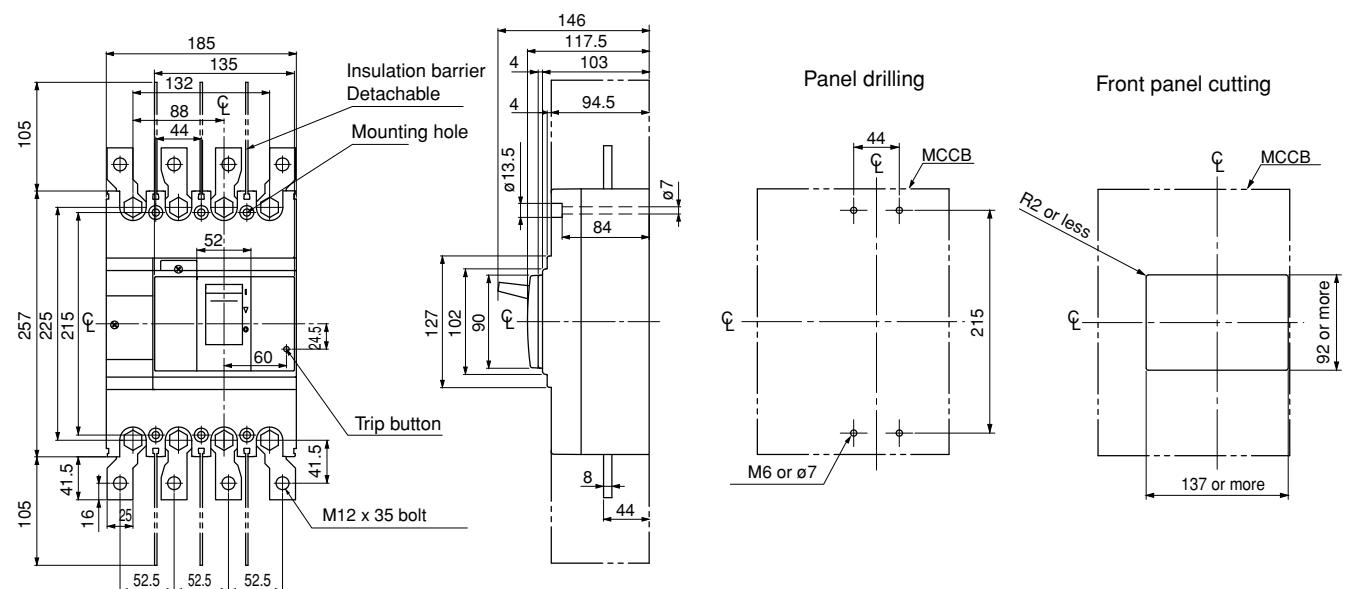
■ Dimensions, mm

● Front mounting, front connection

**BW400□-2P, 3P**



**BW400□-4P**



# Molded Case Circuit Breakers

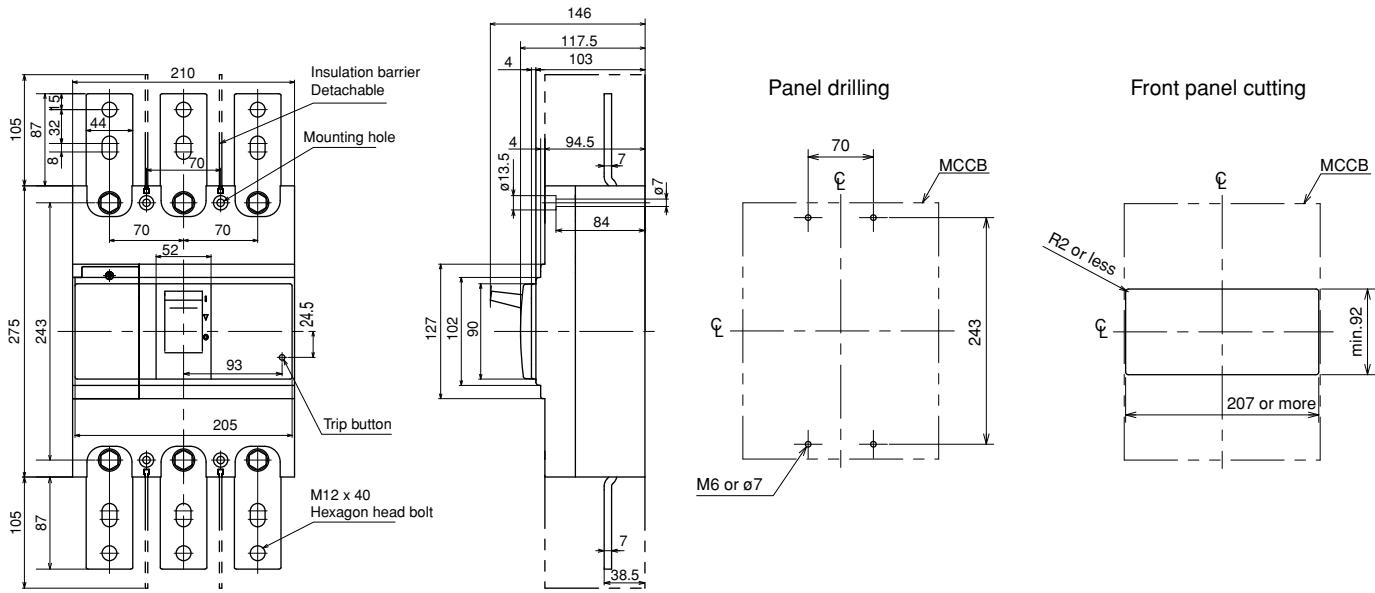
## G-TWIN series

### Dimensions / Standard

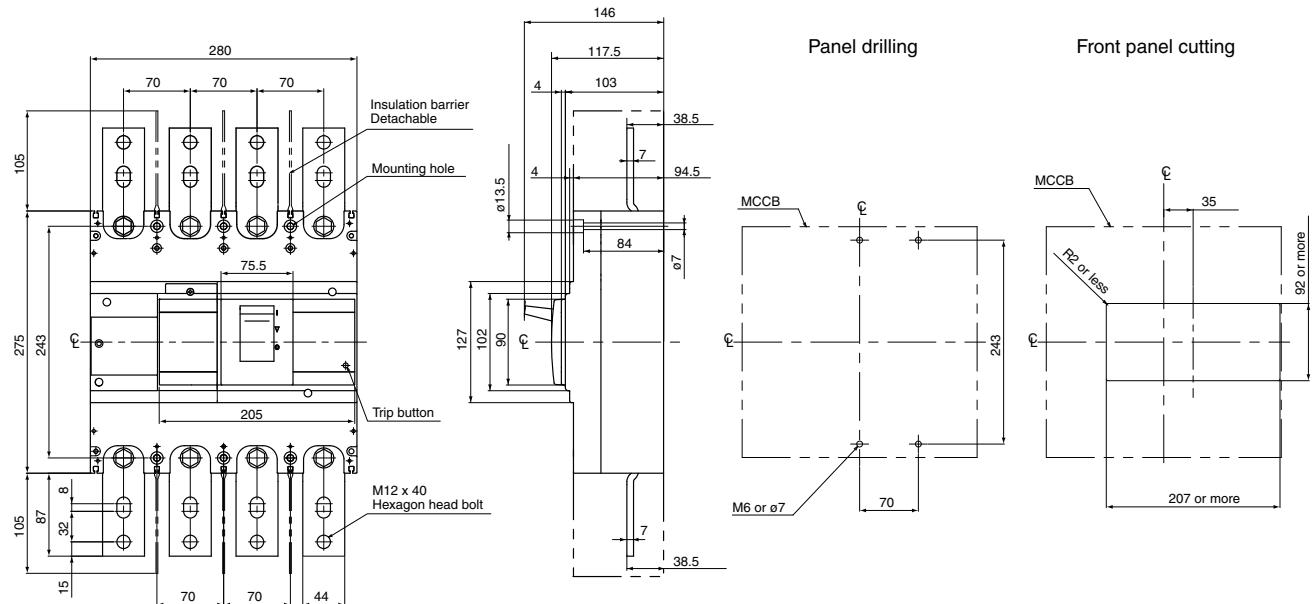
#### ■ Dimensions, mm

##### • Front mounting, front connection

**BW630□-3P**



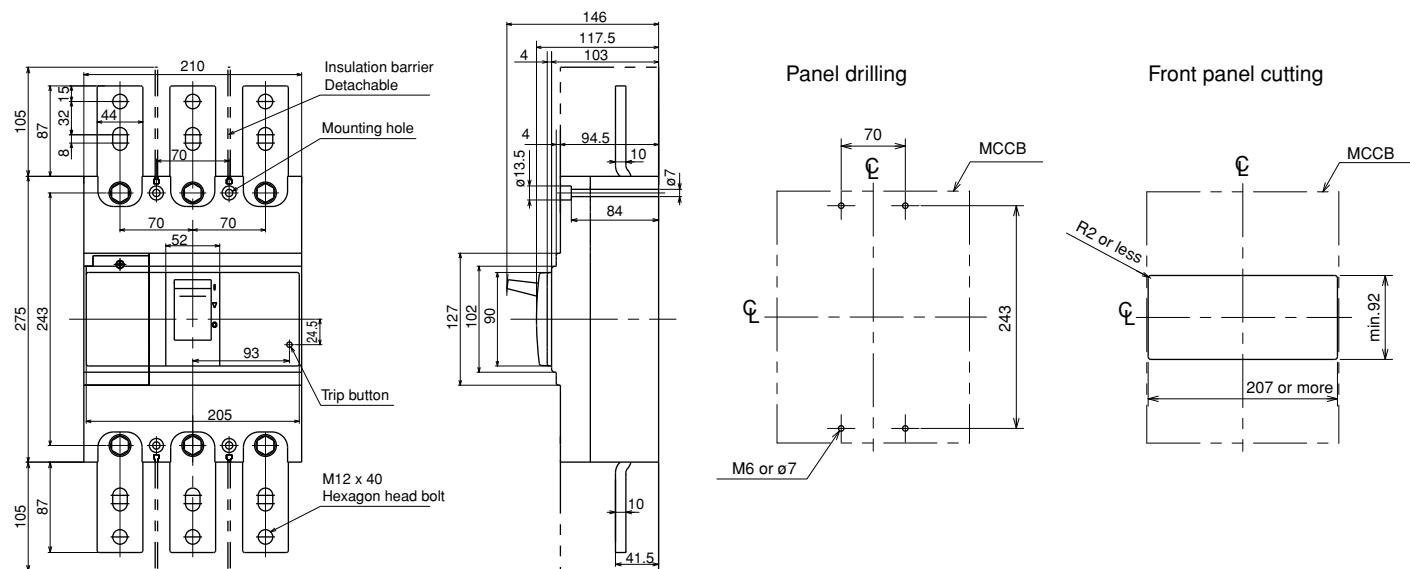
**BW630□-4P**



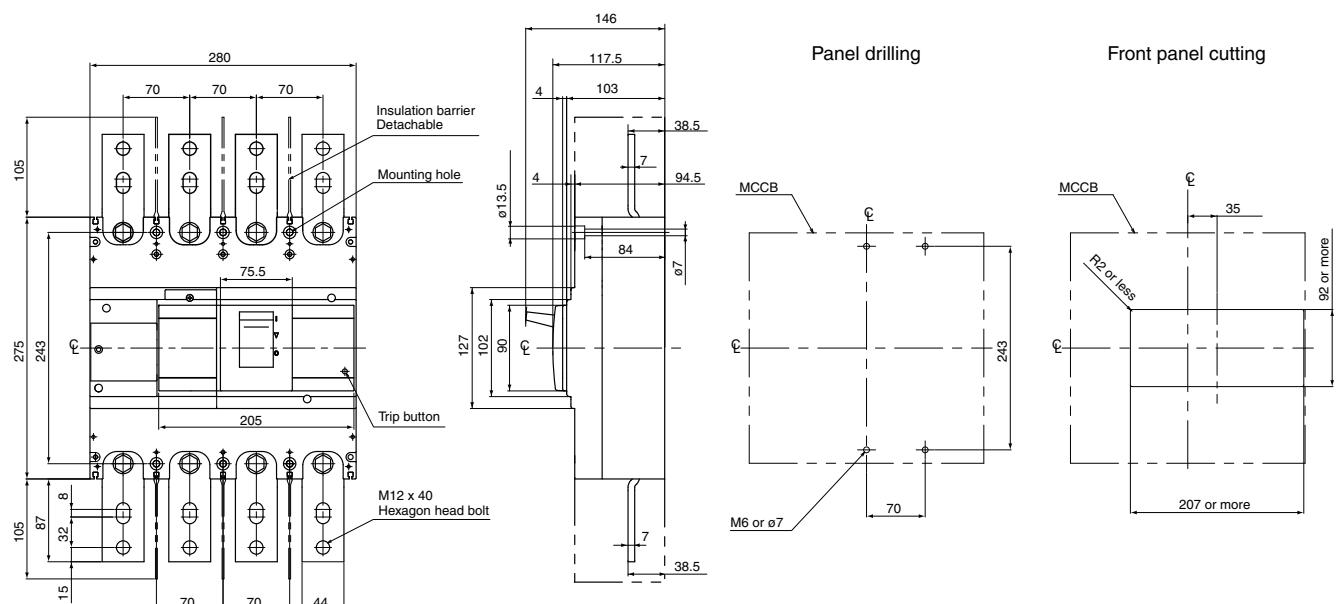
■ Dimensions, mm

● Front mounting, front connection

**BW800□-3P**



**BW800□-4P**



# Molded Case Circuit Breakers

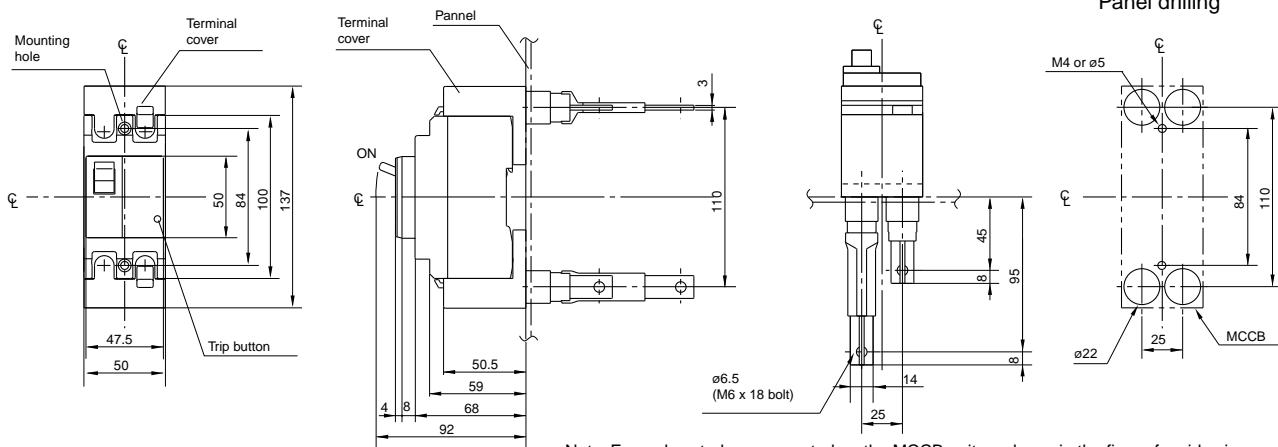
## G-TWIN series

### Dimensions / Standard

#### ■ Dimensions, mm

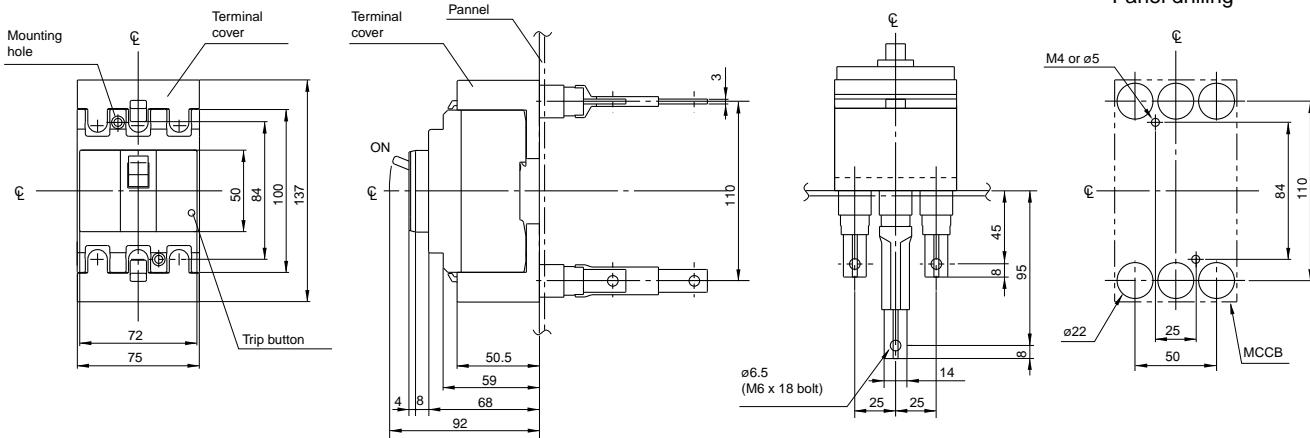
##### • Front mounting, rear connection (type X)

##### BW32□-2P, BW50□-2P



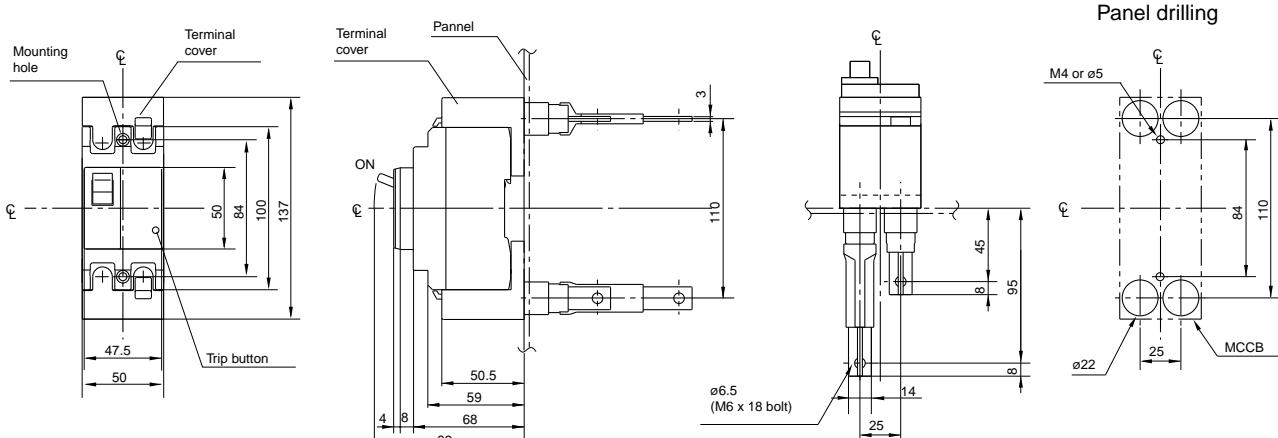
Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.  
 •Studs for line side terminal : Mounted horizontally.  
 •Studs for load-side terminal : Mounted vertically.  
 Each stud can be turned by 90°.

##### BW32□-3P, BW50□-3P



Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.  
 •Studs for line side terminal : Mounted horizontally.  
 •Studs for load-side terminal : Mounted vertically.  
 Each stud can be turned by 90°.  
 2-pole breaker is supplied in 3-pole frame with current carrying parts omitted from center pole.

##### BW63□-2P

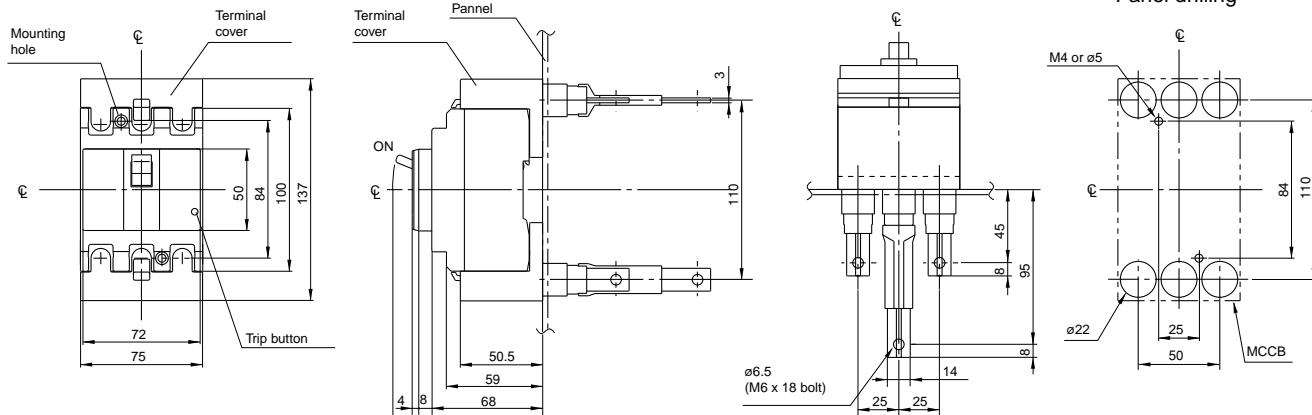


Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.  
 •Studs for line side terminal : Mounted horizontally.  
 •Studs for load-side terminal : Mounted vertically.  
 Each stud can be turned by 90°.

