

# MOLDED CASE CIRCUIT BREAKER

## EARTH LEAKAGE CIRCUIT BREAKER



**MCCB Frame Size Selection Table**

Frame Size	Type	Rated Breaking Capacity (kA)				Pole	Rated Current In(A)	Accessory		
		IEC60947-2						Blank	No Acc.	
		220V	380V	440V	500V					
30	CN	2.5	1.5	-	-	2, 3	3, 5, 10, 15, 20, 30.	Blank	No Acc.	
	SN	5	2.5	2.5	1.5	3		AX	Auxiliary Switch	
50	CN	5	2.5	2.5	1.5	2, 3	10, 15, 20, 30, 40, 50.	AL	Alarm Switch	
	SN	10	7.5	7.5	5	2, 3, 4		SHT	Shunt Trip	
60	HN	25	15	10	5	2, 3, 4	10, 15, 20, 25, 30, 40, 50, 60.	UVT	Under Voltage Trip	
	HBN	50	30	25	15	3		10, 15, 20, 30, 40, 50, 60.		
	MN	15	10	7.5	5	2, 3				
100	SN	25	15	10	5	2, 3	10, 15, 20, 30, 40, 50, 60, 75, 100.			
	HN	50	30	25	15	2, 3, 4				
	HBN	85	36	32	20	3, 4		40, 50, 63, 80, 100.		
	H	85	50	42	25	3, 4		15, 20, 30, 40, 50, 60, 75, 100.		
125	HC	100	70	55	42	3, 4	40, 50, 63, 80, 100.			
	HS	125	85	70	50	3, 4				
	SN	30	22	15	7.5	2, 3, 4		15, 20, 30, 40, 50, 60, 75, 100, 125.		
160	HN	50	30	25	15	2, 3, 4	125, 140, 160.			
	SN	50	30	25	15	2, 3, 4				
	HN	85	36	32	20	3, 4				
	HB	85	50	42	25	3, 4				
250	HC	100	70	55	42	3, 4	125, 150, 175, 200, 225, 250.			
	HS	125	85	70	50	3, 4				
	SN	50	30	25	15	3, 4		175, 200, 225, 250.		
400	HB	85	50	42	25	3, 4	100, 125, 150, 160, 175, 200, 225, 250.			
	HC	100	70	55	42	3, 4				
	HS	125	85	70	50	3, 4		175, 200, 225, 250.		
	SN	50	35	30	20	3, 4				
630	HN	85	50	42	25	3, 4	250, 300, 350, 400.			
	RN	100	70	55	42	3, 4				
	UN	125	85	85	65	3, 4				
800	SN	50	35	30	20	3, 4	500, 630.			
	HN	85	50	50	25	3, 4				
	RN	100	70	70	42	3, 4				
	UN	125	100	85	65	3, 4				
1000	CN	50	35	30	20	3, 4	700, 800.			
	SN	85	50	50	25	3, 4				
	HN	100	70	70	42	3, 4				
1200	RN	125	100	85	65	3, 4	1000.			
	HS	130	100	85	65	3		1200.		
1600	HS	130	100	85	65	3	1400, 1600.			
	HS	130	100	85	65	3				

Note 1. There is no SHT for 100H, 100HC, 100HS, 30A and below.  
 2. There is no UVT for 100H, 100HC, 100HS, 160HB, 160HC, 160HS, 250HB, 250HC, 250HS.

### ELCB Frame Size Selection Table

Frame Size	Type	Rated Breaking Capacity (kA)			Pole	Rated Current In(A)	Accessory	
		IEC60947-2					Blank	No Acc.
		220V	380V	440V				
50	SN	10	7.5	7.5	3, 4	15, 20, 30, 40, 50.	Blank	No Acc.
100	SN	25	15	10	3, 4	15, 20, 30, 40, 50, 60, 75, 100.	AX	Auxiliary Switch
	HN	50	30	25	3, 4		AL	Alarm Switch
160	SN	50	30	25	3, 4	125, 140, 160.	SHT	Shunt Trip
250	SN	50	30	25	3, 4	175, 200, 225, 250.	UVT	Under Voltage Trip
400	SN	50	35	30	3, 4	250, 300, 350, 400.		
	HN	85	50	42	3, 4			
	RN	100	70	55	3, 4			
	UN	125	85	85	3, 4			
630	HN	85	50	50	3, 4	500, 630.		
	RN	100	70	70	3, 4			
800	UN	125	100	85	3, 4	700, 800.		
	SN	85	50	50	3, 4			
	HN	100	70	70	3, 4			
	RN	125	100	85	3, 4			

### MCCB/ELCB Breaking Capacity Selection Table

Series	Rated Breaking Capacity (kA)	Frame Size/ Rated Current In (A)											
		IEC60947-2											
		30	50/60	100	125	160	250	400	630	800	1000	1200	1600
BM	100kA								630-UN	800-RN	1000-HS	1200-HS	1600-HS
	85kA			100-HS		160-HS	250-HS	400-UN					
	70kA			100-HC		160-HC	250-HC	400-RN	630-RN	800-HN			
	50kA			100-H		160-HBN	250-HBN	400-HN	630-HN	800-SN			
	35/36kA			100-HBN		160-HN	250-HN	400-SN	630-SN	800-CN			
	30kA		60-HBN	100-HN		160-SN	250-SN						
	25kA				125-HN								
	15kA		60-HN	100-SN	125-SN								
	10kA			100-MN									
	7.5kA		60-SN										
	2.5kA		30-SN	50-CN									
	1.5kA		30-CN										
BL	100kA								630-UN	800-RN			
	85kA							400-RN					
	70kA							400-RN	630-RN	800-HN			
	50kA							400-HN	630-HN	800-SN			
	35kA							400-SN					
	30kA			100-HN		160-SN	250-SN						
	15kA			100-SN									
	10kA												
7.5kA			50-SN										







## Molded Case Circuit Breaker

Frame size (AF) (Inm)		30				50		60							
Type		BM30-CN		BM30-SN		BM50-CN		BM60-SN			BM60-HN		BM60-HBN		
Appearance															
Rated current In (A) at ambient temp. 40°C		3, 5, 10, 15, 20, 30.		3, 5, 10, 15, 20, 30.		10, 15, 20, 30, 40, 50.		10, 15, 20, 25, 30, 40, 50, 60.			10, 15, 20, 25, 30, 40, 50, 60.		10, 15, 20, 30, 40, 50, 60.		
Number of poles (P)		2	3	2	3	2	3	2	3	4	2	3	4	3	
Rated insulation voltage Ui (V)		AC		690		690		690		690			690		690
		DC		—		—		—		—			—		—
Dimensions	 (mm)	a	45	67.5	50	75	50	75	50	75	100	50	75	100	90
		b	96		130		130		130			130		155	
		c	52		68		68		68			68		68	
		ca	67		90		90		90			90		90	
		bb	84		111		111		111			111		132	
		aa	23.5		25		25		25			25		30	
Weight (kg)		0.3	0.4	0.45	0.65	0.45	0.65	0.45	0.65	0.85	0.45	0.65	0.85	1.3	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 AC	500V	—		1.5		1.5		5			5		15	
		440V	—		2.5		2.5		7.5			10		25	
		380V	1.5		2.5		2.5		7.5			15		30	
		220V(240V)	2.5		5		5		10			25		50	
	DC	250V	—		—		—		—			—		—	
125V		—		—		—		—			—		—		
Connection		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal			Clamp terminal		Clamp terminal		
Optional accessories	Alarm switch (AL)	—		○		○		○			○		○		
	Auxiliary switch (AX)	—		○		○		○			○		○		
	Shunt trip (SHT)	—		○		○		○			○		○		
	Under-voltage trip (UVT)	—		○		○		○			○		○		
	Rotary handle (EH)	—		●		●		●			●		●		
	Terminal cover (TC)	●		●		●		●			●		●		
	Box lug (TL)	●		●		●		●			●		●		
Trip Unit		Hydraulic magnetic		Hydraulic magnetic		Hydraulic magnetic		Hydraulic magnetic			Hydraulic magnetic		Hydraulic magnetic		
Tripping button		—		Equipped		Equipped		Equipped			Equipped		Equipped		

Note 1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.  
 Above accessories table is for 3P breaker.  
 2. Ics= 50% Icu  
 3. Adjustable thermal: 80%~100% In.

80% ~ 100% Adj. (A)

100

BM100-FTD	BM100-MN		BM100-SN		BM100-HN			BM100-HBN		BM100-H	
											
15, 20, 30, 40, 50 60, 75, 100.	10, 15, 20, 30, 40, 50, 60, 75, 100.		10, 15, 20, 30, 40, 50, 60, 75, 100.		10, 15, 20, 30, 40, 50, 60, 75, 100.			40, 50, 63, 80, 100.		15, 20, 30, 40, 50, 60, 75, 100.	
1	2	3	2	3	2	3	4	3	4	3	4
690	690		690		690			690		690	
—	—		250	—	—			—		—	
25.4	50	75	50	75	60	90	120	105	140	105	140
130	130		130		155			165		165	
60	68		68		68			68		86	
91	90		90		90			92		112	
111	111		111		132			126		126	
—	25		25		30			35		35	
0.29	0.45	0.65	0.45	0.65	0.9	1.3	1.6	1.5	1.9	2.1	2.6
—	5		5		15			20		25	
—	7.5		10		25			32		42	
5*	10		15		30			36		50	
25	15		25		50			85		85	
—	—		10	—	—			—		—	
—	—		15	—	—			—		—	
Clamp terminal	Clamp terminal		Clamp terminal		Clamp terminal			Clamp terminal		Clamp terminal	
—	○		○		○			●		○	
—	○		○		○			●		○	
—	○		○		○			●		○	
—	○		○		○			●		—	
—	●		●		●			●		●	
—	●		●		●			●		●	
●	●		●		●			●		●	
Thermal magnetic	Hydraulic magnetic		Hydraulic magnetic		Hydraulic magnetic			Adj. thermal Fixed magnetic		Thermal magnetic	
Equipped	Equipped		Equipped		Equipped			Equipped		Equipped	

Note: Breaking Capacity of BM100-FTD is 5kA at 380V/415V/440V

BM

Series

BL

Series

ACC.






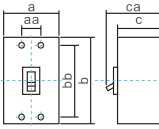
DIM.

Curve.

Other

## Molded Case Circuit Breaker

80% ~ 100% Adj. (A)

Frame size (AF) (Inm)		100				125			160						
Model		BM100-HC		BM100-HS		BM125-SN			BM125-HN			BM160-SN			
Appearance															
Rated current In (A) at ambient temp. 40°C		40, 50, 63, 80, 100.		40, 50, 63, 80, 100.		10, 15, 20, 30, 40, 50, 60, 75, 100, 125.			10, 15, 20, 30, 40, 50, 60, 75, 100, 125.			125, 140, 160.			
Number of poles (P)		3	4	3	4	2	3	4	2	3	4	2	3	4	
Rated insulation voltage Ui (V)		AC		690		690			690			690			
		DC		—		—			—			—			
Dimensions		a	105	140	105	140	60	90	120	60	90	120	105	105	140
		b	165		165		155			155			165		
		c	86		86		68			68			68		
		ca	112		112		90			90			92		
		bb	126		126		132			132			126		
		aa	35		35		30			30			35		
Weight (kg)		2.1	2.6	2.1	2.6	0	30	30	0	30	30	1.3	1.5	1.9	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 AC	500V	42		50		7.5			15			15		
		440V	55		70		15			25			25		
		380V	70		85		22			30			30		
		220V(240V)	100		125		30			50			50		
	DC	250V	—		—		—			—			—		
125V		—		—		—			—			—			
Connection		Clamp terminal		Clamp terminal		Clamp terminal			Clamp terminal			Clamp terminal			
Optional accessories	Alarm switch (AL)	○		○		○			○			●			
	Auxiliary switch (AX)	○		○		○			○			●			
	Shunt trip (SHT)	○		○		○			○			●			
	Under-voltage trip (UVT)	—		—		— ○ ○			— ○ ○			●			
	Rotary handle (EH)	●		●		●			●			●			
	Terminal cover (TC)	●		●		●			●			●			
	Box lug (TL)	●		●		●			●			●			
Trip Unit		Thermal magnetic		Thermal magnetic		Hydraulic magnetic			Hydraulic magnetic			Adj. thermal Fixed magnetic			
Tripping button		Equipped		Equipped		Equipped			Equipped			Equipped			

Note 1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.  
 Above accessories table is for 3P breaker.  
 2. Ics= 50% Icu  
 3. Adjustable thermal: 80%~100% In.

BM

Series

BL

Series

ACC.







DIM.

Curve.

Other






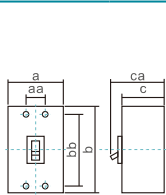
80% ~ 100% Adj. (A)

80% ~ 100% Adj. (A)

160				250								
BM160-HN		BM160-HB		BM160-HC		BM160-HS		BM250-CN			BM250-SN	
												
125, 140, 160.		125, 140, 160.		125, 140, 160.		125, 140, 160.		125, 150, 175, 200, 225, 250.			125, 150, 175, 200, 225, 250.	
3	4	3	4	3	4	3	4	2	3	4	3	4
690		690		690		690		690			690	
—		—		—		—		250	—	—	—	
105	140	105	140	105	140	105	140	105	105	140	105	140
165		165		165		165		165			165	
68		86		86		86		68			68	
92		112		112		112		92			92	
126		126		126		126		126			126	
35		35		35		35		35			35	
1.5	1.9	2.1	2.6	2.1	2.6	2.1	2.6	1.3	1.5	1.9	1.5	1.9
20		25		42		50		7.5			15	
32		42		55		70		15			25	
36		50		70		85		22			30	
85		85		100		125		30			50	
—		—		—		—		10	—	—	—	
—		—		—		—		15	—	—	—	
Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal			Clamp terminal	
●		○		○		○		●			●	
●		○		○		○		●			●	
●		○		○		○		●			●	
●		—		—		—		●			●	
●		●		●		●		●			●	
●		●		●		●		●			●	
●		●		●		●		●			●	
Adj. thermal Fixed magnetic		Thermal magnetic		Thermal magnetic		Thermal magnetic		Adj. thermal Fixed magnetic			Adj. thermal Fixed magnetic	
Equipped		Equipped		Equipped		Equipped		Equipped			Equipped	







## Molded Case Circuit Breaker

80% ~ 100% Adj. (A)






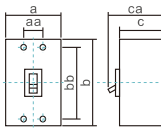
Frame size (AF) (Inm)		250								400				
Model		BM250-HN		BM250-HB		BM250-HC		BM250-HS		BM400-CN				
Appearance														
Rated current In (A) at ambient temp. 40°C		175, 200, 225, 250.		100, 125, 150, 160, 175, 200, 225, 250.		175, 200, 225, 250.		175, 200, 225, 250.		250, 300, 350, 400.				
Number of poles (P)		3	4	3	4	3	4	3	4	2	3	4		
Rated insulation voltage Ui (V)		AC		690		690		690		690				
		DC		—		—		—		250, —, —				
Dimensions		a		105	140	105	140	105	140	105	140	140	140	185
		b		165		165		165		165		257		
		c		68		86		86		86		103		
		ca		92		112		112		112		155		
		bb		126		126		126		126		194		
		aa		35		35		35		35		44		
Weight (kg)		1.5	1.9	2.1	2.6	2.1	2.6	2.1	2.6	5.0	5.7	7.5		
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 AC	500V	20		25		42		50		14			
		440V	32		42		55		70		22			
		380V	36		50		70		85		25			
		220V(240V)	85		85		100		125		35			
	DC	250V	—		—		—		—		10	—	—	
		125V	—		—		—		—		15	—	—	
Connection		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		Busbar				
Optional accessories	Alarm switch (AL)	●		○		○		○		●				
	Auxiliary switch (AX)	●		○		○		○		●				
	Shunt trip (SHT)	●		○		○		○		●				
	Under-voltage trip (UVT)	●		—		—		—		●				
	Rotary handle (EH)	●		●		●		●		●				
	Terminal cover (TC)	●		●		●		●		●				
	Box lug (TL)	●		●		●		●		●				
Trip Unit		Adj. thermal Fixed magnetic		Thermal magnetic		Thermal magnetic		Thermal magnetic		Thermal magnetic				
Tripping button		Equipped		Equipped		Equipped		Equipped		Equipped				

Note 1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.  
 Above accessories table is for 3P breaker.  
 2. Ics= 50% Icu  
 3. Adjustable thermal: 80%~100% In.








400				630	
BM400-SN	BM400-HN	BM400-RN	BM400-UN	BM630-CN	BM630-SN
					
250, 300, 350, 400.		250, 300, 350, 400.		500, 600, 630.	
3	4	3	4	3	3
690	690	690	690	690	690
—	—	—	—	250	250
140	185	140	185	210	210
257	257	257	257	275	275
103	103	103	103	103	103
155	155	155	155	155	155
194	194	194	194	243	243
44	44	44	44	70	70
5.7	7.5	5.7	7.5	10	10
20	25	42	65	14	20
30	42	55	85	22	30
35	50	70	85	25	35
50	85	100	125	35	50
—	—	—	—	10	20
—	—	—	—	—	—
Busbar	Busbar	Busbar	Busbar	Busbar	Busbar
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
●	●	●	●	●	●
Thermal magnetic	Thermal magnetic	Thermal magnetic	Thermal magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic
Equipped	Equipped	Equipped	Equipped	Equipped	Equipped




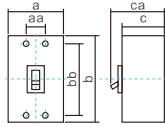
## Molded Case Circuit Breaker

Frame size (AF) (Inm)		630						800				
Model		BM630-HN		BM630-RN		BM630-UN		BM800-CN		BM800-SN		
Appearance												
Rated current In (A) at ambient temp. 40°C		500, 630.		500, 630.		500, 630.		700, 800.		700, 800.		
Number of poles (P)		3	4	3	4	3	4	3	4	3	4	
Rated insulation voltage Ui (V)		AC		690		690		690		690		
		DC		250	—	—	—	—	—	250	—	250
Dimensions  (mm)	a	210	280	210	280	210	280	210	280	210	280	
	b	275		275		275		275		275		
	c	103		103		103		103		103		
	ca	155		155		155		155		155		
	bb	243		243		243		243		243		
	aa	70		70		70		70		70		
Weight (kg)		10	13	10	13	10	13	10.5	13.5	10.5	13.5	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 AC	500V	25		42		65		20		25	
		440V	50		70		85		30		50	
		380V	50		70		100		35		50	
		220V(240V)	85		100		125		50		85	
	DC	250V	40	—	—	—	—	—	20	—	40	—
125V		—		—		—		—		—		
Connection		Busbar		Busbar		Busbar		Busbar		Busbar		
Optional accessories	Alarm switch (AL)	●		●		●		●		●		
	Auxiliary switch (AX)	●		●		●		●		●		
	Shunt trip (SHT)	●		●		●		●		●		
	Under-voltage trip (UVT)	●		●		●		●		●		
	Rotary handle (EH)	●		●		●		●		●		
	Terminal cover (TC)	●		●		●		●		●		
	Box lug (TL)	●		●		●		●		●		
Trip Unit		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		
Tripping button		Equipped		Equipped		Equipped		Equipped		Equipped		

Note 1 "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.  
 Above accessories table is for 3P breaker.  
 2. Ics= 50% Icu

800		1000		1200		1600			
BM800-HN		BM800-RN		BM1000-HS		BM1200-HS		BM1600-HS	
									
700, 800.		700, 800.		1000		1200		1400, 1600.	
3	4	3	4	3	3	3	3	3	3
690		690		690		690		690	
—		—		—		—		—	
210	280	210	280	210	210	210	210	210	210
275		275		406		406		406	
103		103		140		140		140	
155		155		190		190		190	
243		243		375		375		375	
70		70		70		70		70	
10.5	13.5	10.5	13.5	23	23	23	23	23	23
42		65		65		65		65	
70		85		85		85		85	
70		100		100		100		100	
100		125		130		130		130	
—		—		—		—		—	
—		—		—		—		—	
Busbar		Busbar		Busbar		Busbar		Busbar	
●	●	●	●	○	○	○	○	○	○
●	●	●	●	○	○	○	○	○	○
●	●	●	●	○	○	○	○	○	○
●	●	●	●	○	○	○	○	○	○
●	●	●	●	—	—	—	—	—	—
●	●	●	●	—	—	—	—	—	—
●	●	●	●	●	●	●	●	●	●
Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic
Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped

## Molded Case Circuit Breaker (BMA Series)

Frame size (AF) (Inm)		125			160			250			
Model		BMA125-STA	BMA125-LTA	BMA125-HTA	BMA160-STA	BMA160-LTA	BMA160-HTA	BMA250-STA	BMA250-LTA	BMA250-HTA	
Appearance											
Rated current In (A) at ambient temp. 40°C		15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125A			40, 50, 60, 63, 70, 75, 80, 100, 125, 140, 150, 160A			175, 200, 225, 250A			
Number of poles (P)		3		4	3		4	3		4	
Rated insulation voltage Ui (V)		AC 800			800			800			
Dimensions		a	90	120	105	140	105	140	105	140	
		b	155	155	165	165	165	165	165	165	
		c	68	68	68	68	68	68	68	68	
		ca	92	92	92	92	92	92	92	92	
		bb	132	132	126	126	126	126	126	126	
		aa	30	30	35	35	35	35	35	35	
		(mm)									
Weight (kg)		0.7		0.9	1.5		1.9	1.5		1.9	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	690V	8 kA	8 kA	10 kA	8 kA	8 kA	10 kA	8 kA	8 kA	10 kA
		415V	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA
		380V	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA
		220V(240V)	50 kA	85 kA	100 kA	85 kA	85 kA	100 kA	85 kA	85 kA	100 kA
Connection		Clamp terminal	Clamp terminal	Clamp terminal	Clamp terminal	Clamp terminal	Clamp terminal	Clamp terminal	Clamp terminal	Clamp terminal	
Optional accessories	Alarm switch (AL)	●	●	●	●	●	●	●	●	●	
	Auxiliary switch (AX)	●	●	●	●	●	●	●	●	●	
	Shunt trip (SHT)	●	●	●	●	●	●	●	●	●	
	Under-voltage trip (UVT)	●	●	●	●	●	●	●	●	●	
	Rotary handle (EH)	●	●	●	●	●	●	●	●	●	
	Terminal cover (TC)	●	●	●	●	●	●	●	●	●	
Trip Unit		Adjustable Thermal Fixed Magnetic			Adjustable Thermal Fixed Magnetic			Adjustable Thermal Fixed Magnetic			
Tripping button		Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	

Note 1. I<sub>sc</sub>=100%I<sub>cu</sub>

BM

Series

BL






Series

ACC.




