

MOLDED CASE CIRCUIT BREAKER

EARTH LEAKAGE CIRCUIT BREAKER



 **MIRDC**
ISO 9001
4A6Y010-10

 **MIRDC**
ISO 14001
4A6E003-10



SHIHLIN ELECTRIC & ENGINEERING

MCCB Frame Size Selection Table

BM		100		SN		3P		30A		
Frame Size	Rated Breaking Capacity (kA)						Pole	Rated Current In(A)	Accessory	
	Type	IEC60947-2								
		220V	380V	415V	440V	500V				
30	CN	2.5	1.5	1.5	-	-	2, 3	3, 5, 10, 15, 20, 30	Blank	No Acc.
	SN	5	2.5	2.5	2.5	1.5	3		AX	Auxiliary Switch
50	CN	5	2.5	2.5	2.5	1.5	2, 3	10, 15, 20, 30, 40, 50	AL	Alarm Switch
60	HBN	50	30	25	25	15	3	10, 15, 20, 30, 40, 50, 60	SHT	Shunt Trip
63	SN	10	7.5	7.5	7.5	5	2, 3, 4	10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63	UVT	Under Voltage Trip
	HN	25	15	10	10	5	2, 3, 4			
100	FTD	25	5	5	-	-	1	15, 20, 30, 40, 50, 60, 75, 100		
	MN	15	10	10	7.5	5	2, 3	10, 15, 20, 30, 40, 50, 60, 75, 100		
	SN	25	15	10	10	7.5	2, 3			
	HN	50	30	25	25	15	2, 3, 4	40, 50, 63, 80, 100		
	HS	125	85	85	70	50	3, 4			
	BTD	25	15	10	10	5*	2, 3, 4	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100		
	STD	50	30	25	25	5*	2, 3, 4			
	LTD	85	36	36	32	5*	2, 3, 4			
125	SN	30	22	22	15	7.5	2, 3, 4	15, 20, 30, 40, 50, 60, 75, 100, 125		
	HN	50	30	25	25	15	2, 3, 4	10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 70, 75, 80, 100, 125		
	LTD	85	36	36	32	5*	2, 3, 4			
	HTA	100	50	50	50	10*	2, 3, 4			
	RTA	100	70	70	50	10*	2, 3, 4			
160	SN	50	30	25	25	15	2, 3, 4	125, 140, 160		
	HN	85	36	36	32	20	3, 4			
	HS	125	85	85	70	50	3, 4	40, 50, 60, 63, 70, 75, 80, 100, 125, 140, 150, 160		
	HTA	100	50	50	50	10*	3, 4			
250	RTA	100	70	70	50	10*	3, 4	125, 150, 175, 200, 225, 250		
	CN	30	22	15	15	7.5	2, 3, 4			
	SN	50	30	25	25	15	3, 4	175, 200, 225, 250		
	HN	85	36	36	32	20	3, 4	175, 200, 225, 250		
	HTA	100	50	50	50	10*	3, 4			
	RTA	100	70	70	50	10*	3, 4			
400	HS	125	85	85	70	50	3, 4	250, 300, 350, 400		
	CN	35	25	25	22	14	2, 3, 4			
	SN	50	35	35	30	20	3, 4			
	HN	85	50	50	42	25	3, 4			
	RN	100	70	70	55	42	3, 4			
630s	UN	125	85	85	85	65	3, 4	400, 500, 600, 630		
	STD	36	25	25	25	10*	3, 4			
	LTD	65	36	36	36	10*	3, 4			
	HTD	85	50	50	50	10*	3, 4			
	RTD	100	70	70	70	15*	3, 4			
	STA	36	25	25	25	10*	3, 4			
	LTA	65	36	36	36	10*	3, 4			
	HTA	85	50	50	50	10*	3, 4			
630	RTA	100	70	70	70	15*	3, 4	500, 630		
	CN	35	25	25	22	14	2, 3, 4			
	SN	50	35	35	30	20	3, 4			
	HN	85	50	50	50	25	3, 4			
	RN	100	70	70	70	42	3, 4			
800	UN	125	100	85	85	65	3, 4	700, 800		
	CN	50	35	35	30	20	3, 4			
	SN	85	50	50	50	25	3, 4			
	HN	100	70	70	70	42	3, 4			
1000	HS	130	100	85	85	65	3	1000		
1200	HS	130	100	85	85	65	3	1200		
1600	HS	130	100	85	85	65	3	1400, 1600		

Note 1. There is no SHT for 100HS, 30A and below.
2. There is no UVT for 100HS, 160HS, 250HS.
3. Mark * kA rating is 690V.

ELCB Frame Size Selection Table

BL		100		SN		3P		30A		
Frame Size	Rated Breaking Capacity (kA)				Pole	Rated Current In(A)	Accessory			
	Type	IEC60947-2								
		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					
	HN	85	50	50	3, 4					
630	RN	100	70	70	3, 4	500, 630.				
	UN	125	100	85	3, 4					
800	SN	85	50	50	3, 4	700, 800.				
	HN	100	70	70	3, 4					
	RN	125	100	85	3, 4					

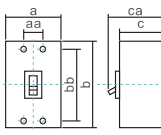
BMA Series Frame Size Selection Table

BMA	100				STA	3P		30A		
Frame Size	Rated Breaking Capacity (kA)				Pole	Ir Adjustable	Rated Current In(A)	Accessory		
	Type	IEC60947-2								
		220V(240V)	380V(415V)	690V						
125	STA	85	25	8	3, 4	0.8-0.9-1.0	15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125	Blank	No Acc.	
	LTA	85	36	8				AX	Auxiliary Switch	
	HTA	100	50	10				AL	Alarm Switch	
160	STA	85	25	8	3, 4	0.8-0.9-1.0	40, 50, 60, 63, 70, 75, 80, 100, 125, 140, 150, 160	SHT	Shunt Trip	
	LTA	85	36	8				UVT	Under Voltage Trip	
	HTA	100	50	10						
250	STA	85	25	8	3, 4	0.8-0.9-1.0	175, 200, 225, 250			
	LTA	85	36	8						
	HTA	100	50	10						
400	LTA	70	36	8	3, 4	0.8-0.9-1.0	250, 300, 350, 400			
	HTA	85	50	10						
	RTA	100	70	15						
630s	STD	36	25	10	3, 4	N/A	400, 500, 600, 630			
	LTD	65	36	10						
	HTD	85	50	10						
	RTD	100	70	15						
	STA	36	25	10						
	LTA	65	36	10						
	HTA	85	50	10						
630	RTA	100	70	15	3, 4	0.8-0.9-1.0	500, 600, 630			
	HTD	85	50	10						
	RTD	100	70	15						
	HTA	85	50	10						
	RTA	100	70	15						
800	HTD	85	50	10	3, 4	N/A	700, 800			
	RTD	100	70	15						
	HTA	85	50	10						
	RTA	100	70	15						
1000	HED	-	50	35	3, 4	0.4-0.45-0.5-0.6-0.63-0.7-0.8-0.9-1	1000			
	RED	-	70	45						
1250	HED	-	50	35	3, 4	0.4-0.45-0.5-0.6-0.63-0.7-0.8-0.9-1	1250			
	RED	-	70	45						
1600	HED	-	50	35	3, 4	0.4-0.45-0.5-0.6-0.63-0.7-0.8-0.9-1	1600			
	RED	-	70	45						

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		
	AC380V														
BM	100kA							630-UN	800-RN	1000-HS	1200-HS	1600-HS			
	85kA	100-HS			160-HS	250-HS	400-UN								
	70kA				125-RTA	160-RTA	250-RTA	400-RN	630-RN 630s-RTD	800-HN					
	50kA				125-HTA	160-HTA	250-HTA	400-HN	630-HN 630s-HTD	800-SN					
	35/36kA	100-LTD			125-LTD	160-HN	250-HN	400-SN	630-SN 630s-LTD	800-CN					
	30kA	60-HBN	100-HN 100-STD	160-SN		250-SN									
	25kA	125-HN				630s-STD									
	15kA	60-HN 63-HN	100-SN 100-BTD	125-SN											
	10kA	100-MN													
	7.5kA	60-SN 63-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-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, 30, 40, 50, 60.	
Number of poles (P)			2	3	2	3	2	3	3	
Rated insulation voltage Ui (V)	AC	690		800		800		800		
	DC	—		—		—		—		
Rated operational voltage Ue (V AC)			500		500		500		500	
Uimp(kV)			6		6		6		8	
Dimensions  (mm)	a	45	67.5	50	75	50	75	90		
	b	96		130		130		155		
	c	52		68		68		68		
	ca	67		90		90		90		
	bb	84		111		111		132		
	aa	23.5		25		25		30		
	Weight (kg)			0.3	0.4	0.45	0.65	0.45	0.65	1.3
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	500V(690V)	—		1.5		1.5		15	
		440V	—		2.5		2.5		25	
		415V	1.5		2.5		2.5		25	
		380V	1.5		2.5		2.5		30	
		220V(240V)	2.5		5		5		50	
	DC	250V	—		—		—		—	
		125V	—		—		—		—	
Short Circuit Instantaneous Adjustment Current (li)			10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%	
Connection			Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal	
Electrical endurance			8000		8000		8000		8000	
Mechanical endurance			20000		20000		20000		20000	
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	
Tripping button			—		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.