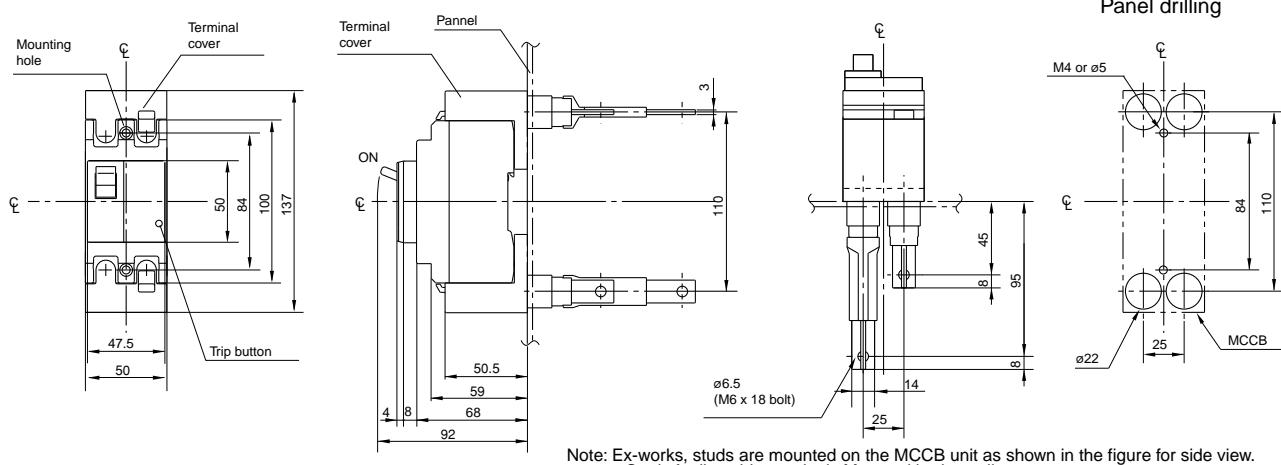
■ Dimensions, mm

● Front mounting, rear connection (type X)

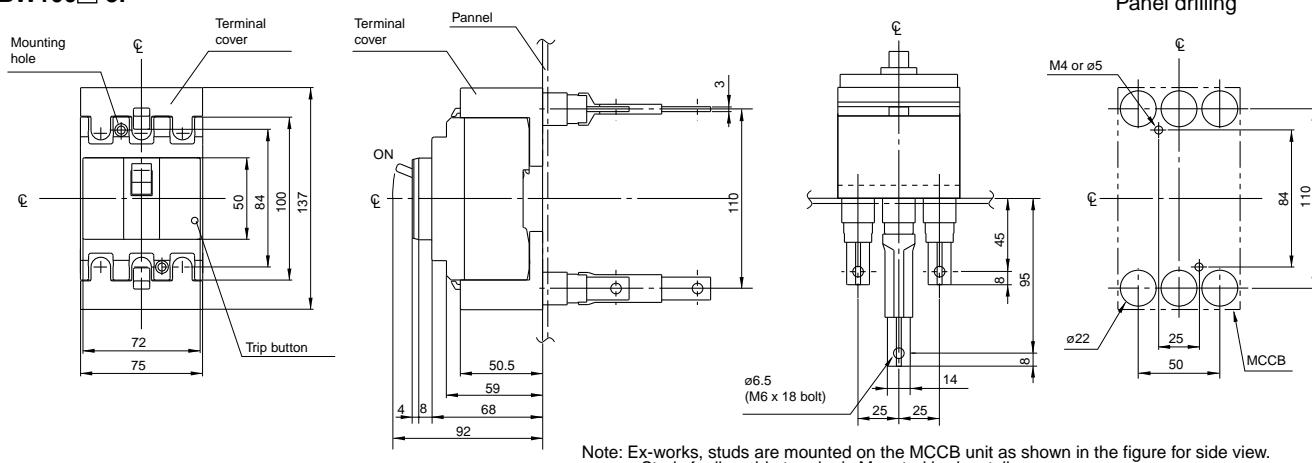
**BW63□-3P**



**BW100□-2P**



**BW100□-3P**



# Molded Case Circuit Breakers

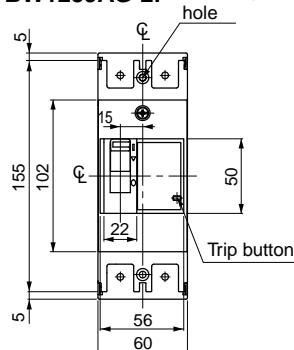
## G-TWIN series

### Dimensions / Standard

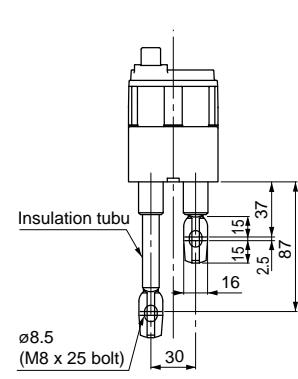
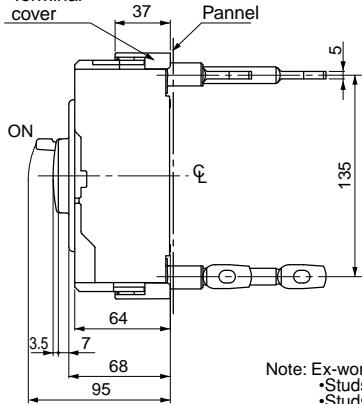
#### ■ Dimensions, mm

##### • Front mounting, rear connection (type X)

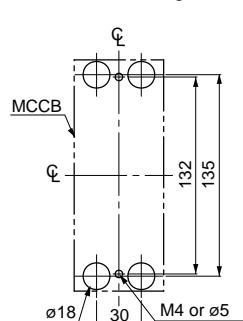
**BW125JAG-2P** Mounting hole



Terminal cover Pannel



Panel drilling

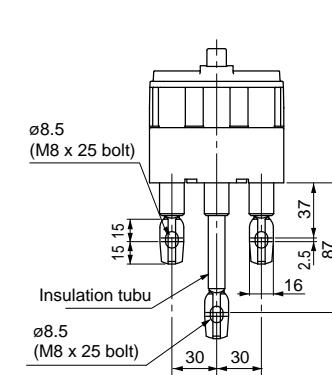
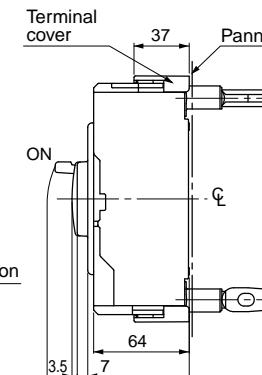
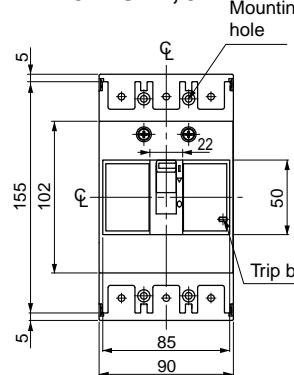


Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.  
 •Studs for line side terminal : Mounted horizontally.  
 •Studs for load-side terminal : Mounted vertically.  
 Each stud can be turned by 90°.

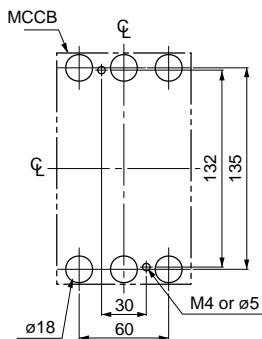
**BW50HAG-2P, 3P, BW125JAG-3P**

**BW125SAG-2P, 3P, BW125RAG-2P, 3P**

**BW125HAG-2P, 3P**



Panel drilling



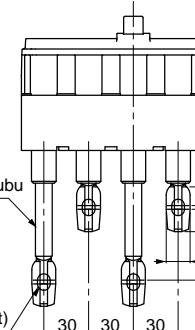
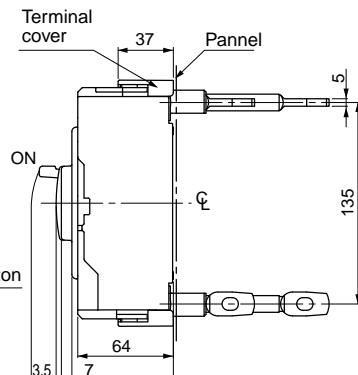
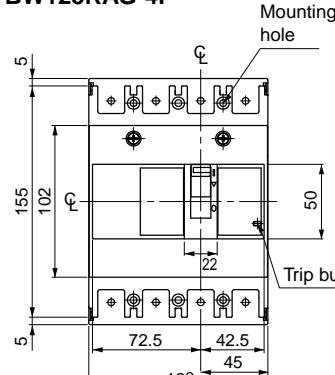
Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.  
 •Studs for line side terminal : Mounted horizontally.  
 •Studs for load-side terminal : Mounted vertically.  
 Each stud can be turned by 90°.

2-pole breaker is supplied in 3-pole frame with current carrying parts omitted from center pole.

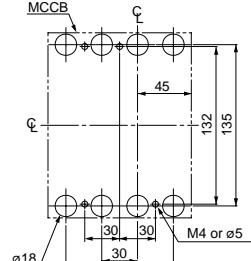
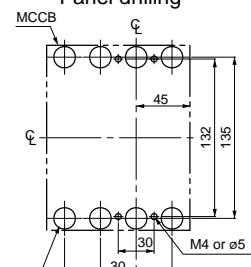
**BW125JAG-4P**

**BW125SAG-4P**

**BW125RAG-4P**



Panel drilling



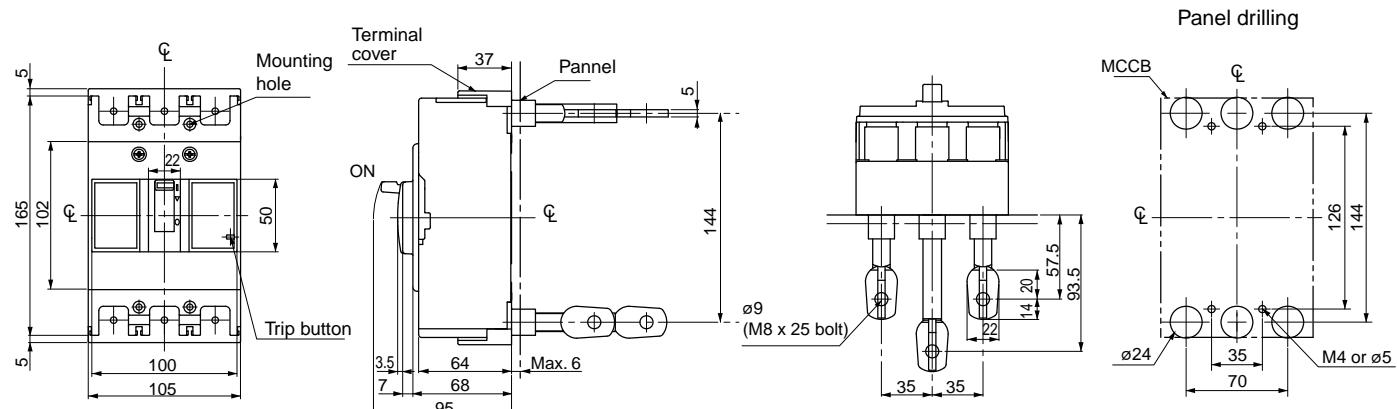
Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.  
 •Studs for line side terminal : Mounted horizontally.  
 •Studs for load-side terminal : Mounted vertically.  
 Each stud can be turned by 90°.

■ Dimensions, mm

• Front mounting, rear connection (type X)

**BW160□-2P, 3P**

**BW250□-2P, 3P**



Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.

-Studs for line side terminal : Mounted horizontally.

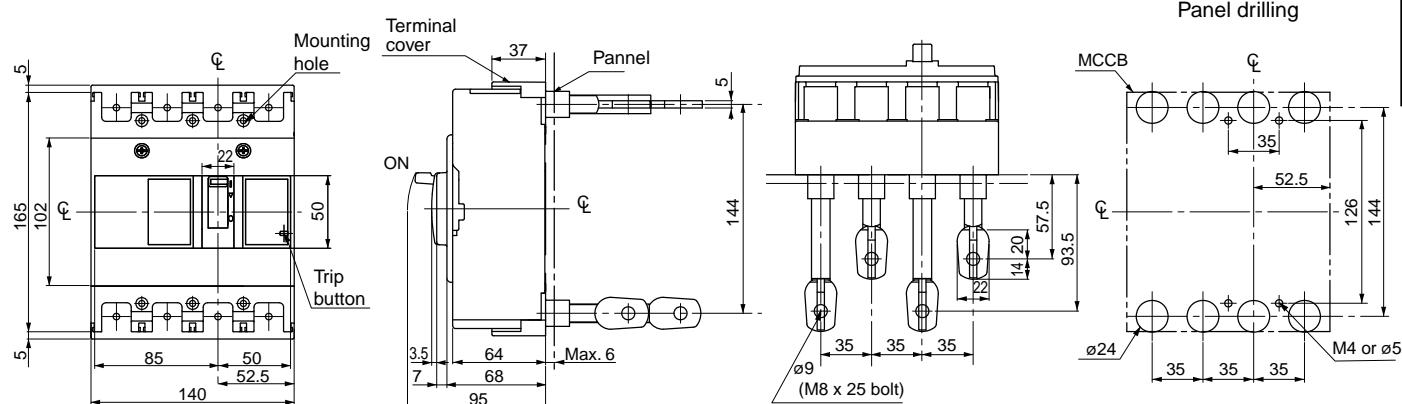
-Studs for load-side terminal : Mounted vertically.

Each stud can be turned by 90°.

2-pole breaker is supplied in 3-pole frame with current carrying parts omitted from center pole.

**BW160□-4P**

**BW250□-4P**



Note: Ex-works, studs are mounted on the MCCB unit as shown in the figure for side view.

-Studs for line side terminal : Mounted horizontally.

-Studs for load-side terminal : Mounted vertically.

Each stud can be turned by 90°.

# Molded Case Circuit Breakers

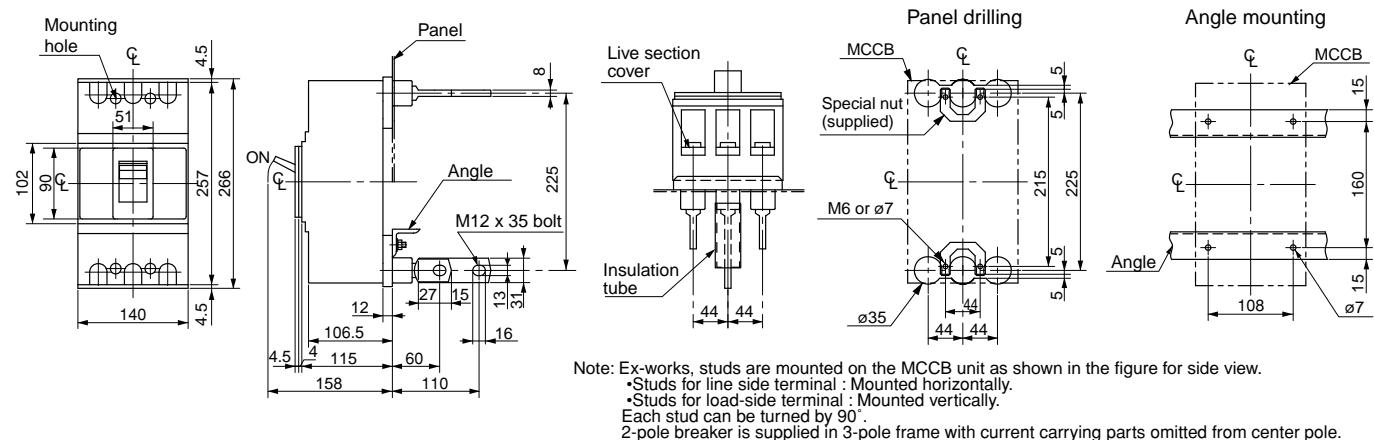
## G-TWIN series

### Dimensions / Standard

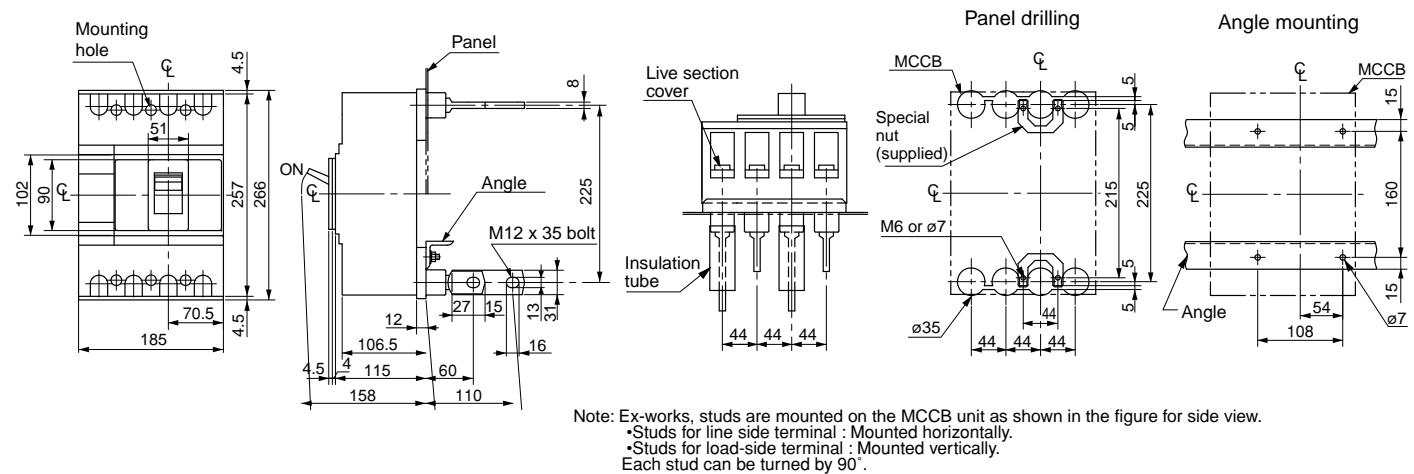
#### ■ Dimensions, mm

##### • Front mounting, rear connection (type X)

BW400□-2P, 3P



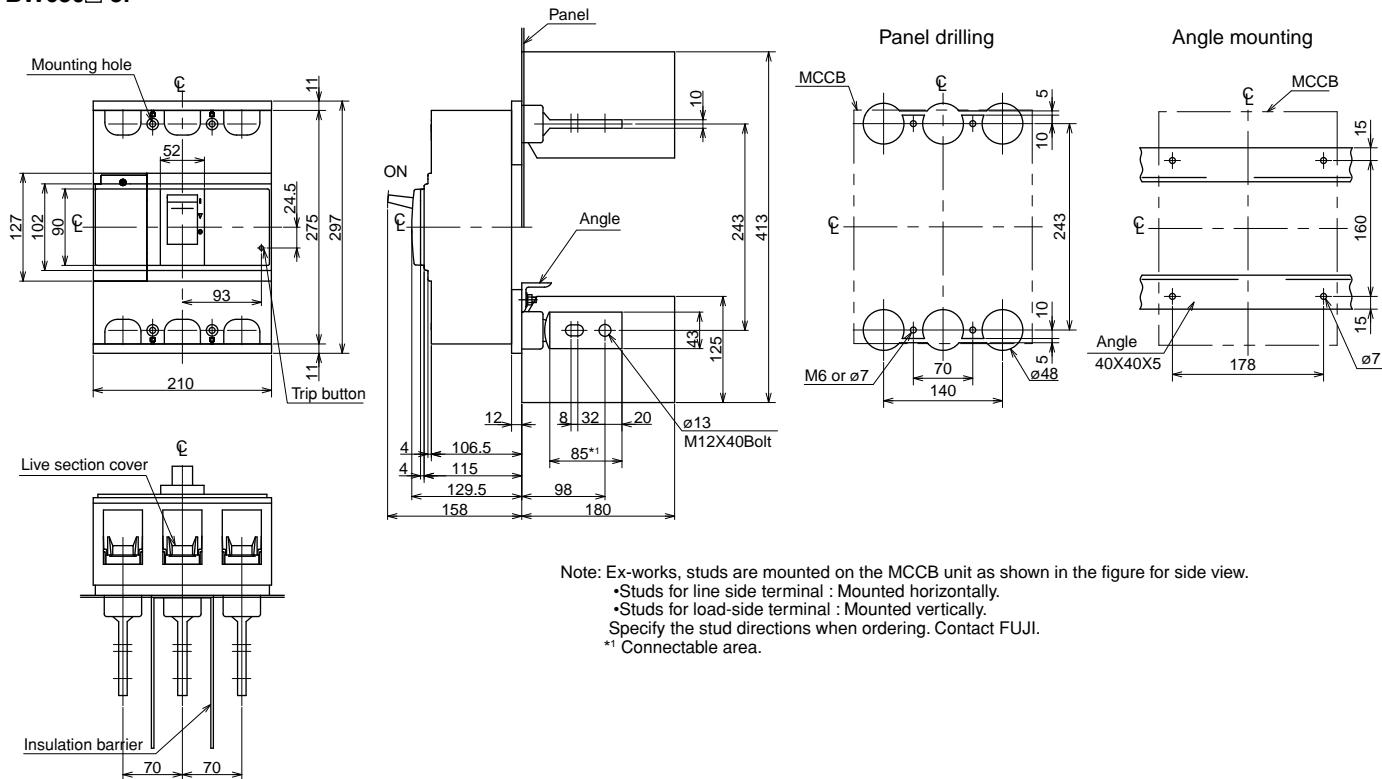
**BW400□-4P**



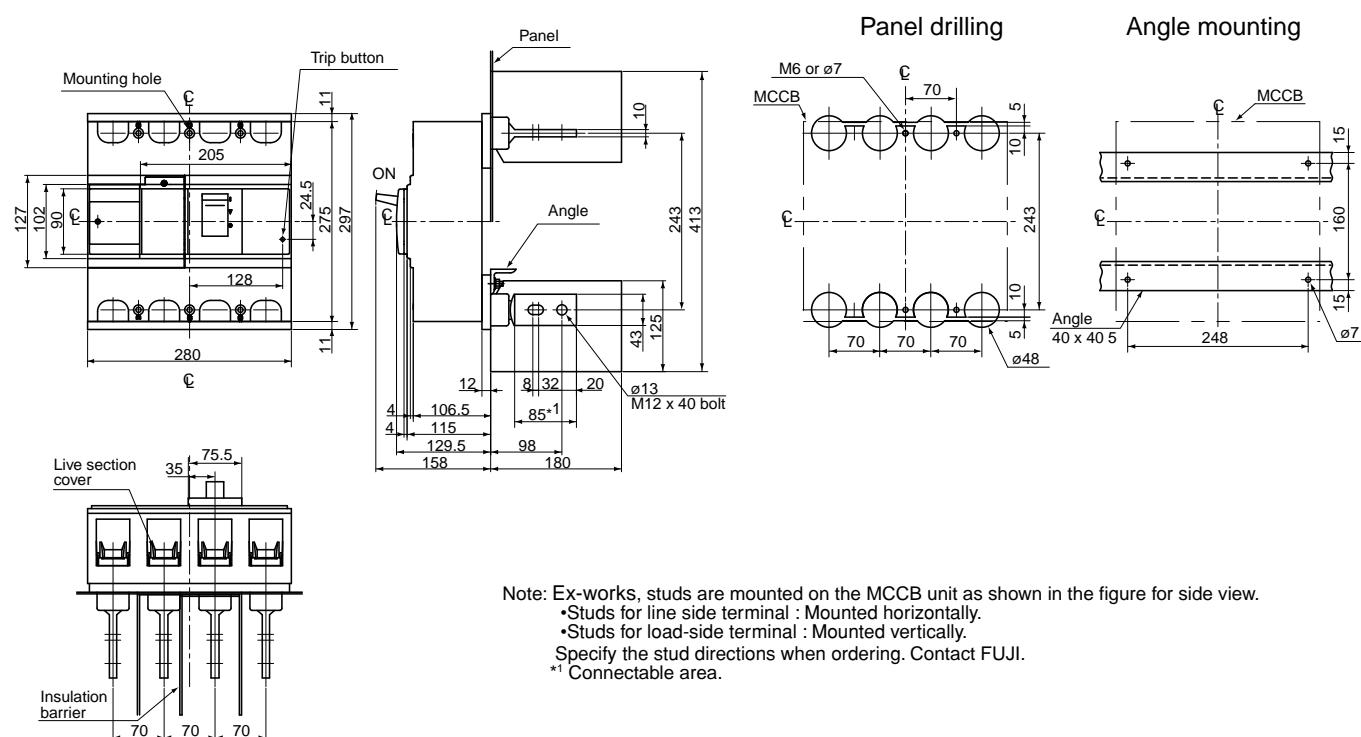
■ Dimensions, mm

● Front mounting, rear connection (type X)