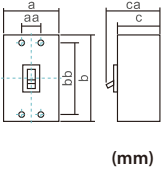
DIM.

Curve.

Other






400			630		800		630		800	
BMA400-LTA	BMA400-HTA	BMA400-RTA	BMA630-HTA	BMA630-RTA	BMA800-HTA	BMA800-RTA	BMA630-HED	BMA630-RED	BMA800-HED	BMA800-RED
										
250, 300, 350, 400A			500, 600, 630A		700, 800A		630A		800A	
3		4	3	4	3	4	3	4	3	4
800			1000		1000		1000		1000	
140		185	210	280	210	280	210	280	210	280
257		257	275	275	275	275	275	275	275	275
103		103	103	103	103	103	103	103	103	103
155		155	155	155	155	155	155	155	155	155
194		194	243	243	243	243	243	243	243	243
44		44	70	70	70	70	70	70	70	70
5.7		7.5	10	13	10	13	11.5	15.3	12	15.8
8 kA	10 kA	15 kA	10 kA	15 kA	10 kA	15 kA	10 kA	15 kA	10 kA	15 kA
36 kA	50 kA	70 kA	50 kA	70 kA	50 kA	70 kA	50 kA	70 kA	50 kA	70 kA
36 kA	50 kA	70 kA	50 kA	70 kA	50 kA	70 kA	50 kA	70 kA	50 kA	70 kA
70 kA	85 kA	100 kA	85 kA	100 kA	85 kA	100 kA	85 kA	100 kA	85 kA	100 kA
Busbar	Busbar	Busbar	Busbar	Busbar	Busbar	Busbar	Busbar	Busbar	Busbar	Busbar
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●
Adjustable Thermal Fixed Magnetic			Adjustable Thermal Adjustable Magnetic		Adjustable Thermal Adjustable Magnetic		Electronic		Electronic	
Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped

## Earth Leakage Circuit Breaker

Frame size (AF) (Inm)		50		100						
Model		BL50-SN		BL100-SN		BL100-HN				
Appearance										
Rated current In (A) at ambient temp. 40°C		15, 20, 30, 40, 50.		15, 20, 30, 40, 50, 60, 75, 100.		15, 20, 30, 40, 50, 60, 75, 100.				
Phase & wire (P)		1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W			
Number of poles (P)		3	4	3	4	3	4			
Rated voltage (VAC)		230, 400.		230, 400.		230, 400.				
High speed	Rated current sensitivity IΔn (mA)	30-100-500 adjustable		30-100-500 adjustable		30-100-500 adjustable				
	2IΔn operating time (S)	0.1		0.1		0.1				
	5IΔn operating time (S)	0.04		0.04		0.04				
Delay	Rated current sensitivity IΔn (mA)	100- 300- 500 adjustable		100- 300- 500 adjustable		100- 300- 500 adjustable				
	2IΔn operating time (S)	0.1- 0.4- 0.8- 2.0 adjustable		0.1- 0.4- 0.8- 2.0 adjustable		0.1- 0.4- 0.8- 2.0 adjustable				
	2IΔn max. non-operating time (S)	0, 0.2, 0.4, 1.0		0, 0.2, 0.4, 1.0		0, 0.2, 0.4, 1.0				
	Leakage detection mode	Mechanical push-button		Mechanical push-button		Mechanical push-button				
Dimensions		a	75	100	90	120	90	120		
		b	130		155		155			
		c	68		68		68			
		ca	90		90		90			
		bb	111		132		132			
		aa	25		30		30			
		Weight (kg)	0.7		0.9		1.5		1.8	
Other	Rated breaking capacity (kA)	AC	IEC 60947-2	440V	7.5		10		25	
			EN 60947-2	380V	7.5		15		30	
			CNS 14816-2	220V	10		25		50	
			Icu							
Connection		Clamp terminal		Clamp terminal		Clamp terminal				
Optional accessories	Alarm switch (AL)	○		○		○				
	Auxiliary switch (AX)	○		○		○				
	Shunt trip (SHT)	○		○		○				
	Under-voltage trip (UVT)	—		○		○				
	Rptary handle (EH)	●		●		●				
	Terminal cover (TC)	●		●		●				
	Leakage alarm module (AM)	—		○		○				
	Box lug (TL)	●		●		●				
Trip Unit		Hydraulic magnetic		Hydraulic magnetic		Hydraulic magnetic				
Tripping button		Equipped		Equipped		Equipped				

Note 1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.  
 2. Specify default rated current sensitivity when place the order.  
 3. Ics= 50% Icu  
 4. Adjustable thermal: 80%~100% In.  
 5. Specify, when order delay type rated current sensitivity 30-100-500mA.

80% ~ 100% Adj. (A)

160		250		400					
BL160-SN		BL250-SN		BL400-SN		BL400-HN		BL400-RN	
									
125, 140, 160.		175, 200, 225, 250.		250, 300, 350, 400.		250, 300, 350, 400.		250, 300, 350, 400.	
1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W
3	4	3	4	3	4	3	4	3	4
230, 400.		230, 400.		230, 400.		230, 400.		230, 400.	
30-100-500 adjustable		30-100-500 adjustable		30-100-500 adjustable		30-100-500 adjustable		30-100-500 adjustable	
0.1		0.1		0.1		0.1		0.1	
0.04		0.04		0.04		0.04		0.04	
100-300-500 adjustable		100-300-500 adjustable		100-300-500 adjustable		100-300-500 adjustable		100-300-500 adjustable	
0.1-0.4-0.8-2.0 adjustable		0.1-0.4-0.8-2.0 adjustable		0.1-0.4-0.8-2.0 adjustable		0.1-0.4-0.8-2.0 adjustable		0.45-1.0-2.0 adjustable	
0, 0.2, 0.4, 1.0		0, 0.2, 0.4, 1.0		0, 0.2, 0.4, 1.0		0, 0.2, 0.4, 1.0		0.1, 0.5, 1.0	
Mechanical push-button		Mechanical push-button		Mechanical push-button		Mechanical push-button		Mechanical push-button	
105	140	105	140	140	185	140	185	140	185
165		165		257		257		257	
68		68		103		103		103	
92		92		155		155		155	
126		126		194		194		194	
35		35		44		44		44	
1.7	2.3	1.7	2.3	6.6	8.4	6.6	8.4	5.7	7.5
25		25		30		42		55	
30		30		35		50		70	
50		50		50		85		100	
Clamp terminal		Clamp terminal		Busbar		Busbar		Busbar	
●		●		●		●		●	
●		●		●		●		●	
●		●		●		●		●	
●		●		●		●		●	
●		●		●		●		●	
●		●		●		●		●	
○		○		○		○		○	
●		●		●		●		●	
Adj. thermal	Fixed magnetic	Adj. thermal	Fixed magnetic	Thermal magnetic		Thermal magnetic		Thermal magnetic	
Equipped		Equipped		Equipped		Equipped		Equipped	

BM

Series

BL

Series




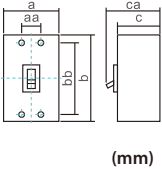
ACC.

DIM.

Curve.





Other

## Earth Leakage Circuit Breaker

Frame size (AF) (Inm)		400		630				
Model		BL400-UN		BL630-HN		BL630-RN		
Appearance								
Rated current In (A) at ambient temp. 40°C		250, 300, 350, 400.		500, 630.		500, 630.		
Phase & wire (P)		1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	
Number of poles (P)		3	4	3	4	3	4	
Rated voltage (VAC)		230, 400.		230, 400.		230, 400.		
High speed	Rated current sensitivity IΔn (mA)	30-100-500 adjustable		100-300-500 adjustable		100-300-500 adjustable		
	2IΔn operating time (S)	0.1		0.1		0.1		
	5IΔn operating time (S)	0.04		0.04		0.04		
Delay	Rated current sensitivity IΔn (mA)	100-300-500 adjustable		100-300-500 adjustable		100-300-500 adjustable		
	2IΔn operating time (S)	0.45-1.0-2.0 adjustable		0.45-1.0-2.0 adjustable		0.45-1.0-2.0 adjustable		
	2IΔn max. non-operating time (S)	0.1, 0.5, 1.0		0.1, 0.5, 1.0		0.1, 0.5, 1.0		
	Leakage detection mode	Mechanical push-button		Mechanical push-button		Mechanical push-button		
Dimensions		a	140	185	210	280	210	280
		b	257		257		257	
		c	103		103		103	
		ca	155		155		155	
		bb	194		243		243	
		aa	44		70		70	
		Weight (kg)	5.7	7.5	10.0	13.0	10.0	13.0
Rated breaking capacity (kA)	AC	IEC 60947-2 EN 60947-2 CNS 14816-2	440V	85	50	70		
		380V	85	50	70			
		Icu 220V	125	85	100			
Connection		Busbar		Busbar		Busbar		
Optional accessories	Alarm switch (AL)	●		●		●		
	Auxiliary switch (AX)	●		●		●		
	Shunt trip (SHT)	●		●		●		
	Under-voltage trip (UVT)	●		●		●		
	Rotary handle (EH)	●		●		●		
	Terminal cover (TC)	●		●		●		
	Leakage alarm module (AM)	○		○		○		
	Box lug (TL)	●		●		●		
Trip Unit		Thermal magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		
Tripping button		Equipped		Equipped		Equipped		

Note 1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.  
 2. Specify default rated current sensitivity when place the order.  
 3. Ics= 50% Icu  
 4. Adjustable thermal: 80%~100% In.  
 5. Specify, when order delay type rated current sensitivity 30-100-500mA.



630		800					
BL630-UN		BL800-SN		BL800-HN		BL800-RN	
							
500, 630.		700, 800.		700, 800.		700, 800.	
1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W	1ø2W, 3ø3W.	3ø4W
3	4	3	4	3	4	3	4
230, 400.		230, 400.		230, 400.		230, 400.	
100- 300- 500 adjustable		100- 300- 500 adjustable		100- 300- 500 adjustable		100- 300- 500 adjustable	
0.1		0.1		0.1		0.1	
0.04		0.04		0.04		0.04	
100- 300- 500 adjustable		100- 300- 500 adjustable		100- 300- 500 adjustable		100- 300- 500 adjustable	
0.45- 1.0- 2.0 adjustable		0.45- 1.0- 2.0 adjustable		0.45- 1.0- 2.0 adjustable		0.45- 1.0- 2.0 adjustable	
0.1, 0.5, 1.0		0.1, 0.5, 1.0		0.1, 0.5, 1.0		0.1, 0.5, 1.0	
Mechanical push-button		Mechanical push-button		Mechanical push-button		Mechanical push-button	
210	280	210	280	210	280	210	280
257		257		257		257	
103		103		103		103	
155		155		155		155	
243		243		243		243	
70		70		70		70	
10.0	13.0	10.5	13.5	10.5	13.5	10.5	13.5
85		50		70		85	
100		50		70		100	
125		85		100		125	
Busbar		Busbar		Busbar		Busbar	
●		●		●		●	
●		●		●		●	
●		●		●		●	
●		●		●		●	
●		●		●		●	
●		●		●		●	
○		○		○		○	
●		●		●		●	
Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic	
Equipped		Equipped		Equipped		Equipped	

## Optional Accessories Installation Table

■ AL: Alarm Switch / AX: Auxiliary Switch / SHT: Shunt Trip / UVT: Under Voltage Trip

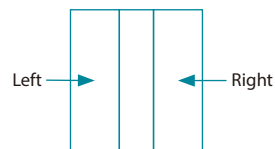
Model	Poles	AL	AX	SHT or UVT	AL+AX	AL+ SHT or UVT	AX+ SHT or UVT	AL+AX+ SHT or UVT		
BM30-SN BM50-CN BM60-SN/HN BM100-SN/MN	3P							—		
BL50-SN	3P 4P									—
BL100-SN BL100-HN	3P 4P				—			—		
BM100-H/HC/HS BM160-HB/HC/HS BM250-HB/HC/HS	3P 4P							—		
BM100-HBN BM160-SN/HN BM250-SN/HN BMA125-STA/LTA/HTA BMA160-STA/LTA/HTA BMA250-STA/LTA/HTA	3P 4P									
BL160-SN BL250-SN/ CN	3P 4P				—	—	—	—		
BM400-SN/HN/CN/ RN/UN BMA400-LTA/HTA/RTA	3P 4P									
BL400-SN/HN/RN/UN	3P 4P							—		
BM630-SN/HN/CN/ RN/UN BM800-CN/SN/HN/RN BMA630-HTA/RTA BMA800-HTA/RTA	3P 4P									
BL630-HN/RN/UN BL800-SN/HN/RN	3P 4P									
BM1000-HS BM1200-HS BM1600-HS	3P				—			—		

2P, 125A and below : Accessories are installed on the right side.

Note:

- Standard: AL and AX are installed on left side, SHT and UVT are installed on right side.
- SHT is equipped with coil anti-burn switch.
- BL series can not do right side installation.
- UVT of BM30-SN~BM100-HN can not install on its left side.
- #1 means have no UVT.
- #2 means only can apply to 4P breakers.

● : AL  
○ : AX  
■ : SHT or UVT



## Optional Accessories | Application Table

### Rotary Handle

TYPE	Poles	Model
EH-100N	2P、3P、4P	BM30-SN, BM50-CN, BM60-SN/HN, BM100-SN/MN, BL50-SN
EH-125N	2P、3P、4P	BM60-HBN, BM100-HN, BM125-SN/HN, BL100-SN/HN, BMA125-STA/LTA/HTA
EH-250N	3P、4P	BM100-HBN, BM160-SN/HN, BM250-SN/HN, BL160-SN, BL250-SN
EH-250T	2P、3P、4P	BMA160-STA/LTA/HTA, BMA250-STA/LTA/HTA
EH-400N	3P、4P	BM400-SN/HN/RN/UN, BL400-SN/HN/RN/UN, BMA400-LTA/HTA/RTA
EH-800N	3P、4P	BM630-SN/HN/RN/UN, BM800-CN/SN/HN/RN, BL630-HN/RN/UN, BL800-SN/HN/RN, BMA630-HTA/RTA, BMA800-HTA/RTA
EH-250H	3P、4P	BM100-H/HN/HS, BM160-HB/HN/HS, BM250-HB/HN/HS

### Extended Rotary Handle

TYPE	Poles	Model
MA-100N	3P、4P	BM30-SN, BM50-CN, BM60-SN/HN, BM100-SN/MN, BL50-SN
MA-125N	3P、4P	BM60-HBN, BM100-HN, BM125-SN/HN, BL100-SN/HN, BMA125-STA/LTA/HTA
MA-250N	3P、4P	BM100-HBN, BM160-SN/HN, BM250-SN/HN, BL160-SN, BL250-SN
MA-250T	3P、4P	BMA160-STA/LTA/HTA, BMA250-STA/LTA/HTA
MA-400N	3P、4P	BM400-SN/HN/RN/UN, BL400-SN/HN/RN/UN, BMA400-LTA/HTA/RTA
MA-800N	3P、4P	BM630-SN/HN/RN/UN, BM800-CN/SN/HN/RN, BL630-HN/RN/UN, BL800-SN/HN/RN, BMA630-HTA/RTA, BMA800-HTA/RTA
MA-250H	3P、4P	BM100-H/HN/HS, BM160-HB/HN/HS, BM250-HB/HN/HS

### Motor Operation Device

TYPE	Poles	Model
MT-100N	3P、4P	BM30-SN, BM50-CN, BM60-SN/HN, BM100-SN/MN, BL50-SN
MT-125N	3P、4P	BM60-HBN, BM100-HN, BM125-SN/HN, BL100-SN/HN, BMA125-STA/LTA/RTA
MT-250N	3P、4P	BM100-HBN, BM160-SN/HN, BM250-SN/HN, BL160-SN, BL250-SN, BMA160-STA/LTA/HTA, BMA250-STA/LTA/HTA
MT-400N	3P、4P	BM400-SN/HN/RN/UN, BL400-SN/HN/RN/UN, BMA400-LTA/HTA/RTA
MT-800N	3P、4P	BM630-SN/HN/RN/UN, BM800-CN/SN/HN/RN, BL630-HN/RN/UN, BL800-SN/HN/RN, BMA630-HTA/RTA, BMA800-HTA/RTA
MT-250E	3P、4P	BM100-H/HN/HS, BM160-HB/HN/HS, BM250-HB/HN/HS

Note : Applicable voltage : ① DC 24V ② AC 110V/ DC 110V ③ AC 230V/ DC 220V

### Rear Connection

TYPE	Poles	Model
PGI-100N50	3P	BM30-SN, BM50-CN, BM60-SN/HN, BL50-SN (50A and below), BM50-CN
PGI-100N	3P	BM60-SN/HN, BM100-SN/MN (60A and below)
PGI-125N50	3P	BM60-HBN, BM100-HN, BM125-SN/HN, BL100-SN/HN (50A and below)
	4P	BM100-HN, BM125-SN, BL100-SN/HN (50A and below)
PGI-125N	3P	BM60-HBN, BM100-HN, BM125-SN, BL100-SN/HN (60A and above)
	4P	BM100-HN, BM125-SN, BL100-SN/HN (60A and above)
PGI-250N	3P、4P	BM100-HBN, BM160-SN/HN, BM250-SN/HN, BL160-SN, BL250-SN
PGI-400N	3P、4P	BM400-SN/HN/RN/UN, BL400-SN/HN/RN/UN
PGI-800N	3P、4P	BM630-SN/HN/RN/UN, BM800-CN/SN/HN/RN, BL630-HN/RN/UN, BL800-SN/HN/RN
PGI-BM250	3P	BM100-H/HN/HS, BM160-HB/HN/HS, BM250-HB/HN/HS

## Box Lug

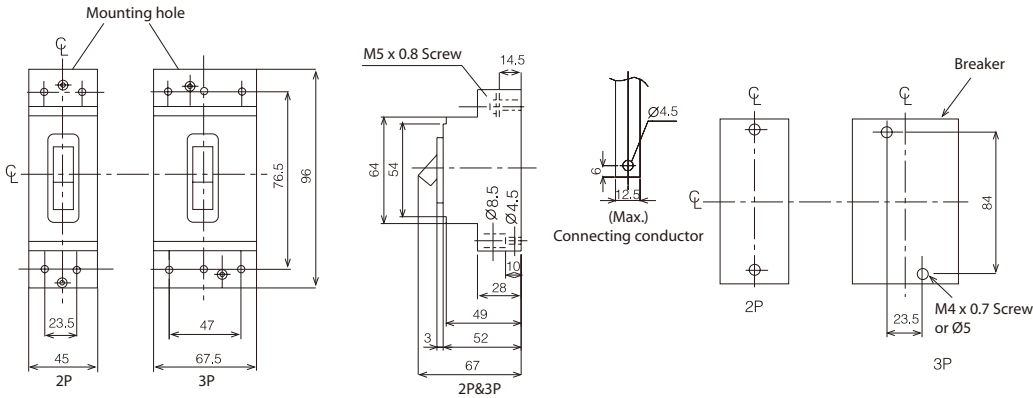
Model	Rated Current	Applicable Breaker	
		MCCB	ELCB
TL-100N	50A	BM30-SN, BM50-CN, BM60-SN*, BM60-HN*, BM100-SN*	BL50-SN
TL-125N	50A	BM60-HBN*, BM100-HN*, BM125-SN*, BM125-HN*	BL100-SN*, BL100-HN*
	125A	BM60-SN**, BM60-HN**, BM60-HBN**, BM100-MN**, BM100-SN**, BM100-HN**, BM125-SN**, BM125-HN**	BL100-SN**, BL100-HN**
TL-250N	50A	BM100-HBN*	—
	100A	BM100-HBN**	—
	250A	BM160-SN, BM160-HN, BM250-CN, BM250-SN, BM250-HN	BL160-SN, BL250-SN
TL-250H	50A	BM100-H*, BM100-HC*, BM100-HS*	—
	100A	BM100-H**, BM100-HC**, BM100-HS**, BM100-HE, BM100-RE, BM100-UE	—
	250A	BM160-HB, BM160-HC, BM160-HS, BM250-HB, BM250-HS, BM160-HE, BM160-RE, BM160-UE, BM250-HE, BM250-RE, BM250-UE	—
TL-400N	400A	BM400-CN, BM400-SN, BM400-HN, BM400-RN, BM400-UN, BM400-HE, BM400-RE, BM400-UE	BL400-SN, BL400-HN BL400-RN, BL400UN
TL-800N	800A	BM630-CN, BM630-SN, BM630-HN, BM630-RN, BM630-UN, BM630-HE, BM630-RE, BM630-UE	BL630-HN, BL630-RN, BL630-UN
		BM800-CN, BM800-SN, BM800-HN, BM800-RN, BM800-SE, BM800-HE, BM800-RE	BL800-SN, BL800-HN, BL800-RN
TL-1200H	1200A	BM1000-HS, BM1200-HS, BM1000-SE, BM1000-HE, BM1250-SE, BM1250-HE	—
TL-1600H	1600A	BM1600-HS	—

