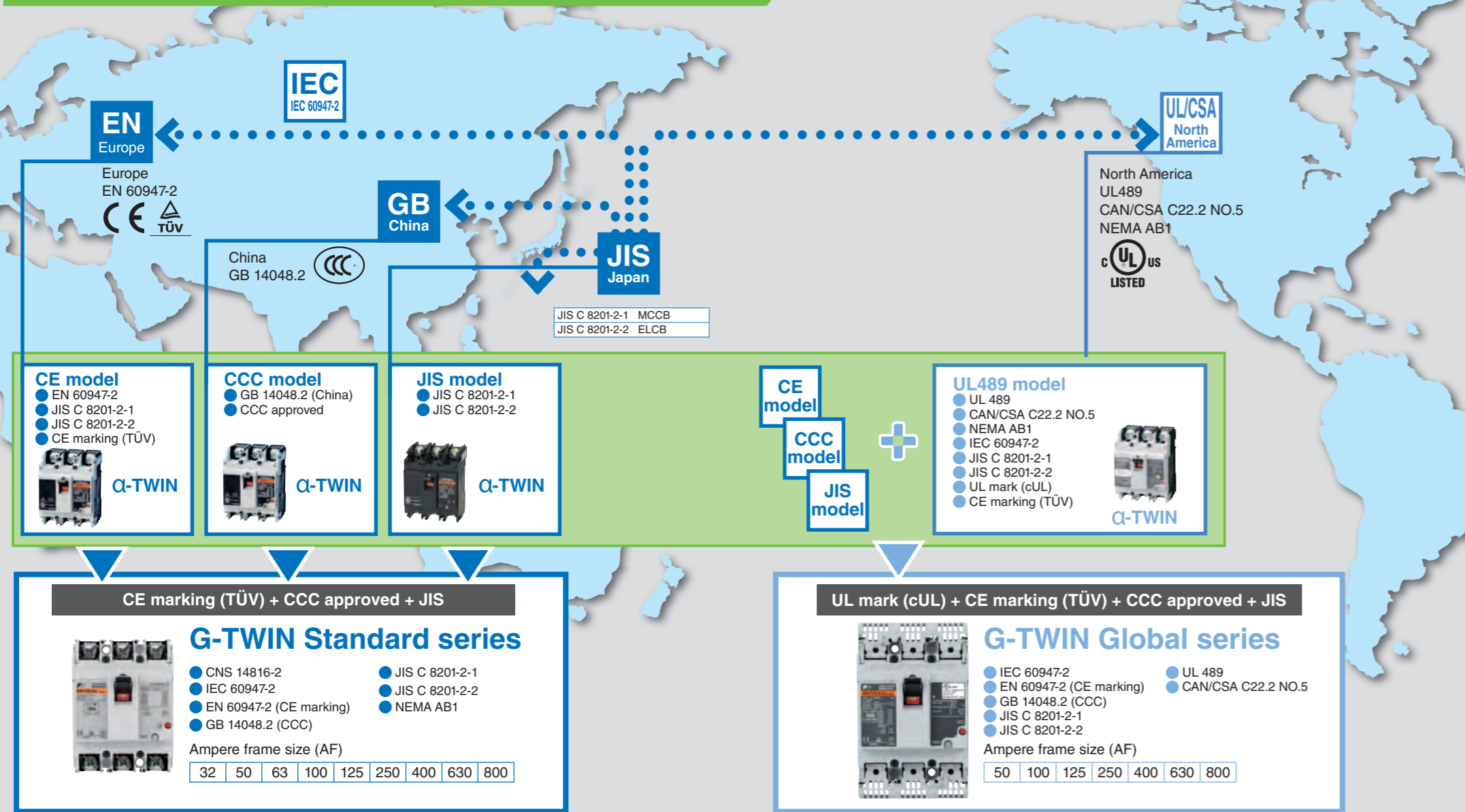
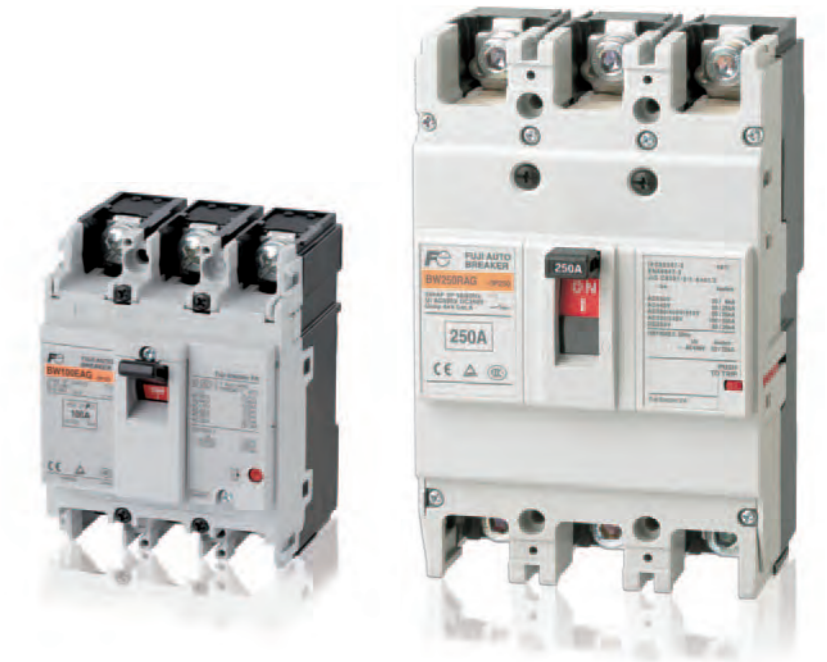