BW630□-3P



BW630□-4P



# Molded Case Circuit Breakers

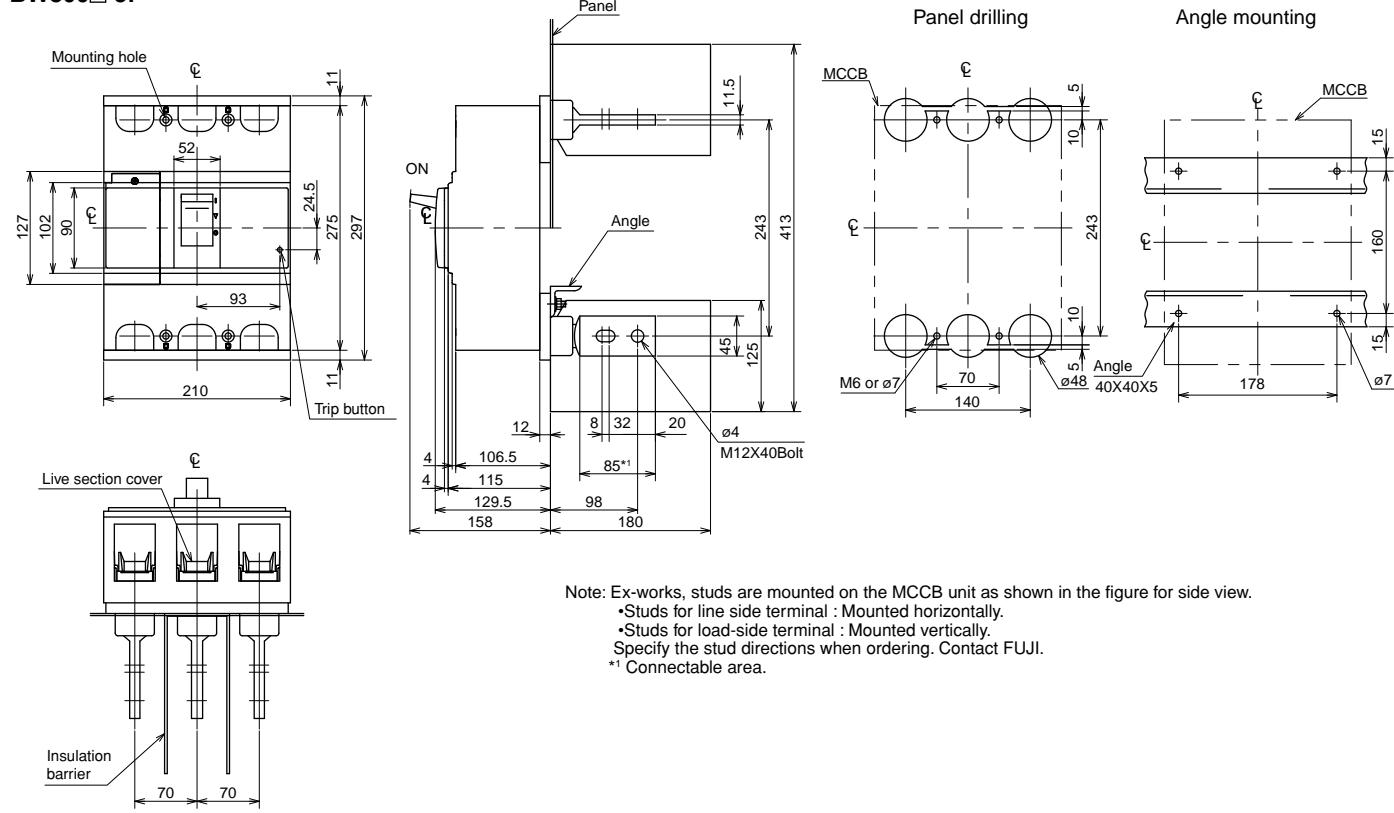
## G-TWIN series

### Dimensions / Standard

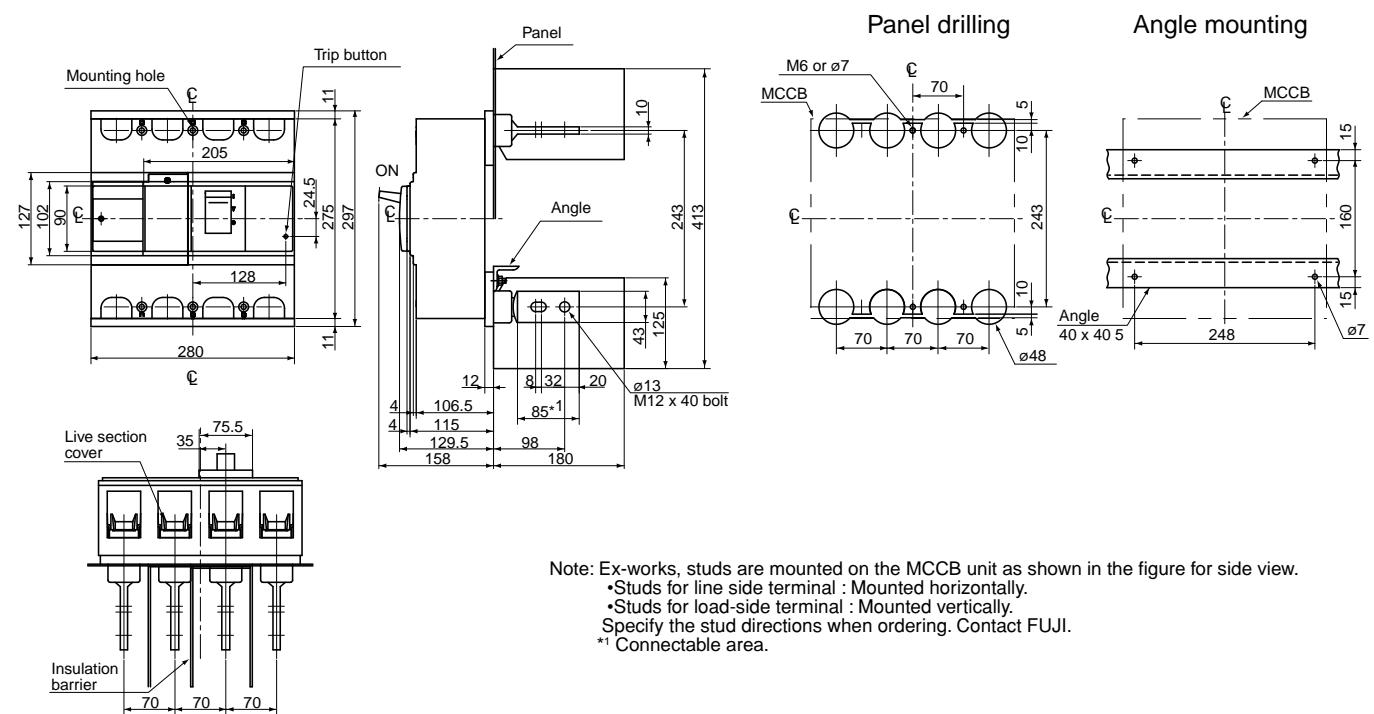
#### ■ Dimensions, mm

##### • Front mounting, rear connection (type X)

BW800□-3P



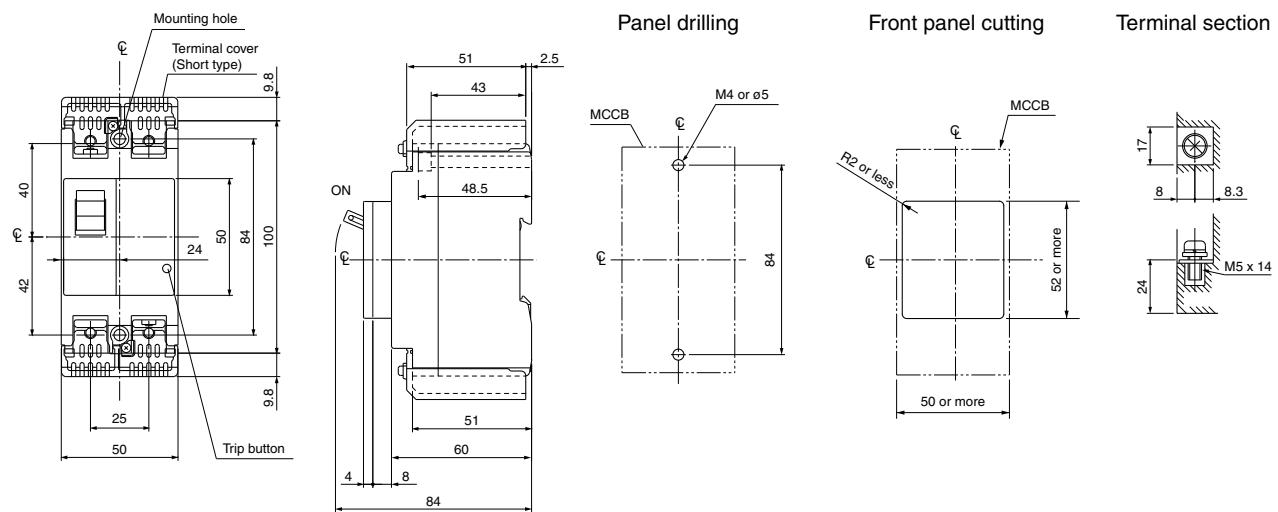
BW800□-4P



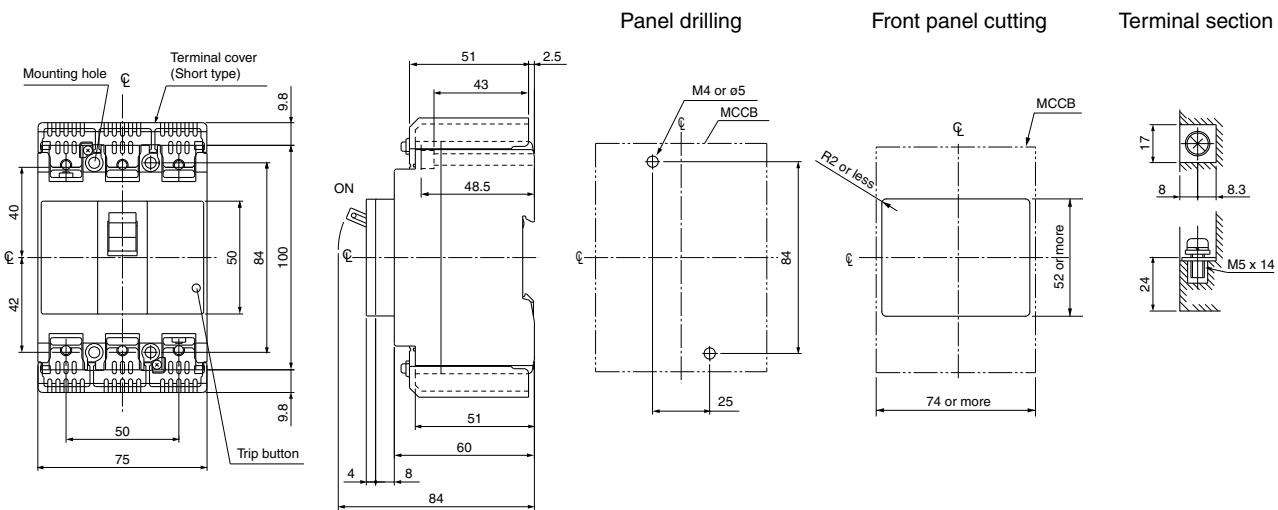
■ Dimensions, mm

- Front mounting, front connection

**BW50RAGU-2P**



**BW50RAGU-3P**



# Molded Case Circuit Breakers

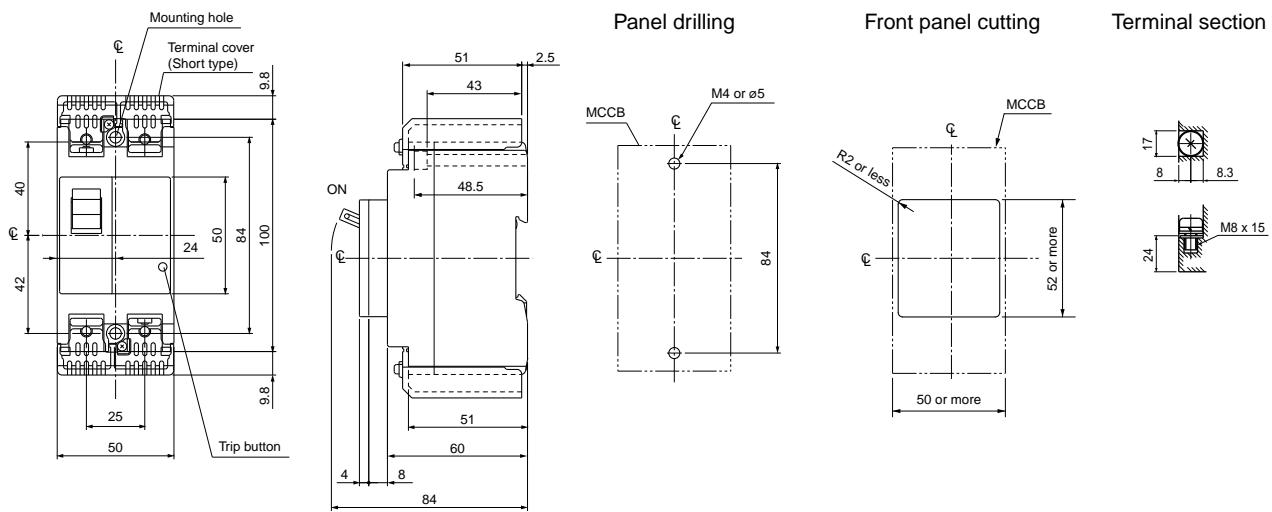
## G-TWIN series

### Dimensions / Global

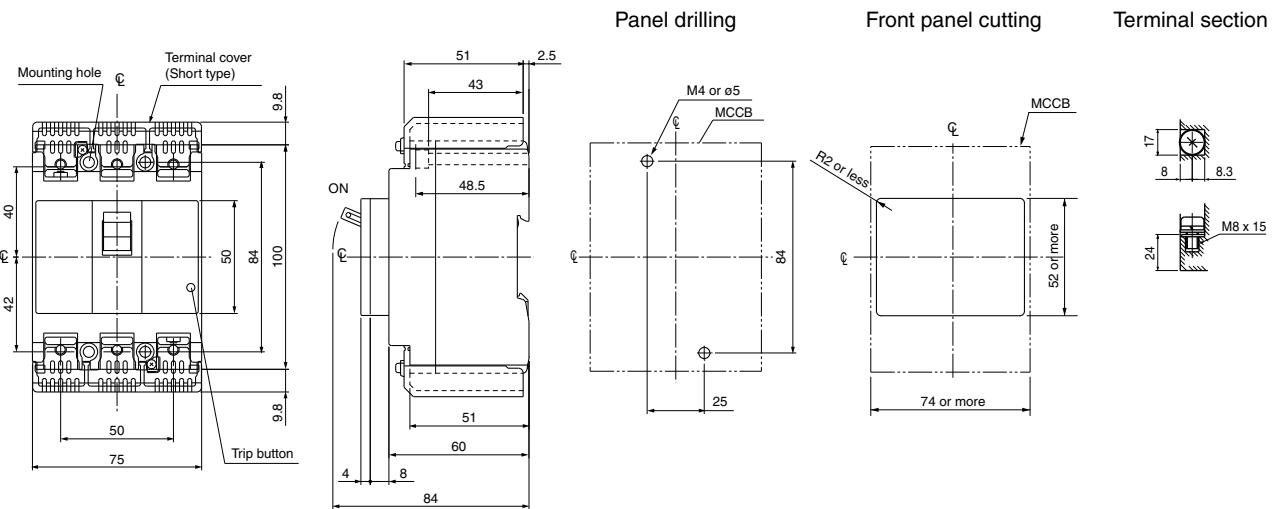
#### ■ Dimensions, mm

##### • Front mounting, front connection

**BW100EAGU-2P**



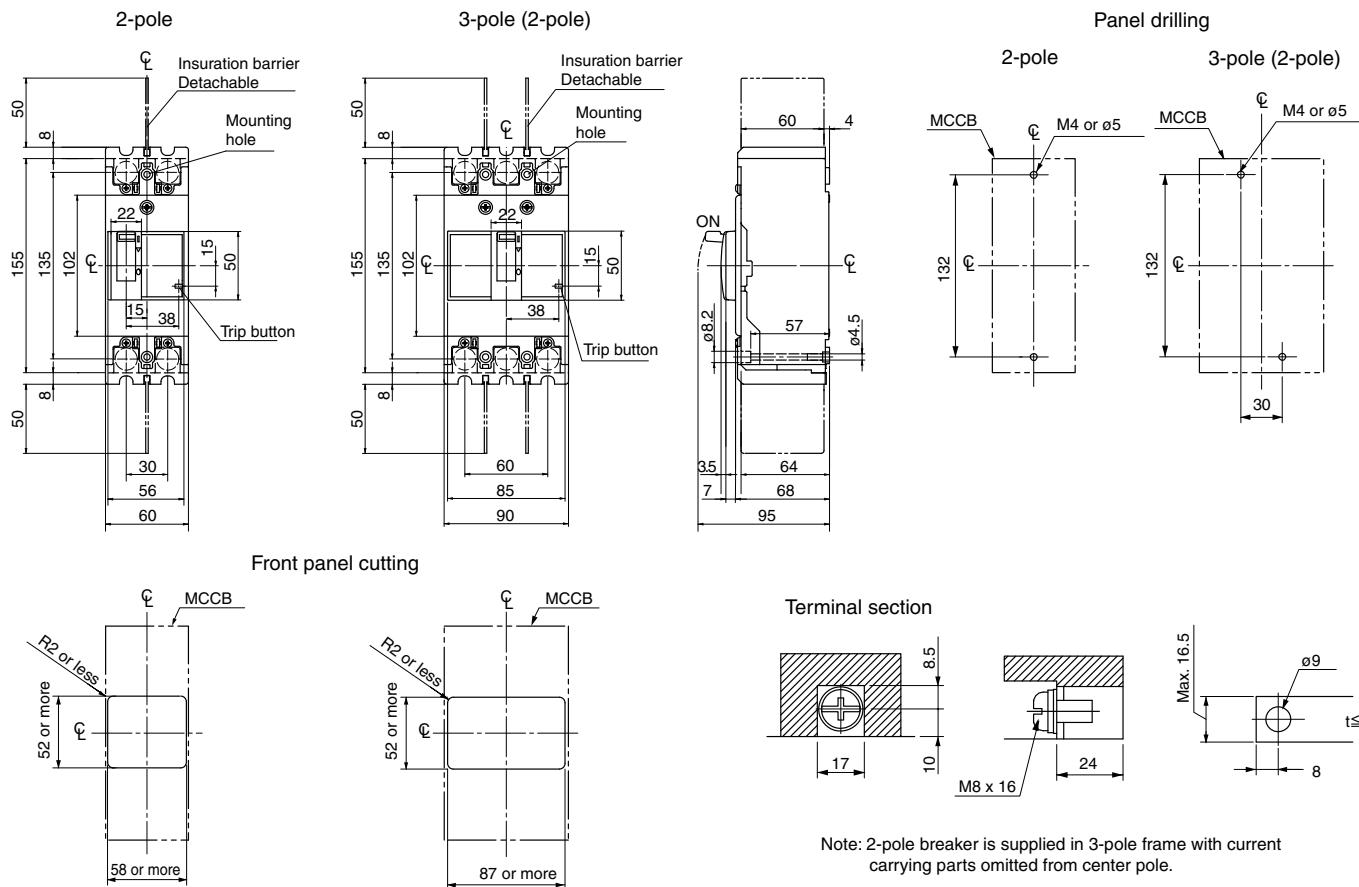
**BW100EAGU-3P**



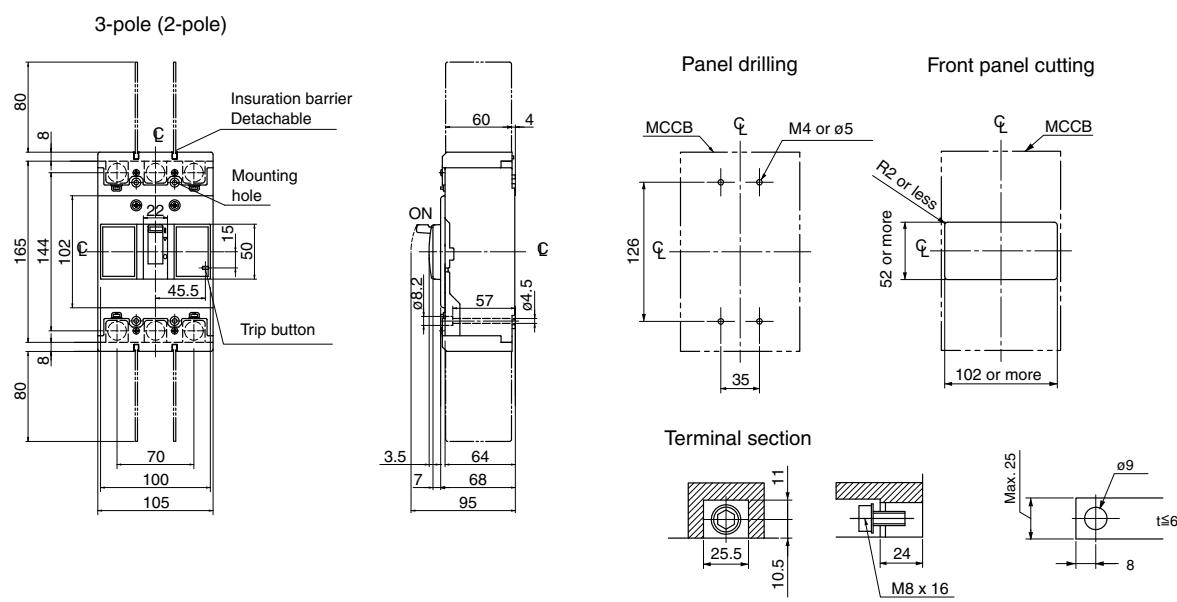
■ Dimensions, mm

● Front mounting, front connection

BW125□U-2P, 3P



**BW250□U-2P, 3P**



# Molded Case Circuit Breakers

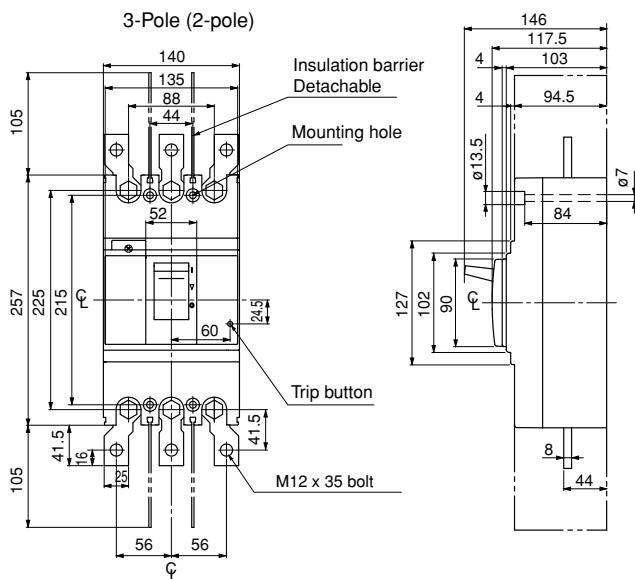
## G-TWIN series

### Dimensions / Global

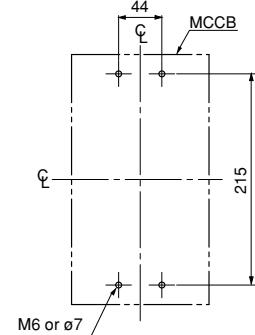
#### ■ Dimensions, mm

##### • Front mounting, front connection

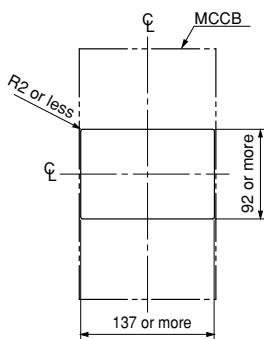
BW400□U-2P, 3P



Panel drilling

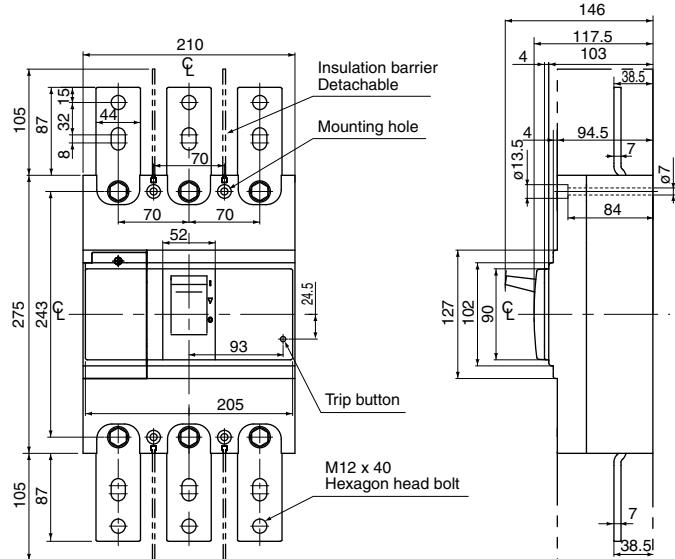


Front panel cutting

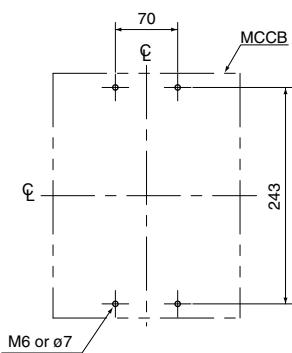


Note: 2-pole breaker is supplied in 3-pole frame with current carrying parts omitted from center pole.