63

100

BM63-SN

BM63-HN

BM100-FTD

BM100-MN

BM100-SN

BM100-HN

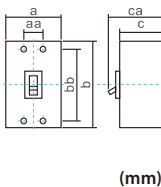


10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63			10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63			15, 20, 30, 40, 50, 60, 75, 100.		10, 15, 20, 30, 40, 50, 60, 75, 100.		10, 15, 20, 30, 40, 50, 60, 75, 100.		10, 15, 20, 30, 40, 50, 60, 75, 100.		
2	3	4	2	3	4	1		2	3	2	3	2	3	4
800			800			690		800		800		800		
—			—			—		—		250*	—	—		
500			500			415		500		500		500		
8			8			6		6		6		8		
50	75	100	50	75	100	25.4		50	75	50	75	60	90	120
130			130			130		130		130		155		
68			68			60		68		68		68		
90			90			91		90		90		90		
111			111			111		111		111		132		
25			25			—		25		25		30		
0.45	0.65	0.85	0.45	0.65	0.85	0.29		0.45	0.65	0.45	0.65	0.9	1.3	1.6
5			5			—		5		7.5		15		
7.5			10			—		7.5		10		25		
7.5			10			5		10		10		25		
7.5			15			5		10		15		30		
10			25			25		15		25		50		
—			—			—		—		10*	—	—		
—			—			—		—		15*	—	—		
10In ± 20%			10In ± 20%			10In ± 20%		10In ± 20%						
Clamp terminal			Clamp terminal			Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		
8000			8000			8000				8000		8000		
20000			20000			20000				20000		20000		
○			○			—		○		○		○		
○			○			—		○		○		○		
○			○			—		○		○		○		
○			○			—		○		○		○		
●			●			—		●		●		●		
●			●			—		●		●		●		
●			●			●		●		●		●		
Hydraulic magnetic			Hydraulic magnetic			Thermal magnetic		Hydraulic magnetic		Hydraulic magnetic		Hydraulic magnetic		
Equipped			Equipped			Equipped		Equipped		Equipped		Equipped		

Note 1. Breaking Capacity of BM100-FTD is 5kA at 380V/415V/440V

2.* DC application MCCB trip characteristic is different from AC type, please specify when place the order.

Molded Case Circuit Breaker

Frame size (AF) (Inm)			100											
Type			BM100-HS		BM100-BTD			BM100-STD			BM100-LTD			
Appearance														
Rated current In (A) at ambient temp. 40°C			40, 50, 63, 80, 100.		15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100			15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100			10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 70, 75, 80, 100			
Number of poles (P)			3	4	2	3	4	2	3	4	2	3	4	
Rated insulation voltage Ui (V)	AC	800		800			800			800				
	DC	—		—			—			—				
Rated operational voltage Ue (V AC)			500		690			690			690			
Uimp(kV)			8		8			8			8			
Dimensions  (mm)	a	105	140	50	75	100	50	75	100	50	75	100		
	b	165		130			130			130				
	c	86		68			68			68				
	ca	112		90			90			90				
	bb	126		111			111			111				
	aa	35		25			25			—	25			
	(mm)													
Weight (kg)			2.1	2.6	0.5	0.7	0.9	0.5	0.7	0.9	0.5	0.7	0.9	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	500V(690V)	50		(5)			(5)			20(5)			
		440V	70		10			25			32			
		415V	85		10			25			36			
		380V	85		15			30			36			
		220V(240V)	125		25			50			85			
	DC	250V	—		—			—			—			
		125V	—		—			—			—			
	Short Circuit Instantaneous Adjustment Current (Ii)			10In ± 20%		300A ± 20% (10~32A) 10In ± 20% (40~100A)			300A ± 20% (10~32A) 10In ± 20% (40~100A)			400A ± 20% (10~32A) 10In ± 20% (40~125A)		
Connection			Clamp terminal		Clamp terminal			Clamp terminal			Clamp terminal			
Electrical endurance			8000		8000			8000			8000			
Mechanical endurance			20000		20000			20000			20000			
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			Thermal magnetic			Thermal magnetic			
Tripping button			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. $I_{cs} = 50\% I_{cu}$
 3. Adjustable thermal: 80%~100% I_n .

Molded Case Circuit Breaker

125

BM125-SN



BM125-HN



BM125-LTD



BM125-HTA



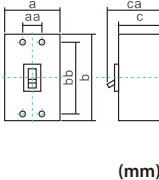
BM125-RTA



10, 15, 20, 30, 40, 50, 60, 75, 100, 125.			10, 15, 20, 30, 40, 50, 60, 75, 100, 125.			15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 75, 80, 100, 125.			10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 70, 75, 80, 100, 125.			10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 70, 75, 80, 100, 125.		
2	3	4	2	3	4	2	3	4	2	3	4	2	3	4
800			800			800			800			800		
—			—			—			—			—		
500			500			690			690			690		
8			8			8			8			8		
60	90	120	60	90	120	50	75	100	90	120		90	120	
155			155			130			155			155		
68			68			68			68			68		
90			90			90			90			90		
132			132			111			132			132		
30			30			25			30			30		
0.5	0.7	0.9	0.5	0.7	0.9	0.5	0.7	0.9	1	1.2	1.5	1	1.2	1.5
7.5			15			(5)			25(10)			25(10)		
15			25			32			50			50		
22			25			36			50			70		
22			30			36			50			70		
30			50			85			100			100		
—			—			—			—			—		
—			—			—			—			—		
10In ± 20%			10In ± 20%			400A ± 20% (10~32A) 10In ± 20% (40~125A)			500A ± 20% (10~40A) 10In ± 20% (50~125A)			500A ± 20% (10~40A) 10In ± 20% (50~125A)		
Clamp terminal			Clamp terminal			Clamp terminal			Clamp terminal			Clamp terminal		
8000			8000			8000			8000			8000		
20000			20000			20000			20000			20000		
○			○			●			●			●		
○			○			●			●			●		
○			○			●			●			●		
—	○	○	—	○	○	●			●			●		
●			●			●			●			●		
●			●			●			●			●		
●			●			●			●			●		
Hydraulic magnetic			Hydraulic magnetic			Thermal magnetic			"Adjustable Thermal Fixed magnetic"			"Adjustable Thermal Fixed magnetic"		
Equipped			Equipped			Equipped			Equipped			Equipped		

Molded Case Circuit Breaker

80% ~ 100% Adj. (A)

Frame size (AF) (Inm)			160										
Type			BM160-SN			BM160-HN		BM160-HTA		BM160-RTA		BM160-HS	
Appearance													
Rated current In (A) at ambient temp. 40°C			125, 140, 160.			125, 140, 160.		40, 50, 60, 63, 70, 75, 80, 100, 125, 140, 150, 160		40, 50, 60, 63, 70, 75, 80, 100, 125, 140, 150, 160		125, 140, 160.	
Number of poles (P)			2	3	4	3	4	3	4	3	4	3	4
Rated insulation voltage Ui (V)	AC	800			800		800		800		690		
	DC	—			—		—		—		—		
Rated operational voltage Ue (V AC)			500			500		690		690		500	
Uimp(kV)			8			8		8		8		8	
Dimensions  (mm)	a	105	105	140	105	140	105	140	105	140	105	140	
	b	165			165		165		165		165		
	c	68			68		68		68		86		
	ca	92			92		92		92		112		
	bb	126			126		126		126		126		
	aa	35			35		35		35		35		
	Weight (kg)	1.3	1.5	1.9	1.5	1.9	1.5	1.9	1.5	1.9	2.1	2.6	
Rated breaking capacity (kA)	AC IEC 60947-2 EN 60947-2 Icu	500V(690V)	15			20		25(10)		25(10)		50	
		440V	25			32		50		50		70	
		415V	25			36		50		70		85	
		380V	30			36		50		70		85	
		220V(240V)	50			85		100		100		125	
	DC	250V	—			—		—		—		—	
		125V	—			—		—		—		—	
Short Circuit Instantaneous Adjustment Current (Ii)			1000A ± 20% (40~80A) 10In ± 20% (100~160A)			1000A ± 20% (40~80A) 10In ± 20% (100~160A)		1000A ± 20% (40~80A) 10In ± 20% (100~160A)		1000A ± 20% (40~80A) 10In ± 20% (100~160A)		1000A ± 20% (40~80A) 10In ± 20% (100~160A)	
Connection			Clamp terminal			Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal	
Electrical endurance			8000			8000		8000		8000		8000	
Mechanical endurance			20000			20000		20000		20000		20000	
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			Adj. thermal Fixed magnetic		Adj. thermal Fixed magnetic		Adj. thermal Fixed magnetic		Thermal magnetic	
Tripping button			Equipped			Equipped		Equipped		Equipped		Equipped	

Note * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

80% ~ 100% Adj. (A)

250

BM250-CN



BM250-SN



BM250-HN



BM250-HTA



BM250-RTA



BM250-HS

125, 150, 175,
200, 225, 250.125, 150, 175,
200, 225, 250.

175, 200, 225, 250.

175, 200, 225, 250.

175, 200, 225, 250.

175, 200, 225, 250.

