

Molded Case Circuit Breakers / Earth Leakage Circuit Breakers

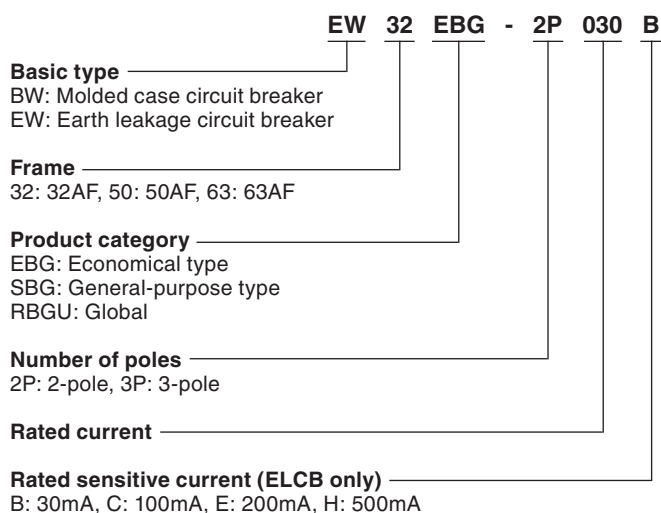
G-TWIN λ (Lambda) Series

32 to 63AF molded case circuit breakers / earth leakage circuit breakers ideal for downsizing and globalization of machine equipments and control panels.

■ Features

- **Downsizing**
Small-width structure (28% smaller than our existing products) of 18 mm per pole (36 mm for 2-pole, 54 mm for 3-pole) is realized.
- **High breaking capacity**
Breaking capacity is improved to 18 kA from 14 kA at the UL/CSA 240V AC rating and to 7.5kA from 5 kA (low capacity) and to 15 kA from 10 kA (high capacity) at the JIS/IEC 230V AC rating.
- **International standard**
Compliant with UL/CSA, IEC (CE marking), GB (CCC marking) and JIS
- Global products: UL/CSA, IEC (CE marking), GB (CCC marking), and JIS
- Standard products: IEC (CE marking), GB (CCC marking) and JIS
- **Ease of handling**
The cassette-type internal accessories allow easy mounting and come in a variety of models.
The standard main unit allows installation on IEC 35 mm rails, and screw mounting is also possible.
- **Safety**
Safety is ensured with IP20 degree of protection from the front face of the terminal section.
The earth leakage circuit breaker has a three-phase power supply structure, and earth leakage protection is provided even with one phase open.

■ Type number nomenclature



■ Specifications

Global series

● Molded case circuit breaker

AF	Number of poles	Type	Rated current [A]	Rated breaking capacity Icu [kA]
				UL489 240V AC
50	2P	BW50RBGU-2P	3, 5, 10, 15,	18
	3P	BW50RBGU-3P	20, 30, 40, 50	

● Earth leakage circuit breaker

AF	Number of poles	Type	Rated current [A]	Rated sensitive current [mA]	Rated breaking capacity Icu [kA]
					UL489 240V AC
50	2P	EW50RBGU-2P	5, 10, 15, 20,	30,50,100,200,	18
	3P	EW50RBGU-3P	30, 40, 50	500	

Standard series

● Molded case circuit breaker

AF	Number of poles	Type	Rated current [A]	Rated breaking capacity Icu [kA]	
				230V AC	440V AC
32	2P	BW32SBG-2P	3, 5, 10, 15,	7.5	2.5
	3P	BW32SBG-3P	20, 30, 32		
50	2P	BW50EBG-2P	3, 5, 10, 15,	7.5	2.5
	3P	BW50EBG-3P	20, 30, 32,		
	2P	BW50SBG-2P	40, 50	15	7.5
	3P	BW50SBG-3P			
63	2P	BW63EBG-2P	60, 63	7.5	2.5
	3P	BW63EBG-3P			
	2P	BW63SBG-2P		15	7.5
	3P	BW63SBG-3P			