## Conforming to IEC & local Standards

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



## FUJI Molded Case Circuit Breakers



62D9-E-0221

Fuji Electric FA Components & Systems Co., Ltd.

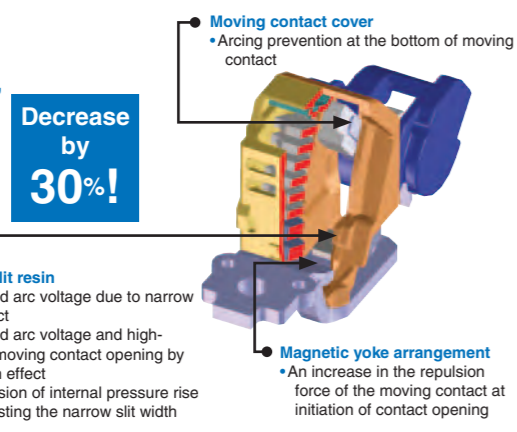
## Compact & High performance

Compact size meeting UL489 480V requirements & same dimensions as ELCB



### Technical innovation

Arc and gas flow control technology  
Effect of "ablation breaking technology"



## Ecology

Advanced environmental technology  
Conforming to the RoHS Directive

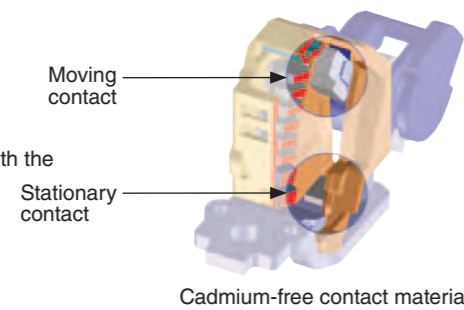
The G-TWIN Series is designed to lower environmental impact.

### 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 to 100AF**

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

**125 to 250AF**

- Sharing internal accessories of 125/250AF breakers.

AF	G-TWIN	G-TWIN
125	8	8
160/250	8	8

**400 to 800AF**

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

AF	G-TWIN	G-TWIN
400	26	6
630		
800		

## FUJI MCCB and ELCB GLOBAL TWIN 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

### Compact & High performance

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

### Ecology

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

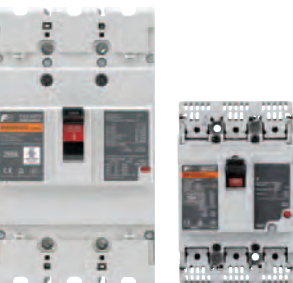
### Usefulness

Leading the way in user-friendliness

**G-TWIN Standard series MCCB**



**G-TWIN Global series MCCB**



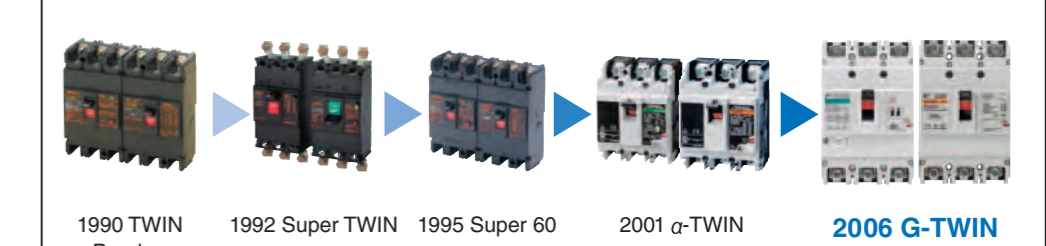
Fuji Electric launched the Twin Breaker Series to world markets in 1990, in which molded case circuit breaker (MCCB) and earth leakage circuit breaker (ELCB) types were unified in external dimensions for the first time in the world. The Twin Breaker Series was highly evaluated and gained strong support, 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.