## Torque Table

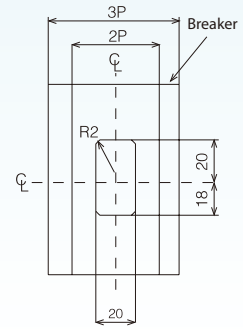
Model	Rated Current	Screw "A" torque			Screw "A" torque			Applicable wire		Length(mm)	
		N · m	kgf · cm	lb · in	N · m	kgf · cm	lb · in	ISO	AWG / MCM	L1	L2
TL-100N	50A	2~3	20~30	17.5~26.5	2*~3	20*~30	17*~27	2.5~16 mm <sup>2</sup>	14 AWG~6 AWG	14	—
TL-125N	50A	3.9~4.9	40~50	35~43.5							
	TL-250N	125A	4.9~6.9	50~70	43.5~61	6	61	53	10~50 mm <sup>2</sup>	8 AWG~1 AWG	21
50A		4.9~6.9	50~70	43.5~61	2*~3	20*~30	17*~27	2.5~16 mm <sup>2</sup>	14 AWG~6 AWG		
100A					6	61	53	10~50 mm <sup>2</sup>	8 AWG~1 AWG		
250A	15				153	133	50~120 mm <sup>2</sup>	1 AWG~250 AWG			
TL-250H	50A	4.9~6.9	50~70	43.5~61	2*~3	20*~30	17*~27	2.5~16 mm <sup>2</sup>	14 AWG~6 AWG	21	—
	100A				6	61	53	10~50 mm <sup>2</sup>	8 AWG~1 AWG		
	250A				15	153	133	50~120 mm <sup>2</sup>	1 AWG~250 AWG		
TL-400N	400A	40~50	400~500	350~440	31	316	275	120~240 mm <sup>2</sup>	250 AWG~500 AWG	30	—
TL-800N	800A										
TL-1200H	1200A										
TL-1600H	1600A										

Dimension of circuit breaker

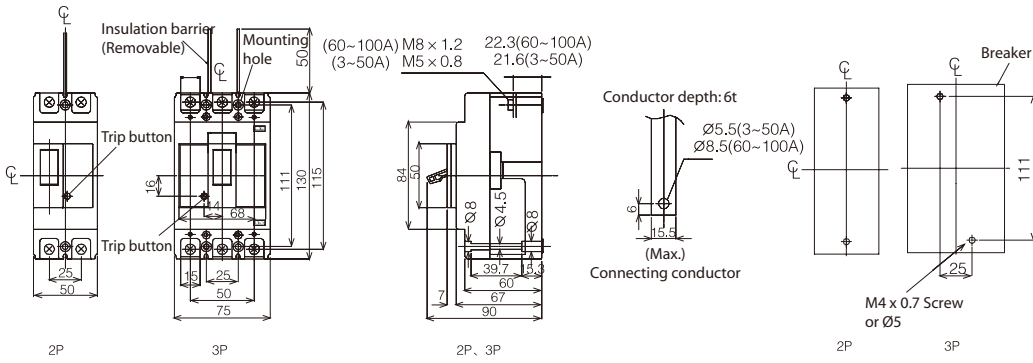
BM30-CN



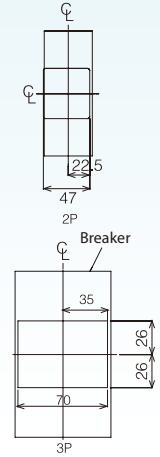
Panel cut



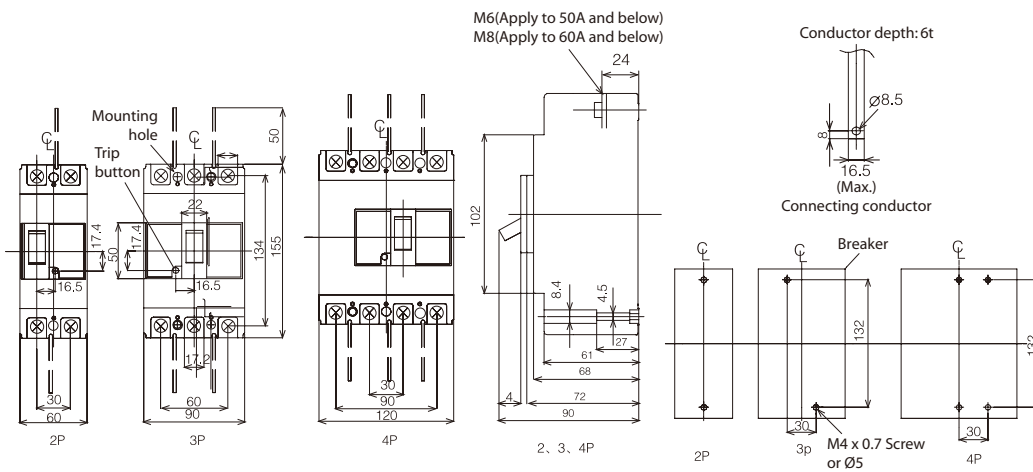
BM30-SN, BM50-CN, 60-SN/HN, 100-SN



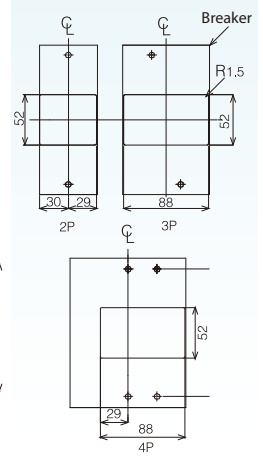
Panel cut



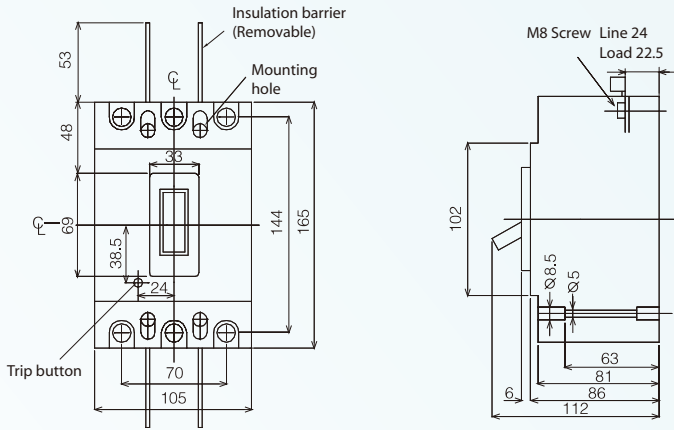
BM60-HBN, BM100-HN, BM125-SN/NH



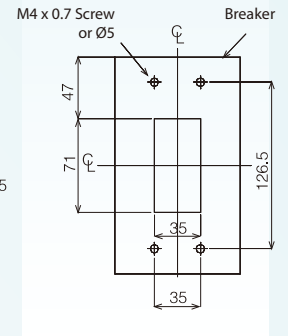
Panel cut



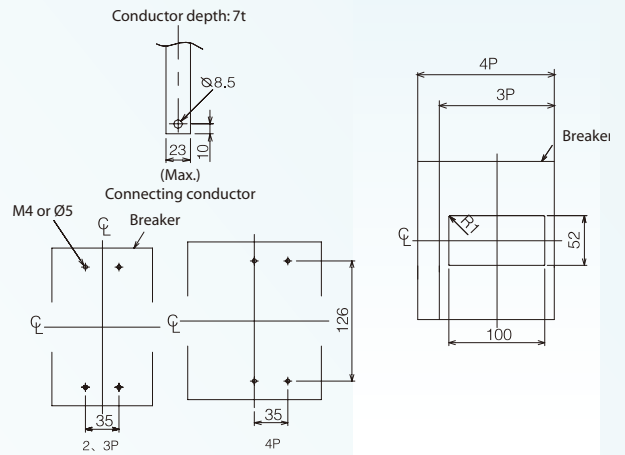
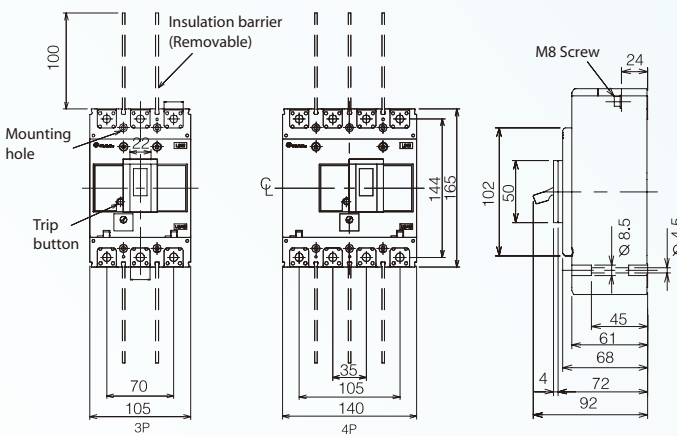
**BM100-H/HC/HS, BM160HB/HC/HS, BM250-HB/HC/HS**



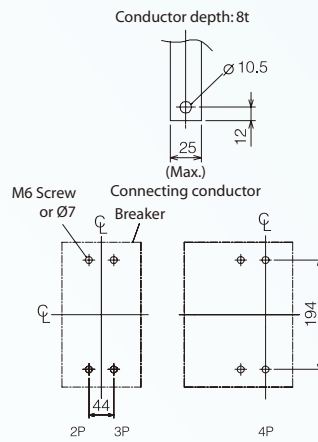
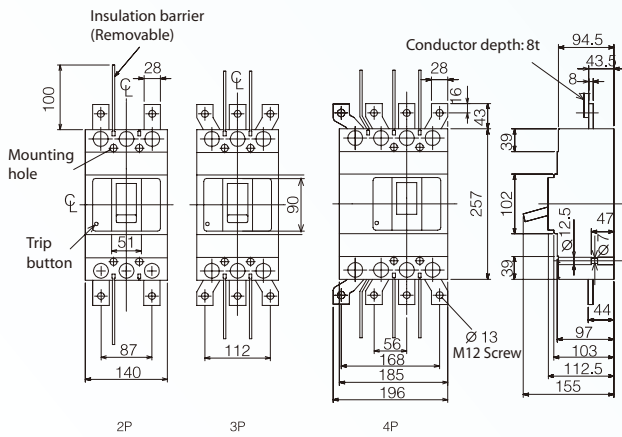
Panel cut