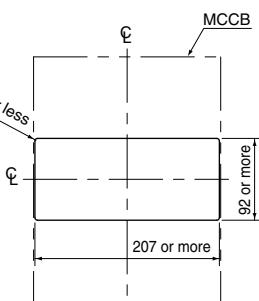
BW630□U-3P



Panel drilling



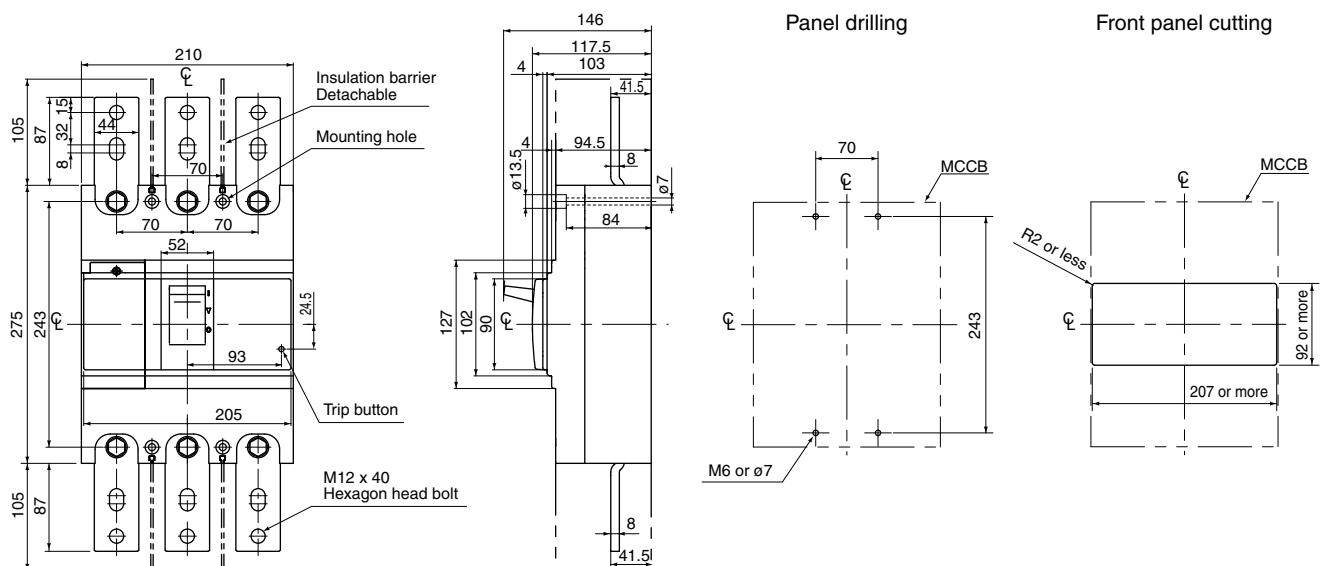
Front panel cutting



■ Dimensions, mm

● Front mounting, front connection

BW800□U-3P

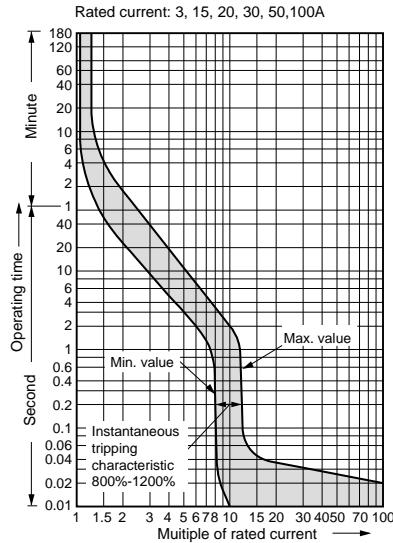
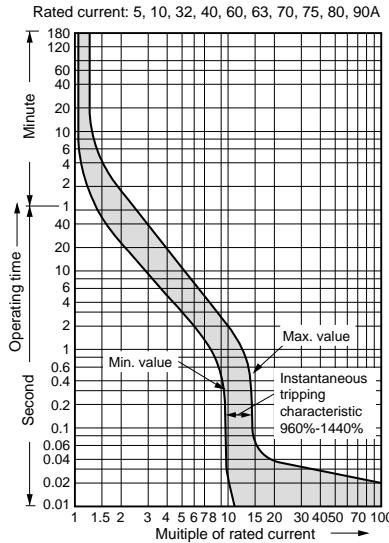


# Molded Case Circuit Breakers

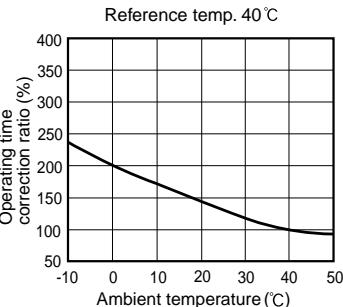
## G-TWIN series

### Characteristic curves

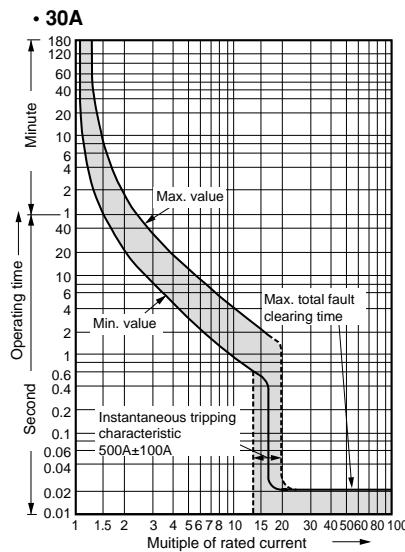
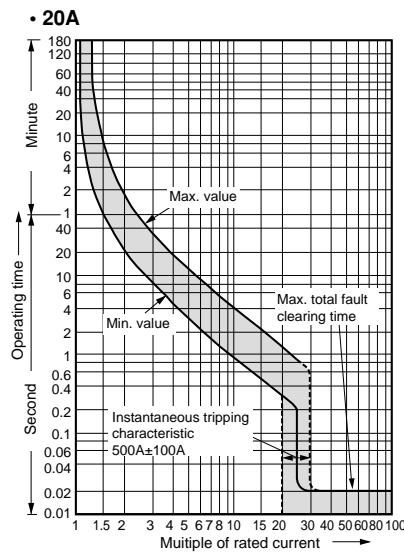
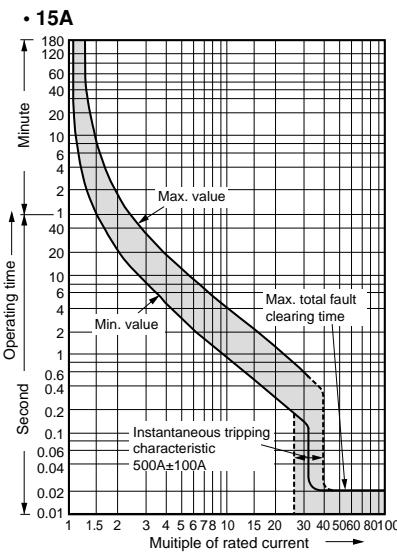
#### ■ Characteristic curves / Line protection BW32, 50, 63, 100



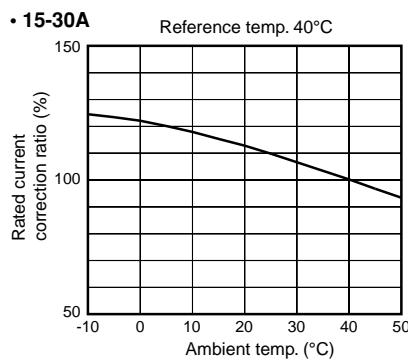
**Temperature correction curve**



#### BW50HAG, BW125



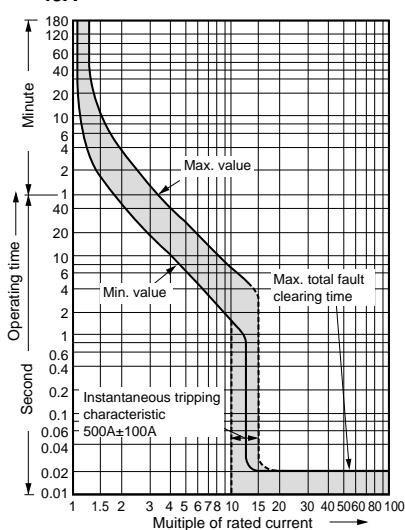
#### Temperature correction curve



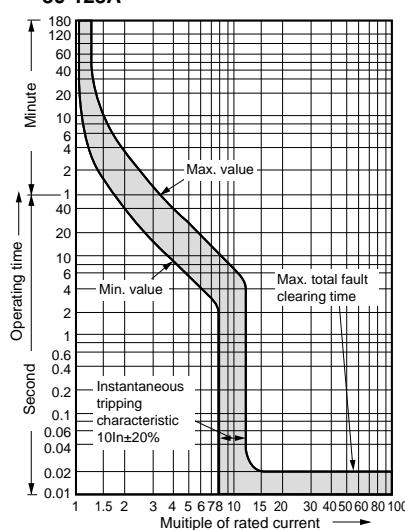
■ Characteristic curves / Line protection

BW50HAG, BW125

• 40A

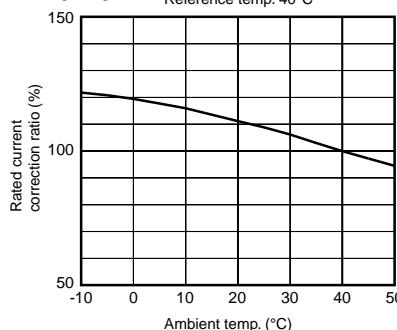


• 50-125A

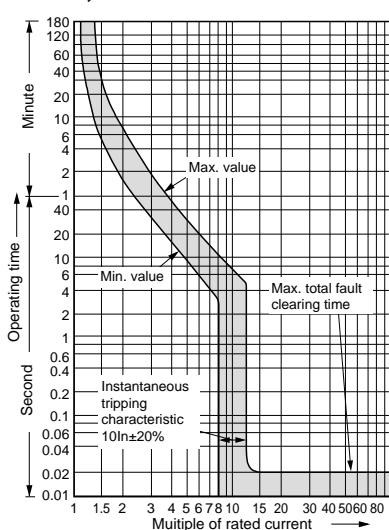


Temperature correction curve

• 40-125A Reference temp. 40°C

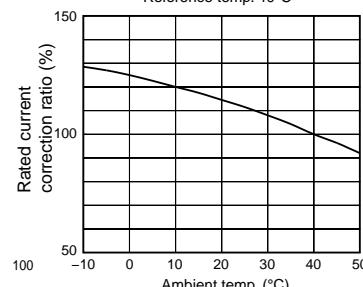


BW160, 250

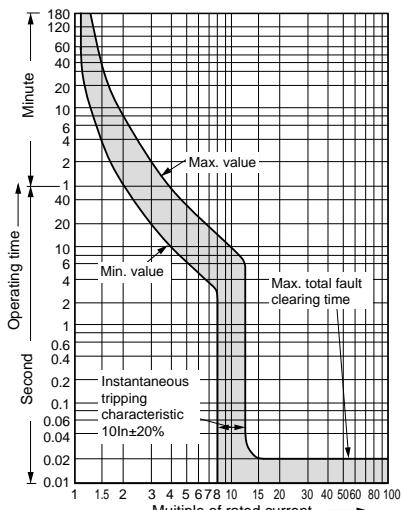


Temperature correction curve

Reference temp. 40°C

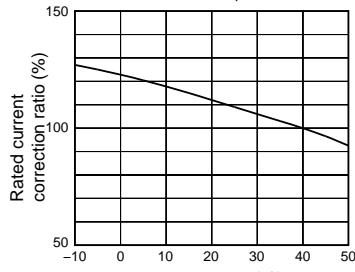


BW400



Temperature correction curve

Reference temp. 40°C

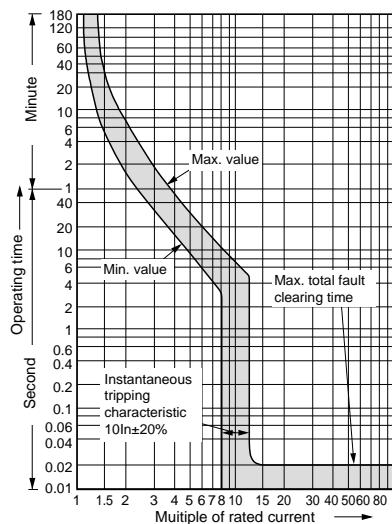


# Molded Case Circuit Breakers

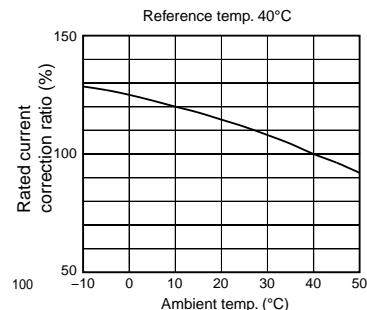
## G-TWIN series

### Characteristic curves

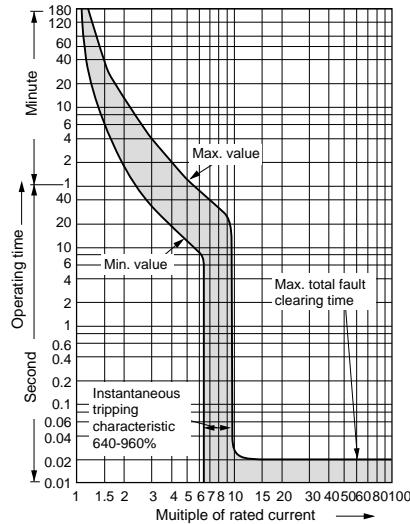
#### ■ Characteristic curves / Line protection BW630



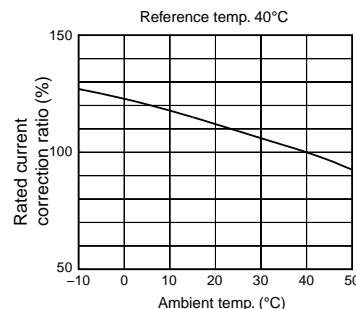
Temperature correction curve



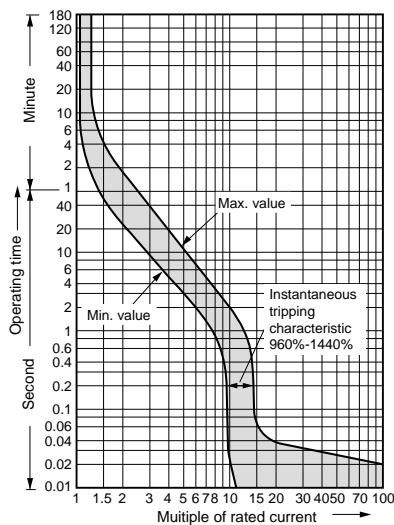
#### BW800



Temperature correction curve

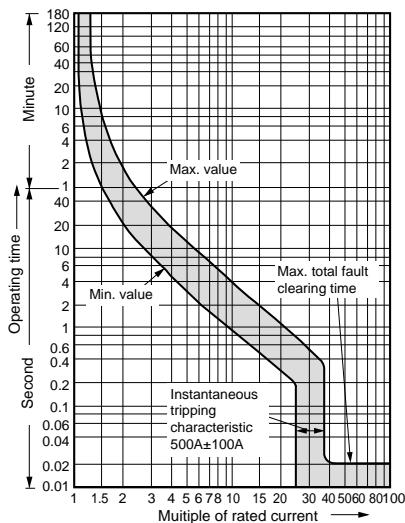


■ Characteristic curves / Motor protection  
BW32, 50, 63, 100



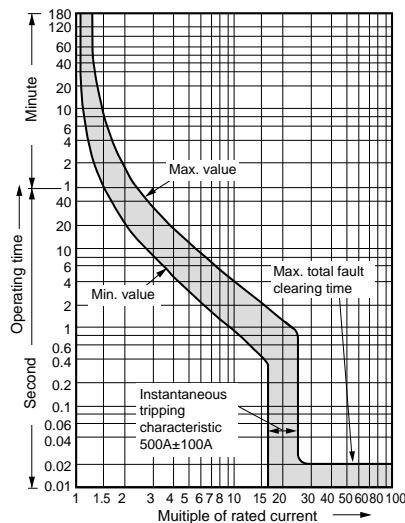
BW125

• 16A

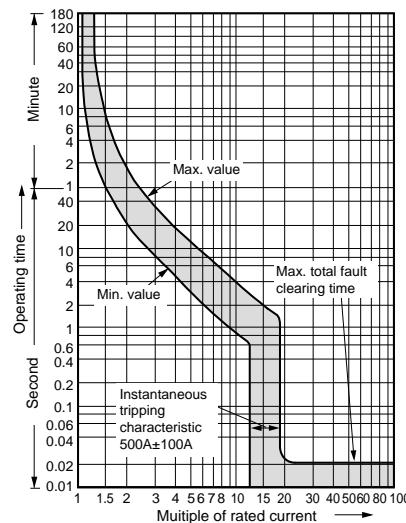


• 24A

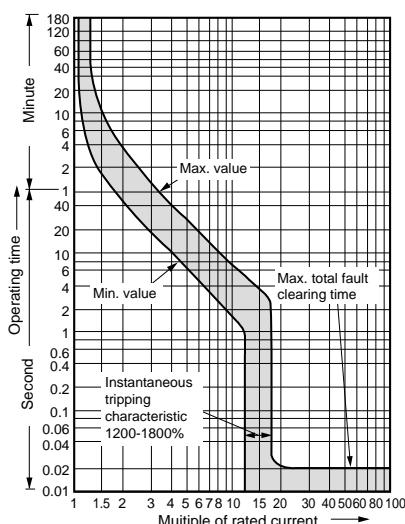
• 24A



• 32A

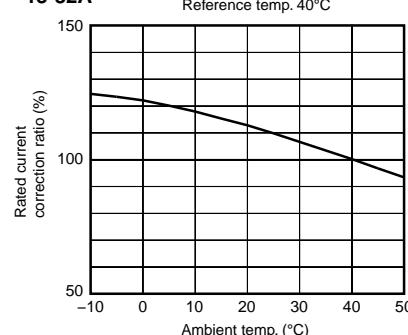


• 40-90A

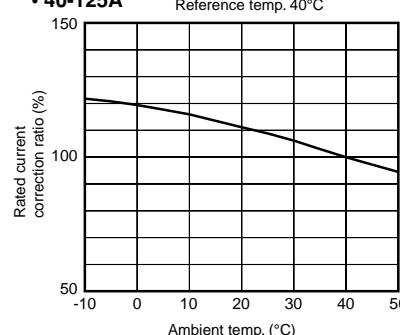


Temperature correction curve

• 15-32A

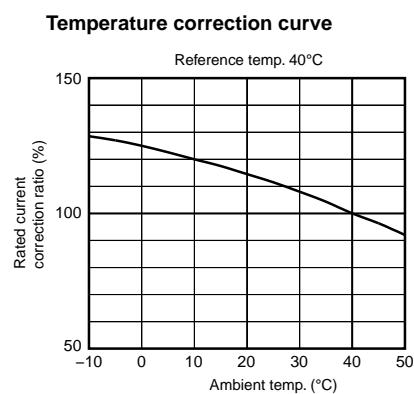
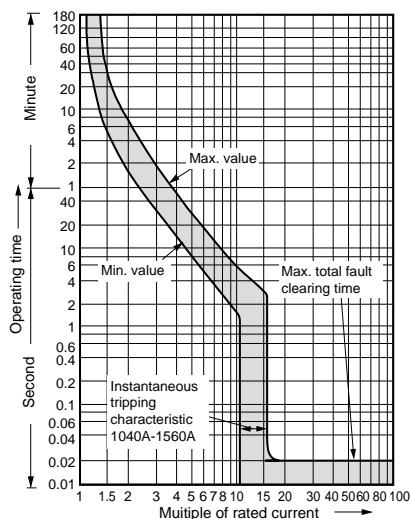


• 40-125A



Molded Case Circuit Breakers  
**G-TWIN series**  
**Characteristic curves**

■ Characteristic curves / Motor protection  
**BW250**



■ Variation of internal accessory

- 32 to100AF

Auxiliary switch (Type W)



This switch is used for indicator lamp or control circuit.  
See page 06/69.

Alarm switch (Type K)



This switch can be connected to a warning lamp or buzzer to indicate when the breaker has been tripped.  
See page 06/69.

Shunt trip device (Type F)



The purpose of this accessory is to trip the breaker from a distance.  
See page 06/70.

Terminal block (Type A)



A wiring terminal for internal accessories  
(Order with W, K or F)  
See page 06/71.

Undervoltage trip device (Type R)



The device is designed to protect circuits from harmful voltage drops.  
It can also be used for remote control purposes. The trip operates when the voltage drops to less than 70% of nominal coil rating, and the breaker cannot be reset until the voltage recovers 85% of its normal rating.  
See page 06/70.

# Molded Case Circuit Breakers

## G-TWIN series

### Accessories

#### ■ Variation of internal accessory

- 125 to 250AF

Auxiliary switch (Type W)



This switch is used for indicator lamp or control circuit.  
See page 06/69.

Alarm switch (Type K)



This switch can be connected to a warning lamp or buzzer to indicate when the breaker has been tripped.  
See page 06/69.

Shunt trip device (Type F)

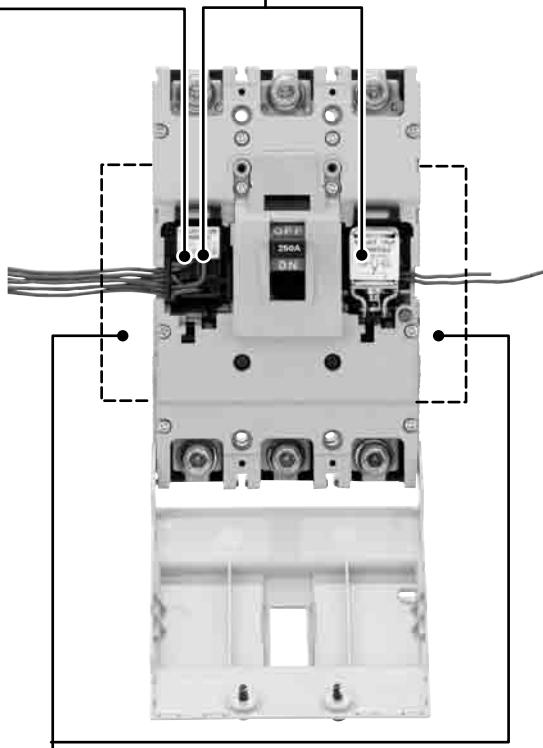


The purpose of this accessory is to trip the breaker from a distance.  
See page 06/70.

Undervoltage trip device (Type R)



The device is designed to protect circuits from harmful voltage drops.  
It can also be used for remote control purposes. The trip operates when the voltage drops to less than 70% of nominal coil rating, and the breaker cannot be reset until the voltage recovers 85% of its normal rating.  
See page 06/70.



Terminal block (Type A)



A wiring terminal for internal accessories  
(Factory-mounted)  
See page 06/71.

■ Variation of internal accessory

- 400 to 800AF

Alarm switch (Type K)



This switch can be connected to a warning lamp or buzzer to indicate when the breaker has been tripped. See page 06/69.

Shunt trip device (Type F)



The purpose of this accessory is to trip the breaker from a distance. See page 06/70.

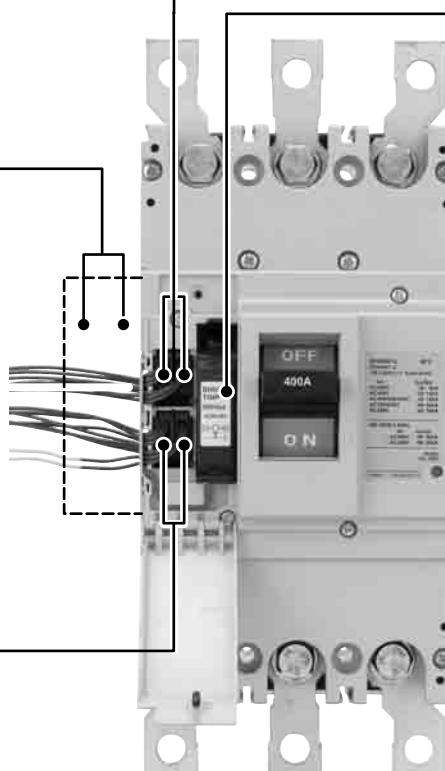
Terminal block (Type A)

A wiring terminal for internal accessories (Factory-mounted)  
See page 06/71.

Auxiliary switch (Type W)



This switch is used for indicator lamp or control circuit. See page 06/69.



Undervoltage trip device (Type R)



The device is designed to protect circuits from harmful voltage drops. It can also be used for remote control purposes. The trip operates when the voltage drops to less than 70% of nominal coil rating, and the breaker cannot be reset until the voltage recovers 85% of its normal rating. See page 06/70.

# Molded Case Circuit Breakers

## G-TWIN series

### Accessories

#### ■ Variation of external accessory

##### External operating handles

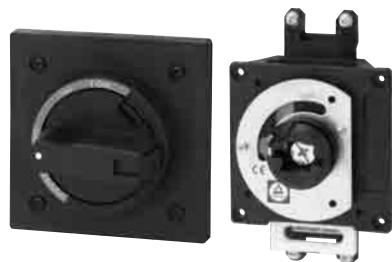
- N-type

See page 06/79.



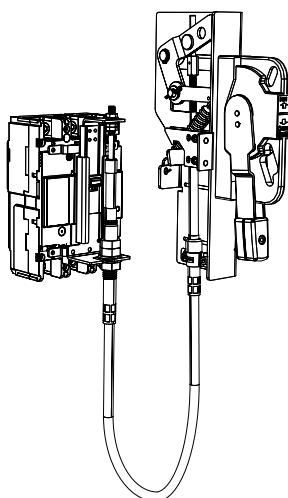
- V-type

See page 06/79.



- F-type

See page 06/79.



##### Terminal cover

##### Long type

See page 06/90.



##### Interphase barrier

See page 06/92.



##### Terminal cover

##### Short type

See page 06/91.