## GLOBAL TWIN History



G-TWIN series		32AF				50AF				63AF				100AF			125AF				250AF											
IEC/EN60947-2, GB14048.2, JISC8201-2-1																																
Type		BW32AAG	BW32SAG	BW50AAG	BW50EAG	BW50SAG	BW50ZSG	BW50RAG	BW63EAG	BW63SAG	BW63ZSG	BW63RAG	BW100AAG	BW100EAG	BW125JAG	BW125RAG	BW125HAG	BW250EAG	BW250JAG	BW250RAG	BW250HAG											
Pole		2	3	2	3	2	3	3	2	3	3	2	3	3	2	3	4	2	3	4	3											
Rated current	In [A]	3, 5, 10, 15, 20, 30, (32) <sup>*3</sup>				5, 10, 15, 20, 30, (32) <sup>*3</sup> 40, 50				10, 15, 20, 30, (32) <sup>*3</sup> 40, 50				60, (63) <sup>*3</sup>			60, (63) <sup>*3</sup> 75, 100				15, 20, 30, 40, 50, 60, 75, 100, 125				125, 150, 160, 175, 200, 225, 250							
Rated impulse withstand voltage	Uimp [kV]	6				6				6				6			6				6											
Isolation compliant		Approved				Approved				Approved				Approved			Approved				Approved											
Rated insulation voltage	Ui [V] AC	500		690		500		690		690		690		500			690				690											
	DC	-		250 <sup>*1</sup>		-		250 <sup>*1</sup>		250 <sup>*1</sup>		250 <sup>*1</sup>		-			250				-											
Rated frequency	[Hz]	50-60				50-60				50-60				50-60			50-60				50-60											
Rated breaking capacity [kA]	CNS14816-2 IEC60947-2 EN60947-2 JIS8201-2-1 lcu/lcs	AC	690V	-		-		-		-		-		-			-				-											
			500V	-		1.5/1		-		1.5/1		5/3		-			7.5/4				-											
			440V	1.5/1		2.5/2		1.5/1		2.5/2		7.5/4		7.5/4		10/5			2.5/2				7.5/4									
			415V	1.5/1		2.5/2		1.5/1		2.5/2		7.5/4		7.5/4		10/5			2.5/2				7.5/4									
			400V	-		-		-		-		-		-		-			-				-									
			380V	-		-		-		-		-		-		-			-				-									
			240V	2.5/2		5/3		2.5/2		5/3		10/5		15/8		25/13			5/3				10/5									
			230V	-		-		-		-		-		-		-			-				-									
			250V	-		2.5/2 <sup>*1</sup>		-		2.5/2 <sup>*1</sup>		5/3 <sup>*1</sup>		2.5/2 <sup>*1</sup>			5/3 <sup>*1</sup>				-											
			GB14048.2 lcu/lcs	AC	400V	1.5/1		2.5/2		1.5/1		2.5/2		7.5/4		10/5			2.5/2				7.5/4									
		230V	2.5/2		5/3		2.5/2		5/3		10/5		25/13			5/3				25/13												
NEMA AB1 <sup>*2</sup>	AC	480V/Y	1.5 <sup>*2</sup>		2.5 <sup>*2</sup>		1.5 <sup>*2</sup>		2.5 <sup>*2</sup>		7.5 <sup>*2</sup>		10 <sup>*2</sup>			2.5 <sup>*2</sup>				7.5 <sup>*2</sup>												
		240V	2.5 <sup>*2</sup>		5 <sup>*2</sup>		2.5 <sup>*2</sup>		5 <sup>*2</sup>		10 <sup>*2</sup>		15 <sup>*2</sup>			25 <sup>*2</sup>				5 <sup>*2</sup>												
Dimensions	[mm]	a	50	75	50	75	50	75	50	75	50	75	50	75	50	75	50	75	60	90	120	90	90	120	90	105	105	140	105	105	140	90
		b	100		100		100		100		100		100		100			155				165										
		c	60		60		60		60		60		60		60			68				68										
		d	84		84		84		84		84		84		84			95				95										
Mass	[kg]	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.5	0.4	0.6	0.4	0.6	0.6	0.4	0.6	0.8	1.2	1.6	1.0	1.2	1.6	1.2	1.4	1.6	2.2	1.4	1.6	2.2	1.6
Tripping device		Hydraulic-magnetic														Thermal-magnetic																