**BM100-HBN, BM160-SN/HN, BM250-SN/HN**



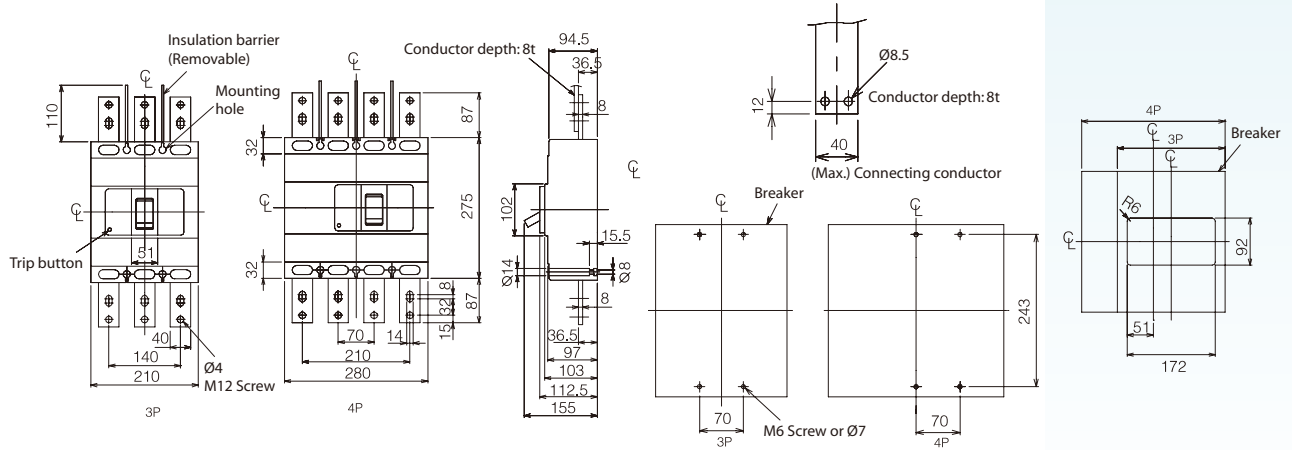
**BM400-SN/HN/RN/UN**



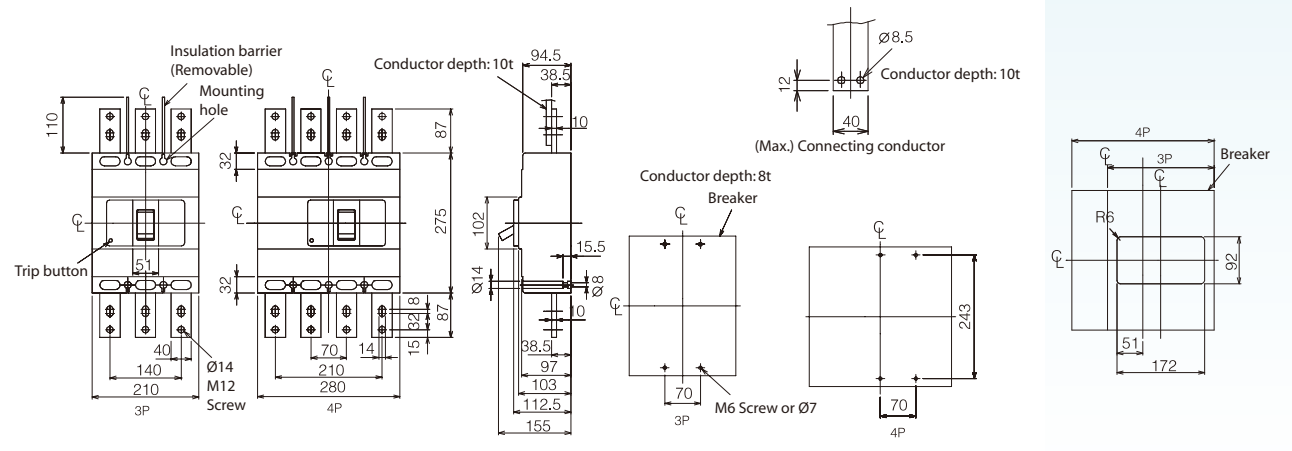
Panel cut

# Dimension of circuit breaker

BM630-SN/HN/RN/UN

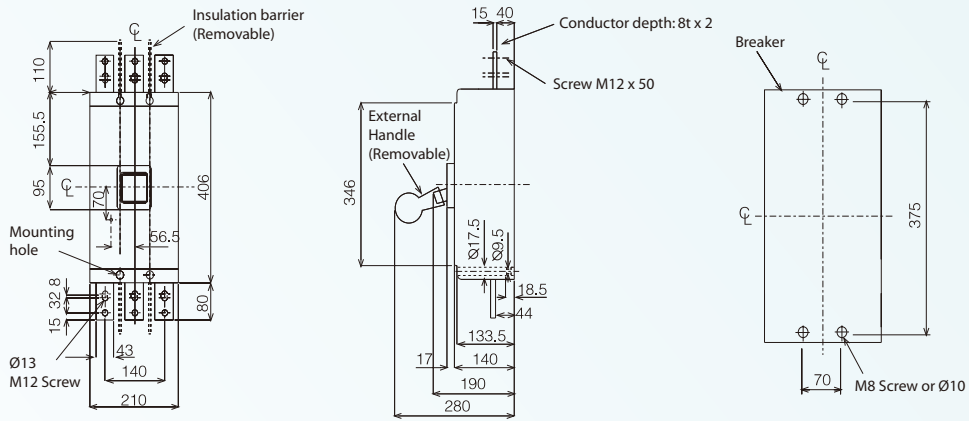


BM800-CN/SN/HN/RN

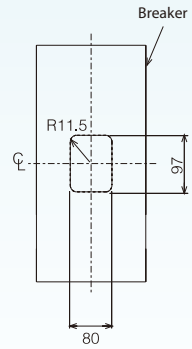


DIMENSION
BM
Series
BL
Series
ACC.
DIM.
Curve.
Other

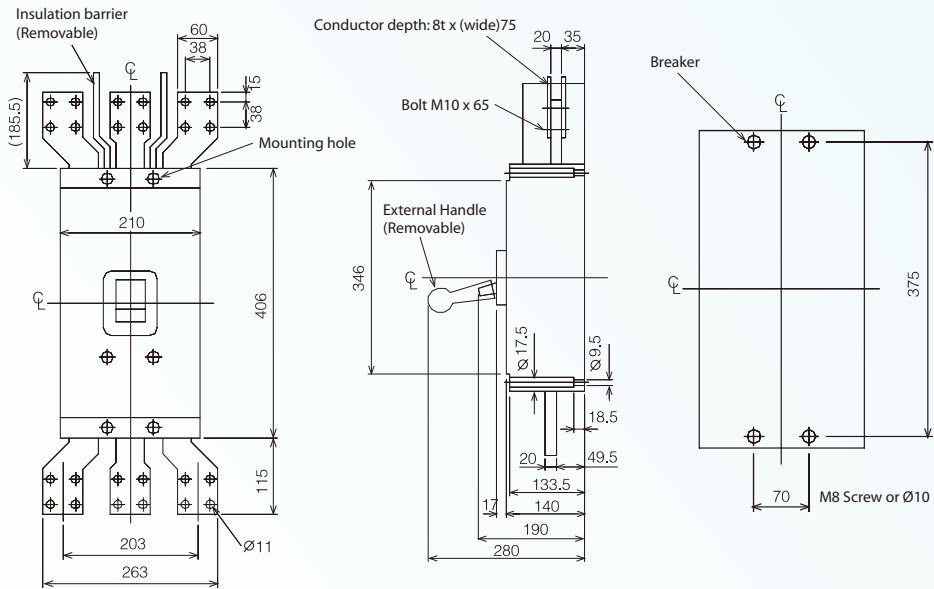
BM1000-HS, BM1200-HS



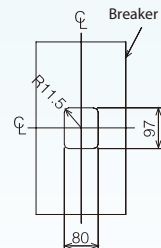
Panel cut



BM1600-HS



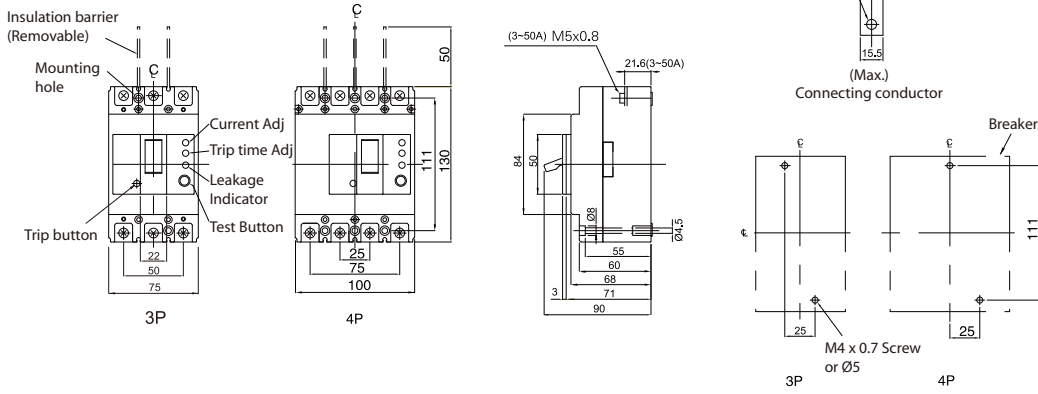
Panel cut





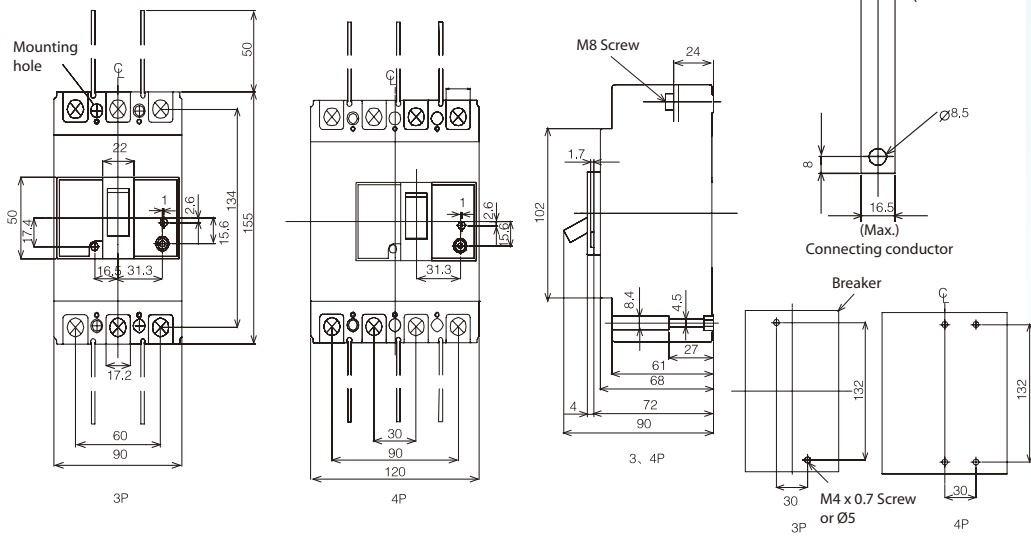
# Dimension of circuit breaker

## BL50-SN



Panel cut

## BL100-SN/HN



Panel cut

DIMENSION

BM

Series

BL

Series

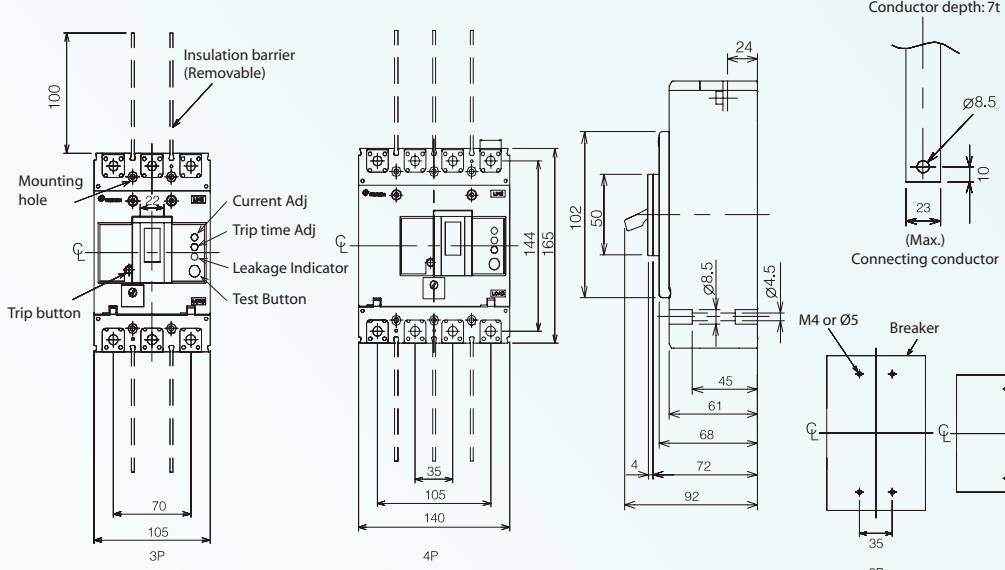
ACC.

DIM.

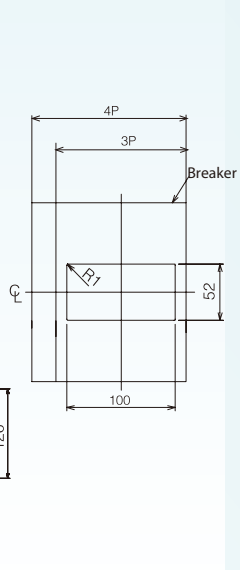
Curve.

Other

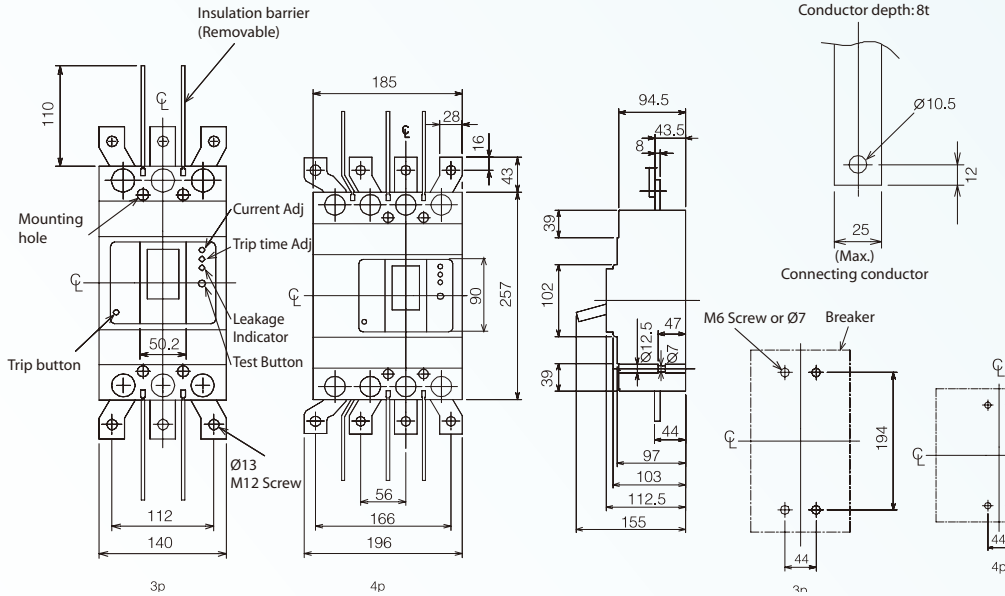
BL160-SN, BL250-SN



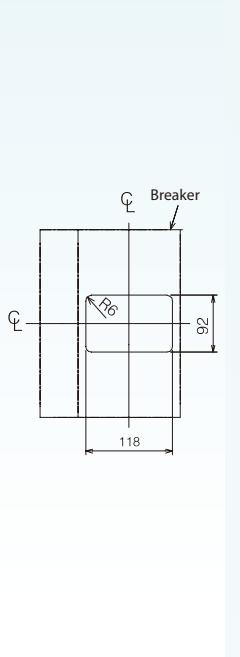
Panel cut



BL400-SN/HN/RN/UN

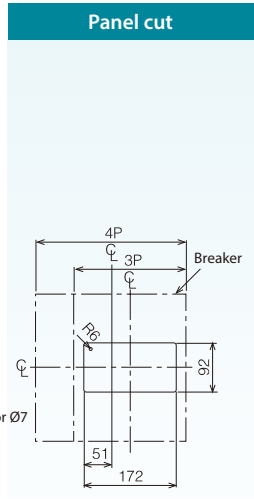
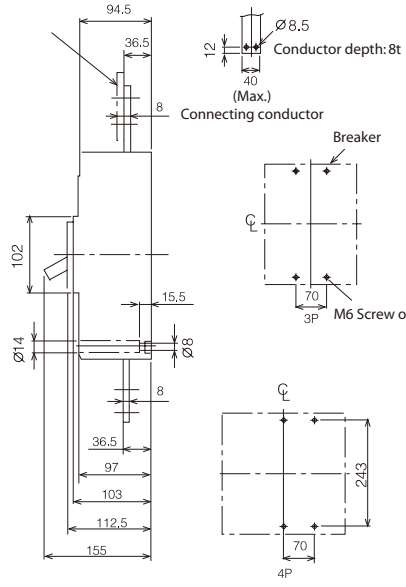
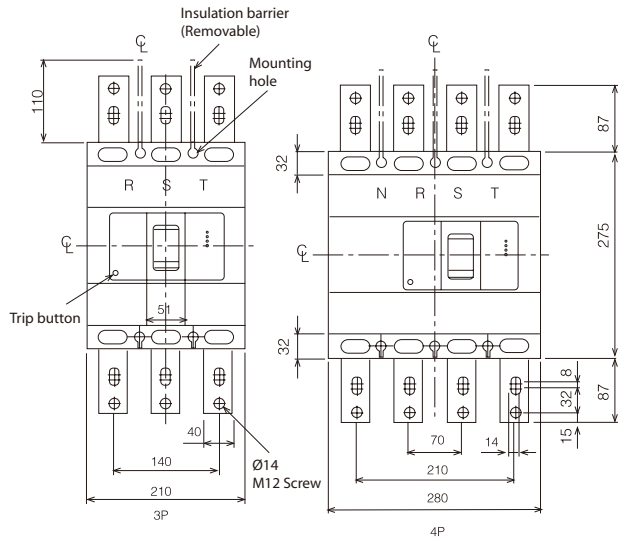


Panel cut

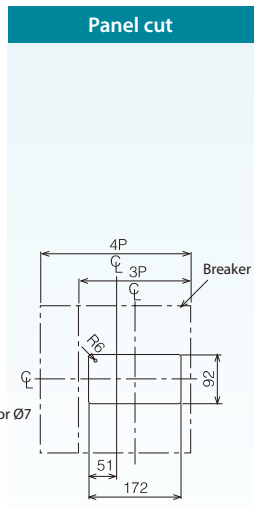
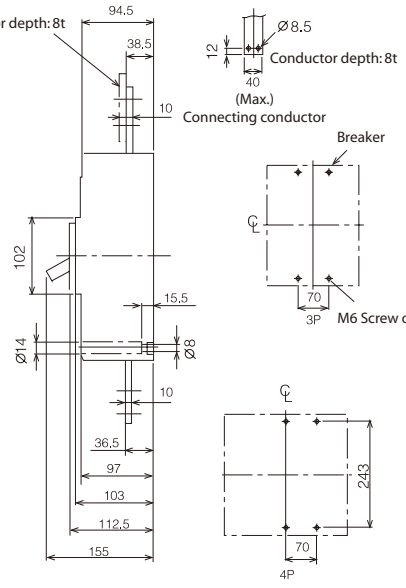
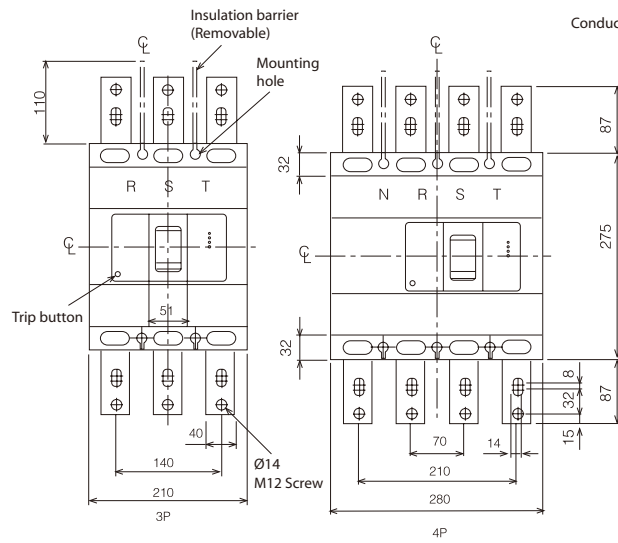


# Dimension of circuit breaker

BL630-HN/RN/UN



BL800-SN/HN/RN



DIMENSION

BM

Series

BL

Series

ACC.

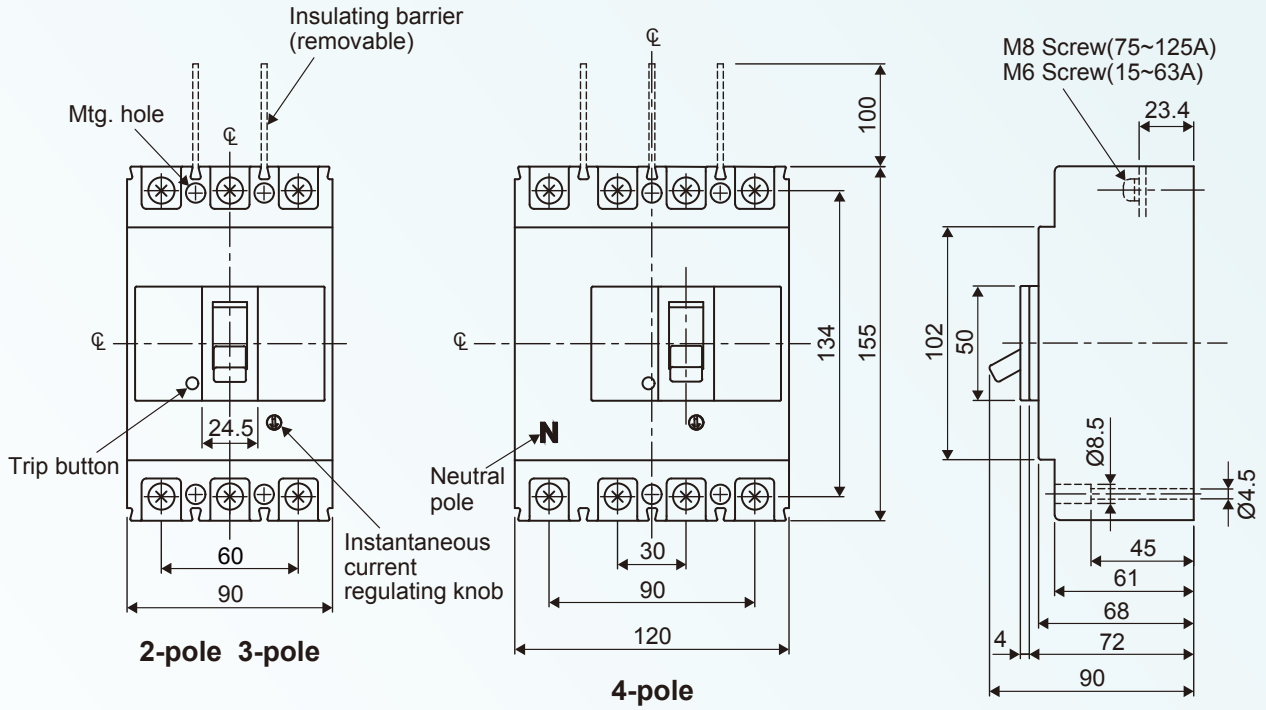
DIM.

Curve.

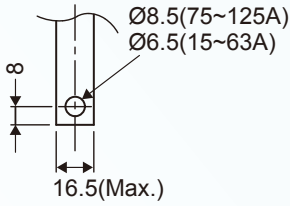
Other

## Dimension of circuit breaker

BMA125-STA / LTA / HTA

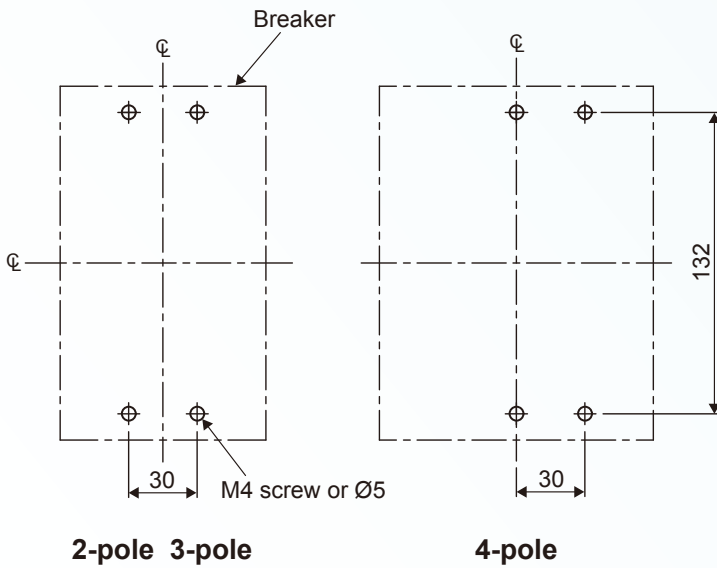


Busbar t max.=5

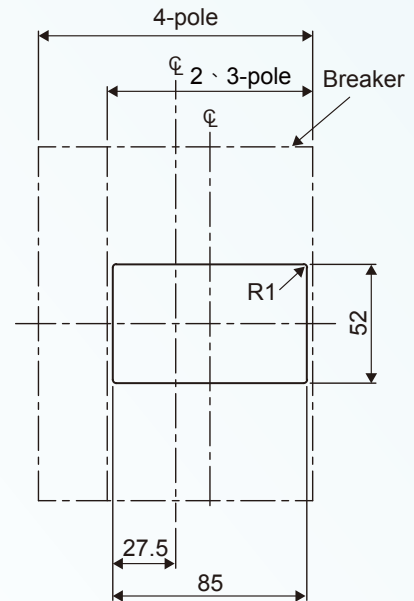


Bus drilling for direct connection

### Mounting



### Panel cut



BM

Series

BL

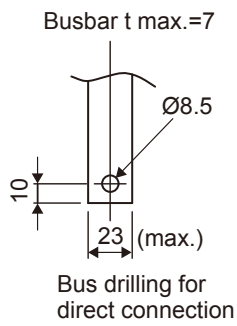
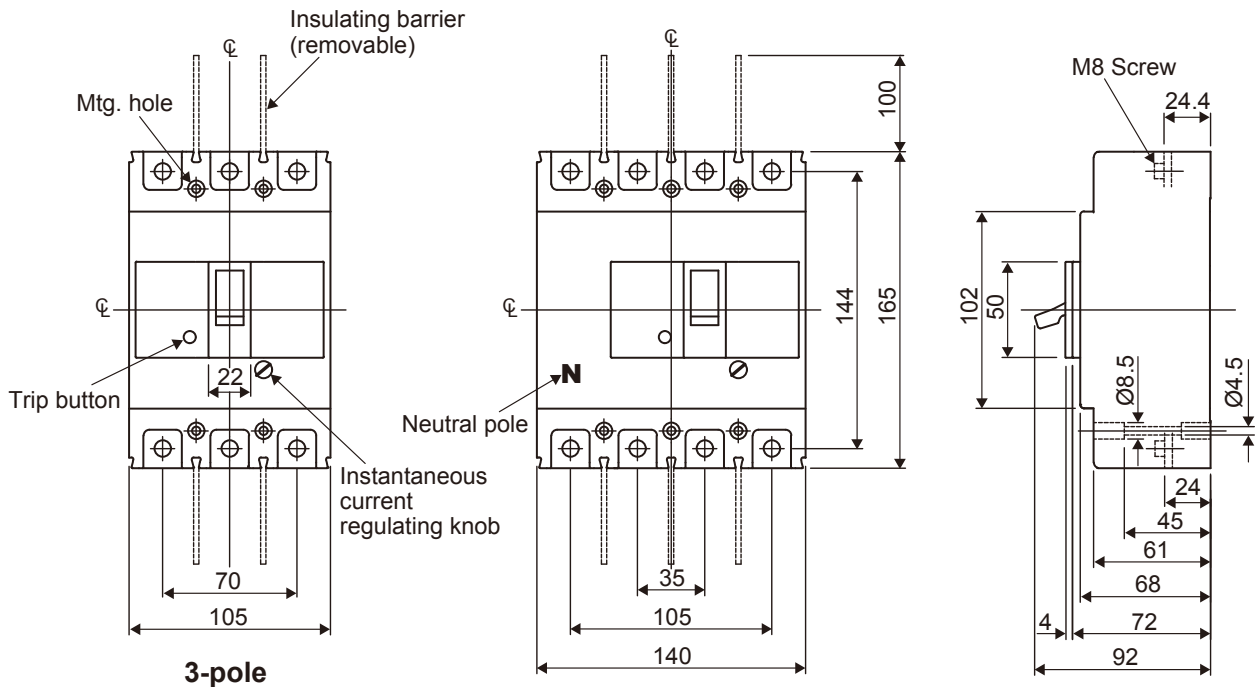
Series

ACC.

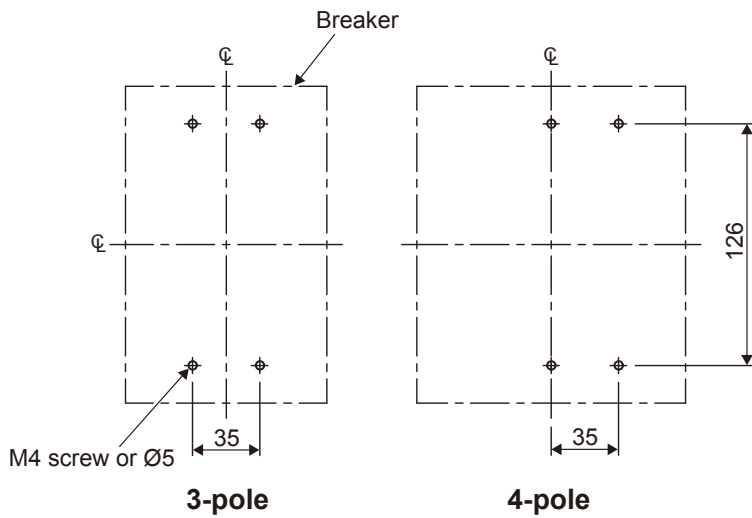
DIM.

Curve.