2

3

4

3

4

3

4

3

4

3

4

3

4

800

800

800

800

800

800

250*

—

—

—

—

—

—

—

500

500

500

690

690

500

8

8

8

8

8

8

105

105

140

105

140

105

140

105

140

105

140

105

140

165

165

165

165

165

165

68

68

68

68

68

86

92

92

92

92

92

112

126

126

126

126

126

126

35

35

35

35

35

35

1.3

1.5

1.9

1.5

1.9

1.5

1.9

1.5

1.9

1.5

1.9

2.1

2.6

7.5

15

20

25(10)

25(10)

50

15

25

32

50

50

70

15

25

36

50

70

85

22

30

36

50

70

85

30

50

85

100

100

125

10*

—

—

—

—

—

—

—

15*

—

—

—

—

—

—

—

10In ± 20%

10In ± 20%

10In ± 20%

10In ± 20%

10In ± 20%

10In ± 20%

Clamp terminal

Clamp terminal

Clamp terminal

Clamp terminal

Clamp terminal

Clamp terminal

8000

8000

8000

8000

8000

8000

20000

20000

20000

20000

20000

20000

●

●

●

●

●

○

●

●

●

●

●

○

●

●

●

●

●

○

●

●

●

●

●

—

●

●

●

●

●

●

●

●

●

●

●

●

●

●

●

●

●

●

Adj. thermal
Fixed magneticAdj. thermal
Fixed magneticAdj. thermal
Fixed magneticAdj. thermal
Fixed magneticAdj. thermal
Fixed magnetic

Thermal magnetic

Equipped

Equipped

Equipped

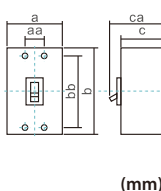
Equipped

Equipped

Equipped

Note * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

Molded Case Circuit Breaker

Frame size (AF) (Inm)			400										
Type			BM400-CN			BM400-SN		BM400-HN		BM400-RN		BM400-UN	
Appearance													
Rated current In (A) at ambient temp. 40°C			250, 300, 350, 400.			250, 300, 350, 400.		250, 300, 350, 400.		250, 300, 350, 400.		250, 300, 350, 400.	
Number of poles (P)			2	3	4	3	4	3	4	3	4	3	4
Rated insulation voltage Ui (V)	AC	690			690		690		690		690		
	DC	250*	—	—	—		—		—		—		
Rated operational voltage Ue (V AC)			500			500		500		500		500	
Uimp(kV)			8			8		8		8		8	
Dimensions	 (mm)	a	140	140	185	140	185	140	185	140	185	140	185
		b	257			257		257		257		257	
		c	103			103		103		103		103	
		ca	155			155		155		155		155	
		bb	194			194		194		194		194	
		aa	44			44		44		44		44	
		Weight (kg)			5.0	5.7	7.5	5.7	7.5	5.7	7.5	5.7	7.5
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	500V(690V)	14			20		25		42		65	
		440V	22			30		42		55		85	
		415V	25			35		50		70		85	
		380V	25			35		50		70		85	
		220V(240V)	35			50		85		100		125	
	DC	250V	10*	—	—	—		—		—		—	
		125V	15*	—	—	—		—		—		—	
Short Circuit Instantaneous Adjustment Current (Ii)			10In ± 20%			10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%	
Connection			Busbar / Without busbar			Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar	
Electrical endurance			7000			7000		7000		7000		7000	
Mechanical endurance			10000			10000		10000		10000		10000	
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		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.
4. * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

630

BM630s-STD	BM630s-LTD	BM630s-HTD	BM630s-RTD	BM630s-STA	BM630s-LTA	BM630s-HTA	BM630s-RTA
							
400, 500, 600, 630.	400, 500, 600, 630.	400, 500, 600, 630.	400, 500, 600, 630.	400, 500, 600, 630.	400, 500, 600, 630.	400, 500, 600, 630.	400, 500, 600, 630.
3 4	3 4	3 4	3 4	3 4	3 4	3 4	3 4
1000	1000	1000	1000	1000	1000	1000	1000
—	—	—	—	—	—	—	—
690	690	690	690	690	690	690	690
8	8	8	8	8	8	8	8
140 185	140 185	140 185	140 185	140 185	140 185	140 185	140 185
257	257	257	257	257	257	257	257
103	103	103	103	103	103	103	103
155	155	155	155	155	155	155	155
194	194	194	194	194	194	194	194
44	44	44	44	44	44	44	44
5.7 7	5.7 7	5.7 7	5.7 7	5.7 7	5.7 7	5.7 7	5.7 7
14(10)	20(10)	25(10)	42(15)	14(10)	20(10)	25(10)	42(15)
25	36	50	70	25	36	50	70
25	36	50	70	25	36	50	70
25	36	50	70	25	36	50	70
36	65	85	100	36	65	85	100
—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—
10In ± 20%	10In ± 20%	10In ± 20%	10In ± 20%	10In ± 20%	10In ± 20%	10In ± 20%	10In ± 20%
Busbar / Without busbar	Busbar / Without busbar	Busbar / Without busbar	Busbar / Without busbar	Busbar / Without busbar	Busbar / Without busbar	Busbar / Without busbar	Busbar / Without busbar
7000	7000	7000	7000	7000	7000	7000	7000
15000	15000	15000	15000	15000	15000	15000	15000
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●
Thermal magnetic	Thermal magnetic	Thermal magnetic	Thermal magnetic	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"
Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped	Equipped

Note * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

BM

Series

BL

Series

ACC.

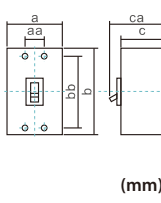
DIM.

Curve.

Other

MCCB

Molded Case Circuit Breaker

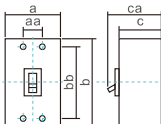
Frame size (AF) (Inm)			630									
Type			BM630-CN		BM630-SN		BM630-HN		BM630-RN		BM630-UN	
Appearance												
Rated current In (A) at ambient temp. 40°C			500, 600, 630.		500, 600, 630.		500, 630.		500, 630.		500, 630.	
Number of poles (P)			3	4	3	4	3	4	3	4	3	4
Rated insulation voltage Ui (V)	AC		1000		1000		1000		1000		1000	
	DC		250*		250*		250*	—	—		—	
Rated operational voltage Ue (V AC)			500		500		500		500		500	
Uimp(kV)			8		8		8		8		8	
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	13	10
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	500V(690V)	14		20		25		42		65	
		440V	22		30		50		70		85	
		415V	25		35		50		70		85	
		380V	25		35		50		70		100	
		220V(240V)	35		50		85		100		125	
	DC	250V	10*	—	20*	—	40*	—	—		—	
		125V	—		—		—		—		—	
Short Circuit Instantaneous Adjustment Current (li)			10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%	
Connection			Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar	
Electrical endurance			7000		7000		7000		7000		7000	
Mechanical endurance			15000		15000		15000		15000		15000	
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
 3. * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

800								1000	1200	1600
BM800-CN		BM800-SN		BM800-HN		BM800-RN		BM1000-HS	BM1200-HS	BM1600-HS
										
700, 800.		700, 800.		700, 800.		700, 800.		1000	1200	1400, 1600.
3	4	3	4	3	4	3	4	3	3	3
690		690		1000		1000		1000	1000	1000
250*	—	250*	—	—		—		—	—	—
500		500		500		500		500	500	500
8		8		8		8		8	8	8
210	280	210	280	210	280	210	280	210	210	210
275		275		275		275		406	406	406
103		103		103		103		140	140	140
155		155		155		155		190	190	190
243		243		243		243		375	375	375
70		70		70		70		70	70	70
10.5	13.5	10.5	13.5	10.5	13.5	10.5	13.5	23	23	23
20		25		42		65		65	65	65
30		50		70		85		85	85	85
35		50		70		85		85	85	85
35		50		70		100		100	100	100
50		85		100		125		130	130	130
20*	—	40*	—	—		—		—	—	—
—		—		—		—		—	—	—
4/6/8/10In ± 20%		4/6/8/10In ± 20%		4/6/8/10In ± 20%		4/6/8/10In ± 20%		8000A ± 20%	8000A ± 20%	8000A ± 20%
Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar		Busbar / Without busbar		Busbar	Busbar	Busbar
7000		7000		7000		7000		2000	1500	1000
10000		10000		10000		10000		5000	5000	5000
●		●		●		●		○	○	○
●		●		●		●		○	○	○
●		●		●		●		○	○	○
●		●		●		●		○	○	○
●		●		●		●		—	—	—
●		●		●		●		—	—	—
●		●		●		●		●	●	●
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

Note * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

Molded Case Circuit Breaker (BMA Series)

Frame size (AF) (Inm)			125			160			250			400		
Model			BMA 125-STA	BMA 125-LTA	BMA 125-HTA	BMA 160-STA	BMA 160-LTA	BMA 160-HTA	BMA 250-STA	BMA 250-LTA	BMA 250-HTA	BMA 400-LTA	BMA 400-HTA	BMA 400-RTA
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			250, 300, 350, 400A		
Number of poles (P)			3		4	3		4	3		4	3		4
Rated insulation voltage Ui (V)		AC	800			800			800			800		
Rated operational voltage Ue(V AC)			690			690			690			690		
Uimp(kV)			8			8			8			8		
Dimensions		a	90	120	105	140	105	140	140	185				
		b	155	155	165	165	165	165	257	257				
		c	68	68	68	68	68	68	103	103				
		ca	92	92	92	92	92	92	155	155				
		bb	132	132	126	126	126	126	194	194				
		aa	30	30	35	35	35	35	44	44				
		(mm)												
Weight (kg)			0.7		0.9	1.5		1.9	1.5		1.9	5.7		7.5
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 AC Icu	690V	8 kA	8 kA	10 kA	8 kA	8 kA	10 kA	8 kA	8 kA	10 kA	8 kA	10 kA	15 kA
		415V	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	36 kA	50 kA	70 kA
		380V	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	25 kA	36 kA	50 kA	36 kA	50 kA	70 kA
		220V(240V)	85 kA	85 kA	100 kA	85 kA	85 kA	100 kA	85 kA	85 kA	100 kA	70 kA	85 kA	100 kA
Short Circuit Instantaneous Adjustment Current (Ii)			10In ± 20%			10In ± 20%			10In ± 20%			10In ± 20%		
Connection			Clamp terminal			Clamp terminal			Clamp terminal			Busbar		
Electrical endurance			8000			8000			8000			7000		
Mechanical endurance			20000			20000			20000			15000		
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			Adjustable Thermal Fixed Magnetic		
Tripping button			Equipped			Equipped			Equipped			Equipped		