G-TWIN series		400AF				630AF				800AF				
IEC/EN60947-2, GB14048.2, JISC8201-2-2														
Type		BW400EAG	BW400SAG	BW400RAG	BW400HAG	BW630EAG	BW630RAG	BW630HAG	BW800EAG	BW800RAG	BW800HAG			
Pole		2	3	2	3	2	3	4	3	3	4			
Rated current	In [A]	250, 300, 350, 400				500, 600, 630				700, 800				
Rated impulse withstand voltage	Uimp [kV]	8				8				8				
Isolation compliant		Approved				Approved				Approved				
Rated insulation voltage	Ui [V] AC	690				690				690				
	DC	250				250				250				
Rated frequency	[Hz]	50-60				50-60				50-60				
Rated breaking capacity [kA]	CNS14816-2 IEC60947-2 EN60947-2 JIS8201-2-1 lcu/lcs	AC	690V	-		10/5		15/8		-		15/8		
			500V	18/9		22/11		36/18		42/21		22/11		
			440V	30/15		36/18		50/25		70/35		36/18		
			415V	-		-		-		-		-		
			400V	-		-		-		-		-		
			380V	-		-		-		-		-		
			240V	50/25		85/43		100/50		125/63		50/25		
			230V	-		-		-		-		-		
			DC	250V	10/5		20/10		30/15		40/20		20/10	
			GB14048.2 lcu/lcs	AC	400V	30/15		36/18		50/25		70/35		36/18
		230V	50/25		85/43		100/50		125/63		50/25			
NEMA AB1 <sup>*2</sup>	AC	480V/Y	30		36		50		50 <sup>*2</sup>		70			
		240V	50		85		100		100 <sup>*2</sup>		125			
Dimensions	[mm]	a	140	140	140	140	185	140	140	185	210	210		
		b	257		257		257		275		275			
		c	103		103		103		103		103			
		d	146		146		146		146		146			
Mass	[kg]	4.3	5.1	4.3	5.1	4.3	5.1	6.8	4.3	5.1	6.8			
Tripping device		Thermal-magnetic												

H series, S series		225AF	400AF	600AF	800AF	1000AF	1200AF	1600AF		
Type		H203R	H403R	H603R	H803R	S1003	S1203	SE1603		
Pole		3	3	3	3	3	3	3		
Rated current	In [A]	40, 50, 60, 75, 100, 125, 150, 175, 200, 225	250, 300, 350, 400	500, 600	700, 800	1000	1200	Selectable <sup>*5</sup> 1000-1200-1400-1600		
Rated impulse withstand voltage	Uimp [kV]	8	8	8	8	8	8	8		
Isolation compliant		Approved								
Rated insulation voltage	Ui [V] AC	660		690		660 <sup>*4</sup>		660 <sup>*4</sup>		
	DC	250		250		-		-		
Rated frequency	[Hz]	50-60		50-60		50 or 60 <sup>*4</sup>				
Rated breaking capacity [kA]	IEC60947-2 JISC8201-2-1 lcu/lcs IEC157-1 <sup>*6</sup>	AC	660V	-		-		30		
			600V	35		-		30		
			500V	42		85/43		85/43		
			440V	85		125/63		125/63		
			415V	-		-		-		
			400V	100		-		50		
			380V	-		-		50		
			230V	125		125/63		125/63		
			DC	250V	40		40/20		-	
			Dimensions	[mm]	a	105	140	210	210	210
		b	165		257		275			
		c	99		103		103			
		d	127		146		146			
Mass	[kg]	2.3	5	9	10	21	21	34		
Tripping device		Thermal-magnetic			Thermal-adjustable magnetic			Solid state		

\*1 Specify DC only when ordering circuit breakers for DC circuit.  
 \*2 The rating "NEMA AB-1" does not appear on the nameplates of the BW32 to BW100, BW125JAG-4P to BW250JAG-4P, and BW400RAG-4P to BW800RAG-4P.  
 \*3 Contact FUJI.

\*4 Specify frequency when using in AC circuits (50Hz or 60Hz)  
 \*5 Breakers with 1000A or 1200A fixed rated current can be made if specified. \*6 Applies to the H203R, S1003, S1203, and SE1603.