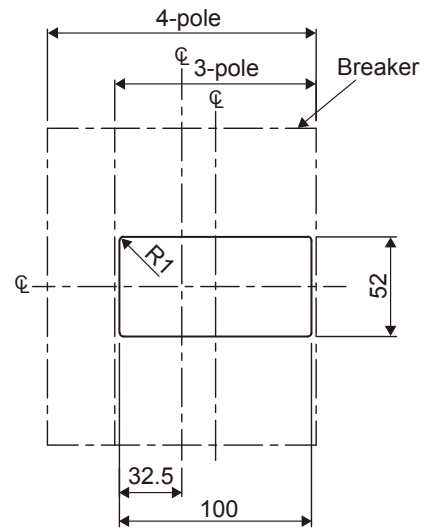
Other

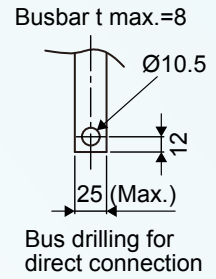
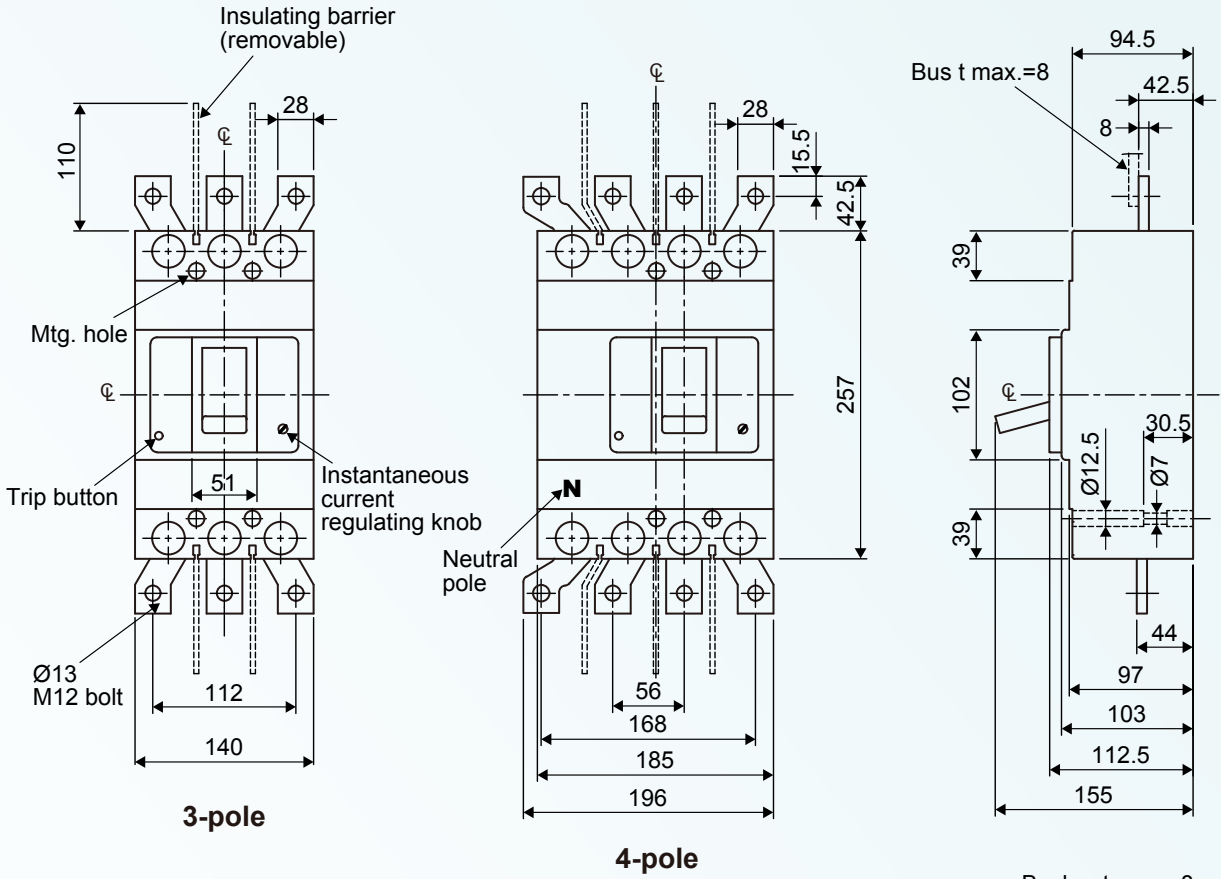


### Mounting



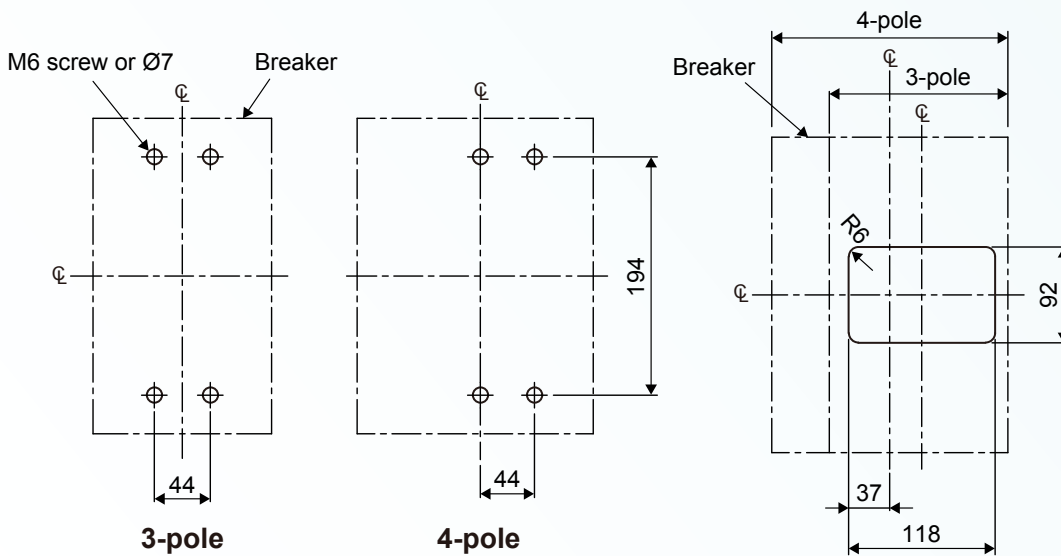
### Panel cut

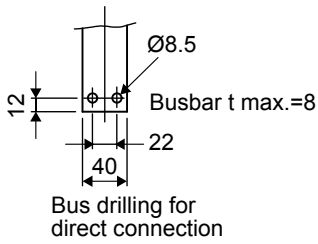
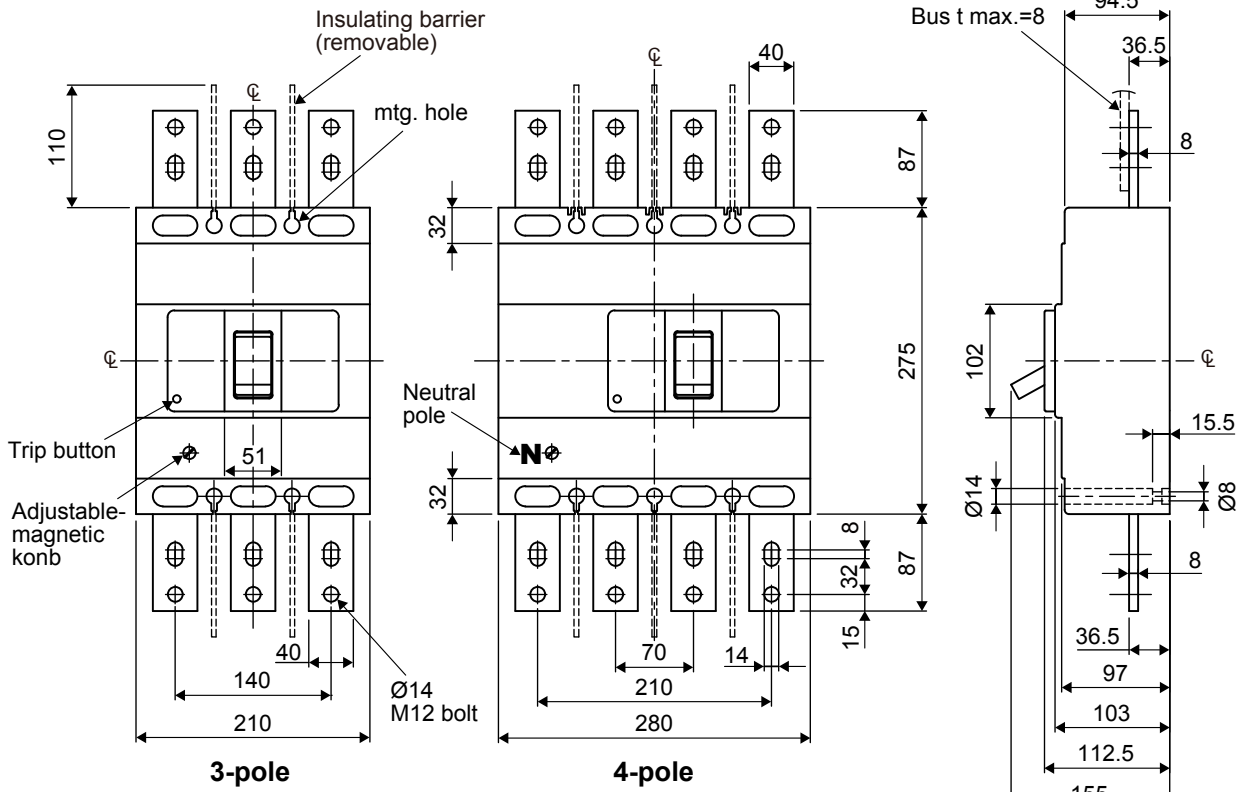




**Mounting**

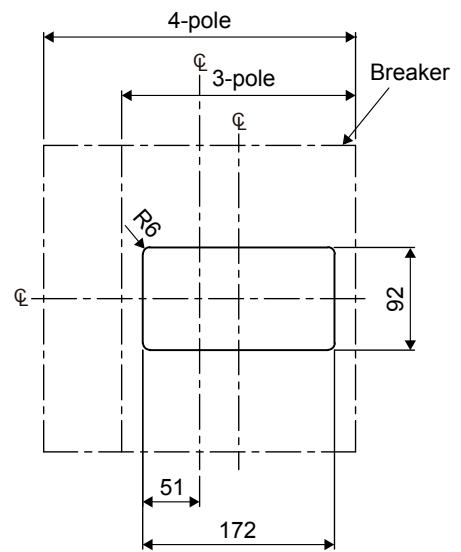
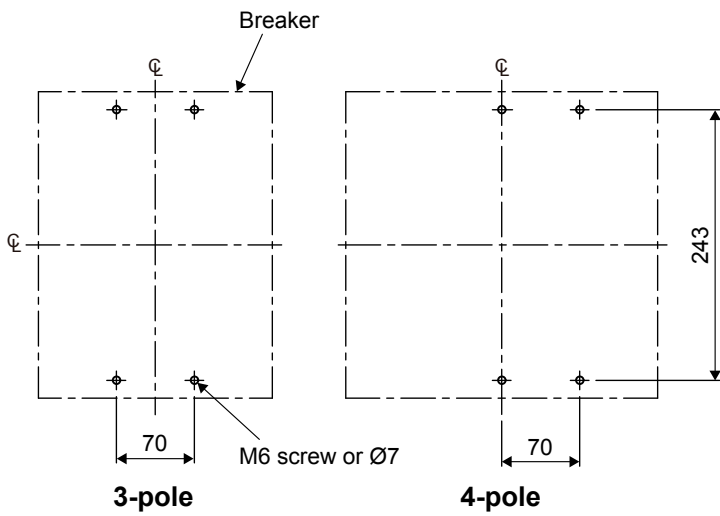
**Panel cut**

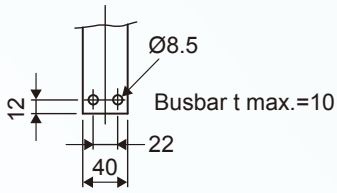
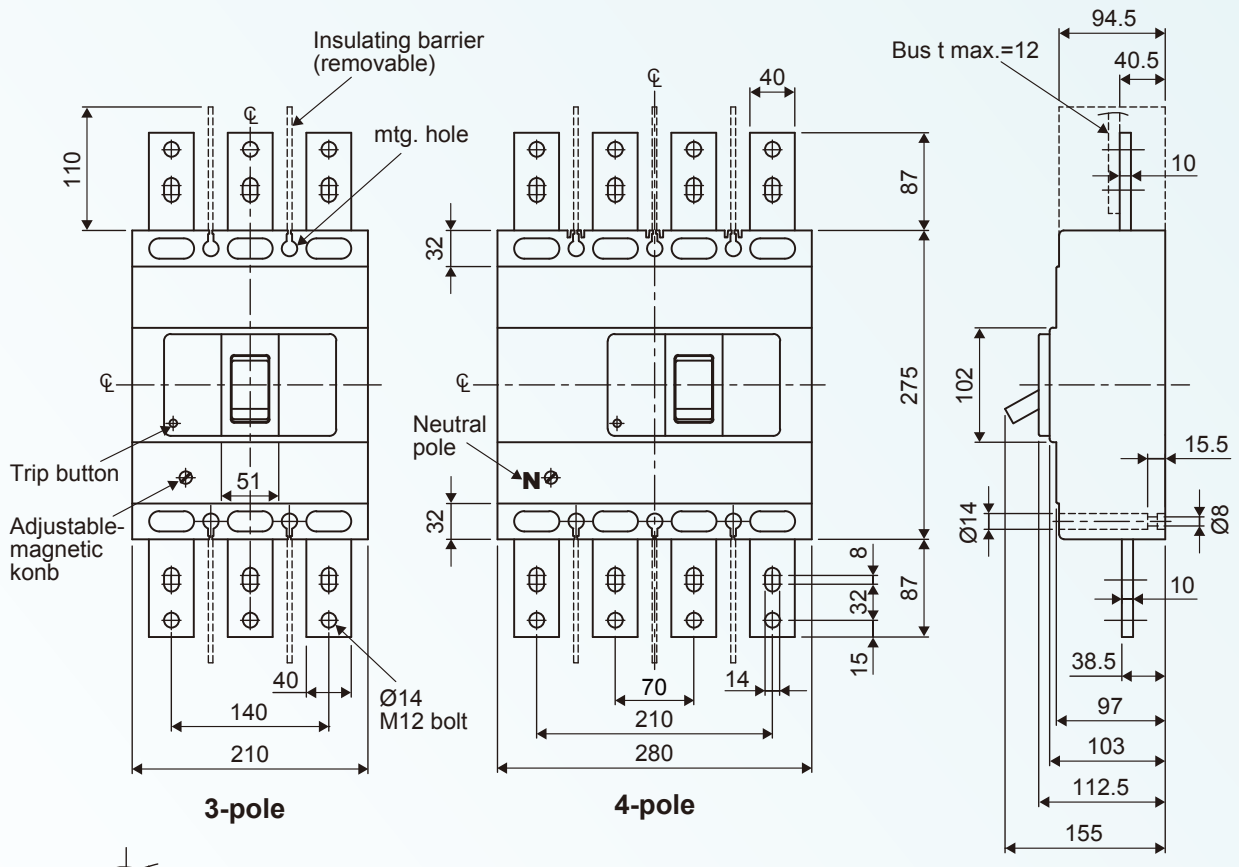




**Mounting**

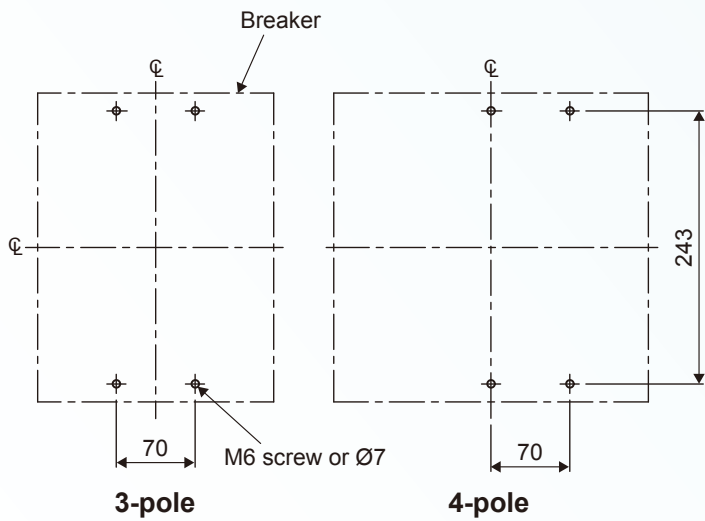
**Panel Cut**



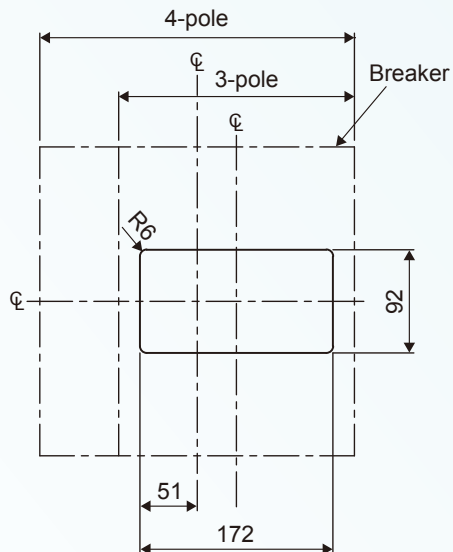


Bus drilling for direct connection

**Mounting**



**Panel Cut**



BM

Series

BL

Series

ACC.

DIM.

Curve.

Other



# Optional Accessories | Dimensions

## Rotary Handle

Type	Poles	fig.1			fig.2			fig.3		
		A	B	C	D	E	F	G	H	J
EH-100N	2P、3P、4P	104	105	39	90	78	10	*25	111	M4 screw or $\phi 5$
EH-125N	2P、3P、4P	104	105	39	90	78	10	*30	132	
EH-250N	3P, 4P	104	105	39	90	78	10	35	126	
EH-250T	3P, 4P	104	105	39	90	78	10	35	126	
EH-400N	3P, 4P	150	183	53	108	112	10	44	194	
EH-800N	3P, 4P	150	183	53	108	112	10	70	243	
EH-250H	3P, 4P	104	125	39	90	78	10	35	126.5	

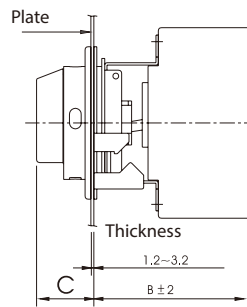
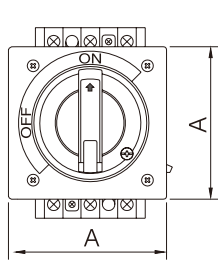
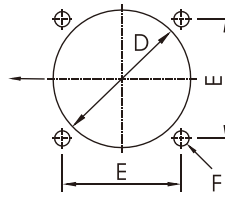
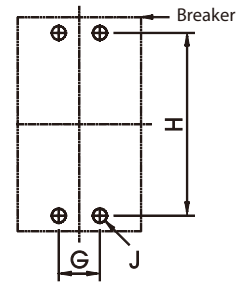


Fig. 1



Panel Dimension  
Fig. 2

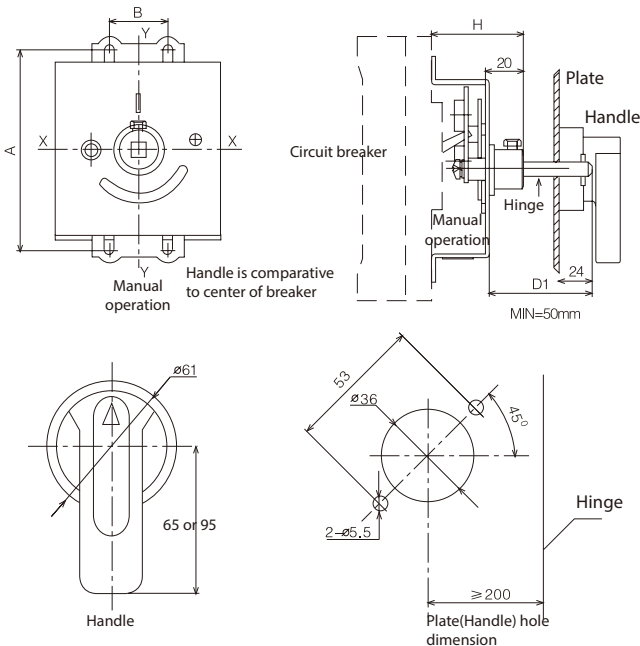


Breaker Dimension  
Fig. 3

- Note:
1. Standard: White, optional: Black.
  2. Optional for dust and water protection.
  3. L: long type, EH100NL & EH125NL can not install to 2P.
  4. \* indicates the value is not applied to 2P model.