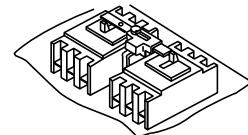
##### Steel enclosures

See page 06/88.



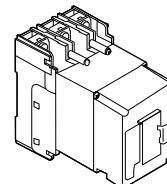
##### Mechanical interlock device

See page 06/75.



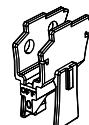
##### Motor-operating mechanism

See page 06/74.



##### Handle locking cover (L1)

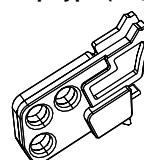
See page 06/93.



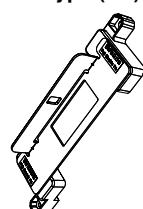
##### Padlocking device

See page 06/93.

- Cap type (Q1, QN)

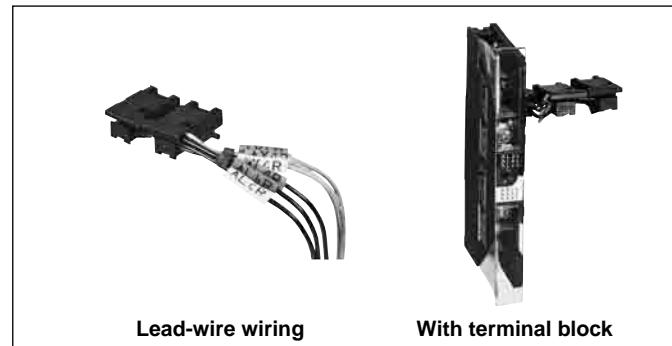


- Plate type (Q2)



■ Terminal blocks for auxiliary circuit

- It indicates the terminal No. of internal accessory. The connection method of internal accessory is lead-wire system and terminal block system.
- For the available configuration of internal accessory, see page 06/68.



• Terminal number of internal accessory

Accessory		32 – 250AF	400 – 800AF
		Left side mounting	Right side mounting
Auxiliary switch	SPDT: W (1)*	<p>11 AXcL 12 AXbL 14 AXaL</p>	<p>21 AXcR 22 AXbR 24 AXaR</p>
	2PDT: V (2)*	<p>11 AXcL 12 AXbL 14 AXaL</p>	<p>21 AXcR 22 AXbR 24 AXaR</p>
	SPDT: K (8)*	<p>91 ALcL 92 ALbL 94 ALaL</p>	<p>01 ALcR 02 ALbR 04 ALaR</p>
	2PDT: J (9)*	<p>91 ALcL 92 ALbL 94 ALaL</p>	<p>01 ALcR 02 ALbR 04 ALaR</p>
Shunt trip device : F	With 1NO contact to prevent coil burn-out	<p>C2 S2 C1 S1</p>	—
	Continuous rating	—	<p>C2 S2 C1 S1</p>
Undervoltage trip device : R		—	<p>D2 P2 U&lt; D1 P1</p>

Note: \* ( ) Code of Low level circuit

# Molded Case Circuit Breakers

## G-TWIN series

### Internal accessories

#### ■ Available configurations

	2-pole  Handle	3-pole  Handle	4-pole  Handle			
				 Undervoltage trip: R (Internal)	 Shunt trip: F	 Auxiliary switch: W
				 Undervoltage trip: R (External)		 Alarm switch: K
						 Lead wire
MCCB	<b>BW32□-2P</b> BW50□-2P BW63□-2P BW100□-2P	<b>BW32□-3P</b> BW50□-3P BW63□-3P BW100□-3P	<b>BW125JAG-2P</b> BW125JAGU-2P	<b>BW125</b> BW160 BW250  (Except for BW125JAG-2P, BW125JAGU-2P)		<b>BW400</b> BW630 BW800
Pole	2	3	2	2, 3	4	2, 3, 4
Auxiliary switch SPDT: W (1)*						
Alarm switch SPDT: K (8)*						
Shunt trip: F						
Undervoltage trip: R	*2 	*2 				
W+K (1+8)						
Auxiliary switch 2PDT: V (2)						
Alarm switch 2PDT: J (9)						
V+K (2+8)						
W+J (1+9)						
V+J (2+9)						
W+F (1+F)						
W+R (1+R)	*2 	*2 				
K+F (8+F)						
K+R (8+R)	*2 	*2 				
W+K+F (1+8+F)						
W+K+R (1+8+R)	*2 	*2 				
V+F (2+F)						
V+R (2+R)				*2 		
J+F (9+F)						
J+R (9+R)				*2 		
V+K+F (2+8+F)						
V+K+R (2+8+R)				*2 		
W+J+F (1+9+F)						
W+J+R (1+9+R)				*2 		
V+J+F (2+9+F)					*1 	
V+J+R (2+9+R)				*2 	*1 	

Notes: •The above table is applied to front mounting type, rear mounting type, flush mounting type, and plug-in mounting type.

• Terminal block is attached on the same side of the accessory.

• ( ) Code of low level circuit □:See page 06/2.

\*1 Configurations with terminal block are not available.

\*2 Flush mounting, rear connection type breakers of 100AF or less are not available.

■ Operation of auxiliary switches(W) and alarm switches(K)

Accessory	Handle position	ON	OFF	Trip
Auxiliary switch SPDT: W (1)	ON	11/AxCL → 14/AXaL ↓ 12/AXbL		11/AxCL → 14/AXaL ↓ 12/AXbL
	OFF			
2PDT: V (2)	ON	11/AxCL → 14/AXaL ↓ 12/AXbL 21/AXcR → 24/AXaR ↓ 22/AXbR		11/AxCL → 14/AXaL ↓ 12/AXbL 21/AXcR → 24/AXaR ↓ 22/AXbR
	OFF			
Alarm switch SPDT: K (8)	ON	91/ALcL → 94/ALaL ↓ 92/ALbL		91/ALcL → 94/ALaL ↓ 92/ALbL
	OFF			
2PDT: J (9)	ON	91/ALcL → 94/ALaL ↓ 92/ALbL 01/ALcR → 04/ALaR ↓ 02/ALbR		91/ALcL → 94/ALaL ↓ 92/ALbL 01/ALcL → 04/ALaR ↓ 02/ALbR
	OFF			

Note:  Ring mark indication  
( ) Code of low level circuit

■ Ratings of auxiliary switches(W) and alarm switches(K)

• 32-100AF

Standard type	IEC60947-5-1			NECA C4505			Minimum load current	
	Voltage (V)	Make/break current (A)		Voltage (V)	Make/break current (A)	Res. load		
		AC 15	DC 13					
125 AC	5	—	—	125 AC	5	—	5V DC 160mA 30V DC 30mA	
250 AC	5	—	—	250 AC	3	—		
—	—	—	—	30 DC	4	—		
125 DC	—	0.6	—	125 DC	0.4	—		
250 DC	—	0.3	—	250 DC	0.2	—		
Low level circuit	—	—	—	30 DC	0.1	—	5V DC 1mA	

• 125-800AF

Standard type	Rated thermal current (A)	Rated operational current (A)						Minimum load current	
		AC		DC					
		Rated operational Voltage (V)	Res. load	Ind. load	Rated operational Voltage (V)	Res. load	Ind. load		
125	5	24	5	5	24	4	3	5V DC 160mA 30V DC 30mA	
		48	5	5	48	2.5	1		
		125	5	3	125	0.4	0.4		
		250	3	2	250	0.2	0.2		
Low level circuit	0.1	30	0.1	—	30	0.1	—	5V DC 1mA	

# Molded Case Circuit Breakers

## G-TWIN series

### Internal accessories

#### ■ Rating of shunt trip (F)

MCCB type	AC		DC		Code	Time rating of coil	Operating time (ms)
	V	VA	V	W			
BW32	100-120	150	100-110	150	FAC100-120V/ DC100-110V	Continuous (With 1NO contact to prevent coil burn-out)	7-13
BW50	200-240	150	—	—	FAC200-240V		
BW63	380-450	200	—	—	FAC380-450V		
BW100	24	150	24	150	FAC/DC24V		
BW125	24	50	24	50	FAC/DC24V	13-21	
BW160	48	50	48	50	FAC/DC48V		
BW250	100-120	50	100-110	50	FAC100-120V/ DC100-110V		
	120-130	50	—	—	FAC120-130V		
	200-240	50	200-220	50	FAC200-240V/ DC200-220V		
	277	50	—	—	FAC277V		
	380-440	50	—	—	FAC380-440V		
	440-480	50	—	—	FAC440-480V		
	500-550	50	—	—	FAC500-550V		
BW400	24-48	2	24-48	2	FAC/DC24-48V	Continuous	8-20
BW630	100-240	3	100-220	3	FAC100-240V/ DC100-220V		
BW800	277	3	—	—	FAC277V		
	380-550	4	—	—	FAC380-550V		

Note: The operating tripping voltage range for shunt trip devices is 70% to 110% of the rated operating voltage.

#### ■ Rating of undervoltage trip (R)

MCCB type	Installation	AC		DC		Code
		V	VA	V	W	
BW32 *2	External	100 (50Hz)/ 100-110(60Hz)	2.8	—	—	RAC100(50Hz)/ 100-110V(60Hz)
BW50 *2		200 (50Hz)/ 200-220 (60Hz)	3.4	—	—	RAC200(50Hz)/ 200-220V(60Hz)
BW63 *2		400 (50Hz)/ 400-440 (60Hz)	4.4	—	—	RAC400(50Hz)/ 400-440V(60Hz)
BW100 *2		—	—	24	40	RDC24V
		—	—	100-110		RDC100-110V
BW125 *1		—	—	24	5	RDC24V
BW160 *1	Internal	—	—	48	5	RDC48V
BW250 *1		—	—	100-110	5	RDC100-110V
		—	—	125	5	RDC125V
		100-110	5	—	—	RAC100-110V
		110-130	5	—	—	RAC110V-130V
		200-240	5	—	—	RAC200-240V
		277	5	—	—	RAC277V
		380-415	5	—	—	RAC380-415V
		440-480	5	—	—	RAC440V-480V
BW400 *2		24	2	24	2	RAC/DC24V
BW630 *2		48	2	48	2	RAC/DC48V
BW800 *2		100-110	3	100-110	3	RAC/DC100-110V
		120-130	3	125	3	RAC120-130V/DC125V
		200-240	3	200-220	3	RAC200-240V/DC200-220V
		277	3	—	—	RAC277V
		380-480	4	—	—	RAC380-480V

Notes: • The operating voltages of undervoltage tripping devices are as follows:

Tripping voltage: 35% to 70% of rated voltage, closing voltage: 85% to 110% of rated voltage.

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

Turning ON with the R coil not energized causes normal tripping.

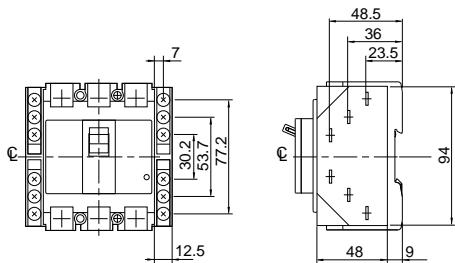
\*2 Reset-prohibited type: When the R coil is not energized, reset operation cannot reset the tripped breaker to the OFF state.

■ Lead wire specification

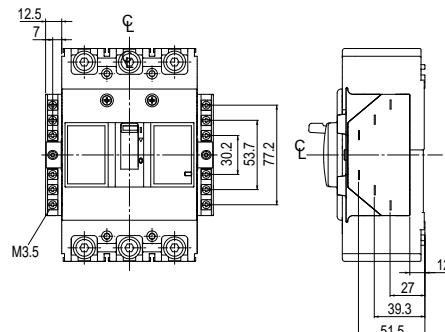
AF	Pole	wire size	Wire length
32 to 100AF	—	0.4mm <sup>2</sup> (AWG22)	Ca 500mm
125 to 250AF	2P, 3P	0.5mm <sup>2</sup> (AWG20)	
	4P		
400 to 800AF	2P, 3P	0.5mm <sup>2</sup>	Ca 500mm
	4P		Ca 400 to 450mm

■ Terminal blocks

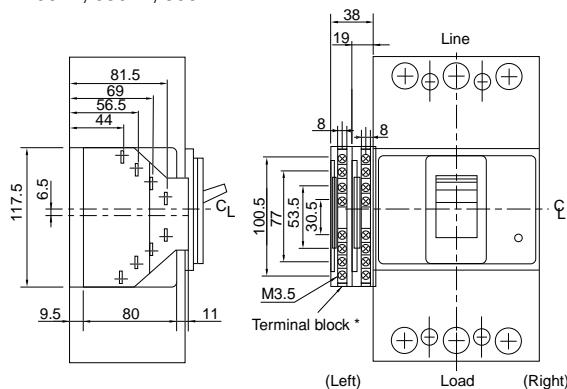
32AF, 50AF, 63AF, 100AF



125AF, 160AF, 250AF



400AF, 630AF, 800AF

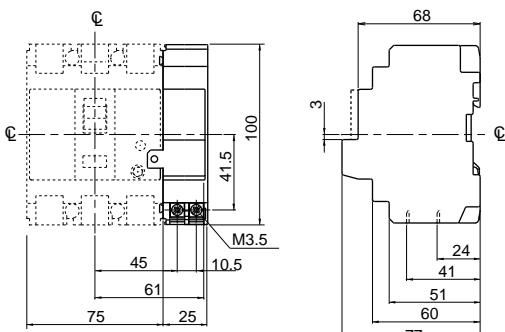


Notes:

- \* If the chosen combination has more than 8 terminals, 2 terminal blocks are mounted.
- Mount the terminal block on the surface on which the accessories are mounted. See the table of the combinations of internal accessories on pages 06/68. for information on the accessory mounting position.
- Available wire: Solid wire: 1.6Ø Stranded wire: 2mm<sup>2</sup>
- Terminal blocks are available as factory mounted only.

■ Undervoltage trip device

32AF, 50AF, 63AF, 100AF



Mass: 0.15kg

Molded Case Circuit Breakers  
**G-TWIN series**  
Internal accessories

■ Type number

Internal accessories (Sold separately)

• 32, 50, 63, 100AF IEC/EN/GB/JIS conformed

Accessory	Type				Operating voltage	
	Lead wire system		Terminal block system			
	Left side	Right side	Left side	Right side		
Auxiliary switch	BZ6WL10C	BZ6WR10C	BZ6WL10CA	BZ6WR10CA		
Auxiliary switch (low level circuit)	BZ6WDL10C	BZ6WDR10C	BZ6WDL10CA	BZ6WDR10CA		
Alarm switch	BZ6KL10C	BZ6KR10C	BZ6KL10CA	BZ6KR10CA		
Alarm switch (low level circuit)	BZ6KDL10C	BZ6KDR10C	BZ6KDL10CA	BZ6KDR10CA		
Auxiliary switch + Alarm switch	BZ6WKL10C	BZ6WKR10C	BZ6WKL10CA	BZ6WKR10CA		
Auxiliary switch + Alarm switch (low level circuit)	BZ6WDKDL10C	BZ6WDKDR10C	BZ6WDKDL10CA	BZ6WDKDR10CA		
Shunt trip device	—	BZ6FA10C	—	BZ6FA10CA	100-120V AC/100-110V DC	
	—	BZ6FK10C	—	BZ6FK10CA	200-240V AC	
	—	BZ6FP10C	—	BZ6FP10CA	380-450V AC	
	—	BZ6FR10C	—	BZ6FR10CA	24V AC/DC	
Undervoltage trip device	—	—	—	BZ6R210C	100V AC 50Hz/100-110V AC 60Hz	
	—	—	—	BZ6R110C	110V AC 50Hz/110-127V AC 60Hz	
	—	—	—	BZ6RW10C	200V AC 50Hz/200-220V AC 60Hz	
	—	—	—	BZ6R410C	220V AC 50Hz/220-240V AC 60Hz	
	—	—	—	BZ6R510C	230V AC 50Hz/230-240V AC 60Hz	
	—	—	—	BZ6R810C	240V AC 50Hz	
	—	—	—	BZ6R010C	380V AC 50Hz 380-415V AC 60Hz	
	—	—	—	BZ6R910C	400V AC 50Hz 400-440V AC 60Hz	
	—	—	—	BZ6RF10C	24V DC	
	—	—	—	BZ6RT10C	100-110V DC	

• 50, 100AF IEC/EN/GB/JIS/UL/CSA conformed

Accessory	Type				Operating voltage	
	Lead wire system		Terminal block system			
	Left side	Right side	Left side	Right side		
Auxiliary switch	BZ6WL10CU	BZ6WR10CU	BZ6WL10CAU	BZ6WR10CAU		
Auxiliary switch (low level circuit)	BZ6WDL10CU	BZ6WDR10CU	BZ6WDL10CAU	BZ6WDR10CAU		
Alarm switch	BZ6KL10CU	BZ6KR10CU	BZ6KL10CAU	BZ6KR10CAU		
Alarm switch (low level circuit)	BZ6KDL10CU	BZ6KDR10CU	BZ6KDL10CAU	BZ6KDR10CAU		
Auxiliary switch + Alarm switch	BZ6WKL10CU	BZ6WKR10CU	BZ6WKL10CA	BZ6WKR10CA		
Auxiliary switch + Alarm switch (low level circuit)	BZ6WDKDL10CU	BZ6WDKDR10CU	BZ6WDKDL10CAU	BZ6WDKDR10CAU		
Shunt trip device	—	BZ6FA10CU	—	BZ6FA10CAU	100-120V AC/100-110V DC	
	—	BZ6FK10CU	—	BZ6FK10CAU	200-240V AC	
	—	BZ6FP10CU	—	BZ6FP10CAU	380-450V AC	
Undervoltage trip device	—	—	—	BZ6R210CAU	100V AC 50Hz/100-110V AC 60Hz	
	—	—	—	BZ6RW10CAU	110V AC 50Hz/110-127V AC 60Hz	
	—	—	—	BZ6R910CAU	200V AC 50Hz/200-220V AC 60Hz	

• 125, 160, 250AF IEC/EN/GB/JIS/UL/CSA conformed

Accessory	Type				Operating voltge	
	Lead wire system		Terminal block system			
	Left side	Right side	Left side	Right side *		
Auxiliary switch	BW9W1SG0	BW9W1SG0-R	BW9W1SG0-A	-	-	
Auxiliary switch (low level circuit)	BW9W1DG0	BW9W1DG0-R	- *			
Alarm switch	BW9K1SG0	BW9K1SG0-R	BW9K1SG0-A			
Alarm switch (low level circuit)	BW9K1DG0	BW9K1DG0-R	- *			
Auxiliary switch + Alarm switch	BW9WKSG0	BW9WK1SG0-R	BW9WKSG0-A			
Auxiliary switch + Alarm switch (low level circuit)	BW9WKDG0	BW9WK1DG0-R	- *			
Shunt trip device	BW9FRG0	BW9FRG0	BW9FRG0-A		24V AC/DC	
	BW9FSG0	BW9FSG0	BW9FSG0-A		48V AC/DC	
	BW9FAG0	BW9FAG0	BW9FAG0-A		100-120V AC/100-110V DC	
	BW9F1G0	BW9F1G0	BW9F1G0-A		120-130V AC	
	BW9FKG0	BW9FKG0	BW9FKG0-A		200-240V AC/200-220V DC	
	BW9FBG0	BW9FBG0	BW9FBG0-A		277V AC	
	BW9FPG0	BW9FPG0	BW9FPG0-A		380-440V AC	
	BW9FHG0	BW9FHG0	BW9FHG0-A		440-480V AC	
	BW9FJG0	BW9FJG0	BW9FJG0-A		500-550V AC	
Undervoltage trip devics	BW9RGAR	-	BW9RGAR-A		24V DC	
	BW9RGAS		BW9RGAS-A		48V DC	
	BW9RGAL		BW9RGAL-A		100-110V DC	
	BW9RGA5		BW9RGA5-A		125V DC	
	BW9RGAA		BW9RGAA-A		100-110V AC	
	BW9RGAT		BW9RGAT-A		110-130V AC	
	BW9RGAK		BW9RGAK-A		200-240V AC	
	BW9RGAB		BW9RGAB-A		277V AC	
	BW9RGAP		BW9RGAP-A		380-415V AC	
	BW9RGAH		BW9RGAH-A		440-480V AC	

Note: \* Factory-mounted

• 400, 630, 800AF IEC/EN/GB/JIS/UL/CSA conformed

Accessory	Type				Operating voltge	
	Lead wire system		Terminal block system *			
	Left side		Left side			
Auxiliary switch x 1	BW9W1SHA	-			-	
Auxiliary switch x 2	BW9W2SHA					
Auxiliary switch (low level circuit) x 1	BW9W1DHA					
Auxiliary switch (low level circuit) x 2	BW9W2DHA					
Alarm switch x 1	BW9K1SHA					
Alarm switch x 2	BW9K2SHA					
Alarm switch (low level circuit) x 1	BW9K1DHA					
Alarm switch (low level circuit) x 2	BW9K2DHA					
Shunt trip device	BW9FHA-R				24-48V AC/DC	
	BW9FHA-A				100-240V AC/100-220V DC	
	BW9FHA-B				277V AC	
	BW9FHA-P				380-550V AC	
Undervoltage trip devics	BW9RHA-R				24V AC/DC	
	BW9RHA-S				48V AC/DC	
	BW9RHA-A				100-110 AC/DC	
	BW9RHA-1				120-130V AC/125V DC	
	BW9RHA-K				200-240V AC/200-220V DC	
	BW9RHA-B				277V AC	
	BW9RHA-P				380-480V AC	

Note: \* Factory-mounted

# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

#### Motor-operated breakers

##### ■ Description

The breaker is fitted with a motor operating mechanism which enables ON, OFF and RESET operations to be carried out electronically by remote control.

The breakers do not conform to IEC and EN standard.



##### ■ Type and ratings

MCCB type	Motor rating			Power source capacity	Mass (kg)
	Operating voltage	Operating time	Time rating		
BW32□-3P□M, BW50□-3P□M, BW63□-3P□M, BW100□-3P□M	100V DC 100/110V AC 200/220V AC	0.1s	15s per on-off operation	500VA	1.2 1.3

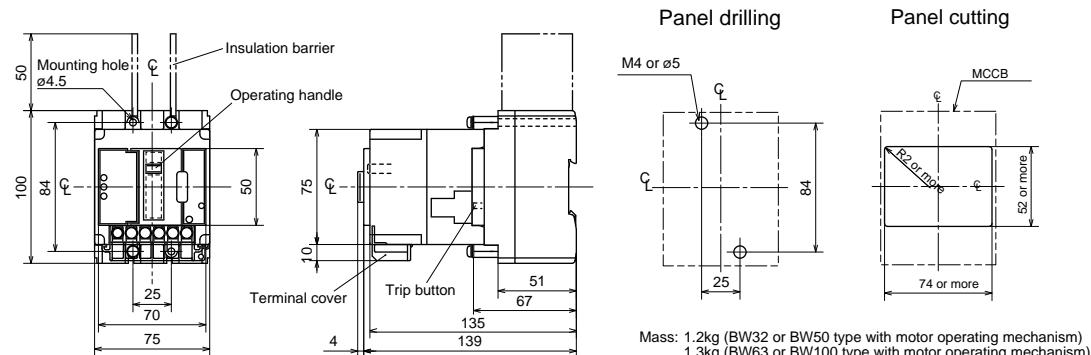
##### ■ Ordering information

Specify the following:

1. Type number
2. Motor operating voltage

##### ■ Dimensions, mm / Front mounting, front connection

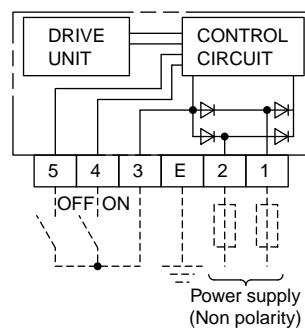
BW32□-3P, BW50□-3P, BW63□-3P, BW100□-3P,



Notes: • Trip button operation can be carried out at right side of the breaker.  
• IEC 35mm wide mounting rail is not available.