Note 1. lcs=100%lcu

630

BMA630s-STD		BMA630s-LTD		BMA630s-HTD		BMA630s-RTD		BMA630s-STA		BMA630s-LTA		BMA630s-HTA		BMA630s-RTA	
															
400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A	
3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
1000		1000		1000		1000		1000		1000		1000		1000	
690		690		690		690		690		690		690		690	
8		8		8		8		8		8		8		8	
140	185	140	185	140	185	140	185	140	185	140	185	140	185	140	185
257		257		257		257		257		257		257		257	
103		103		103		103		103		103		103		103	
155		155		155		155		155		155		155		155	
194		194		194		194		194		194		194		194	
44		44		44		44		44		44		44		44	
5.7	7	5.7	7	5.7	7	5.7	7	5.7	7	5.7	7	5.7	7	5.7	7
10 kA		10 kA		10 kA		15 kA		10 kA		10 kA		10 kA		15 kA	
25 kA		36 kA		50 kA		70 kA		25 kA		36 kA		50 kA		70 kA	
25 kA		36 kA		50 kA		70 kA		25 kA		36 kA		50 kA		70 kA	
36 kA		65 kA		85 kA		100 kA		36 kA		65 kA		85 kA		100 kA	
10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%		10In ± 20%	
Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal		Clamp terminal	
7000		7000		7000		7000		7000		7000		7000		7000	
15000		15000		15000		15000		15000		15000		15000		15000	
●		●		●		●		●		●		●		●	
●		●		●		●		●		●		●		●	
●		●		●		●		●		●		●		●	
●		●		●		●		●		●		●		●	
●		●		●		●		●		●		●		●	
●		●		●		●		●		●		●		●	
Thermal magnetic		Thermal magnetic		Thermal magnetic		Thermal magnetic		Adjustable Thermal Fixed magnetic		Adjustable Thermal Fixed magnetic		Adjustable Thermal Fixed magnetic		Adjustable Thermal Fixed magnetic	
Equipped		Equipped		Equipped		Equipped		Equipped		Equipped		Equipped		Equipped	

BM

Series

BL

Series

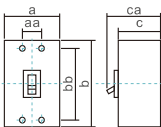
ACC.

DIM.

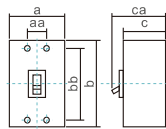
Curve.

Other

Molded Case Circuit Breaker (BMA Series)

Frame size (AF) (Inm)			630				630				800				800			
Model			BMA 630-HTD		BMA 630-RTD		BMA 630-HTA		BMA 630-RTA		BMA 800-HTD		BMA 800-RTD		BMA 800-HTA		BMA 800-RTA	
Appearance																		
Rated current In (A) at ambient temp. 40°C			500, 600, 630A				500, 600, 630A				700, 800A				700, 800A			
Number of poles (P)			3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4
Rated insulation voltage Ui (V)		AC	1000				1000				1000				1000			
Rated operational voltage Ue(V AC)			690				690				690				690			
Uimp(kV)			8				8				8				8			
Dimensions	 (mm)	a	210	280	210	280	210	280	210	280	210	280	210	280	210	280	210	280
		b	275				275				275				275			
		c	103				103				103				103			
		ca	155				155				155				155			
		bb	243				243				243				243			
		aa	70				70				70				70			
		Weight (kg)			10	13	10	13	10	13	10	13	10	13	10	13	10	13
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	690V	10kA		15kA		10kA		15kA		10kA		15kA		10kA		15kA	
		415V	50kA		70kA		50kA		70kA		50kA		70kA		50kA		70kA	
		380V	50kA		70kA		50kA		70kA		50kA		70kA		50kA		70kA	
		220V(240V)	85kA		100kA		85kA		100kA		85kA		100kA		85kA		100kA	
Short Circuit Instantaneous Adjustment Current (Ii)			10In ± 20%				10In ± 20%				10In ± 20%				Adj. (4, 6, 8, 10)In ± 20%			
Connection			Busbar				Busbar				Busbar				Busbar			
Electrical endurance			7000				7000				7000				7000			
Mechanical endurance			15000				15000				15000				15000			
Optional accessories	Alarm switch (AL)		●		●		●		●		●		●		●		●	
	Auxiliary switch (AX)		●		●		●		●		●		●		●		●	
	Shunt trip (SHT)		●		●		●		●		●		●		●		●	
	Under-voltage trip (UVT)		●		●		●		●		●		●		●		●	
	Rotary handle (EH)		●		●		●		●		●		●		●		●	
	Terminal cover (TC)		●		●		●		●		●		●		●		●	
Trip Unit			Fixed Thermal Adjustable Magnetic				Adjustable Thermal Fixed magnetic				Fixed Thermal Adjustable Magnetic				Adjustable Thermal Fixed magnetic			
Tripping button			Equipped		Equipped		Equipped		Equipped		Equipped		Equipped		Equipped		Equipped	

Note 1. Ics=100%Icu

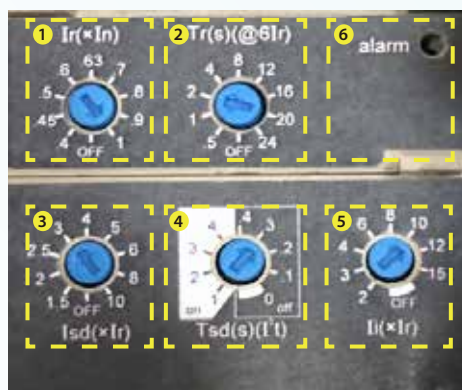
Frame size (AF) (Inm)			1000				1250				1600			
Model			BMA 1000-HED		BMA 1000-RED		BMA 1250-HED		BMA 1250-RED		BMA 1600-HED		BMA 1600-RED	
Appearance														
Rated current In (A) at ambient temp. 40°C			1000A				1250A				1600A			
Number of poles (P)			3	4	3	4	3	4	3	4	3	4	3	4
Rated insulation voltage Ui (V)		AC	1000				1000				1000			
Rated operational voltage Ue(V AC)			690				690				690			
Uimp(kV)			8				8				8			
Dimensions	 (mm)	a	210	280	210	280	210	280	210	280	210	280	210	280
		b	327				327				327			
		c	141				141				141			
		ca	205				205				205			
		bb	200				200				200			
		aa	199	339	199	339	199	339	199	339	199	339	199	339
		Weight (kg)			13.3	17.2	13.3	17.2	13.3	17.2	13.3	17.2	13.3	17.2
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	690V	35		45		35		45		35		45	
		415V	50		70		50		70		50		70	
		380V	50		70		50		70		50		70	
		220V(240V)	—	—	—	—	—	—	—	—	—	—	—	
Short Circuit Instantaneous Adjustment Current (Ii)			—				—				—			
Connection			Busbar				Busbar				Busbar			
Electrical endurance			7000				7000				7000			
Mechanical endurance			15000				15000				15000			
Optional accessories	Alarm switch (AL)		●		●		●		●		●		●	
	Auxiliary switch (AX)		●		●		●		●		●		●	
	Shunt trip (SHT)		●		●		●		●		●		●	
	Under-voltage trip (UVT)		—		—		—		—		—		—	
	Rotary handle (EH)		●		●		●		●		●		●	
	Terminal cover (TC)		—		—		—		—		—		—	
Trip Unit			Electronic				Electronic				Electronic			
Tripping button			Equipped		Equipped		Equipped		Equipped		Equipped		Equipped	

Condition:

1. Operation Temp.: $-25^{\circ}\text{C} \sim +70^{\circ}\text{C}$
2. Storage Temp.: $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
3. Altitude: $\leq 2000\text{m}$
4. Pollution class: 3
5. Category: B
6. Relative humidity: $\leq 90\%$

Neutral Protection:

4P4D: 100% In 3D+N/2: 50% In 4P3D: No protection



1. Overload Setting Knob
($I_r=0.4/0.45/0.5/0.6/0.63/0.7/0.8/0.9/1/\text{OFF}$)
2. Overload Tripping Time Setting Knob
($T_r=0.5/1/2/4/8/12/16/20/24/\text{OFF}$)
3. ($I_{sd}=1.5/2/2.5/3/4/5/6/8/10/\text{OFF}$)
4. (I_{2t} on: $T_{sd}=0.1/0.2/0.3/0.4$; I_{2t} off: $T_{sd}=0/0.1/0.2/0.3/0.4$)
5. Instantaneous Setting Knob
($I_i=2/3/4/6/8/10/12/15/\text{OFF}$)
6. Alarm indicator: Overload (red light)

Protection**Long-time**

Current setting(A)	$I_r=I_n \times$	0.4	0.45	0.5	0.6	0.63	0.7	0.8	0.9	1	OFF
Time Delay (s)	T_r (s)	0.5	1	2	4	8	12	16	20	24	OFF
Accuracy: $\pm 20\%$	$1.5 \times I_r$	8	16	32	64	128	192	256	320	384	
	$6 \times I_r$	0.5	1	2	4	8	12	16	20	24	
	$7.2 \times I_r$	0.35	0.7	1.39	2.78	5.56	8.3	11.1	13.9	16.7	