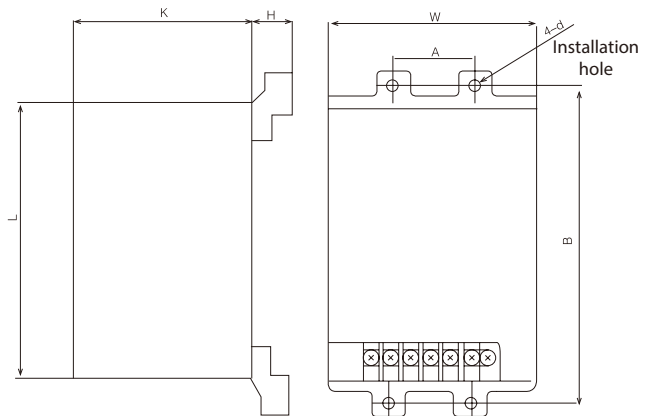
## Extended Rotary Handle

Type	Dimensions (mm)			
	A	B	H	Y
MA-100N	111	25	53.5	+8
MA-125N	132	30	54	+8
MA-250N	146	35	56	0
MA-250T	146	35	55	0
MA-400N	221	45	85	+10
MA-800N	242	70	85	+10



## Motor Operation Device

Type	Dimensions (mm)						
	A	B	d	H	K	L	W
MT-100N	25	111	$\phi 4.5$	16.5	79	102	74
MT-125N	30	132	$\phi 4.5$	15	77	116	90
MT-250N	30	126	$\phi 4.5$	15	77	116	90
MT-400N	44	194	$\phi 4.5$	36	115	176	130
MT-800N	70	234	$\phi 4.5$	36	115	176	130
MT-250E	30	126	$\phi 4.5$	15	77	116	90



DIMENSION

BM

Series

BL

Series

ACC.

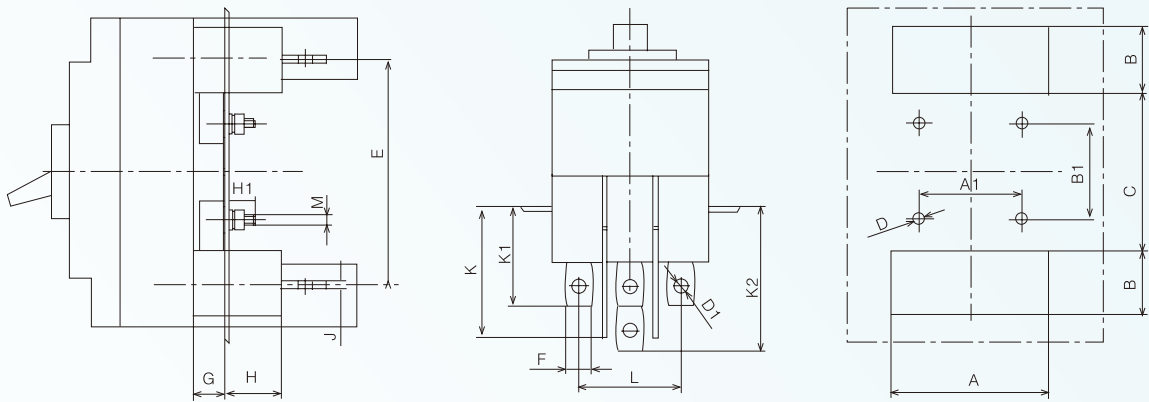
DIM.

Curve.

Other

■ Rear Connection

Type	Poles	Dimensions (mm)																	Connect Direction		
		A	A1	B	B1	C	D	D1	E	F	G	H	H1	J	K	K1	K2	L	M	Horizontal	Vertical
PGI-100N	3	74	50	24	58	90	ø5	/	116	M10	9.5	28	12	M10	/	62	122	50	M4	⊙	⊙
	4	99	75															75			
PGI-125N	3	92	60	30	70	104	ø6	/	134	M10	13	26	16	M10	/	62	122	60	M5	⊙	⊙
	4	122	90															90			
PGI-250N	3	107	70	38	76	106	ø6	ø10	144	25	13	34	15	6	/	79	134	70	M5	⊙	⊙
	4	142	105															105			
PGI-400N	3	137	44	50	135	175	ø10	ø13	225	28	18	40	24	8	120	79	/	44	M8	⊙	⊙
	4	181	88															88			
PGI-800N	3	212	140	57	143	185	ø10	ø13	243	44	17	53	20	11	/	146	/	140	M8	⊙	⊙
	4	282	210															210			



BM

Series

BL

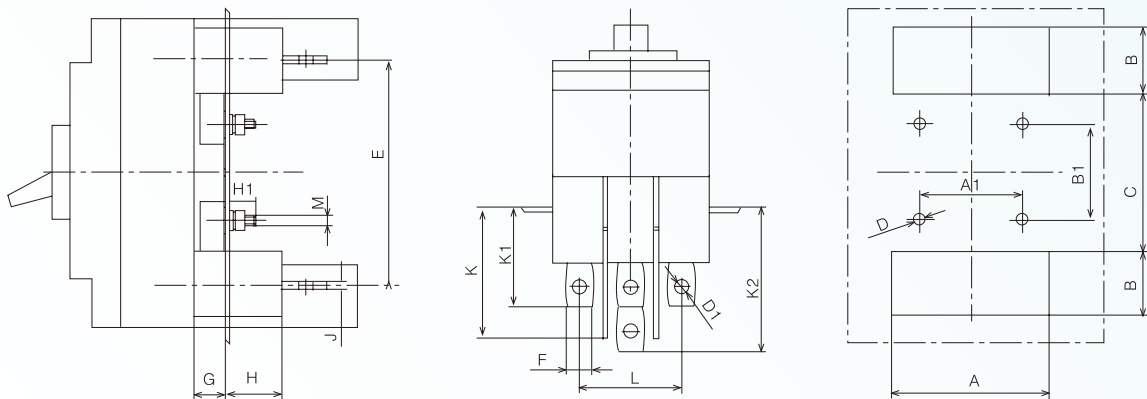
Series

ACC.

DIM.

■ Rear Connection

Type	Poles	Dimensions (mm)																	Connect Direction		
		A	A1	B	B1	C	D	D1	E	F	G	H	H1	J	K	K1	K2	L	M	Horizontal	Vertical
PGI-BM250	3	107	70	38	76	106	ø6	ø10	144	25	13	34	15	6	/	79	134	70	M5	⊙	⊙

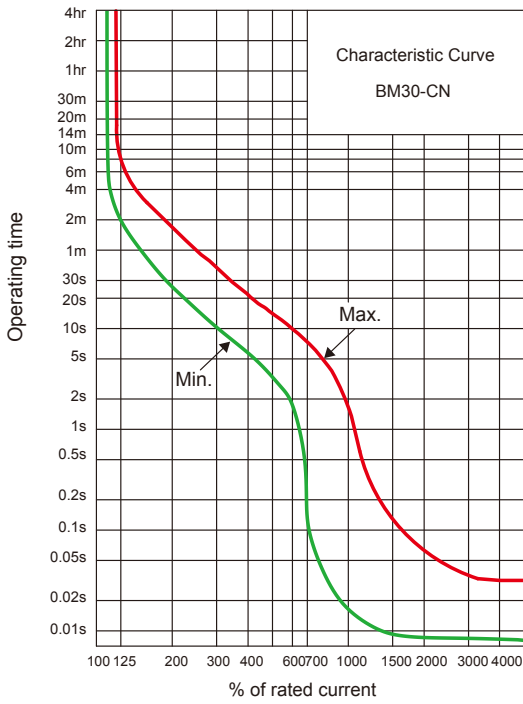


Curve.

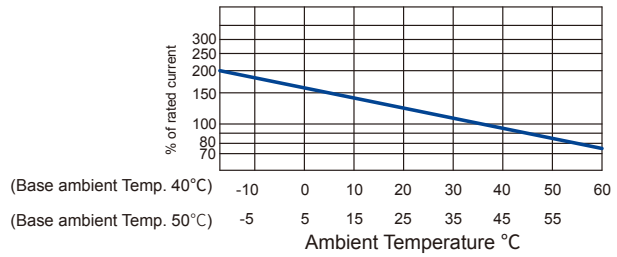
Other

# Tripping Characteristic Curve

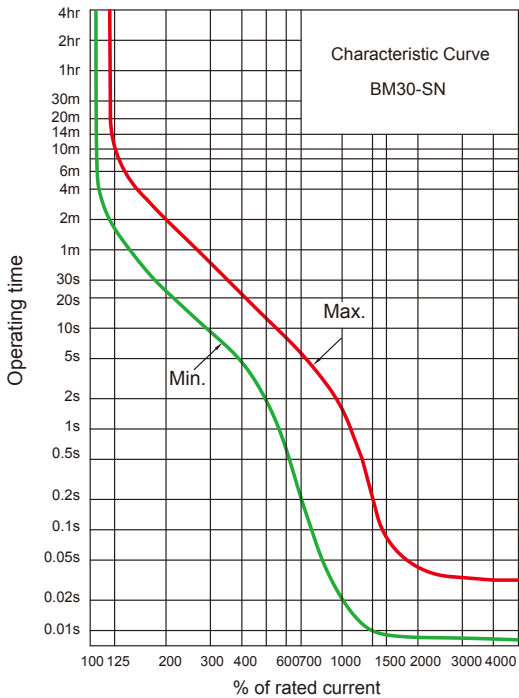
BM30-CN



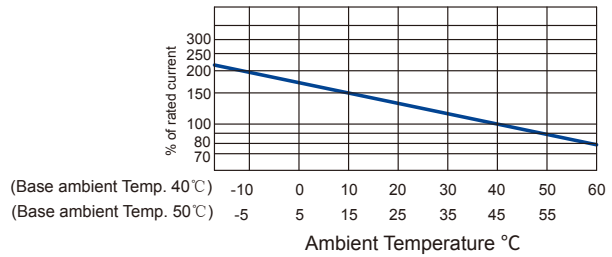
## Compensation Curve



BM30-SN

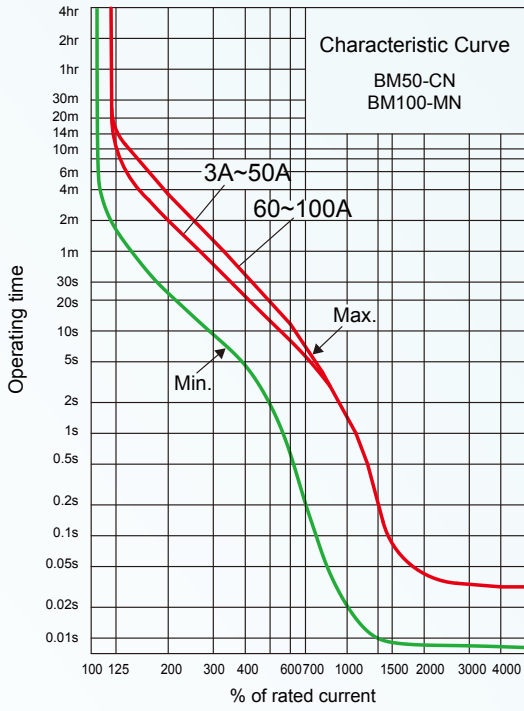


## Compensation Curve

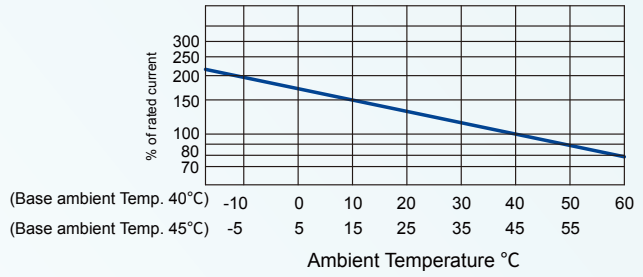


# Tripping Characteristic Curve

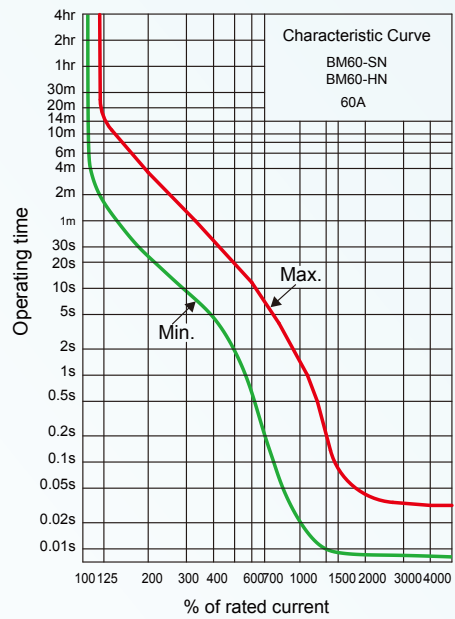
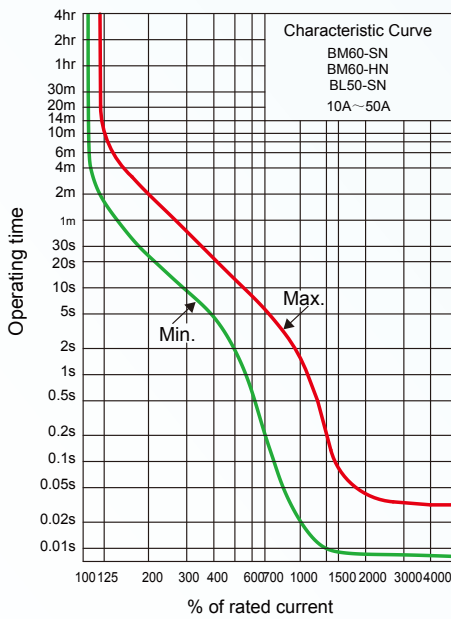
BM50-CN BM100-MN



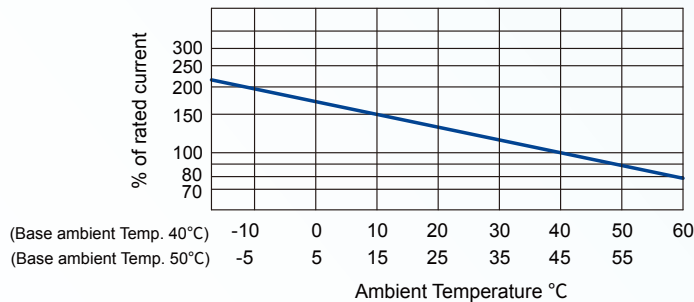
## Compensation Curve



BM60-SN, BM60-HN, BL50-SN

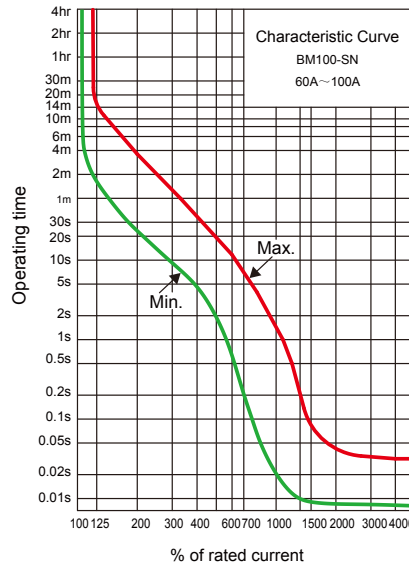
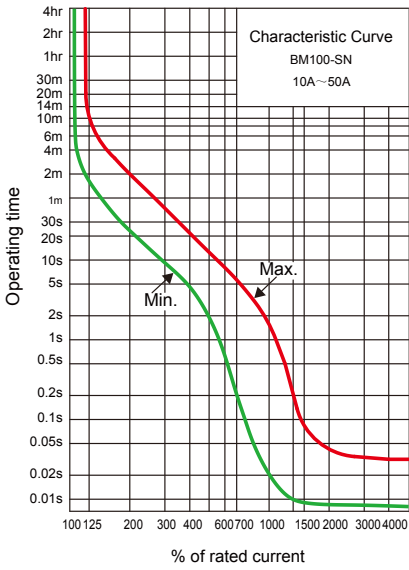


## Compensation Curve

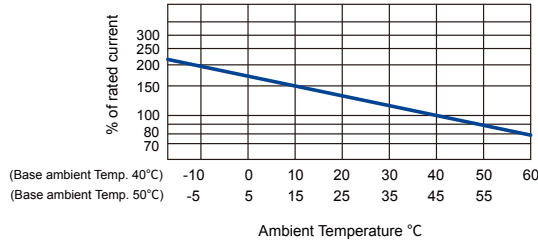


# Tripping Characteristic Curve

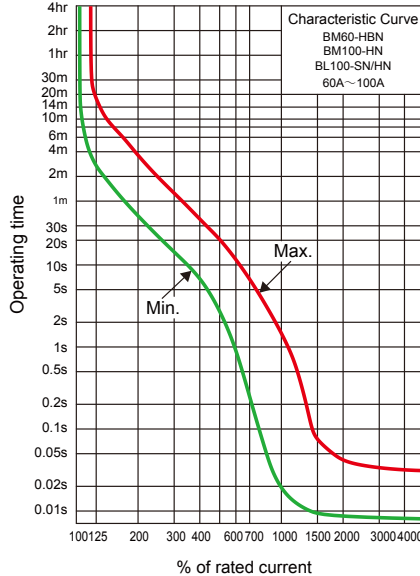
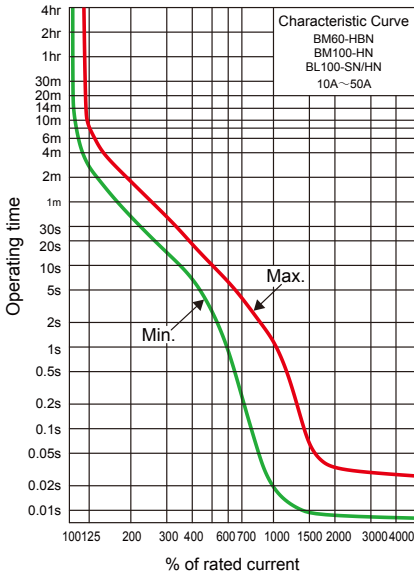
## BM100-SN



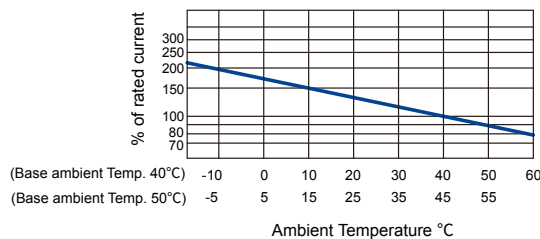
## Compensation Curve



## BM60-HBN、BM100-HN、BL100-SN/HN

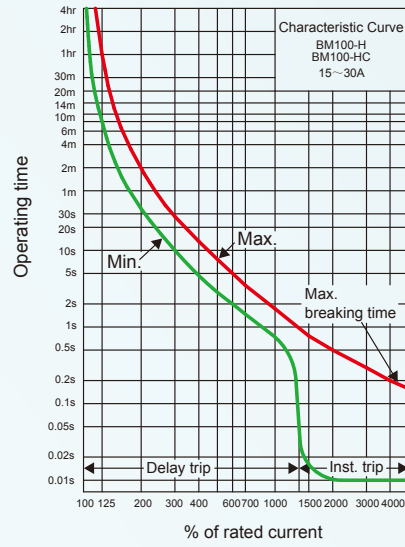
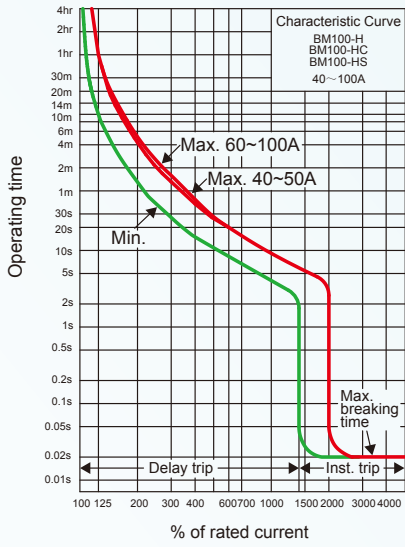


## Compensation Curve

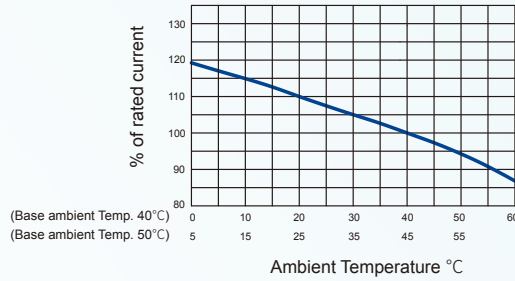


# Tripping Characteristic Curve

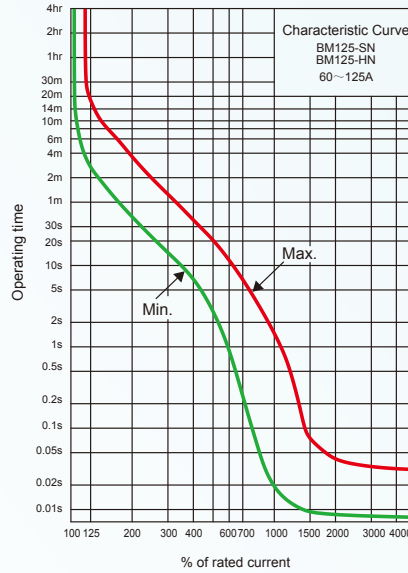
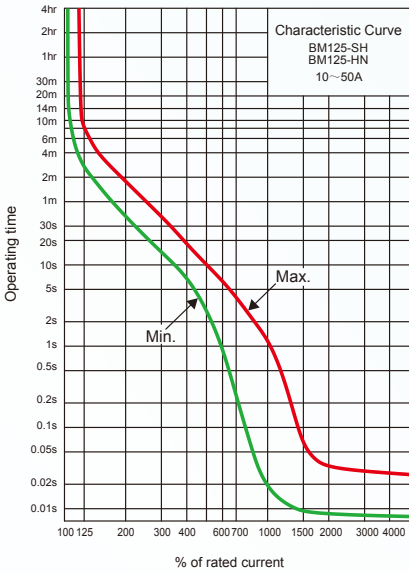
BM100-H、BM100-HC、BM100-HS