##### ■ Wiring diagrams

100/110V AC, 200/220V AC, 100V DC



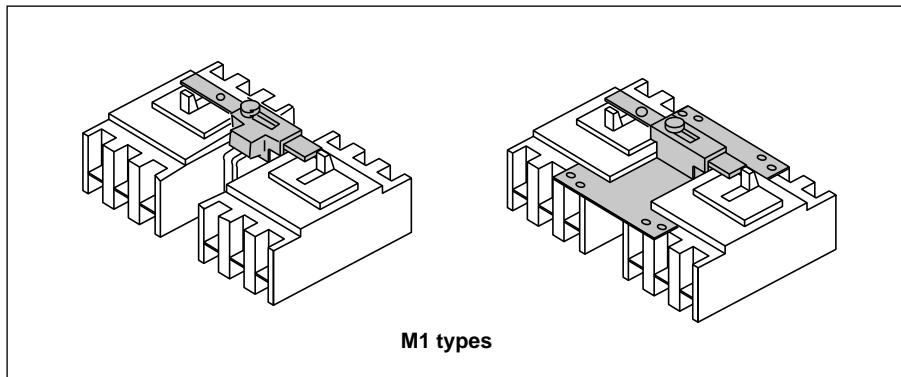
## Mechanical interlocking devices

### ■ Description

These interlocking devices are mounted on the two separate breakers to prevent them from both being closed at the same time. A sliding mechanism that can be locked with a padlock is used. (The padlock is not included.)

They are designed for use when changing over power supplies.

These can be mounted to 3 types of breakers: front-mounting front-connection type, front-mounting rear-connection type (type X), and plug-in mounting type (type P). Interlock devices for flush mounting type breakers (type E, Y) are also available.



### ■ Type and applicable breakers

Type	Breaker type
<b>BZ6M110C2</b>	BW32AAG-2P, BW32SAG-2P BW50AAG-2P, BW50EAG-2P, BW50SAG-2P, BW50RAG-2P BW63EAG-2P, BW63SAG-2P, BW63RAG-2P BW100EAG-2P
<b>BZ6M110C3</b>	BW32AAG-3P, BW32SAG-3P BW50AAG-3P, BW50EAG-3P, BW50SAG-3P, BW50RAG-3P BW63EAG-3P, BW63SAG-3P, BW63RAG-3P BW100AAG-3P, BW100EAG-3P
<b>BW9M1CA-2</b>	BW125JAG-2P
<b>BW9M1CA-3</b>	BW125JAG-3P, BW125SAG-2P, BW125SAG-3P, BW125RAG-2P, BW125RAG-3P
<b>BW9M1CA-4</b>	BW125JAG-4P, BW125SAG-4P, BW125RAG-4P
<b>BW9M1GA-3</b>	BW160EAG-2P, BW160EAG-3P, BW160JAG-2P, BW160JAG-3P BW160SAG-2P, BW160SAG-3P, BW160RAG-2P, BW160RAG-3P BW250EAG-2P, BW250EAG-3P, BW250JAG-2P, BW250JAG-3P BW250SAG-2P, BW250SAG-3P, BW250RAG-2P, BW250RAG-3P
<b>BW9M1GA-4</b>	BW160JAG-4P, BW160SAG-4P, BW160RAG-4P BW250JAG-4P, BW250SAG-4P, BW250RAG-4P
<b>BW9M1HA-3</b>	BW400EAG-2P, BW400EAG-3P, BW400SAG-2P, BW400SAG-3P BW400RAG-2P, BW400RAG-3P, BW400HAG-2P, BW400HAG-3P
<b>BW9M1HA-4</b>	BW400RAG-4P, BW400HAG-4P
<b>BW9M1JA-3</b>	BW630EAG-3P, BW630RAG-3P, BW630HAG-3P BW800EAG-3P, BW800RAG-3P, BW800HAG-3P

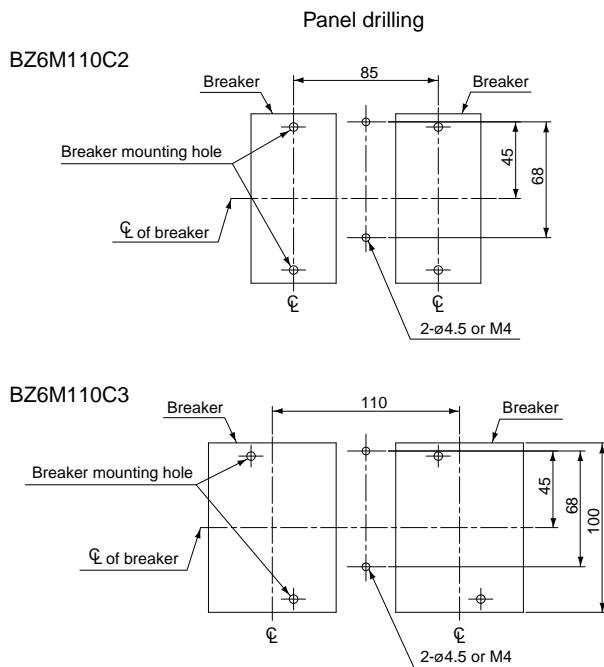
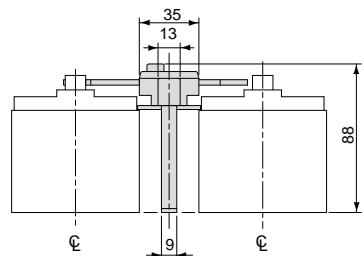
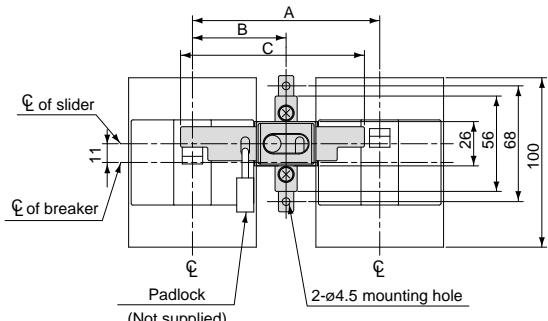
# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

#### ■ Dimensions, mm

• 32AF to 100AF

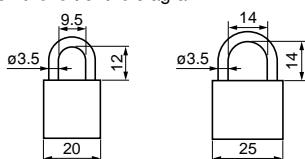


Type	Dimensions, mm		Mass (kg)	
	A	B	C	
<b>BZ6M110C2</b>	85	42.5	83	0.11
<b>BZ6M110C3</b>	110	55	108	0.12

Notes:

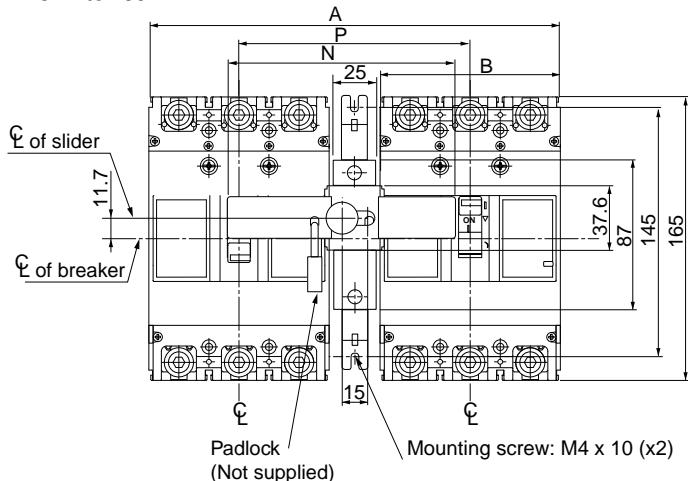
- BZ6M110C2 is not available for padlock.

- Applicable padlock (ø3.5) dimensions, mm
- External installation forms F and R are not applicable to the MCCB on the left of the diagram.



■ Dimensions, mm

• 125AF to 250AF



Panel drilling

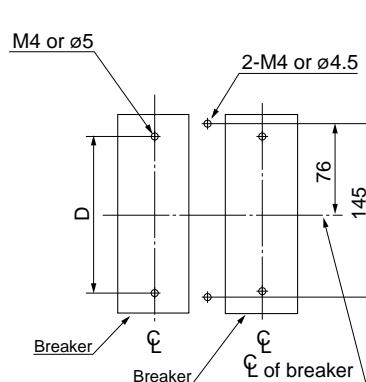


Fig.1

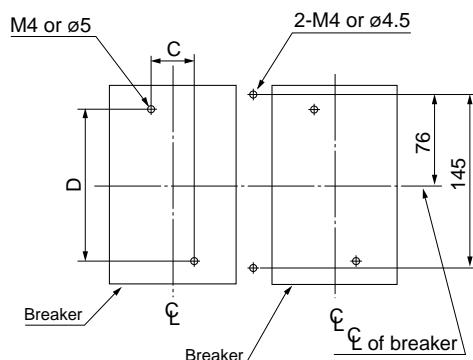
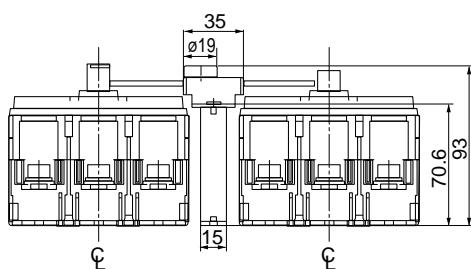


Fig.2

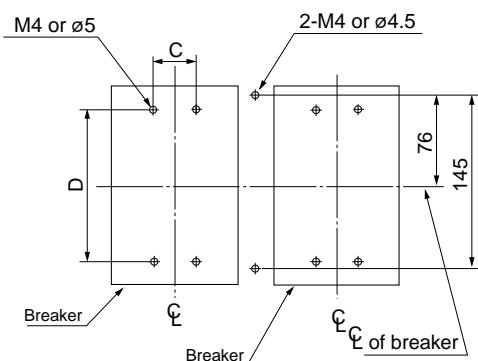


Fig.3

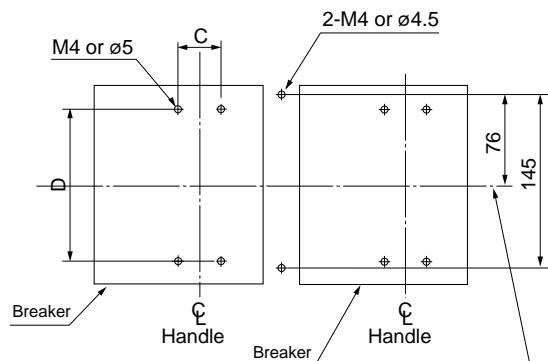
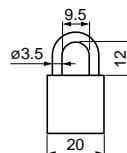


Fig.4

Type	Dimensions, mm						Panel Drilling	Mass(Kg)
	P	N	A	B	C	D		
<b>BW9M1CA-2</b>	90	88	150	60	—	132	Fig.1	
<b>BW9M1CA-3</b>	120	118	210	90	30	132	Fig.2	
<b>BW9M1CA-4</b>	150	148	270	102	30	132	Fig.4	
<b>BW9M1GA-3</b>	135	133	240	105	35	126	Fig.3	
<b>BW9M1GA-4</b>	170	168	310	140	35	126	Fig.4	

Notes: • The dimensions and Breaker mounting holes for back surface mounting are different from those given above. Inquire for details.

- If a padlock is required, use a commercially available padlock with the dimensions shown in the diagram at the right.
- External installation forms F and R are not applicable to the MCCB on the left of the diagram.



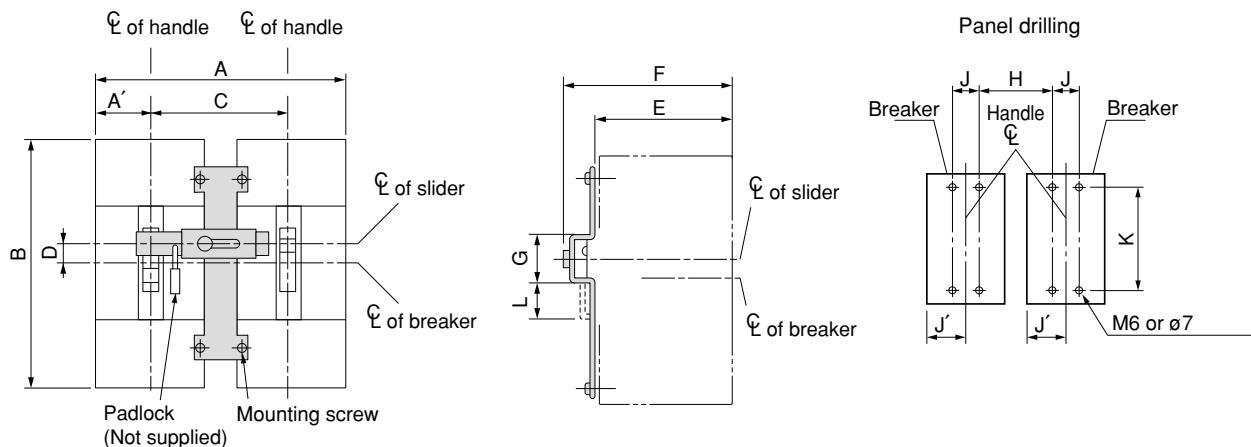
# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

#### ■ Dimensions, mm

• 400AF to 800AF



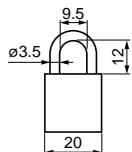
Type	Dimensions, mm											Mass(Kg)
	A (A')	B	C	D	E	F	G	H	J (J')	K	L	
<b>BW9M1HA-3</b>	355 (70)	257	215	20	94.5	132.5	54.5	171	44 (70)	215	38	
<b>BW9M1HA-4</b>	470 (140)	257	260	20	94.5	132.5	54.5	216	44 (140)	215	38	
<b>BW9M1JA-3</b>	500 (105)	275	290	20	94.5	132.5	54.5	220	70 (105)	243	38	

Notes:

- The dimensions and Breaker mounting holes for back surface mounting are different from those given above. Inquire for details.

- If a padlock is required, use a commercially available padlock with the dimensions shown in the diagram at the right.

- External installation forms F and R are not applicable to the MCCB on the left of the diagram.



## External operating handles

### ■ Description

Molded case circuit breaker handles are generally directly manual-operated but when mounted in motor control centers or on control panels they are sometimes required to be operated externally. To meet such applications FUJI offers the following three types of handles.

### N type handle

This type has a knob handle directly attached to the breaker. It is easily fitted by cutting a hole in the panel, which is provided with a door interlock. They may be fitted to all breakers up to 800 ampere frame sizes.

Conformed to EN60947-1 isolation function.

Available for EN60204-1 power breaking device.

Conformed to UL489 (File No.E93289)

### V type handle

The V type handle may be fitted to breakers of up to 800AF.

A separately sold extension shaft provides distance adjustment between the handle and breaker.

Conformed to EN60947-1 isolation function.

Available for EN60204-1 power breaking device.

Conformed to UL489 (File No.E93289)

### F type handle

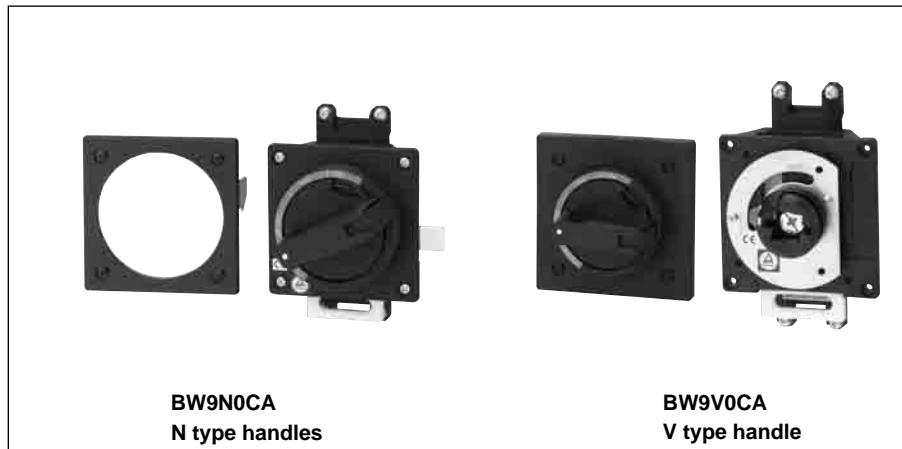
The F type handle may be fitted to breakers of 125 to 400AF.

It is a flange type handle, which is commonly used in the North American market.

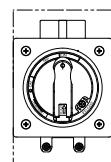
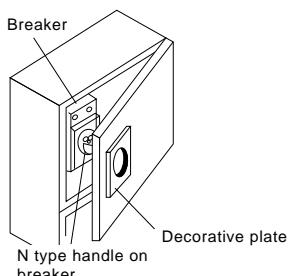
The drive section of the breaker and the external operating handle are connected with an optional cable.

Positioning between the breaker and the external operating handle is not required.

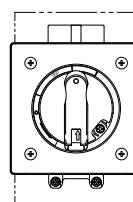
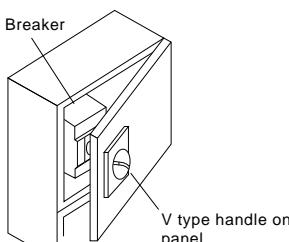
Conformed to UL489 (File No.E93289)



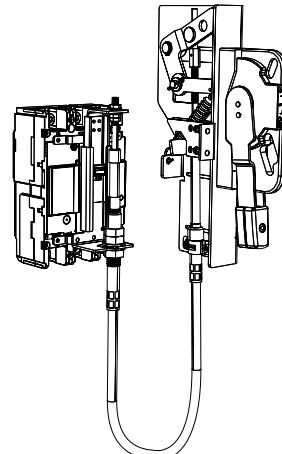
### N type handles



### V type handles



### F type handles



# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

#### N type handles

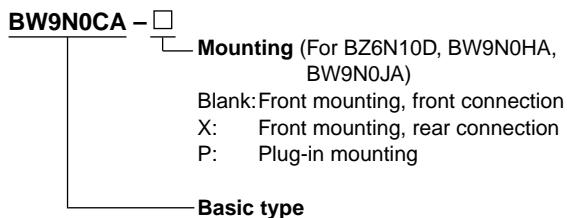
MCCB	N type handle
BW32	<b>BZ6N10D</b>
BW50	
BW63	
BW100	
BW125	<b>BW9N0CA</b>
BW160	<b>BW9N0GA</b>
BW250	
BW400	<b>BW9N0HA</b>
BW630	<b>BW9N0JA</b>
BW800	

#### V type handles

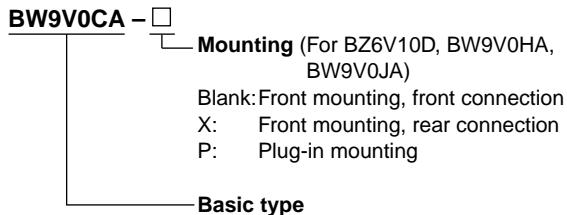
MCCB	V type handle
BW32	<b>BZ6V10D</b>
BW50	
BW63	
BW100	
BW125	<b>BW9V0CA</b>
BW160	<b>BW9V0GA</b>
BW250	
BW400	<b>BW9V0HA</b>
BW630	<b>BW9V0JA</b>
BW800	

#### ■ Type number nomenclature

##### • N type handle



##### • V type handle

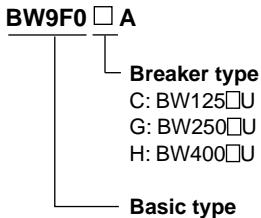


Note:  
To order a V handle for front-mounting rear connection breakers, add “-X” to the type number; for plug-in mounting breakers, add “-P” to the type number.

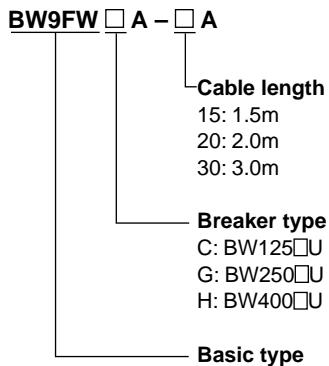
#### F type handles

MCCB	N type handle
BW125	<b>BW9F0CA</b>
BW250	<b>BW9F0GA</b>
BW400	<b>BW9F0HA</b>

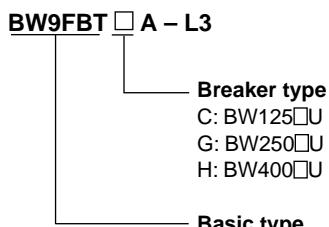
##### • F type handle



#### Cable (For F type)



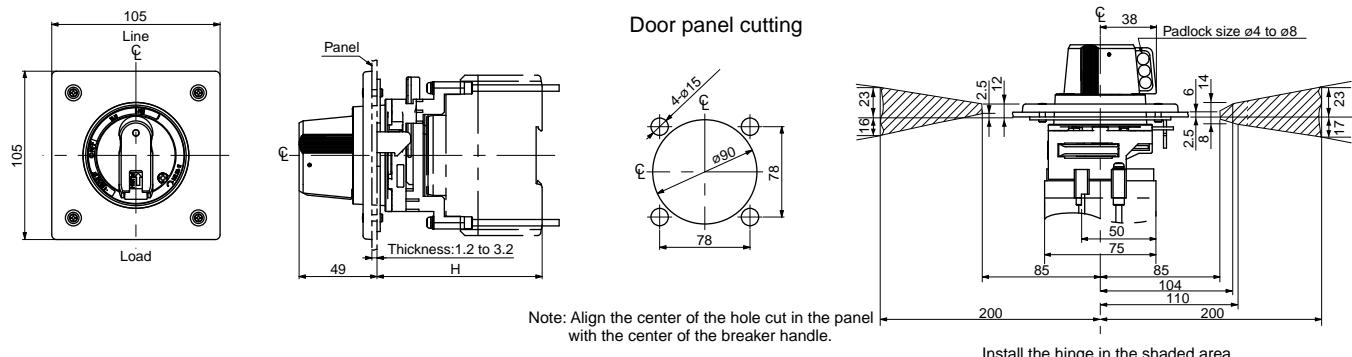
#### Terminal cover (For F type)



■ Dimensions, mm

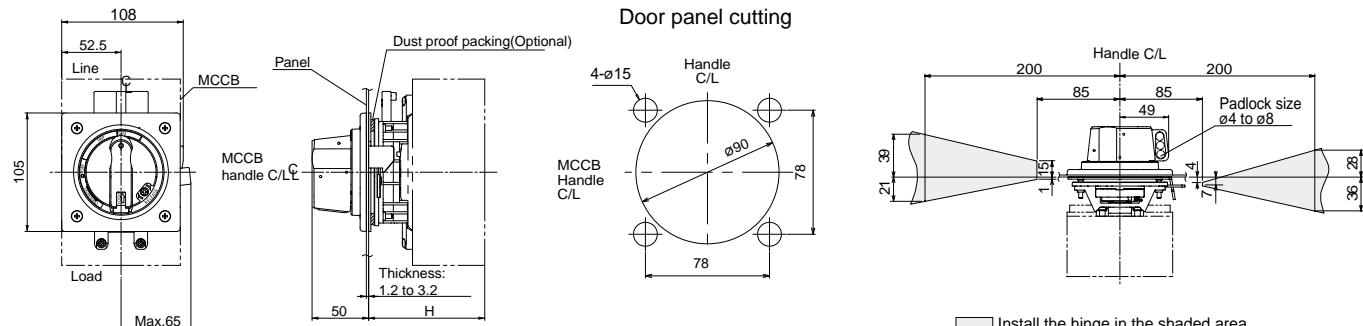
N type handle

• BZ6N10D



MCCB	Handle type	Dust proof packing	Mounting screw	H (mm)	Mass (kg)
BW32	<b>BZ6N10D</b>	Provided	M4 x 85	103	0.47
BW50	<b>BZ6N10D-X</b>	Provided	Contact FUJI.	111	
BW63	<b>BZ6N10D-P</b>			111	
BW100					

• BW9N0CA, BW9N0GA



MCCB	Handle type	Dust proof packing	Mounting screw	H (mm)	Mass (kg)
BW125	<b>BW9N0CA<sup>*1</sup></b>	BZ-NP-1C	M4 x 85	103±2	0.56
BW160	<b>BW9N0GA<sup>*2</sup></b>	BZ-NP-1C	M4 x 85	103±2	0.56
BW250					

Notes:

- The handle lock bars do not hold the entire door. Obtain a support bracket for the panel separately.

• Remove the handle lock bar before opening the door. (Turn the handle in the open direction.)

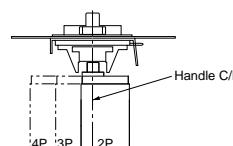
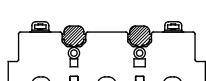
The lock bar will be damaged if the door is opened with force while the lock bar is engaged.

• Engage the door interlock securely before turning ON the power.

<sup>\*1</sup> The Terminal Cover and Handle cannot be attached at the same time for the BW125JAG-2P or BW125RAGU-2P. Select the BW125JAG-3P or BW125RAGU-3P to use a Handle.

<sup>\*2</sup> The terminal cover will cover the mounting screws for the Breaker. When attaching the terminal cover, a portion of the terminal cover will need to be removed.

Remove portion A in the following diagram.