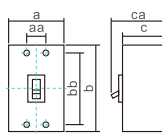
Short-time

Current setting(A)	Accuracy: $\pm 10\%$	$I_{sd}=I_r \times$	1.5	2	2.5	3	4	5	6	8	10	OFF
Time Delay T_{sd} (s)		I^2t off	0	0.1	0.2	0.3	0.4					
		I^2t on		0.1	0.2	0.3	0.4					
Time Delay (ms) at $10 \times I_r$ (I_{2t} off or on)		$T_{sd}(\text{Max. resettable time})$	20	80	140	230	350					
		$T_{sd}(\text{Max. trip time})$	80	140	200	320	500					

Instantaneous

Current setting(A)	Accuracy: $\pm 10\%$	$I_i=I_r \times$	2	3	4	6	8	10	12	15	OFF	
Tripping time			$60 \pm 20 \text{ ms}$									

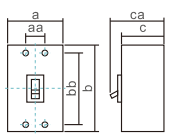
Earth Leakage Circuit Breaker

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 AC type (mA)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		
	Rated current sensitivity IΔn A type (mA)		30-100-300-500mA(adj)		30-100-300-500mA(adj)		30-100-300-500mA(adj)		
	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 AC type (mA)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)		
	Rated current sensitivity IΔn A type (mA)		100-300-500-1000mA (adj)		100-300-500-1000mA (adj)		100-300-500-1000mA (adj)		
	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	 (mm)		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	1.5
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	440V	7.5		10		25		
		380V	7.5		15		30		
		220V	10		25		50		
	Connection			Clamp terminal		Clamp terminal		Clamp terminal	
Electrical endurance			8000		8000		8000		
Mechanical endurance			20000		20000		20000		
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		

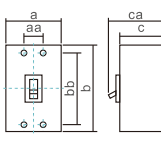
- Note
1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.
 2. Specify default rated current sensitivity when place the order.
 3. Ics= 50% Icu
 4. Adjustable thermal: 80%~100% In.
 5. Specify, when order delay type rated current sensitivity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

Earth Leakage Circuit Breaker

80% ~ 100% Adj. (A)

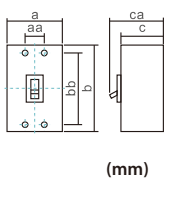
Frame size (AF) (Inm)			160		250		400						
Model			BL160-SN		BL250-SN		BL400-SN		BL400-HN		BL400-RN		
Appearance													
Rated current In (A) at ambient temp. 40°C			125, 140, 160.		175, 200, 225, 250.		250, 300, 350, 400.		250, 300, 350, 400.		250, 300, 350, 400.		
Phase & wire (P)			1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	
Number of poles (P)			3	4	3	4	3	4	3	4	3	4	
Rated voltage (VAC)			230, 400.		230, 400.		230, 400.		230, 400.		230, 400.		
High speed	Rated current sensitivity I Δ n AC type (mA)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		
	Rated current sensitivity I Δ n A type (mA)		30-100-300-500mA(adj)		30-100-300-500mA(adj)		30-100-300-500mA(adj)		30-100-300-500mA(adj)		30-100-300-500mA(adj)		
	2I Δ n operating time (S)		0.1		0.1		0.1		0.1		0.1		
	5I Δ n operating time (S)		0.04		0.04		0.04		0.04		0.04		
Delay	Rated current sensitivity I Δ n AC type (mA)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)		
	Rated current sensitivity I Δ n A type (mA)		100-300-500-1000mA (adj)		100-300-500-1000mA (adj)		100-300-500-1000mA (adj)		100-300-500-1000mA (adj)		100-300-500-1000mA (adj)		
	2I Δ n 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		0.1- 0.4- 0.8- 2.0 adjustable		0.45- 1.0- 2.0 adjustable		
	2I Δ n 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		0, 0.2, 0.4, 1.0		0.1, 0.5, 1.0		
Leakage detection mode			Mechanical push-button		Mechanical push-button		Mechanical push-button		Mechanical push-button		Mechanical push-button		
Dimensions	 (mm)		a	105	140	105	140	140	185	140	185	140	185
			b	165		165		257		257		257	
			c	68		68		103		103		103	
			ca	92		92		155		155		155	
			bb	126		126		194		194		194	
			aa	35		35		44		44		44	
Weight (kg)			1.7	2.3	1.7	2.3	6.6	8.4	6.6	8.4	5.7	7.5	
Rated breaking capacity (kA)	IEC 60947-2	440V	25		25		30		42		55		
	EN 60947-2	380V	30		30		35		50		70		
	Icu AC	220V	50		50		50		85		100		
Connection			Clamp terminal		Clamp terminal		Busbar		Busbar		Busbar		
Electrical endurance			8000		8000		7000		7000		7000		
Mechanical endurance			20000		20000		10000		10000		10000		
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			Adj. thermal Fixed magnetic		Adj. thermal Fixed magnetic		Thermal magnetic		Thermal magnetic		Thermal magnetic		
Tripping button			Equipped		Equipped		Equipped		Equipped		Equipped		

Earth Leakage Circuit Breaker

Frame size (AF) (Inm)			400		630				630		
Model			BL400-UN		BL630-HN		BL630-RN		BL630-UN		
Appearance											
Rated current In (A) at ambient temp. 40°C			250, 300, 350, 400.		500, 630.		500, 630.		500, 630.		
Phase & wire (P)			1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	1ø2W, 3ø3W	3ø4W	
Number of poles (P)			3	4	3	4	3	4	3	4	
Rated voltage (VAC)			230, 400.		230, 400.		230, 400.		230, 400.		
High speed	Rated current sensitivity I△n AC type (mA)		30-100-500mA (adj) *15mA, *30mA, *100mA *100-300-500mA (adj)		100-300-500mA (adj)		100-300-500mA (adj)		100-300-500mA (adj)		
	Rated current sensitivity I△n A type (mA)		30-100-300-500mA(adj)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		
	2I△n operating time (S)		0.1		0.1		0.1		0.1		
	5I△n operating time (S)		0.04		0.04		0.04		0.04		
Delay	Rated current sensitivity I△n AC type (mA)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)		
	Rated current sensitivity I△n A type (mA)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		
	2I△n operating time (S)		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		
	2I△n max. non-operating time (S)		0.1, 0.5, 1.0		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		Mechanical push-button		
Dimensions	 (mm)		a	140	185	210	280	210	280	210	280
			b	257		257		257		257	
			c	103		103		103		103	
			ca	155		155		155		155	
			bb	194		243		243		243	
			aa	44		70		70		70	
	Weight (kg)		5.7	7.5	10.0	13.0	10.0	13.0	10.0	13.0	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu AC	440V	85		50		70		85		
		380V	85		50		70		100		
		220V	125		85		100		125		
Connection			Busbar		Busbar		Busbar		Busbar		
Electrical endurance			7000		7000		7000		7000		
Mechanical endurance			10000		10000		10000		10000		
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			Thermal magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		
Tripping button			Equipped		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.

Earth Leakage Circuit Breaker

Frame size (AF) (Inm)			800					
Model			BL800-SN		BL800-HN		BL800-RN	
Appearance								
Rated current In (A) at ambient temp. 40 °C			700, 800.		700, 800.		700, 800.	
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 I Δ n AC type (mA)		100-300-500mA (adj)		100-300-500mA (adj)		100-300-500mA (adj)	
	Rated current sensitivity I Δ n A type (mA)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)	
	2I Δ n operating time (S)		0.1		0.1		0.1	
	5I Δ n operating time (S)		0.04		0.04		0.04	
Delay	Rated current sensitivity I Δ n AC type (mA)		100-300-500mA(adj)		100-300-500mA(adj)		100-300-500mA(adj)	
	Rated current sensitivity I Δ n A type (mA)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)		100-300-500-1000mA(adj)	
	2I Δ n operating time (S)		0.45- 1.0- 2.0 adjustable		0.45- 1.0- 2.0 adjustable		0.45- 1.0- 2.0 adjustable	
	2I Δ n 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	210	280	210	280	210	280
		b	257		257		257	
		c	103		103		103	
		ca	155		155		155	
		bb	243		243		243	
		aa	70		70		70	
	(mm)							
Weight (kg)			10.5	13.5	10.5	13.5	10.5	13.5
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 Icu	440V	50		70		85	
		380V	50		70		100	
		220V	85		100		125	
	AC							
Connection			Busbar		Busbar		Busbar	
Electrical endurance			7000		7000		7000	
Mechanical endurance			10000		10000		10000	
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			Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic		Fixed thermal Adj. magnetic	
Tripping button			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 BM63-SN/HN BM100-SN/MN	3P							—					
BL50-SN	3P 4P						<td>—</td>	—					
BL100-SN BL100-HN	3P 4P			<td></td> <td></td> <td></td> <td><td>—</td></td>				<td>—</td>	—				
BM100-BTD/STD/LTD BM125-LTD/HTA/RTA BM160-SN/HN/HTA/RTA BM250-SN/HN/HTA/RTA 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 BM630s-STD/LTD/HTD/RTD BM630s-STa/LTA/HTA/RTA BMA630s-STD/LTD/HTD/RTD BMA630s-STa/LTA/HTA/RTA	3P 4P												
BL400-SN/HN/RN/UN	3P 4P						—						
BM630-SN/HN/CN/RN/UN BM800-CN/SN/HN/RN BMA630-HTD/RTD/HTA/ RTA/HED/RED BMA800-HTD/RTD/HTA/ RTA/HED/RED	3P 4P												
BM1000-HS BM1200-HS BM1600-HS	3P				—			—					

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

Note:

1. Standard: AL and AX are installed on left side, SHT and UVT are installed on right side.

2. SHT is equipped with coil anti-burn switch.

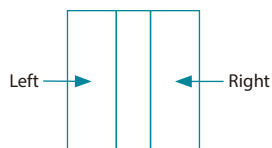
3. BL series can not do right side installation.