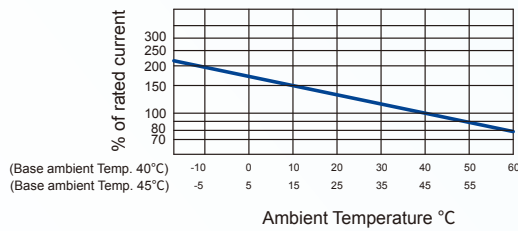
## Compensation Curve



BM125-SN/HN

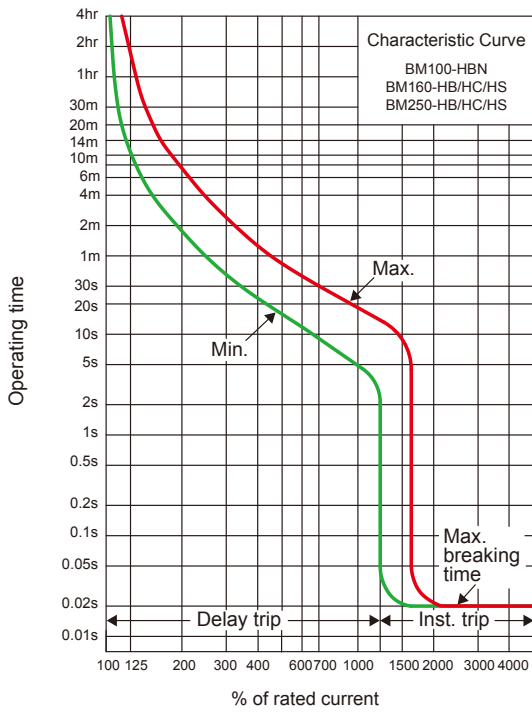


## Compensation Curve

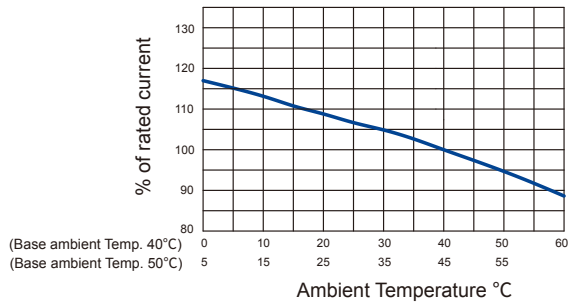


### Tripping Characteristic Curve

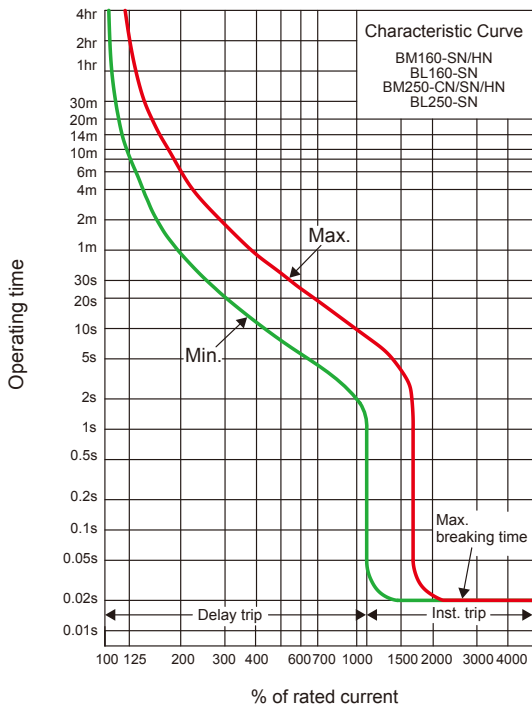
BM100-HBN BM160-HB/HC/HS · BM250-HB/HC/HS



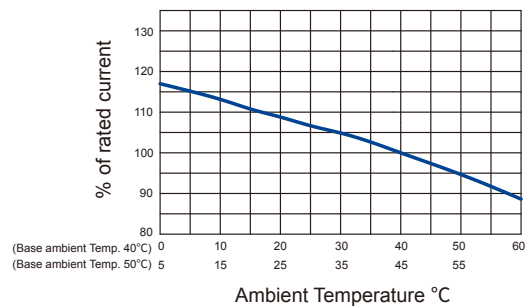
### Compensation Curve



BM(BL)160-SN/HN · BM(BL)250-CN/SN/HN



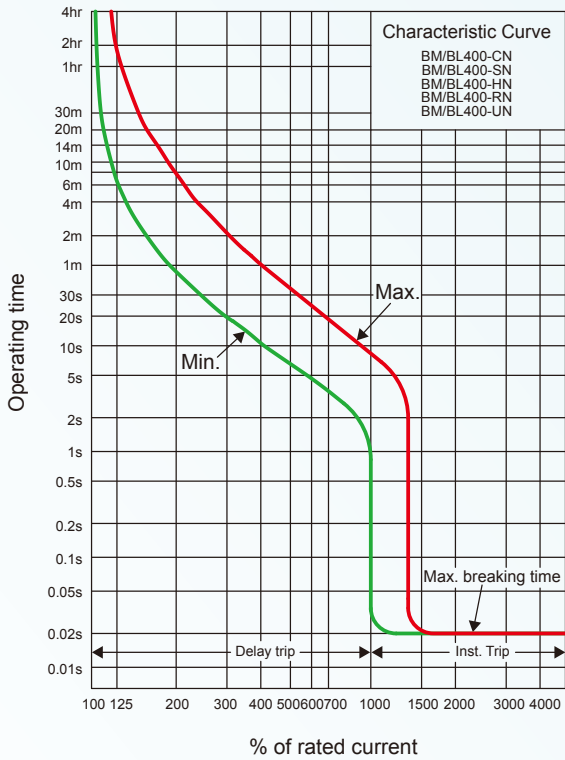
### Compensation Curve



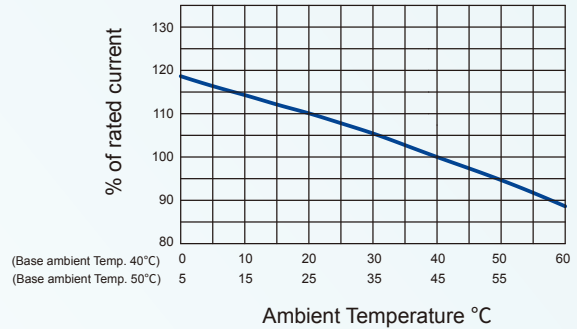
- BM Series
- BL Series
- ACC.
- DIM.
- Curve.
- Other

### Tripping Characteristic Curve

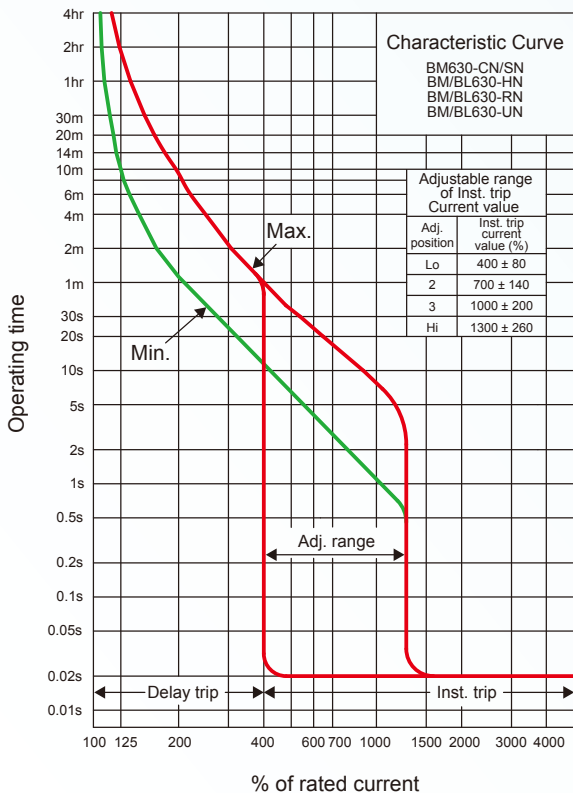
BM(BL)400-CN/SN/HN/RN/UN



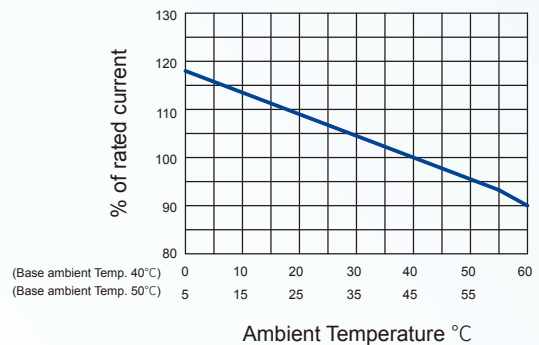
### Compensation Curve



BM(BL)630-CN/SN/HN/RN/UN



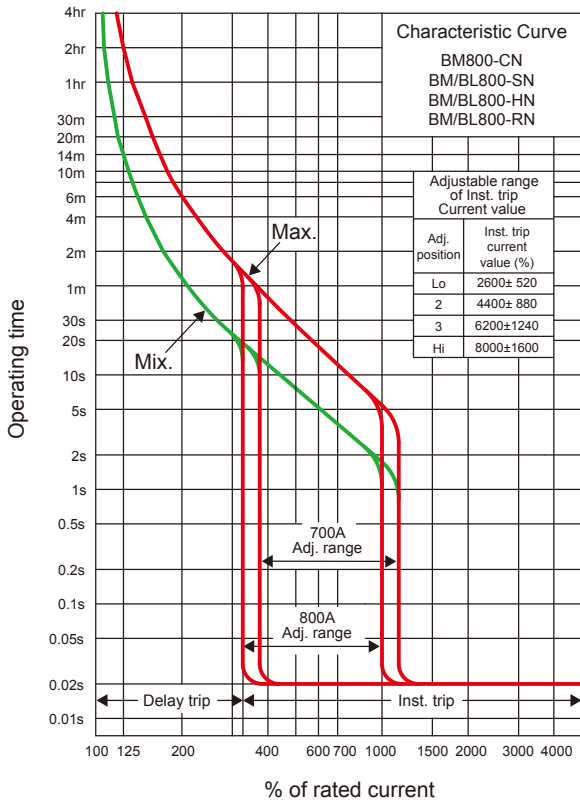
### Compensation Curve



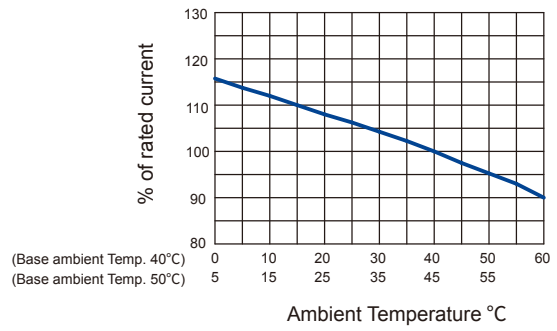


### Tripping Characteristic Curve

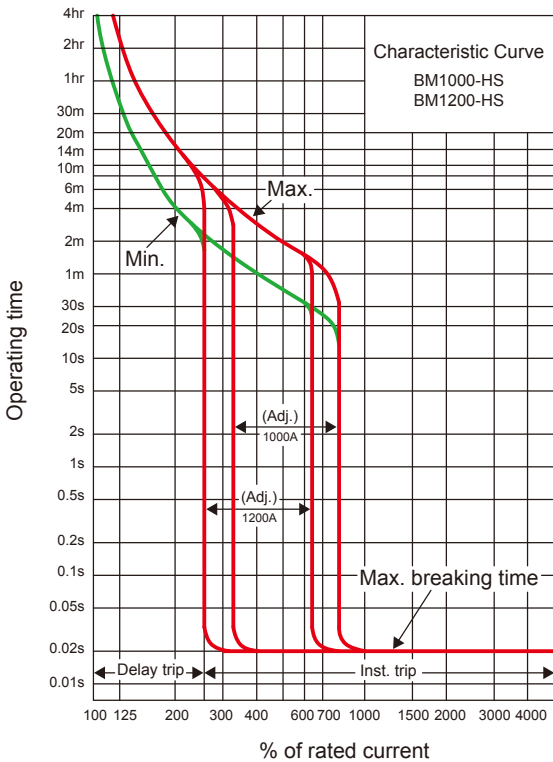
BM(BL)800-CN/SN/HN/RN



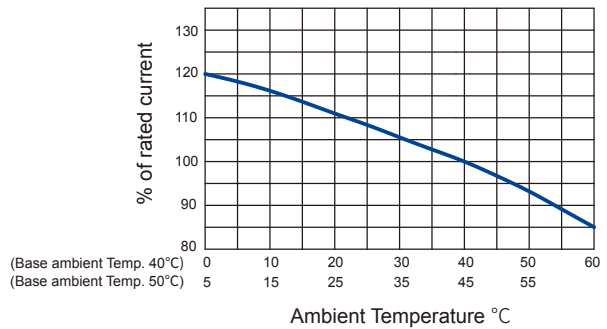
### Compensation Curve



BM1000-HS · BM1200-HS



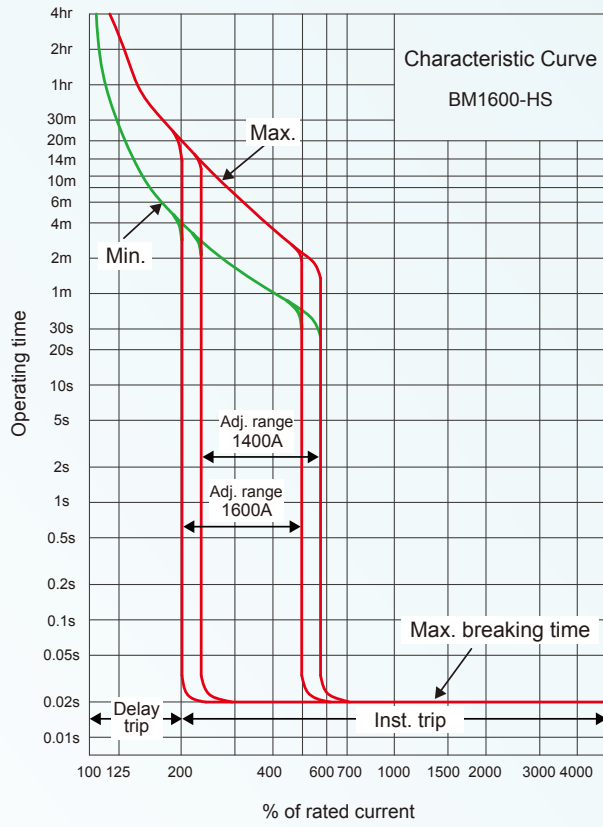
### Compensation Curve



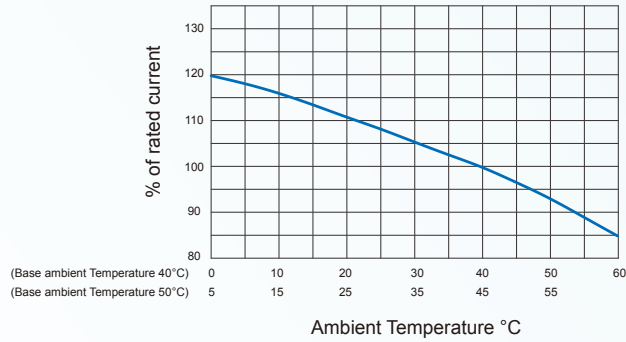
- BM Series
- BL Series
- ACC.
- DIM.
- Curve.
- Other