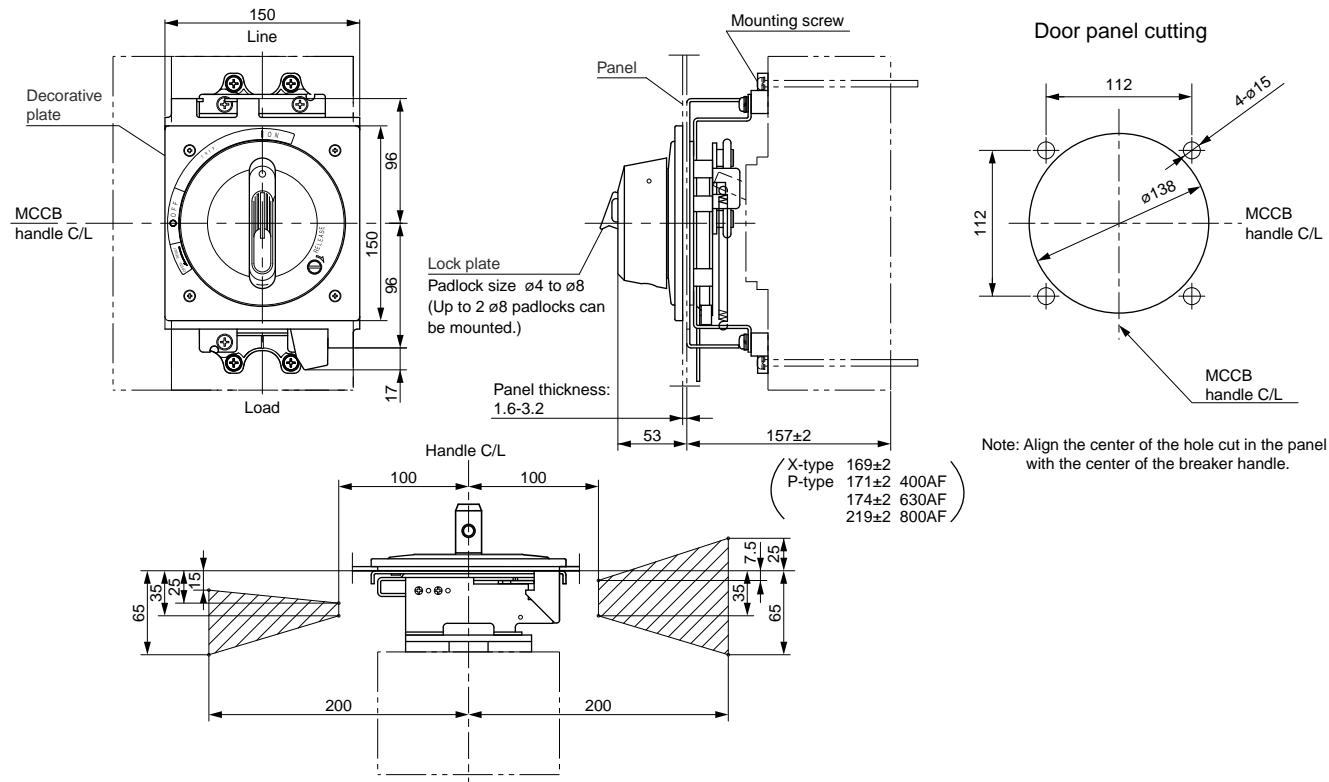


# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

- BW9N0HA, BW9N0JA



Install the door hinge in the shaded area.

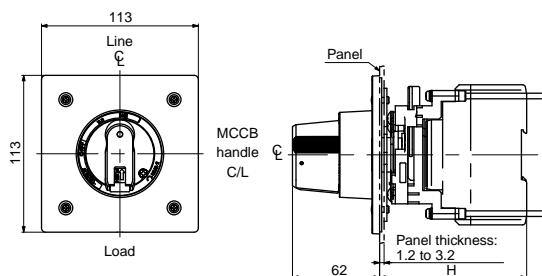
MCCB	Handle type	Dust proof packing	Mounting screw	Mass (kg)
BW400	<b>BW9N0HA</b> <b>BW9N0HA-X</b> <b>BW9N0HA-P</b>	BZ-NP-2	M6 x 110 M6 x 115 Contact FUJI.	1.9
BW630 BW800	<b>BW9N0JA</b> <b>BW9N0JA-X</b> <b>BW9N0JA-P</b>	BZ-NP-2	M6 x 110 M6 x 115 Contact FUJI.	1.9

- Notes:
- The handle lock bars do not hold the entire door. Obtain a support bracket for the panel separately.
  - Remove the handle lock bar before opening the door. (Turn the handle in the open direction.)  
The lock bar will be damaged if the door is opened with force while the lock bar is engaged.
  - Engage the door interlock securely before turning ON the power.
  - Not available for side mounting.

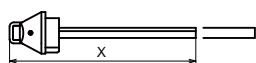
■ Dimensions, mm

V type handle

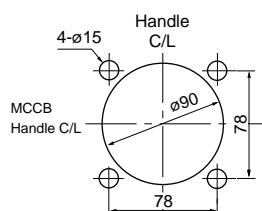
- BZ6V10D



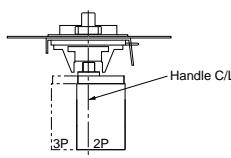
Optional shaft BZ6VS1D  
 $X = H - 105$



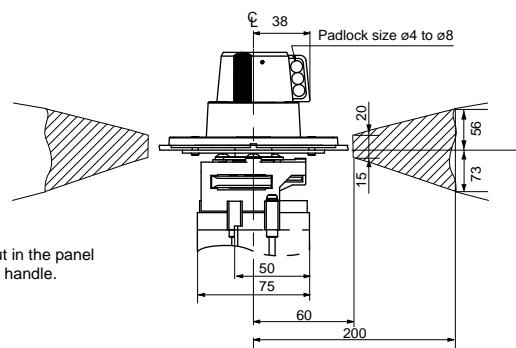
Door panel cutting



Note: Align the center of the hole cut in the panel with the center of the breaker handle.

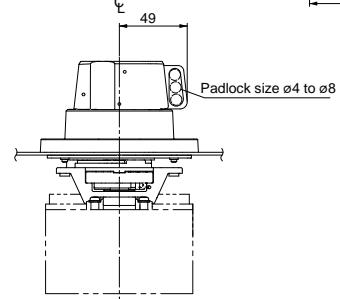
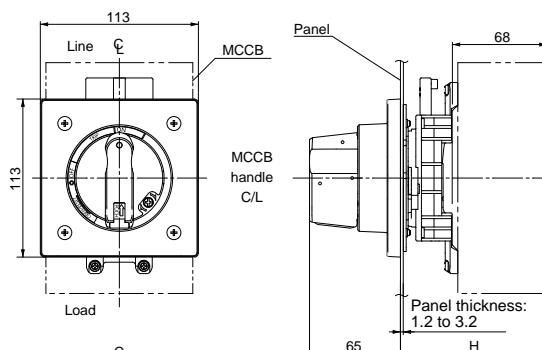


Door hinge installation area

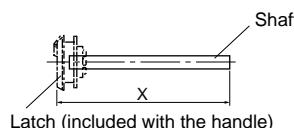


Install the door hinge in the shaded area.

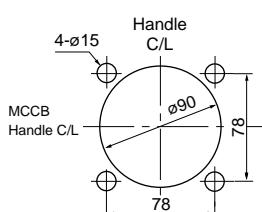
• BW9V0CA, BW9V0GA



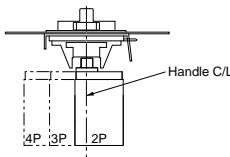
Optional shaft BW9VSG0  
 $X = H - 95$



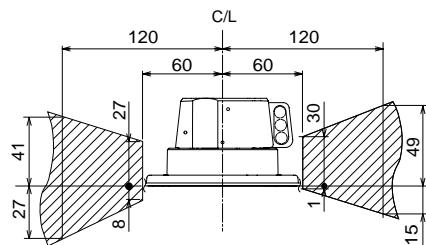
Door panel cutting



Note: Align the center of the hole cut in the panel with the center of the breaker handle.



Door hinge installation area



Install the door hinge in the shaded area.

**Molded Case Circuit Breakers**  
**G-TWIN series**  
**External accessories**

MCCB	Handle type	Optional shaft	Standard type H	With the optional shaft (X=154)		Mounting screw	Mass (kg)
				H	Area in which the hinge with H can be installed		
BW32	<b>BZ6V10D</b>	BZ6VS1D	105±2	250±2	140 to 250	M4 x 80	0.64
BW50			113±2	258±2	150 to 258	Contact FUJI.	0.64
BW63			113±2	258±2	150 to 258	Contact FUJI.	0.64
BW100	<b>BZ6V10D-X</b>	BW9VSG0	105±2	250±2	140 to 250	M4 x 85	0.67
BW125			105±2	250±2	140 to 250	M4 x 85	0.67
BW160* <sup>2</sup>	<b>BW9V0CA</b>	BW9VSG0	105±2	250±2	140 to 250	M4 x 85	0.67
BW250* <sup>2</sup>			105±2	250±2	140 to 250	M4 x 85	0.67

Notes: • The handle lock bars do not hold the entire door. Obtain a support bracket for the panel separately.

- Remove the handle lock bar before opening the door. (Turn the handle in the open direction.)

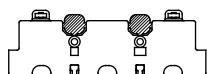
The lock bar will be damaged if the door is opened with force while the lock bar is engaged.

- Engage the door interlock securely before turning ON the power.

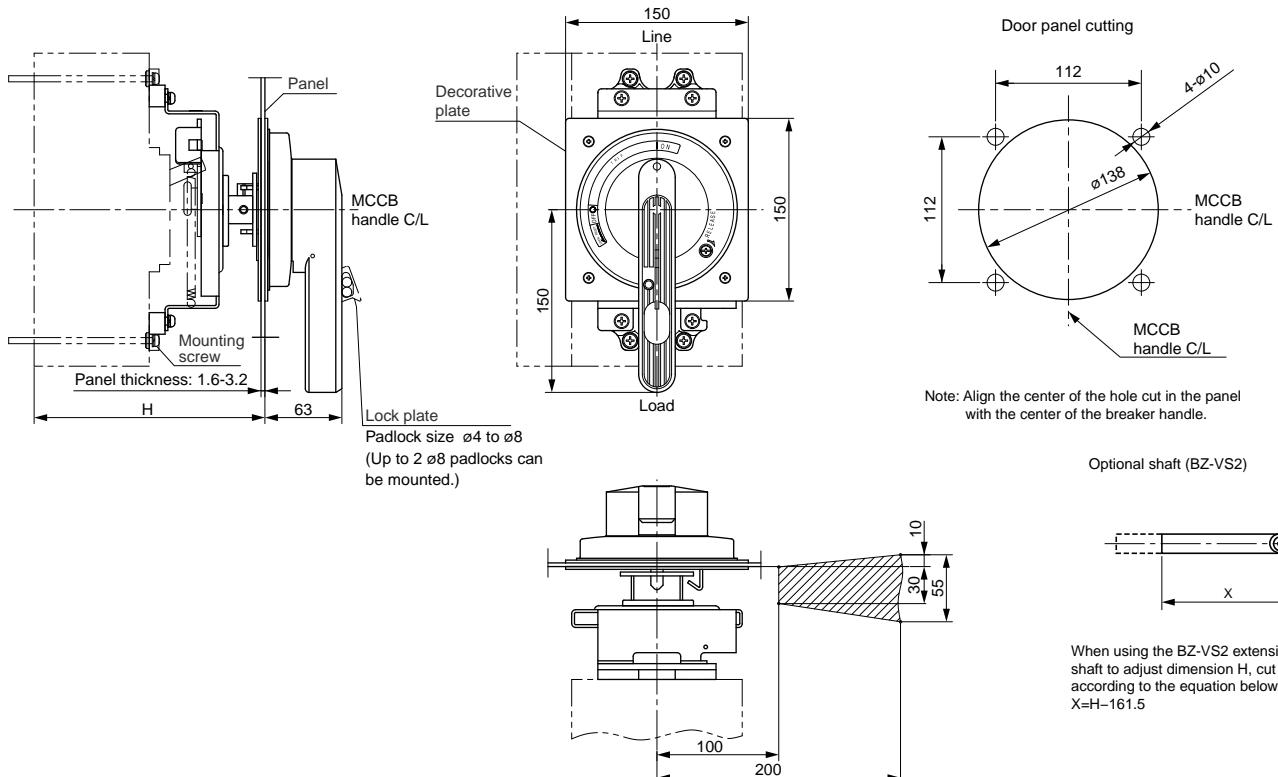
- Not available for side mounting.

\*<sup>1</sup> The Terminal Cover and Handle cannot be attached at the same time for the BW125JAG-2P or BW125RAGU-2P. Select the BW125JAG-3P or BW125RAGU-3P to use a Handle.

\*<sup>2</sup> The terminal cover will cover the mounting screws for the Breaker. When attaching the terminal cover, a portion of the terminal cover will need to be removed. Remove portion A in the following diagram.



• BW9V0HA, BW9V0JA



Install the door hinge in the shaded area.

MCCB	Handle type	Optional shaft	Standard type H	With the optional shaft (X=154)		Mass (kg)
				H	Area in which the hinge with H can be installed	
BW400	BW9V0HA	BZ-VS2	190±2	250±2	202 to 250	2.2
	BW9V0HA-X		202±2	262±2	214 to 262	
	BW9V0HA-P		204±2	264±2	216 to 264	
BW630	BW9V0JA		190±2	250±2	202 to 250	
	BW9V0JA-X		202±2	262±2	214 to 262	
	BW9V0JA-P		207±2	267±2	219 to 269	
BW800	BW9V0JA		190±2	250±2	202 to 250	
	BW9V0JA-X		202±2	262±2	214 to 262	
	BW9V0JA-P		252±2	312±2	264 to 312	

Notes:

- The handle lock bars do not hold the entire door. Obtain a support bracket for the panel separately.
- Remove the handle lock bar before opening the door. (Turn the handle in the open direction.) The lock bar will be damaged if the door is opened with force while the lock bar is engaged.
- Engage the door interlock securely before turning ON the power.
- Not available for side mounting.

# Molded Case Circuit Breakers

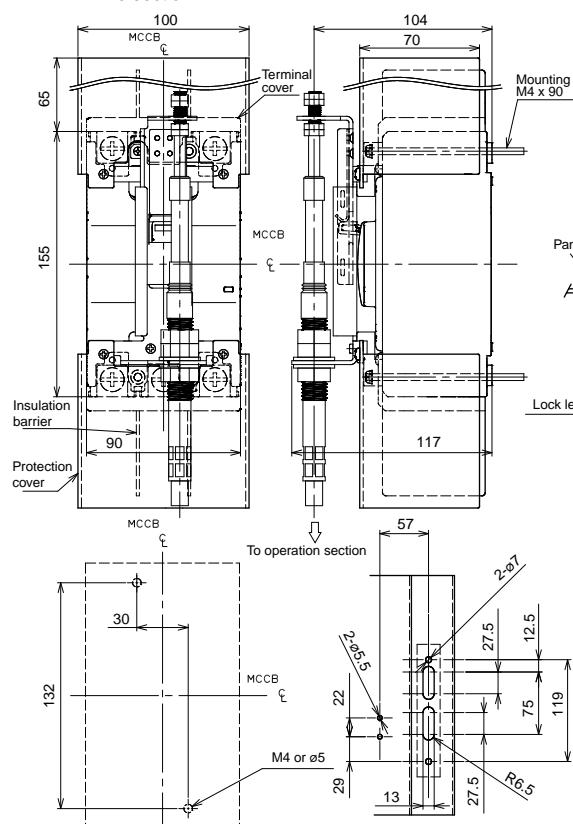
## G-TWIN series

### External accessories

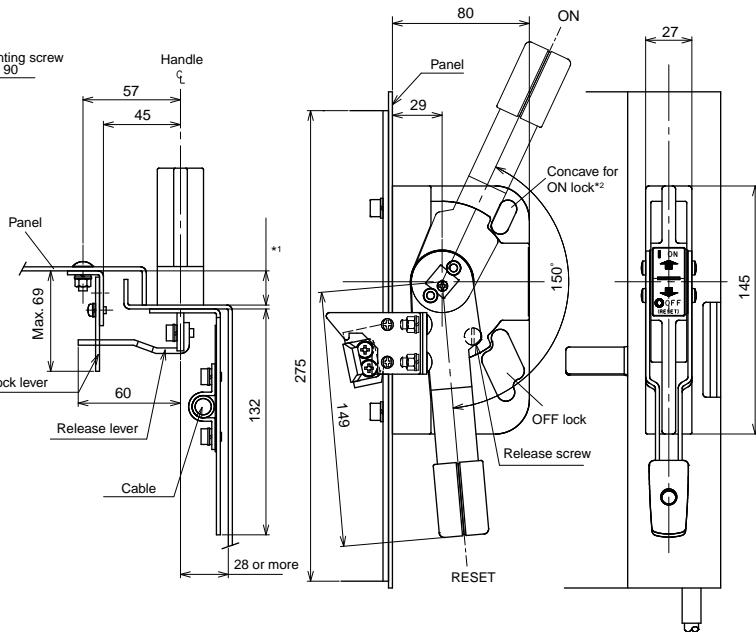
#### ■ Dimensions, mm

##### F type handle

###### • BW9F0CA Drive section

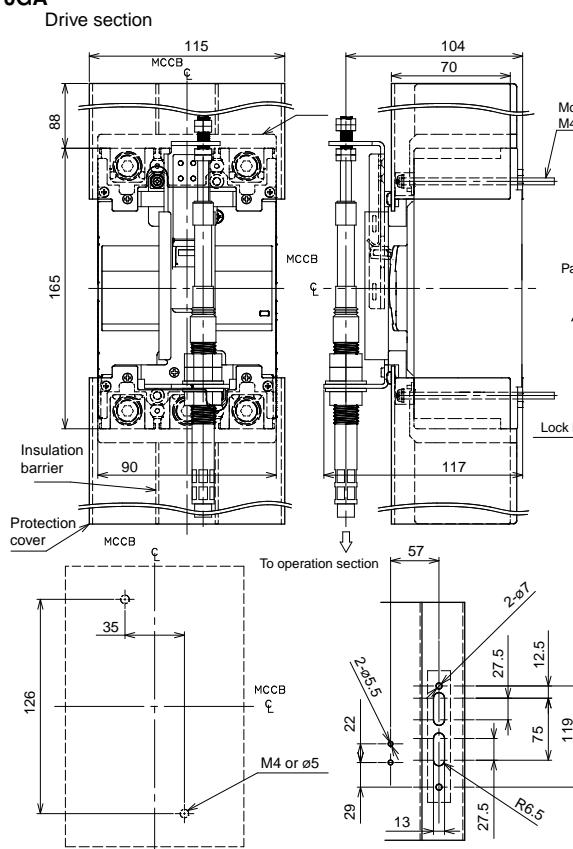


###### Operation section

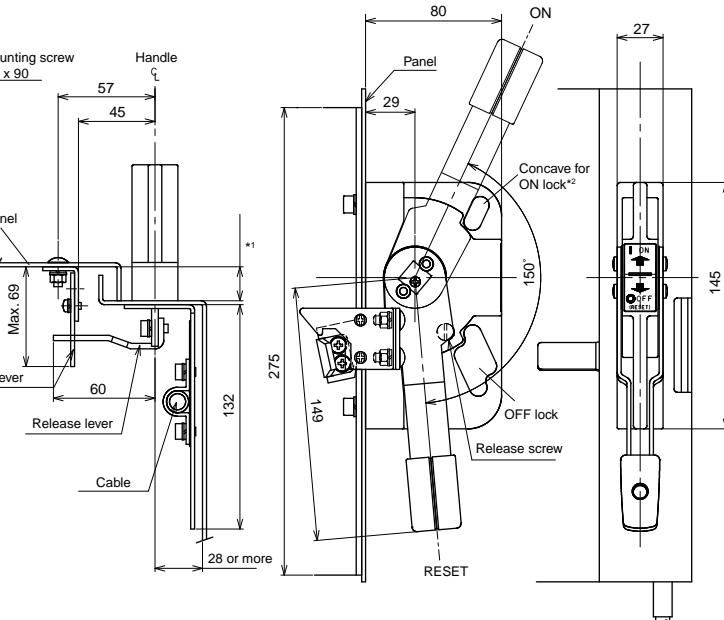


- This product consists of a drive section and an operation section.
- The operation section can be mounted either to the right or to the left on the panel depending on the mounting position of the release lever.
- For the OFF lock, 3 ø10 padlocks can be mounted; for the ON lock, 2 ø10 padlocks.
- \*1 Set the height to 20 or 30. Adjust the lock lever depending on the setting.
- \*2 The ON lock can be realized by additionally creating a concave for the ON lock.

###### • BW9F0GA Drive section

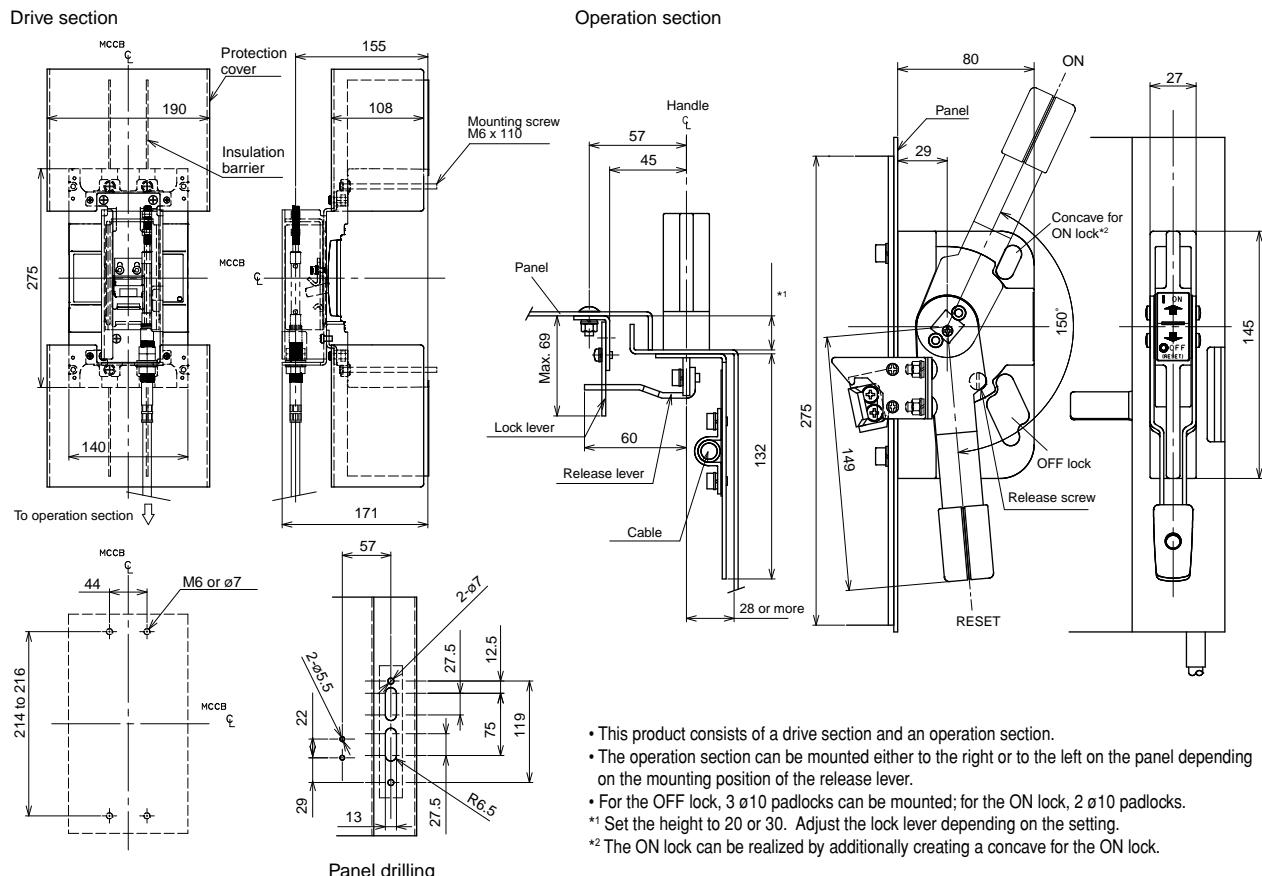


###### Operation section



- This product consists of a drive section and an operation section.
- The operation section can be mounted either to the right or to the left on the panel depending on the mounting position of the release lever.
- For the OFF lock, 3 ø10 padlocks can be mounted; for the ON lock, 2 ø10 padlocks.
- \*1 Set the height to 20 or 30. Adjust the lock lever depending on the setting.
- \*2 The ON lock can be realized by additionally creating a concave for the ON lock.