4. UVT of BM30-SN~BM100-HN can not install on its left side.

5. #1 means have no UVT.

6. #2 means only can apply to 4P breakers.

● : AL
○ : AX
■ : SHT or UVT



Optional Accessories | Application Table

Rotary Handle

TYPE	Poles	Model
EH-100N	3P~4P	BM30-SN, BM50-CN, BM60-SN/HN, BM63-SN/HN, BM100-SN/MN, BL50-SN
EH-100T	3P~4P	BM100-BTD/STD
EH-100L	3P~4P	BM100-LTD, BM125-LTD
EH-125T	2P~3P~4P	BM125-HTA/RTA
EH-125N	3P~4P	BM60-HBN, BM100-HN, BM125-SN/HN, BL100-SN/HN, BMA125-STA/LTA/HTA
EH-250N	3P~4P	BM160-SN*/HN, BM250-CN*/SN/HN, BL160-SN, BL250-SN
EH-250T	3P~4P	BM160-HTA/RTA, BMA160-STA/LTA/HTA, BM250-HTA/RTA, BMA250-STA/LTA/HTA
EH-400N	3P~4P	BM400-CN*/SN/HN/RN/UN, BL400-SN/HN/RN/UN, BMA400-LTA/HTA/RTA BM630s-STD/LTD/LTD/HTD/RTD/STA/LTA/HTA/RTA, BMA630s-STD/LTD/HTD/RTD/STA/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-HTD/RTD/HTA/RTA/HED/RED, BMA800-HTD/RTD/HTA/RTA/HED/RED
EH-250H	3P~4P	BM100-HS, BM160-HS, BM250-HS

Note*: indicates the value is can applied to 2P model.

Extended Rotary Handle

TYPE	Poles	Model
MA-100N	3P~4P	BM30-SN, BM50-CN, BM60-SN/HN, BM63-SN/HN, BM100-SN/MN, BL50-SN
MA-100T	3P~4P	BM100-BTD/STD
MA-100L	3P~4P	BM100-LTD, BM125-LTD
MA-125T	2P~3P~4P	BM125-HTA/RTA, BMA125-STA/LTA
MA-125N	3P~4P	BM60-HBN, BM100-HN, BM125-SN/HN, BL100-SN/HN, BMA125-STA/LTA/HTA
MA-250N	3P~4P	BM160-SN/HN, BM250-SN/HN, BMA125-STA/LTA/HTA, BMA250-STA/LTA/HTA, BL160-SN, BL250-SN
MA-250T	3P~4P	BM160-HTA/RTA, BMA160-STA/LTA/HTA, BM250-HTA/RTA, BMA250-STA/LTA/HTA
MA-400N	3P~4P	BM400-SN/HN/RN/UN, BL400-SN/HN/RN/UN, BMA400-LTA/HTA/RTA BM630s-STD/LTD/LTD/HTD/RTD/STA/LTA/HTA/RTA, BMA630s-STD/LTD/HTD/RTD/STA/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-HTD/RTD/HTA/RTA/HED/RED , BMA800-HTD/RTD/HTA/RTA/HED/RED
MA-250H	3P~4P	BM100-HS, BM160-HS, BM250-HS

Terminal Cover

TYPE	Pole	Long cover	Short cover	Model
TC-30N	2	TC30CN2P	—	BM30-CN
	3	TC30CN3P	—	
TC-100N	2	TC100N2P-K	TCS100N2P-K	BM30-SN, BM50-CN, BM60/63-SN/HN BM100-MN/SN, BL50-SN BM100-BTD/STD BM100/125-LTD
	3	TC100N3P-K	TCS100N3P-K	
	4	TC100N4P-K	TCS100N4P-K	
TC-125N	2	TC125N2P-K	TCS125N2P-K	BM60-HBN BM100-HN, BM125-SN/HN BL100-SN/HN
	3	TC125N3P-K	TCS125N3P-K	
	4	TC125N4P	TCS125N4P	
TC-125A	2~3	TC125A3P-K	TCS125A3P-K	BM125-HTA/RTA BMA125-STA/LTA/HTA
	4	TC125A4P-K	TCS125A4P-K	
TC-250N	3	TC250N3P-K	—	BM160-SN/HN, BM250-CN/SN/HN BM160/250-HTA/RTA BMA160/250-STA/LTA/HTA BL160-SN, BL250-SN
	4	TC250N4P-K	—	
TC-250H	3	TC250H3P	—	BM100-HS BM160/250-HS
TC-400N	3	TC400N3P	—	BM400-CN/SN/HN/RN/UN BM630s-STD/LTD/LTD/HTD/RTD BM630s-STA/LTA/HTA/RTA BMA400-LTA/HTA/RTA BMA400-HTD/RTD/HMF/RMF BMA630s-STD/LTD/HTD/RTD BMA630s-STA/LTA/HTA/RTA BL400-SN/HN/RN/UN
	4	TC400N4P	—	
TC-630N	3	TC630N3P	—	BM630-CN/SN/HN/UN/RN BM800-CN/SN/HN/RN BM630-HE/RE/UE, BM800-SE/HE/RE BMA630-HTD/RTD/HTA/RTA BMA800-HTD/RTD/HTA/RTA BMA630-HED/RED BMA800-HED/RED BL630-HN/RN/UN, BL800-SN/HN/RN
	4	TC630N4P	—	

Motor Operation Device

TYPE	Poles	Model
MT-100N	3P~4P	BM30-SN, BM50-CN, BM60-SN/HN, BM63-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	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 BM630s-STD/LTD/LTD/HTD/RTD/STA/LTA/HTA/RTA BMA630s-STD/LTD/HTD/RTD/STA/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-HTD/RTD/HTA/RTA/HED/RED, BMA800-HTD/RTD/HTA/RTA/HED/RED
MT-250E	3P~4P	BM100-HS, BM160-HS, BM250-HS

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

ACCESSORIES

BM

Series

BL

Series

ACC.

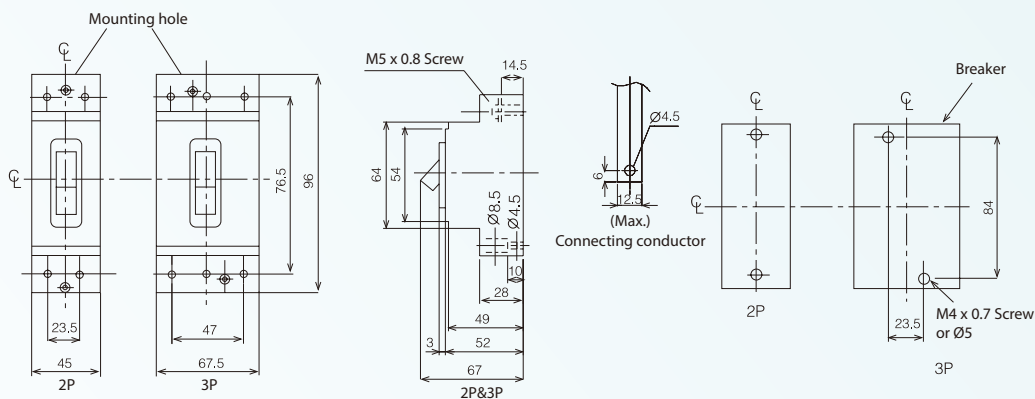
DIM.

Curve.