● Earth leakage circuit breaker

AF	Number of poles	Type	Rated current [A]	Rated sensitive current [mA]	Rated breaking capacity Icu [kA]
					230V AC 440V AC
32	2P	EW32SBG-2P	5, 10, 15, 20,	30	7.5
	3P	EW32SBG-3P	30, 32	30,100,200,500	2.5
50	2P	EW50EBG-2P	5, 10, 15, 20,	30	7.5
	3P	EW50EBG-3P	30, 32, 40, 50	30,100,200,500	2.5
	2P	EW50SBG-2P		30	15
	3P	EW50SBG-3P		30,100,200,500	7.5
63	2P	EW63EBG-2P	60, 63	30	7.5
	3P	EW63EBG-3P		30,100,200,500	2.5
	2P	EW63SBG-2P		30	15
	3P	EW63SBG-3P		30,100,200,500	7.5

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G-TWIN Series



Ampere frame	32AF	50AF	63AF	100AF to 800AF
For machine equipments and control panels ● Compact and high-performance ● Compliant with international standards ● Both AC and DC supported	NEW G-TWIN  series 			
For power receiving and distribution boards ● Wide variety of types and product categories ● Various mounting methods supported ● Mounting compatibility (for renewal)	G-TWIN series			

■ Downsizing

Small-width structure of 36 mm for 2-pole and 54 mm for 3-pole (28% smaller than our existing products) and 36 mm for 2-pole ELCB is realized.

■ High breaking capacity

The arc commutation breaking technology has achieved a cut-above breaking performance to meet the needs of the control panel branch market.

Breaker types		G-TWIN  series
Global products		18kA
Standard products	Low breaking capacity type	7.5kA
	High breaking capacity type	15kA

* Standard products are compared by breaking capacity at IEC 230 VAC and global products at UL489 240VAC.

54mm




Width
-28%

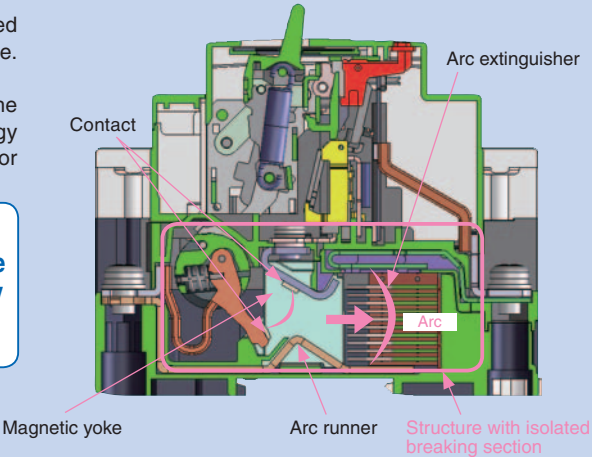
Arc commutation breaking technology realizing high breaking performance

Fuji Electric's proprietary breaking mechanism has been used for high-speed driving of the arc generated during breaking to achieve high breaking performance.

The magnetic driving force by optimization of the magnetic yoke, isolation of the breaking section and arc driving force by resin ablation gas flow control technology allow high-speed commutation of an arc between contacts to the arc runner for immediately driving the arc extinguisher.

The let-through energy (I^2t) during breaking has been reduced to less than half of the conventional products.

Breaking performance improved by 1.5 times



International standard

Compliant with standards of various countries including UL/CSA, IEC/EN (CE marking), GB (CCC) and JIS.