• BW9F0HA



- This product consists of a drive section and an operation section.
- The operation section can be mounted either to the right or to the left on the panel depending on the mounting position of the release lever.
- For the OFF lock, 3 ø10 padlocks can be mounted; for the ON lock, 2 ø10 padlocks.
- \*1 Set the height to 20 or 30. Adjust the lock lever depending on the setting.
- \*2 The ON lock can be realized by additionally creating a concave for the ON lock.

MCCB *	Handle type	Cable	Length (m)	Terminal cover
		Type		
BW125JAGU-3P	<b>BW9F0CA</b>	<b>BW9FWCA-15A</b>	1.5	<b>BW9FBTCA-L3</b>
BW125RAGU-2P		<b>BW9FWCA-20A</b>	2.0	
BW125RAGU-3P		<b>BW9FWCA-30A</b>	3.0	
BW250EAGU-2P	<b>BW9F0GA</b>	<b>BW9FWGA-15A</b>	1.5	<b>BW9FBTGA-L3</b>
BW250EAGU-3P		<b>BW9FWGA-20A</b>	2.0	
BW250JAGU-2P		<b>BW9FWGA-30A</b>	3.0	
BW250JAGU-3P				
BW250RAGU-2P				
BW250RAGU-3P				
BW400EAGU-2P	<b>BW9F0HA</b>	<b>BW9FWHA-15A</b>	1.5	<b>BW9FBTHA-L3</b>
BW400EAGU-3P		<b>BW9FWHA-20A</b>	2.0	
BW400SAGU-2P		<b>BW9FWHA-30A</b>	3.0	
BW400SAGU-3P				
BW400RAGU-2P				
BW400RAGU-3P				
BW400HAGU-2P				
BW400HAGU-3P				

Note: \* Not available for BW125JAGU-2P

# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

#### Steel enclosures

##### ■ Description

Steel enclosures are available in three types — two with V-type handle which allows the operation from the outside and other with the operating handle of the breaker extending from it to allow it to be directly switched ON or OFF from outside the enclosure.

Enclosures with V-type handles are provided with a door interlocking mechanism which prevents the door from being opened in the ON condition.

Knockout holes for wiring use are provided as shown in the diagram.



##### ■ Type of enclosures

MCCB	Enclosure		
	Standard * <sup>1</sup>	With V-type handle Dustproof * <sup>1*2</sup>	Rainproof * <sup>1*2</sup>
BW32	<b>BZ6C10C2 *<sup>3</sup></b>	<b>BW9UVBA-3A *<sup>3</sup></b>	<b>BW9UWBA-3A *<sup>3</sup></b>
BW50	<b>BZ6C10C3</b>		
BW63			
BW100	<b>BZ6C25C2 *<sup>3</sup></b> <b>BZ6C25C3 *<sup>3</sup></b>	<b>BW9UVBA-3B *<sup>3</sup></b>	<b>BW9UWBA-3B *<sup>3</sup></b>
BW125	<b>BW9UCCA-2</b> <b>BW9UCCA-3</b>	<b>BW9UVCA-3</b>	<b>BW9UWCA-3</b>
BW250	<b>BW9UCGA-3</b>	<b>BW9UVGA-3</b>	<b>BW9UWGA-3</b>
BW400	<b>BZ-C60B</b>	<b>BW9UVHA-3</b>	<b>BW9UWHA-3</b>
BW630 BW800	<b>BZ-C70B</b>	<b>BW9UVJA-3</b>	—

\*1 No models are available for four-pole products.

\*2 The appearance of dust-proof and rain-proof models differs from the photograph (400A frames and higher).

\*3 Combination with external accessories(R) is not possible.

##### ■ Ordering information

Specify the following:

- Type number of enclosures

■ Dimensions, mm

Fig.1 Standard

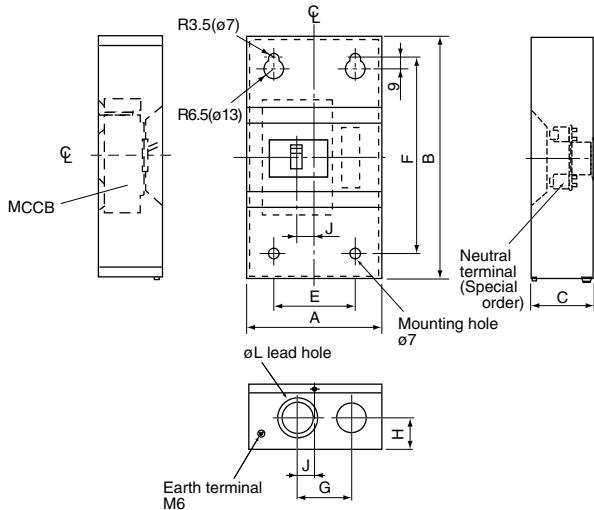


Fig.2 With V type handle  
BW9UVBA-3A, BW9UVBA-3B  
BW9UVCA-3, BW9UVGA-3

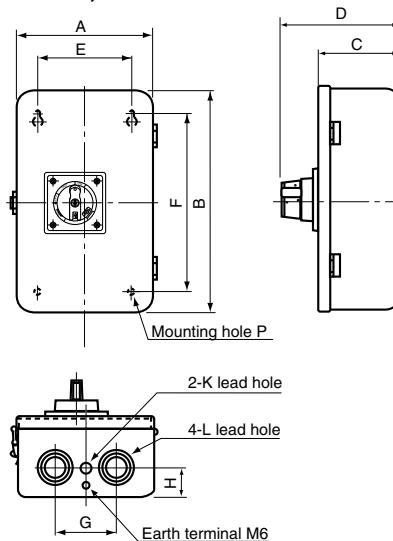
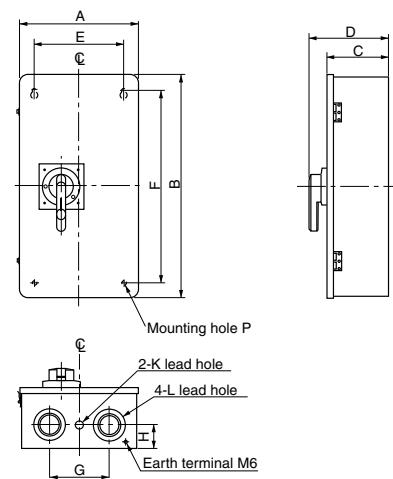
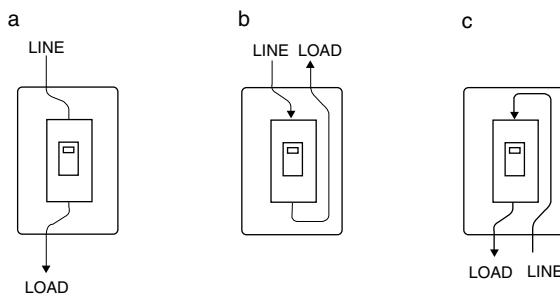


Fig.3. With V type handle  
BW9UVHA-3, BW9UVJA-3



■ Connection method diagrams



Type	Connection	Fig.	A	B	C	D	E	F	G	H	J	K	L	P
BZ6C10C2	a, b, c	1	135	225	95	—	90	170	65	40	25	—	Ø35, Ø22	—
BZ6C10C3			200	320	95	—	120	240	80	40	25	—	Ø45, Ø30	—
BZ6C25C2			200	320	103	—	120	240	80	40	25	—	Ø45, Ø30	—
BZ6C25C3				360				280		45			Ø55, Ø40	
BZ-C60B			400	750	175	—	300	650	200	80	100	—	Ø106, Ø78, Ø63	—
BZ-C70B														
BW9UVBA-3A		2	180	300	114	178.5	100	220	70	40	—	—	Ø28, Ø35, Ø43	Ø7
BW9UVBA-3B			250	400	142	206.5	170	320	110	50	—	Ø23	Ø35, Ø52, Ø63	Ø9
BW9UVCA-3						207								
BW9UVGA-3														
BW9UVHA-3		3	400	750	206	269	300	650	200	80	—	Ø28	Ø63, Ø78, Ø106	Ø12
BW9UVJA-3														

# Molded Case Circuit Breakers

## G-TWIN series

### External accessories

#### Terminal covers

##### ■ Description

These terminal covers are used as guards to prevent accidental touch with live line terminations.  
These terminal covers can be fitted to either line or load side.

##### ● Up to 400AF

**Short type:** BW9BT □ A-S □

- Snap-on fitting

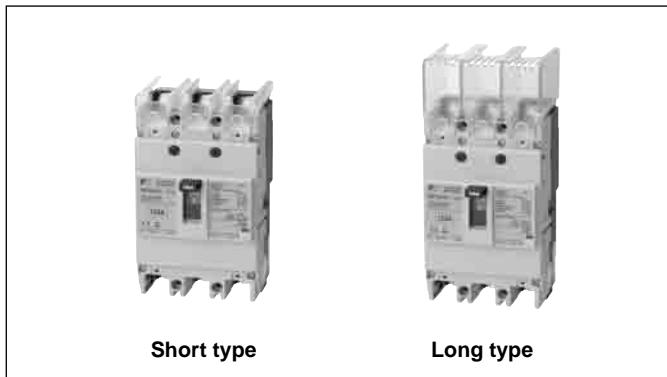
**Long type:** BW9BT □ A-L □

- Crimp connection use

##### ● 630, 800AF

**Long type:** BW9BTJA-L □

- Transparent



Short type

Long type

#### Long type

Type		No. of poles	MCCB	Dimensions (mm)			Packing quantity	Appearance
Transparent	Gray			A	B	C		
BW9BTAA-L2	BW9BTAA-L2W	2	BW32□-2P BW50□-2P BW63□-2P BW100□-2P	50	40	53	2	• Preventing exposure of live section when amplifier's terminals are connected • Snap-on mounting
BW9BTAA-L3	BW9BTAA-L3W	2, 3	BW32□-3P BW50□-3P BW63□-3P BW100□-3P	75	40	53	2	
BW9BTCA-L2	BW9BTCA-L2W	2	BW125JAG-2P	60	40	66.5	2	
BW9BTCA-L3	BW9BTCA-L3W	2, 3	BW50HAG-2P BW50HAG-3P BW125RAG-2P BW125HAG-2P BW125□-3P	90	40	66.5	2	
BW9BTCA-C3	-	2, 3	BW125RAG-2P BW125□-3P	90	60	66.5	2	
BW9BTCA-L4	BW9BTCA-L4W	4	BW125JAG-4P BW125RAG-4P	120	40	66.5	2	
BW9BTGA-L3 * <sup>1</sup>	BW9BTGA-L3W * <sup>1</sup>	2, 3	BW160□-2P BW160□-3P	105	50	66.5	2	
BW9BTGA-L4 * <sup>1</sup>	BW9BTGA-L4W * <sup>1</sup>	4	BW160□-4P	140	50	66.5	2	
BW9BTGA-C3	-	2, 3	BW250□-2P BW250□-3P	105	75	66.5	2	
BW9BTGA-L3 * <sup>1</sup>	BW9BTGA-L3W * <sup>1</sup>	2, 3	BW250□-2P BW250□-3P	105	50	66.5	2	
BW9BTGA-L4 * <sup>1</sup>	BW9BTGA-L4W * <sup>1</sup>	4	BW250□-4P	140	50	66.5	2	
BW9BTHA-L3 * <sup>2</sup>	BW9BTHA-L3W * <sup>1</sup>	2, 3	BW400□-2P BW400□-3P	172	110	98	2	
BW9BTHA-L4 * <sup>2</sup>	-	4	BW400□-4P	220	110	98	2	
BW9BTJA-L3	BW9BTJA-L3W	3	BW630□-3P BW800□-3P	230	135	97.5	2	
BW9BTJA-L4	BW9BTJA-L4W	4	BW630□-4P BW800□-4P	280	155	98	2	



**Short type**

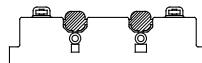
Type		No. of poles	MCCB	Dimensions (mm)			Packing quantity	Appearance
Transparent	Gray			A	B	C		
	<b>BW9BTAA-S2</b>	2	BW32□-2P BW50□-2P BW63□-2P BW100□-2P	50	10	53	2	<ul style="list-style-type: none"> <li>• Preventing exposure of live section when amplifier's terminals are connected</li> <li>• Snap-on mounting</li> </ul>
	<b>BW9BTAA-S3</b>	2, 3	BW32□-3P BW50□-3P BW63□-3P BW100□-3P	75	10	53	2	
	<b>BW9BTCA-S2</b>	2	BW125JAG-2P	60	8	66.5	2	
	<b>BW9BTCA-S3</b>	2, 3	BW50HAG-2P BW50HAG-3P BW125RAG-2P BW125HAG-2P BW125□-3P	90	8	66.5	2	
	<b>BW9BTCA-S4</b>	4	BW125JAG-4P BW125RAG-4P	120	8	66.5	2	
	<b>BW9BTGA-S3</b> * <sup>1</sup>	2, 3	BW160□-2P BW160□-3P BW250□-2P BW250□-3P	105	8	66.5	2	
	<b>BW9BTGA-S4</b> * <sup>1</sup>	4	BW160□-4P BW250□-4P	140	8	66.5	2	
	<b>BW9BTHA-S3</b> * <sup>3</sup>	2, 3	BW400□-2P BW400□-3P	140	65	98	2	
	<b>BW9BTHA-S4</b> * <sup>3</sup>	4	BW400□-4P	185	65	98	2	

Notes: • A gray-white terminal cover comes standard with the Global Series 125AF and 250AF.

\*<sup>1</sup> When using the external operating handle, part of the terminal cover ( ) must be cut away.

\*<sup>2</sup> Crimp terminals for 325 mm<sup>2</sup> are not available.

\*<sup>3</sup> This type of cover can be mounted on the 400AF when flat terminals are not used.



# Molded Case Circuit Breakers

## G-TWIN series

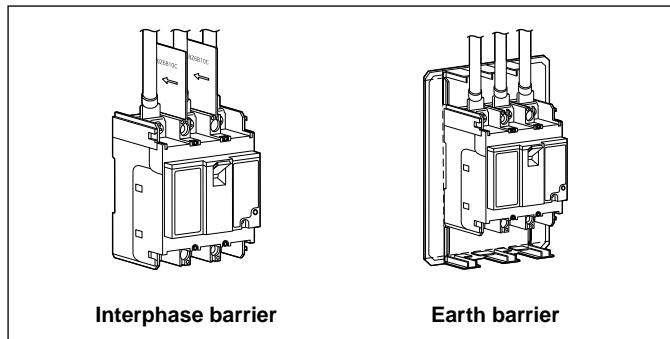
### External accessories

#### Insulation barriers

##### ■ Description

The interphase barriers are provided on frame size of 32AF to 800AF breakers for front mounting. The barriers are installed in the molded slots between terminals.

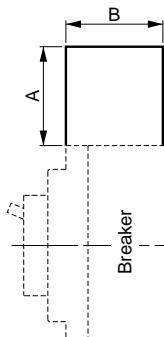
The earth barrier is used to increase the insulation with the mounting plate surface when two crimp terminals are wired. Installation of these barriers after wiring is possible even when an external accessory is installed.



#### Interphase barrier

MCCB	Interphase barrier				
	Type	Dimensions (mm)		Packing quantity	Mass (g)
		A	B		
BW32					
BW50AAG, EAG	<b>BZ6B10C</b>	50	49	4	23
BW50SAG, RAG					
BW63					
BW100					
BW50HAG, BW125	<b>BW9BPCA</b>	50	60	2	15
BW160					
BW250	<b>BW9BPGA</b>	80	60	2	25
BW400					
BW630					
BW800	<b>B-43A</b>	105	95	4	130

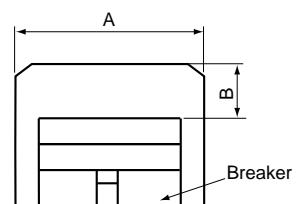
Interphase barrier



#### Earth barrier

MCCB	Earth barrier				
	Type	Dimensions (mm)		Packing quantity	Mass (g)
		A	B		
BW32□-2P					
BW50□-2P	<b>BZ6BL10C2</b>	100 (50, 75) <sup>*1</sup>	43 (30) <sup>*1</sup>	1	33
BW63□-2P					
BW100□-2P					
BW32□-3P					
BW50□-3P	<b>BZ6BL10C3</b>	125 (75, 100) <sup>*1</sup>	43 (30) <sup>*1</sup>	1	41
BW63□-3P					
BW100□-3P					

Earth barrier



Note: <sup>\*1</sup> Can be cut to dimensions

### Padlocking device and handle locking cover

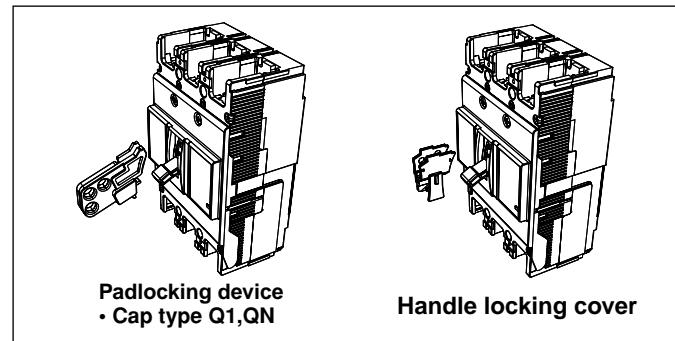
#### ■ Description

##### • Padlocking device

These padlocking device lock the Breaker handle in the OFF position. Use a commercially available padlock with a shackle diameter of 3.5 to 5mm (5mm for the BZ6L10CA).

##### • Handle locking covers (Order Separately)

These simple handle locking covers can be easily installed by the user. Tripping is possible while the Breaker is locked ON.



MCCB	Padlocking device			Handle locking cover
	Q1: Cap type	QN: Scissors type	Q2: Plate type	
BW32	<b>BZ6L10CA</b>	—	▲ *1*4	<b>BZ6L10C</b>
BW50AAG, EAG, SAG, RAG				
BW63				
BW100				
BW50HAG, BW125	<b>BW9Q1CA</b> *5		<b>BW9Q2CA</b> *3	<b>BW9L1CA</b>
BW160			<b>BW9Q2GA</b>	
BW250				
BW400	▲ *1	<b>BW9QNHA</b> *2	<b>BW9Q2HA</b>	<b>BW9L1HA</b>
BW630			<b>BW9Q2JA</b>	
BW800				

Notes:

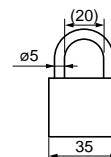
\*1 Specify Locks when ordering the Breaker. (▲: Factory-mounted)

\*2 ON and OFF locking is possible.

\*3 Not applicable to the BW125JA□-2P (models with a width of 60 mm).

\*4 If a padlock is required, use a commercially available padlock with the dimensions shown in the diagram at the right.

\*5 Three padlocks with shackles from 3.5 to 8 mm in diameter can be attached.

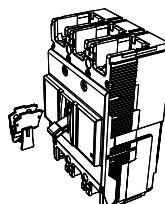
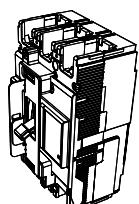
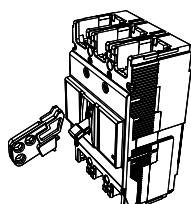


#### Padlocking device

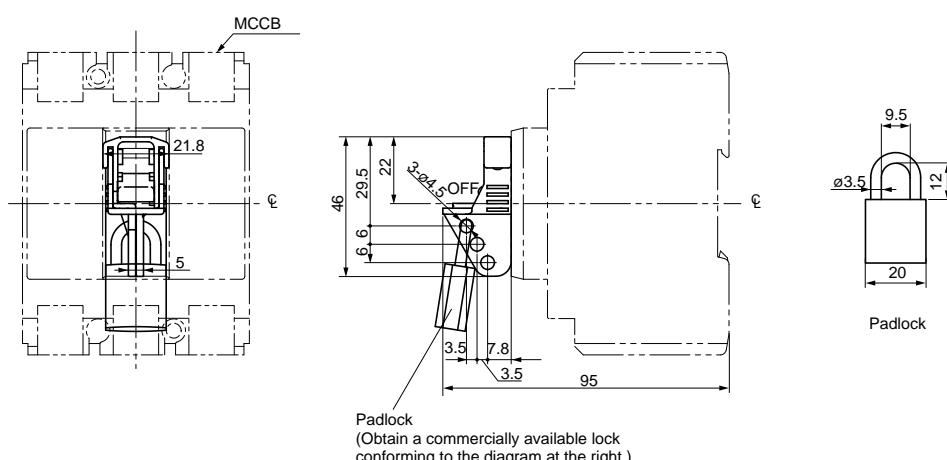
##### • Cap type Q1

##### • Plate type Q2

#### Handle locking cover



Q1: BZ6L10CA (OFF-locking Padlocking device)



## **Catalog Disclaimer**

The information contained in this catalog does not constitute an express or implied warranty of quality, any warranty of merchantability or fitness for a particular purpose is hereby disclaimed.

Since the user's product information, specific use application, and conditions of use are all outside of Fuji Electric FA Components & Systems' control, **it shall be the responsibility of the user to determine the suitability of any of the products mentioned for the user's application.**

## **One Year Limited Warranty**

The products identified in this catalog shall be sold pursuant to the terms and conditions identified in the "Conditions of Sale" issued by Fuji Electric FA with each order confirmation.

Except to the extent otherwise provided for in the Conditions of Sale issued by Fuji Electric FA, Fuji Electric FA warrants that the Fuji Electric FA products identified in this catalog shall be free from significant defects in materials and workmanship provided the product has not been: 1) repaired or altered by others than Fuji Electric FA; 2) subjected to negligence, accident, misuse, or damage by circumstances beyond Fuji Electric FA's control; 3) improperly operated, maintained or stored; or 4) used in other than normal use or service. This warranty shall apply only to defects appearing within one (1) year from the date of shipment by Fuji Electric FA, and in such case, only if such defects are reported to Fuji Electric FA within thirty (30) days of discovery by purchaser. Such notice should be submitted in writing to Fuji Electric FA at 5-7, Nihonbashi Odemma-cho, Chuo-ku, Tokyo, Japan. The sole and exclusive remedy with respect to the above warranty whether such claim is based on warranty, contract, negligence, strict liability or any other theory, is limited to the repair or replacement of such product or, at Fuji Electric FA's option reimbursement by Fuji Electric FA of the purchase price paid to Fuji Electric FA for the particular product. **Fuji Electric FA does not make any other representations or warranties, whether oral or in writing, expressed or implied, including but not limited to any warranty regarding merchantability or fitness for a particular purpose.** Except as provided in the Conditions of Sale, no agent or representative of Fuji Electric FA is authorized to modify the terms of this warranty in writing or orally.

In no event shall Fuji Electric FA be liable for special, indirect or consequential damages, including but not limited to, loss of use of the product, other equipment, plant and power system which is installed with the product, loss of profits or revenues, cost of capital, or claims against the purchaser or user of the product by its customers resulting from the use of information, recommendations and descriptions contained herein. The purchaser agrees to pass on to its customers and users, in writing at the time inquiries and orders are received by buyer, Fuji Electric FA's warranty as set forth above.

## **⚠ Caution "Safety precautions"**

- Operate (keep) in the environment specified in the operating instructions and manual. High temperature, high humidity, condensation, dust, corrosive gases, oil, organic solvents, excessive vibration or shock might cause electric shock, fire, erratic operation or failure.
- Follow the regulations of industrial wastes when the product is to be discarded.
- The products covered in this catalogs have not been designed or manufactured for use in equipment or systems which, in the event of failure, can lead to loss of human life.
- If you intend to use the products covered in this catalog for special applications, such as for nuclear energy control, aerospace, medical, or transportation, please consult our Fuji Electric FA agent.
- Be sure to provide protective measures when using the product covered in these catalogs in equipment which, in the event of failure, may lead to loss of human life or other grave results.
- Follow the directions of the operating instructions when mounting the product.



## CÔNG TY TNHH THƯƠNG MẠI KỸ THUẬT ĐIỆN CITY

Nhà phân phối thiết bị điện công nghiệp hàng đầu Việt Nam



*Think Automation and beyond...*



TAIWAN METERS



### LIÊN HỆ VỚI CHÚNG TÔI

**Địa chỉ:** 125 Phú Châu, KP1, P. Tam Bình,  
TP. Thủ Đức, TP. HCM

**Hotline:** 0909 808 905 (Zalo)

**Email:** minh.diencity@gmail.com

**Website:** diencity.com