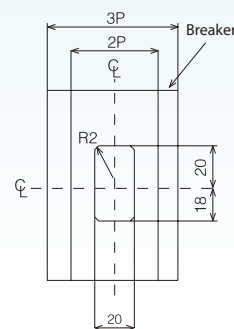
Other

Dimension of circuit breaker

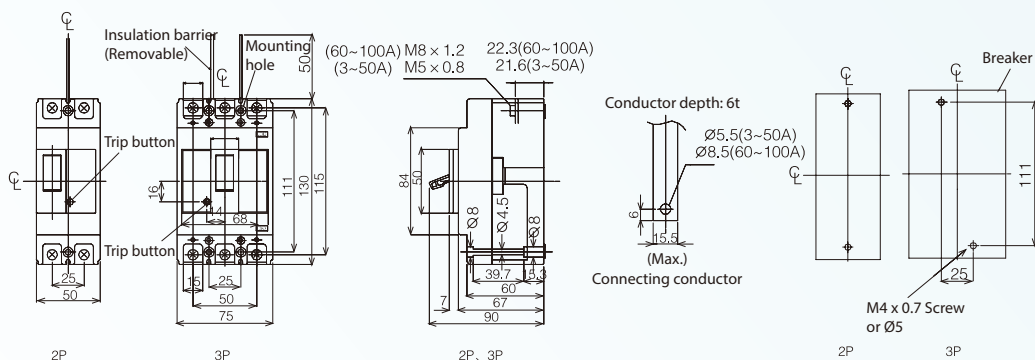
BM30-CN



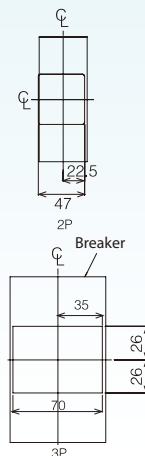
Panel cut



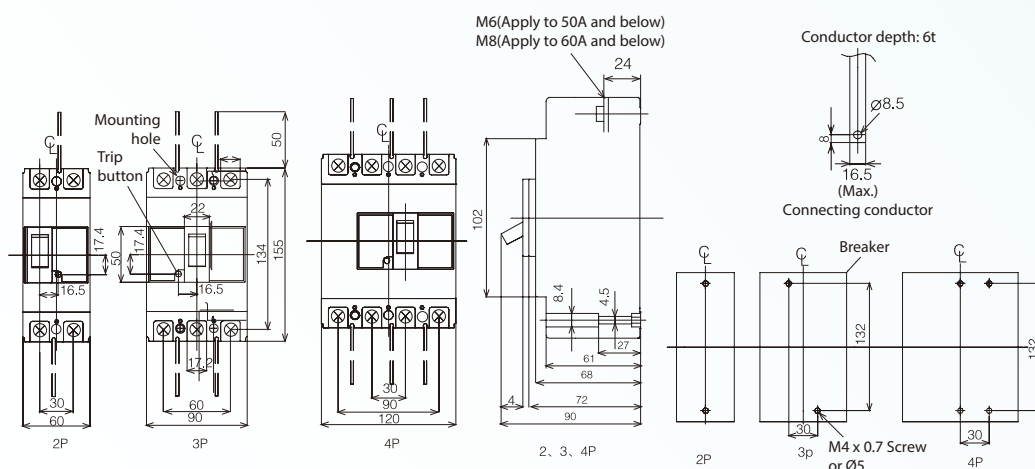
BM30-SN, BM50-CN, 60-SN/HN, 63-SN/HN, 100-SN



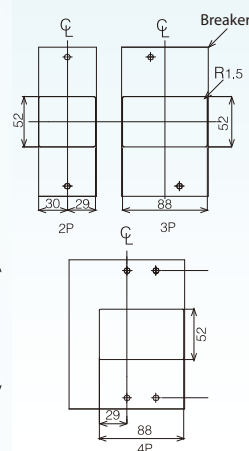
Panel cut



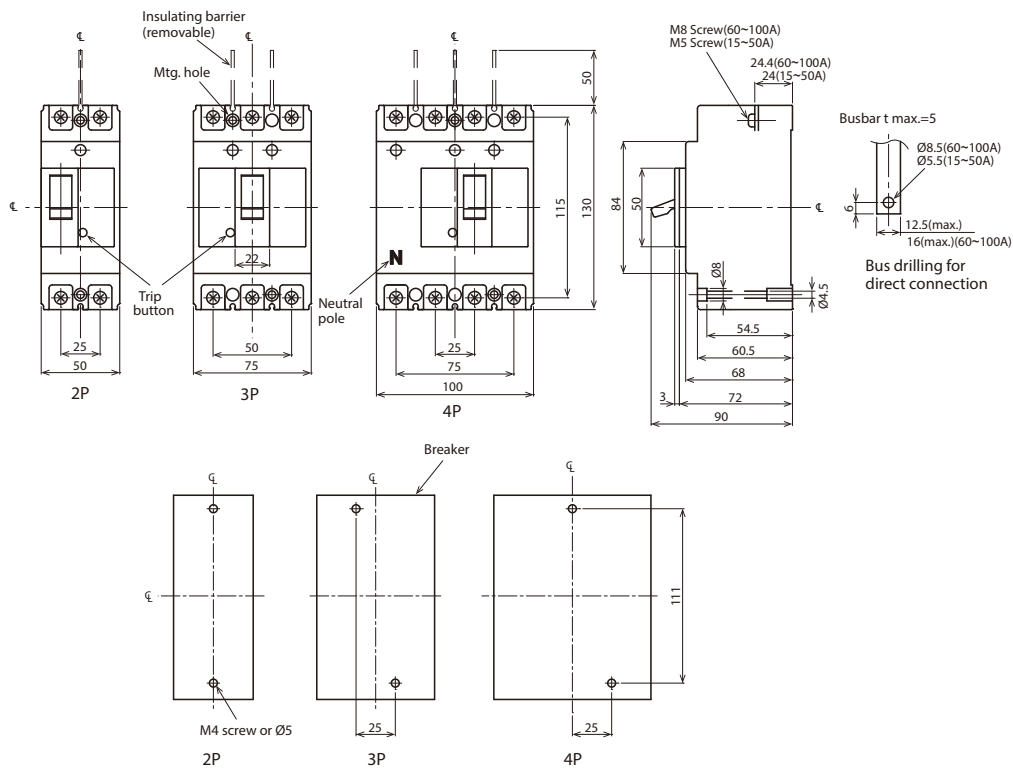
BM60-HBN, BM100-HN, BM125-SN/HN



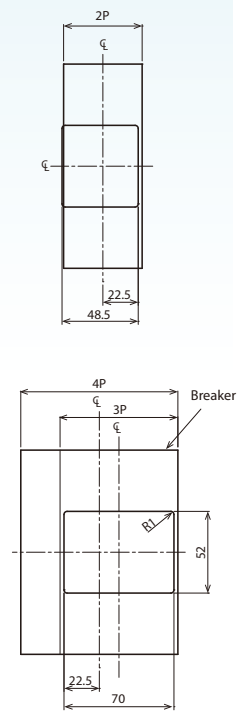
Panel cut



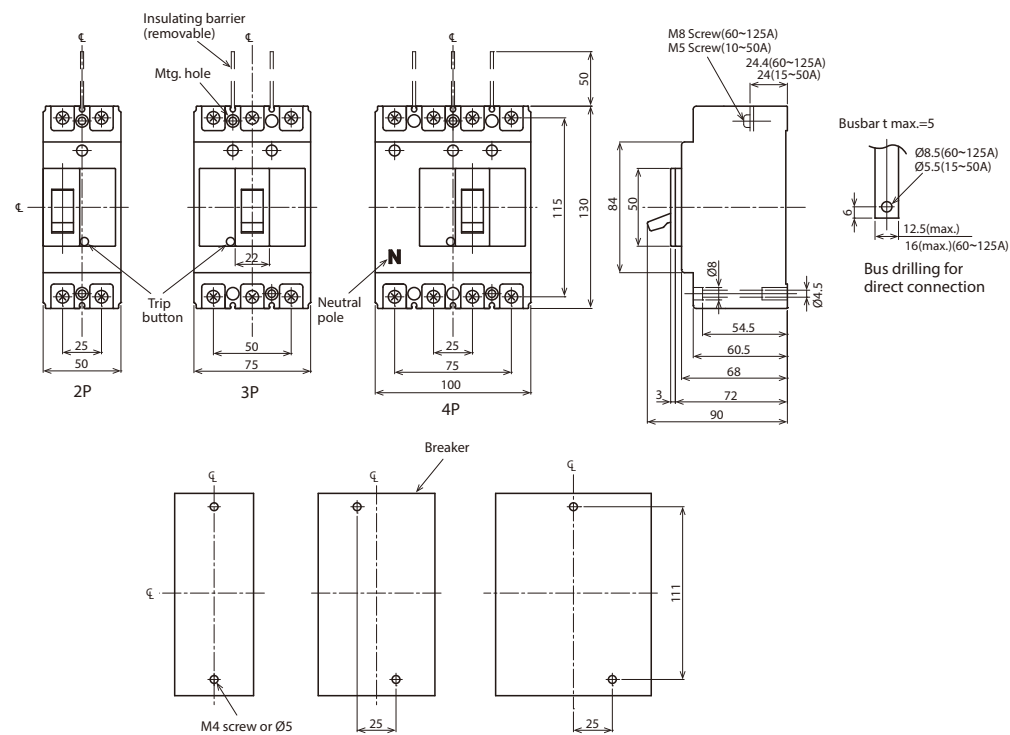
BM100-BTD/STD



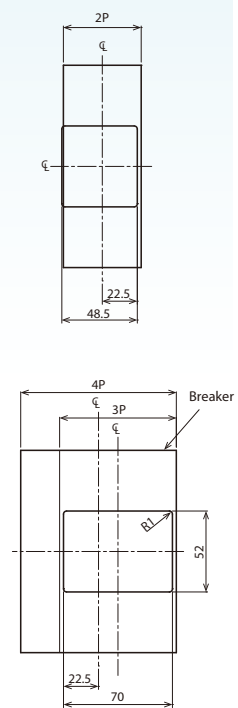
Panel cut



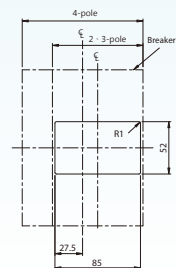
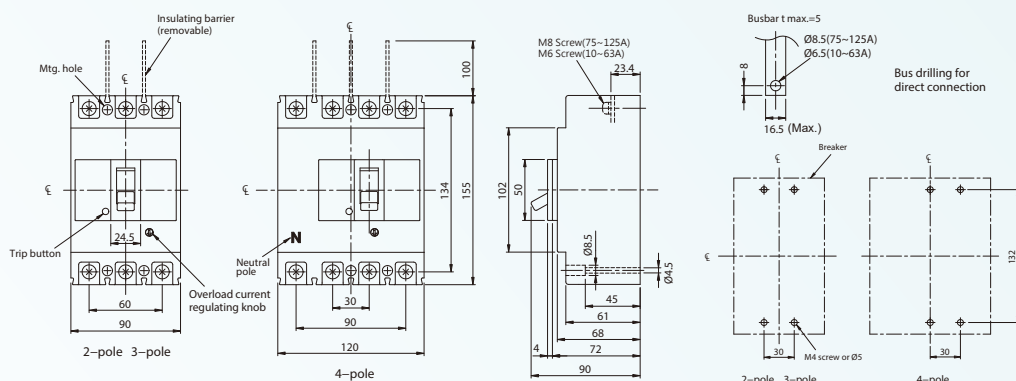
BM100-LTD, BM125-LTD