Series of product			Compatibility-obtained standard			Certification-obtained standard			EC Directive	Certification authority
G-TWIN / Series			IEC	EN	JIS	UL	CSA	GB	CE marking	TÜV
			International	Europe	Japan	U.S.A.	Canada	China	Europe	Germany
			IEC	EN	JIS	UL US LISTED		CCC	CE	TÜV Rheinland
Global series	MCCB	BW50RBGU	●	●	●	●	●	●	●	●
	ELCB	EW50RBGU	●	●	●	●	●	●	●	●
Standard series	MCCB	BW□EBG	●	●	●			●	●	●
		BW□SBG	●	●	●			●	●	●
	ELCB	EW□EBG	●	●	●			●	●	●
		EW□SBG	●	●	●			●	●	●

Standardization

Standard installation on IEC 35 mm rails and screw mounting supported.

Note: Mounting screws are not included.

The cassette-type internal accessories allow easy mounting and come in a variety of models.

Both MCCB and ELCB allow combined mounting of an auxiliary switch, alarm switch and shunt trip device.

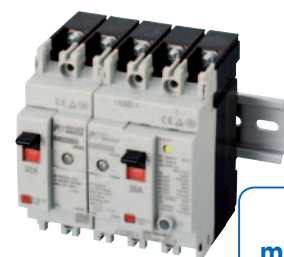
2-pole ELCB allows mounting of an auxiliary switch and alarm switch.

Both MCCB and ELCB allow dense side-by-side mounting to main units even with accessories included.

Both AC and DC supported.

Thermal-electromagnetic overcurrent tripping system is adopted to allow support for both AC and DC also with 32 to 63 AF MCCB.

DC circuits are supported with standard products.



Rail mounting by standard

List of option accessory combination

			MCCB				ELCB			
			Accessory mounting location				Accessory mounting location			
Number of poles			2-pole		3-pole		2-pole		3-pole	
Option accessory connecting method			Lead wire	Terminal block	Lead wire	Terminal block	Lead wire	Terminal block	Lead wire	Terminal block
Auxiliary switch	1 W		●	●	●	●	●	●	●	●
	2 V		—	—	●	●	—	—	●	●
Alarm switch	K		●	●	●	●	●	●	●	●
Auxiliary/alarm switch	WK		●	●	●	●	●	●	●	●
Shunt trip device	F		●	●	●	●	—	—	●	●
Undervoltage trip device	R		—	—	—	●	—	—	—	●
External operating handle	N type		●		●		●		●	
	V type		●		●		●		●	
Terminal cover	Short		●		●		●		●	
	Long		●		●		●		●	

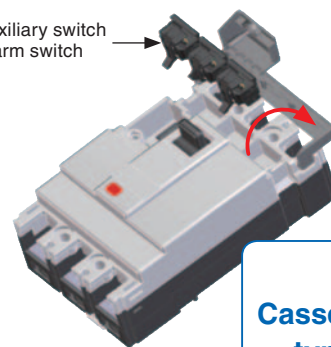
● : Auxiliary switch (W)

▲ : Alarm switch (K)

■ : Shunt trip (F)

■ : Undervoltage trip (R)

Auxiliary switch
Alarm switch



Cassette-type

Safety

Safety is ensured with IP20 degree of protection from the front face of the terminal section, and different types of terminal covers are available.

External operating handle can be mounted to meet the control panel needs.

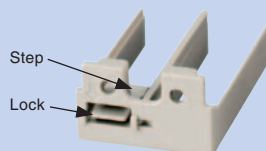
Degree of protection: N type: IP54, V type: IP65

The earth leakage circuit breaker has an IEC standard-compliant three-phase power supply structure, and earth leakage protection is provided even with one phase open.

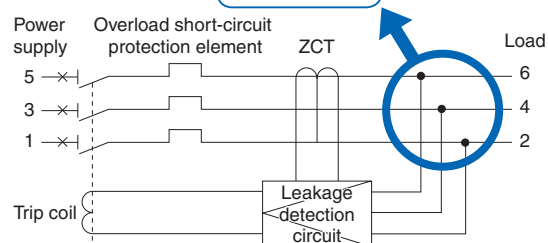
Terminal cover is easily removed from main units densely mounted side by side

With the step for putting the finger on, the terminal cover can be removed without holding the sides with no need for any tool.