# Tripping Characteristic Curve

BM1600-HS



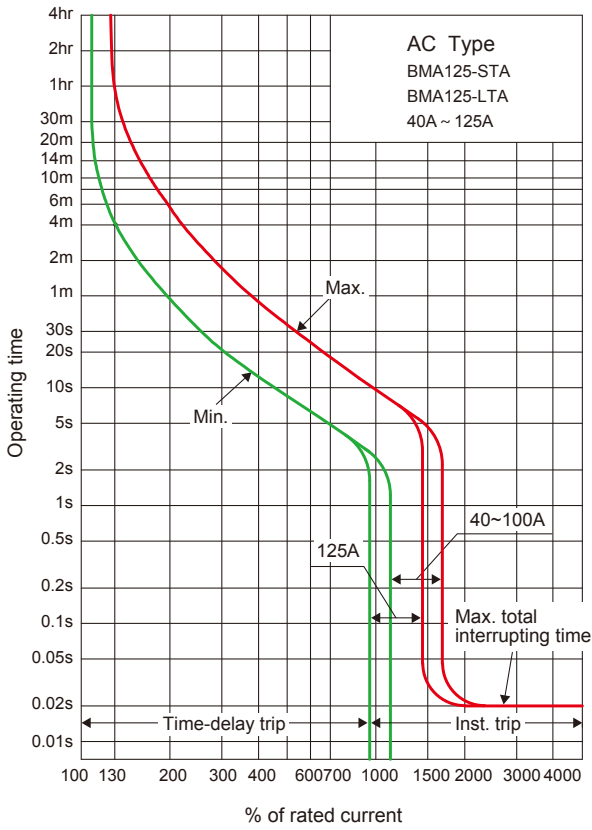
Compensation Curve



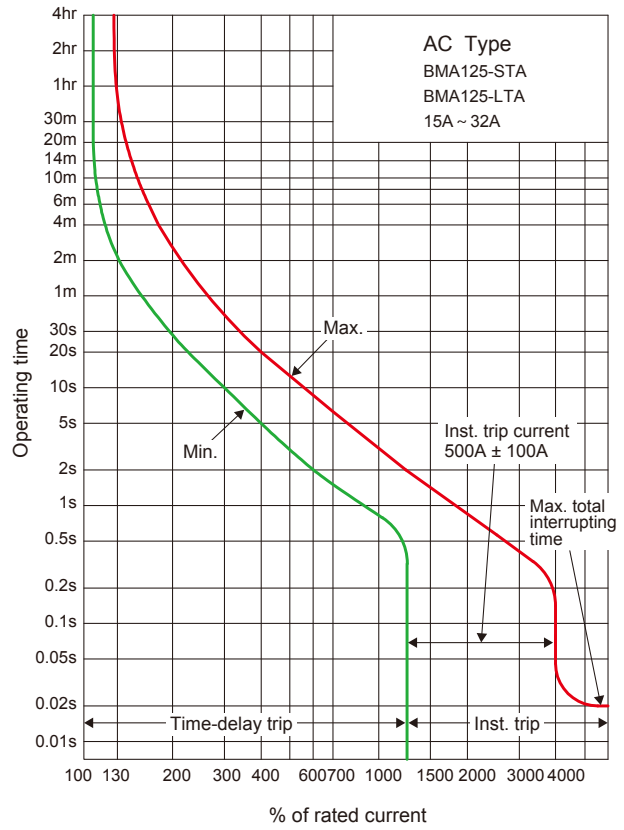
# Tripping Characteristic Curve

BMA125-STA / LTA / HTA

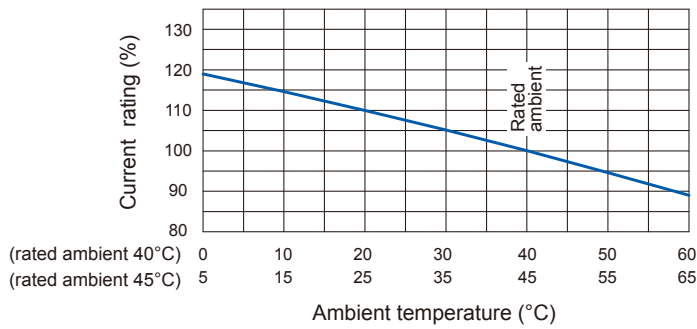
### Operating Characteristics



### Operating Characteristics



### Compensation Curve

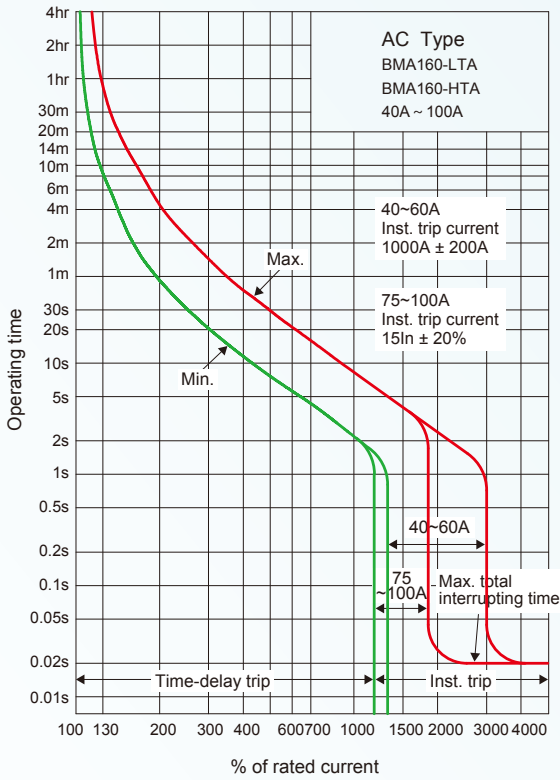


- BM Series
- BL Series
- ACC.
- DIM.
- Curve.
- Other

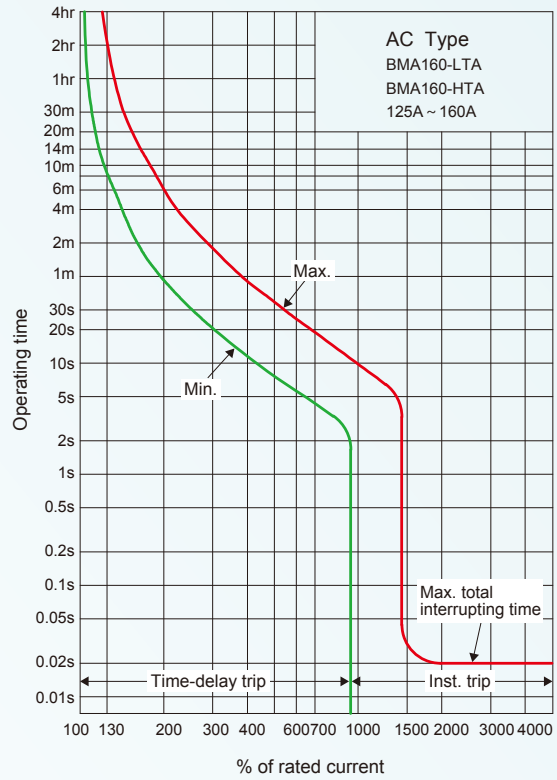
## Tripping Characteristic Curve

BMA160-STA / LTA / HTA, BMA250-STA / LTA / HTA

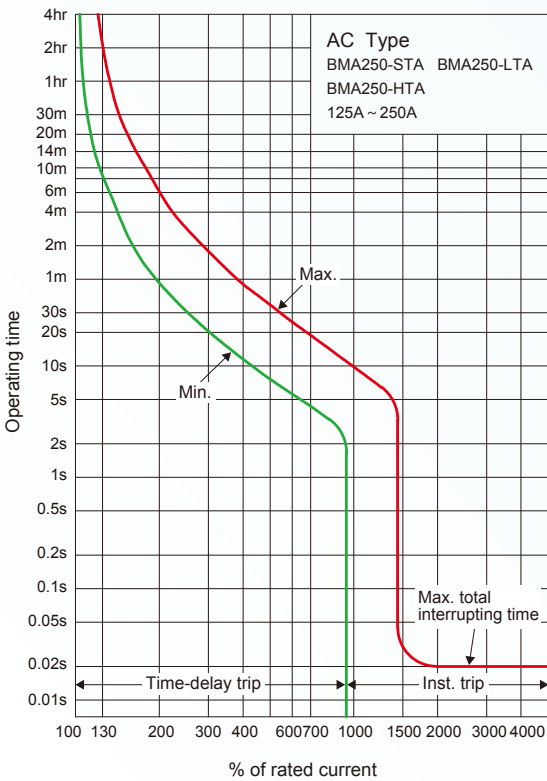
### Operating Characteristics



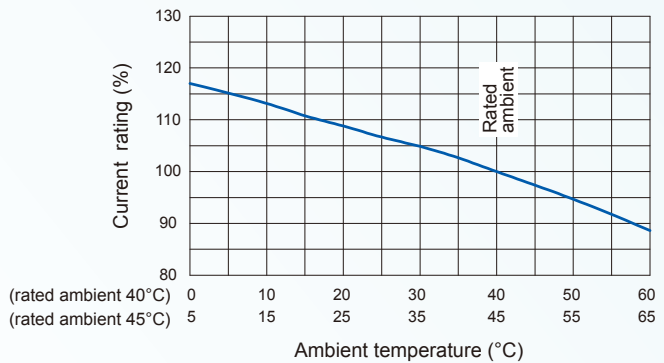
### Operating Characteristics



### Operating Characteristics



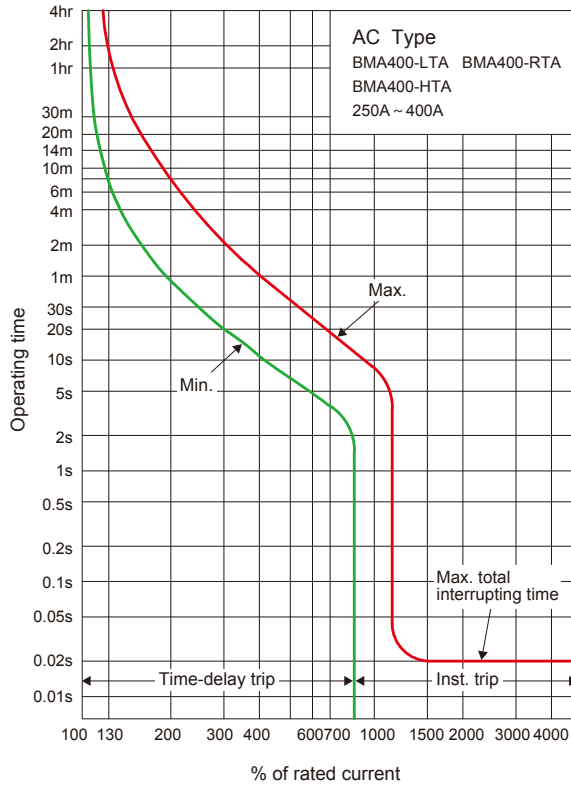
### Compensation Curve



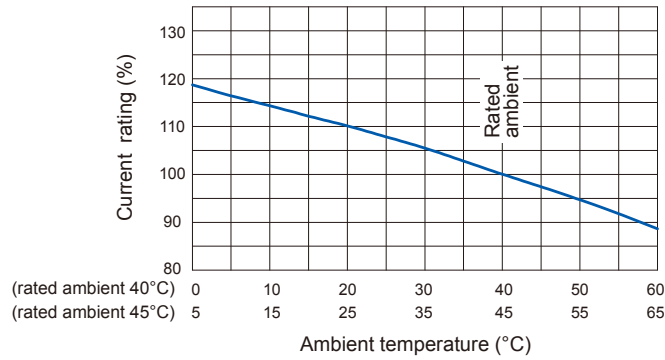
# Tripping Characteristic Curve

BMA400-LTA / HTA / RTA

## Operating Characteristics



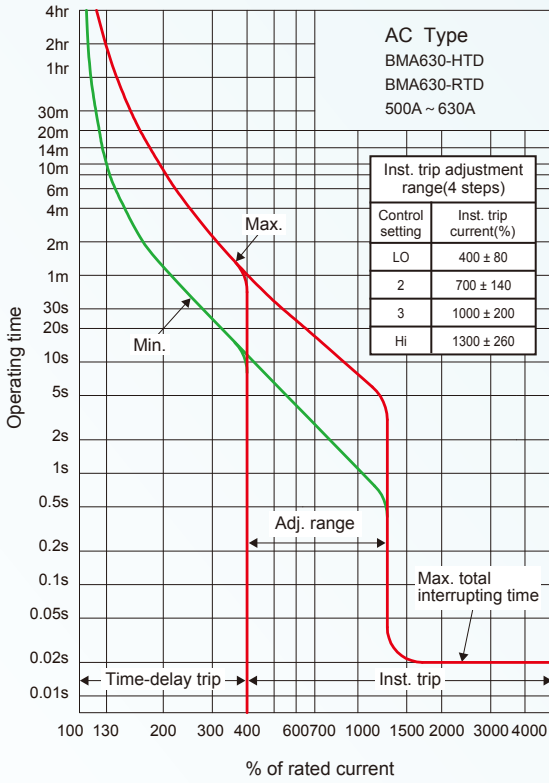
## Compensation Curve



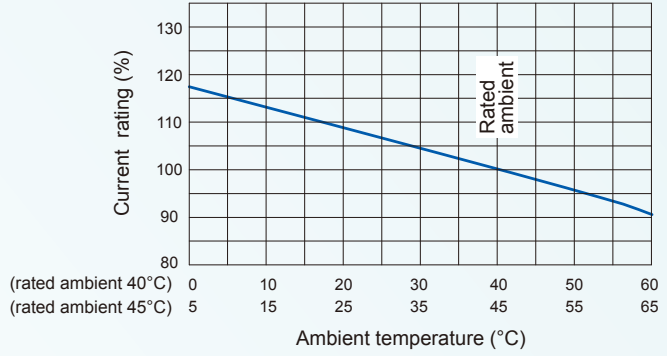
## Tripping Characteristic Curve

BMA630-HTD / RTD

### Operating Characteristics

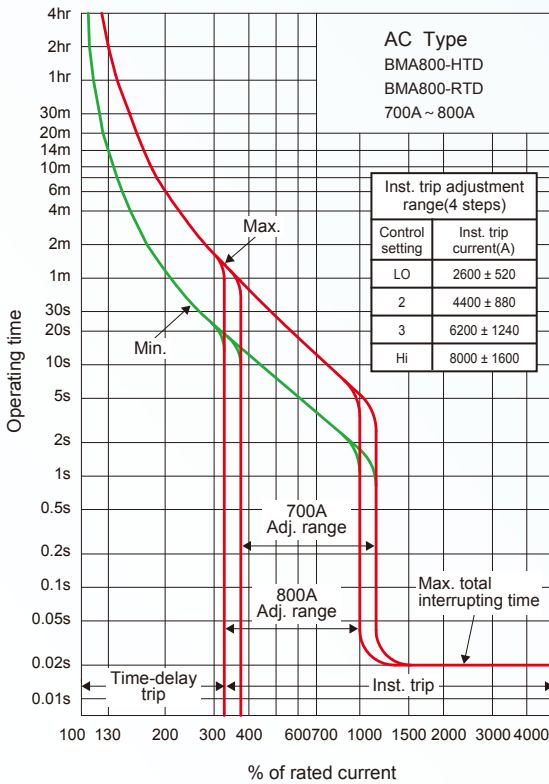


### Compensation Curve

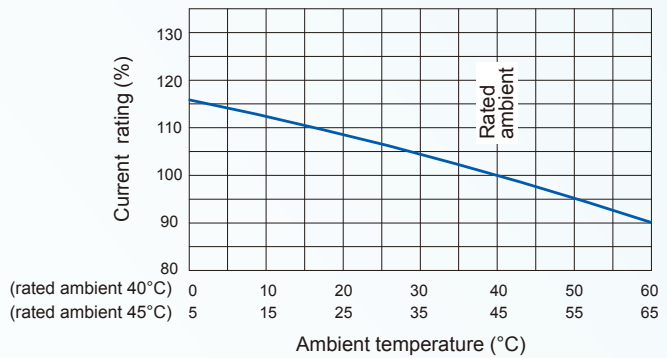


BMA800-HTD / RTD

### Operating Characteristics



### Compensation Curve

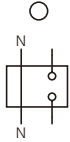


## Wiring Example

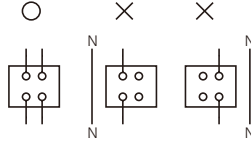
### ELCB Wiring Diagram

○ Correct    ✕ Incorrect

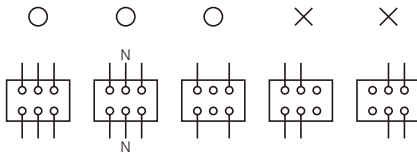
1P



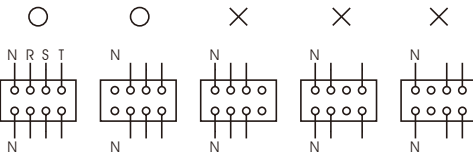
2P



3P

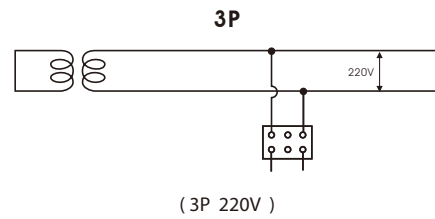
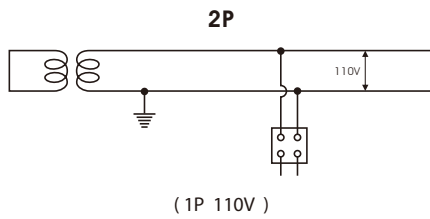


4P

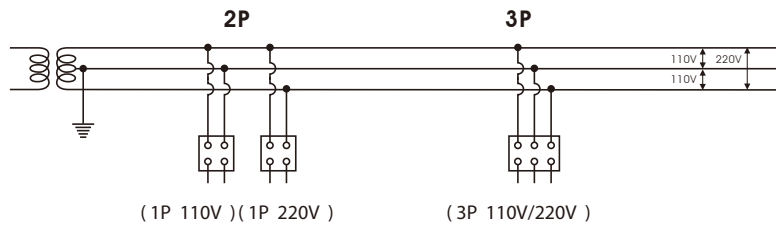


### Power Circuit System

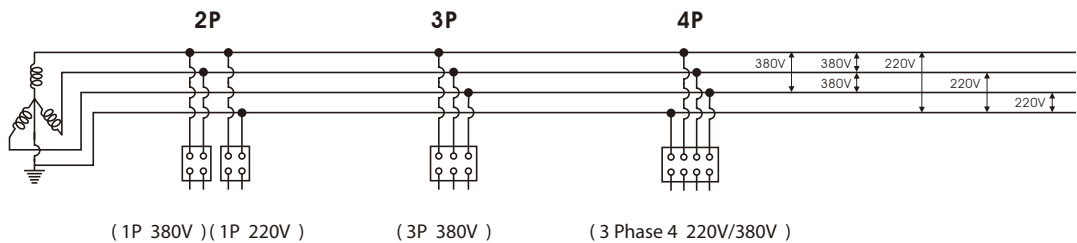
1 Phase 2 Wire  
110V - 220V



1 Phase 3 Wire  
110V - 220V



3 Phase 4 Wire  
220V - 380V



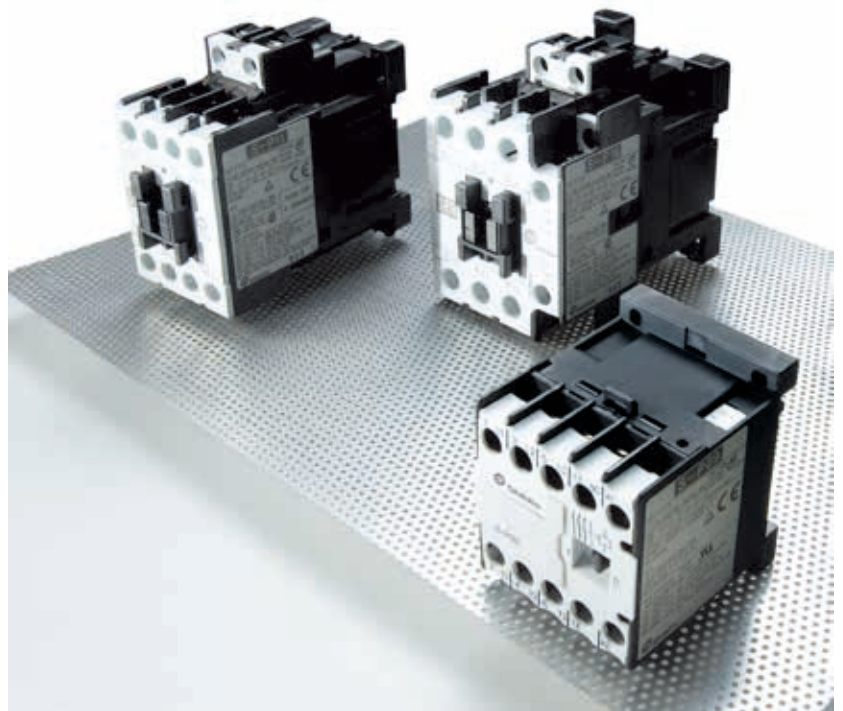


CIRCUIT BREAKER ( MCCB / ELCB / EMCCB / MCB )

## Breaker & Switchgear System



AIR CIRCUIT BREAKER



MAGNETIC CONTACTOR / SWITCH ( CONTACTOR / MS / MMS )



AUTOMATIC TRANSFER SWITCHES



SURGE PROTECTIVE DEVICE



SMART METER



INVERTER



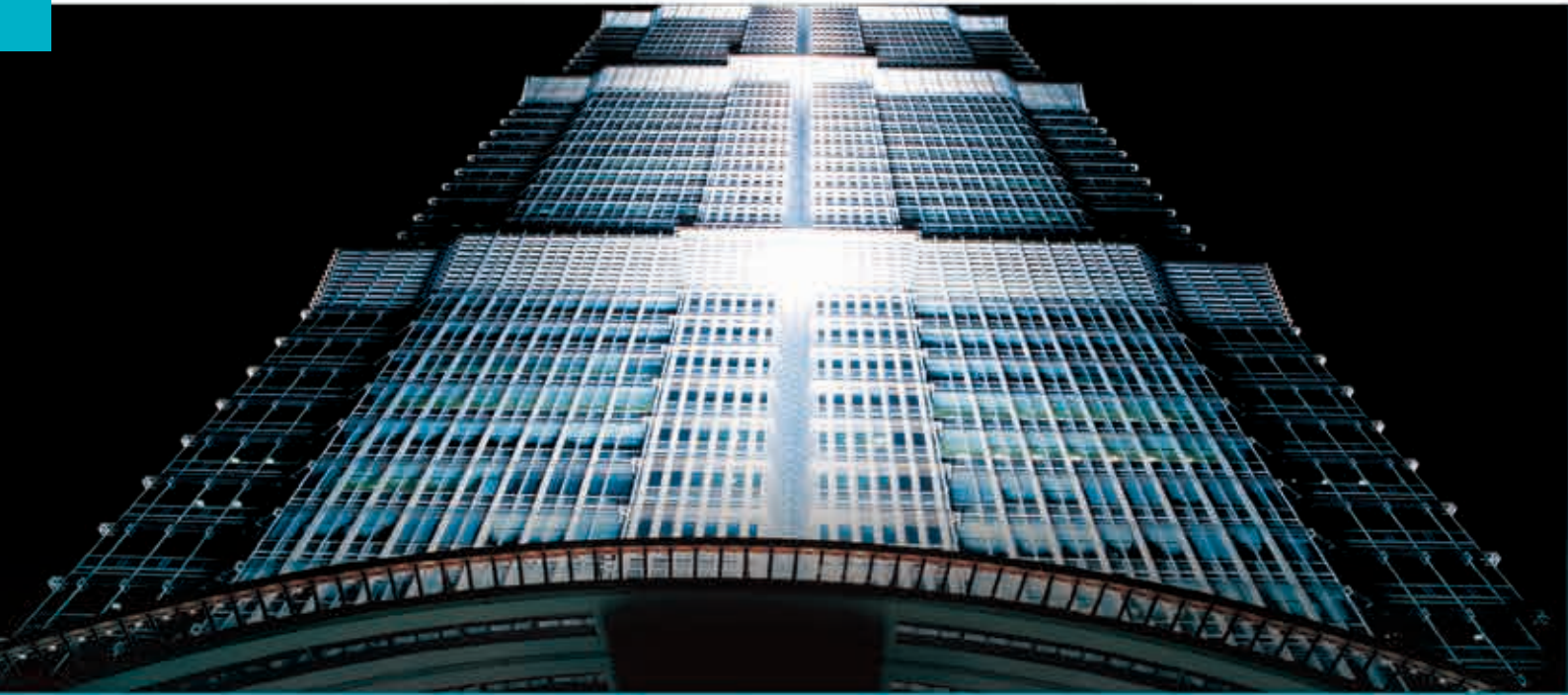
LOW VOLTAGE POWER CAPACITORS





# SHIHLIN ELECTRIC & ENGINEERING

MOTOR CONTROL (CONTACTOR/ MS/ MMS), CIRCUIT BREAKER (MCCB/ ELCB/ EMCCB/ MCB), AIR CIRCUIT BREAKER, AUTOMATIC TRANSFER SWITCHES (Panel Board Type/ Residential Unit Use), SURGE PROTECTIVE DEVICE, LOW VOLTAGE POWER CAPACITORS, SMART METER, INVERTER



## **Breaker & switchgears overseas sales dept.**

3F, No.9, Sec. 1, Chang-an E. Rd., Zhongshan Dist., Taipei City 10441, Taiwan

T. +886-2-2541-9822 F. +886-2-2581-2665

e-mail. [b.export@seec.com.tw](mailto:b.export@seec.com.tw)

<http://circuit-breaker.seec.com.tw>

## **Headquarters**

16F, No.88, Sec. 6, Zhongshan N. Rd., Shilin Dist., Taipei City 11155, Taiwan

T. +886-2-2834-2662 F. +886-2-2836-6187

<http://www.seec.com.tw>

Distributor

B180801E.MCCB-OB