Types with a different lock shape that can be removed with a tool are also available in view of safety.



Three-phase power supply supported

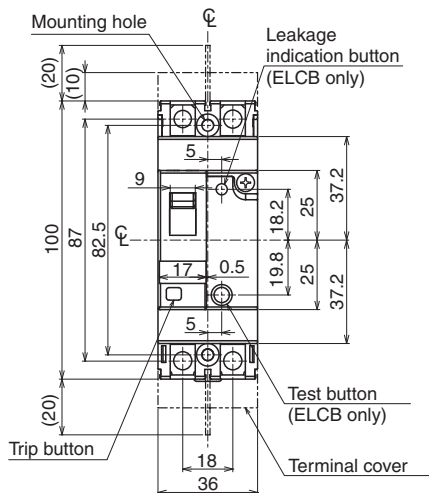


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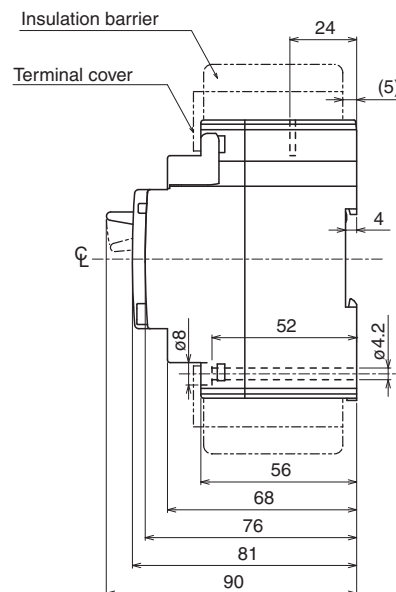
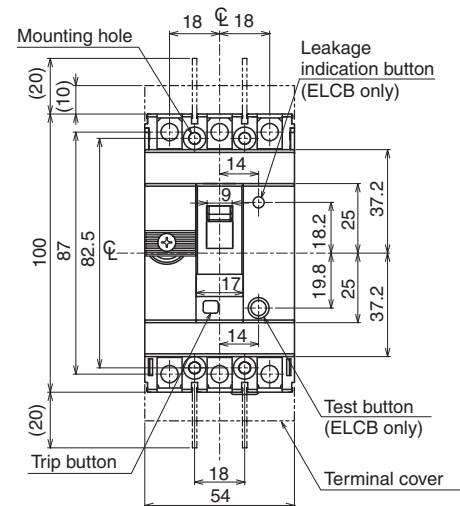
G-TWIN / Series

■ Dimensions [unit: mm]

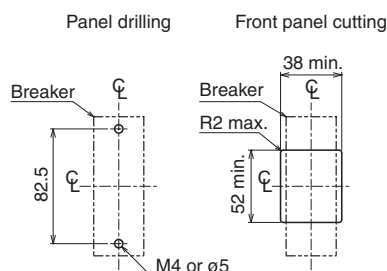
● 2-pole



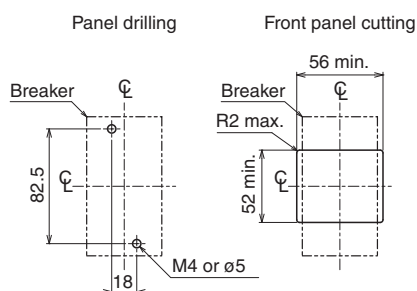
● 3-pole



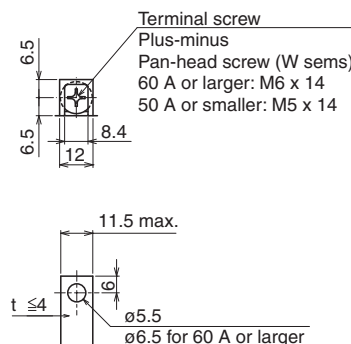
● 2-pole



● 3-pole



Terminal section



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