Panel cut

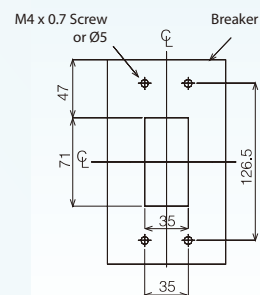
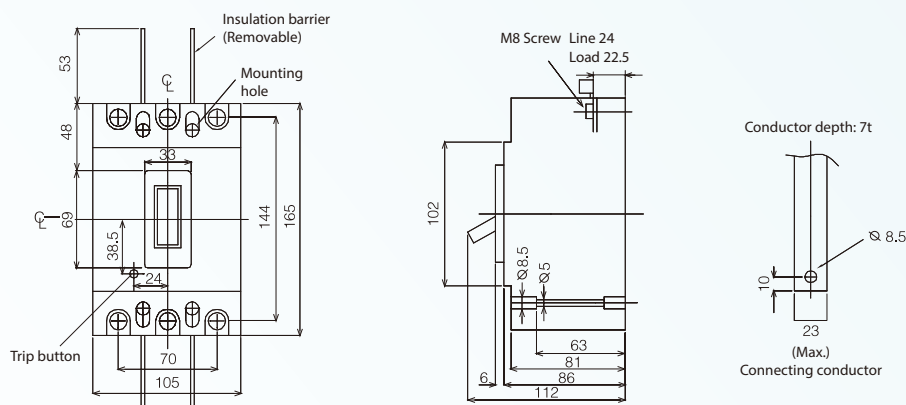


BM125-HTA/RTA



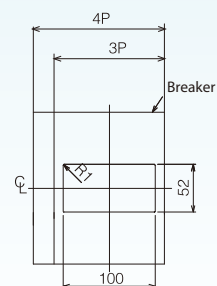
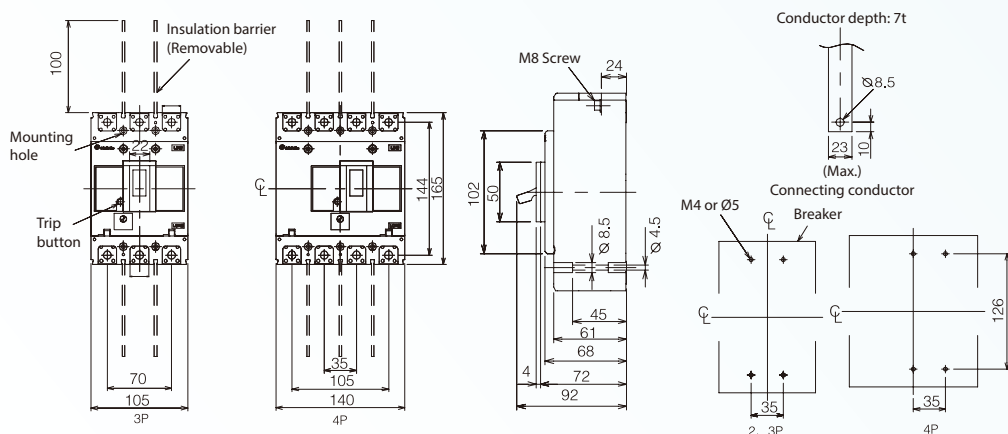
Panel cut

BM100-HS, BM160-HS, BM250-HS



Panel cut

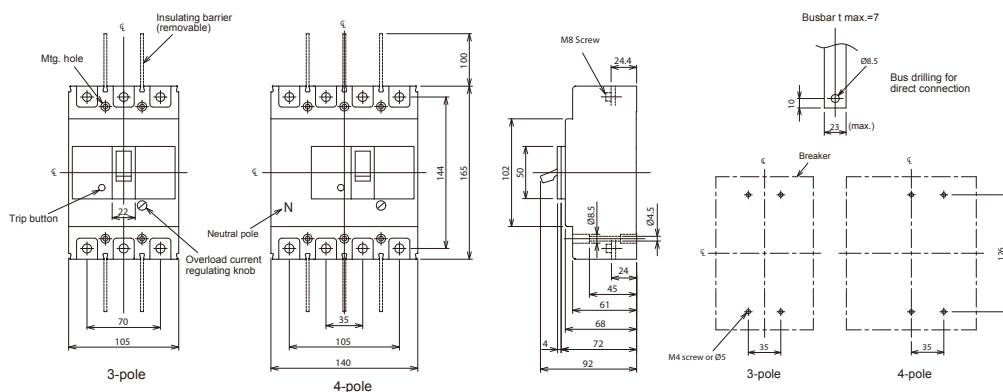
BM160-SN/HN, BM250-SN/HN



Panel cut

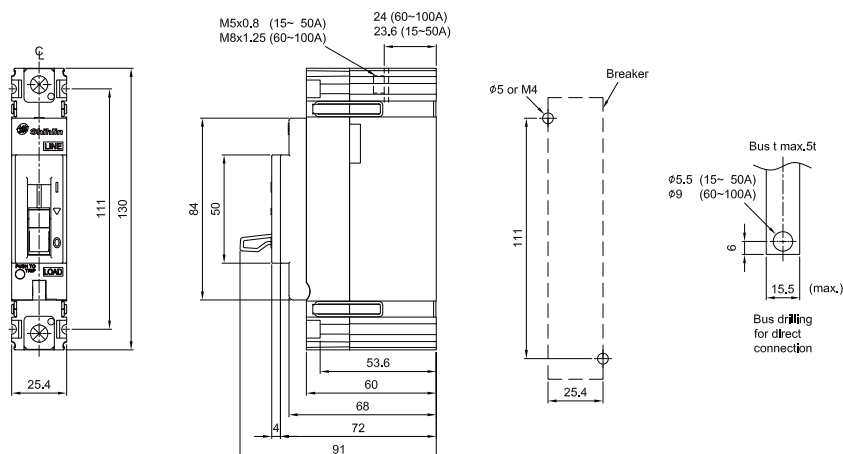
Dimension of circuit breaker

BM160/250-HTA/RTA



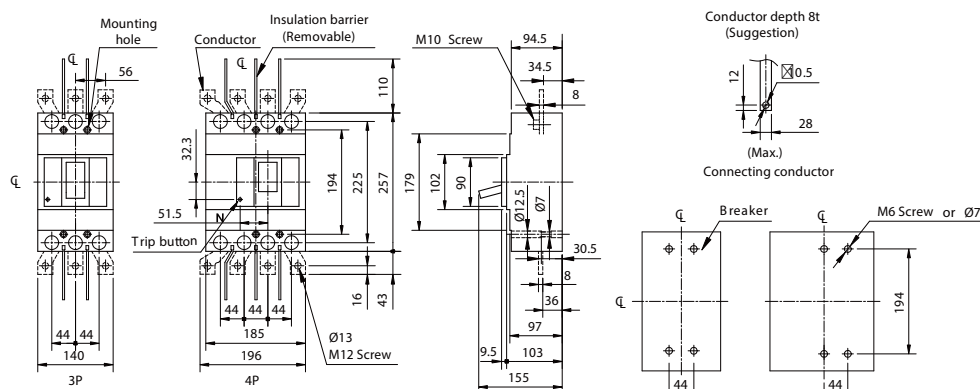
Panel cut

BM100-FTD



Panel cut

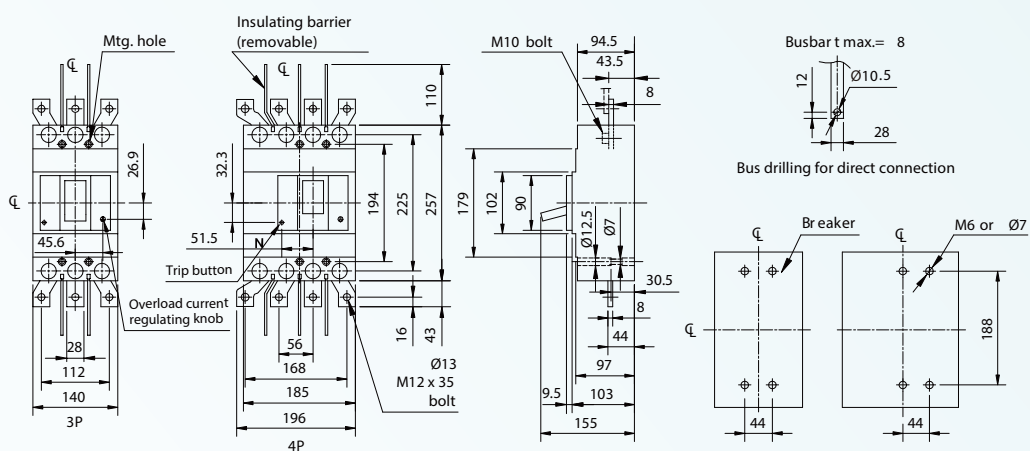
BM400-SN/HN/RN/UN



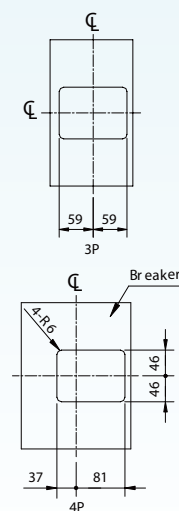
Nameplate Panel cut

Handle Panel cut

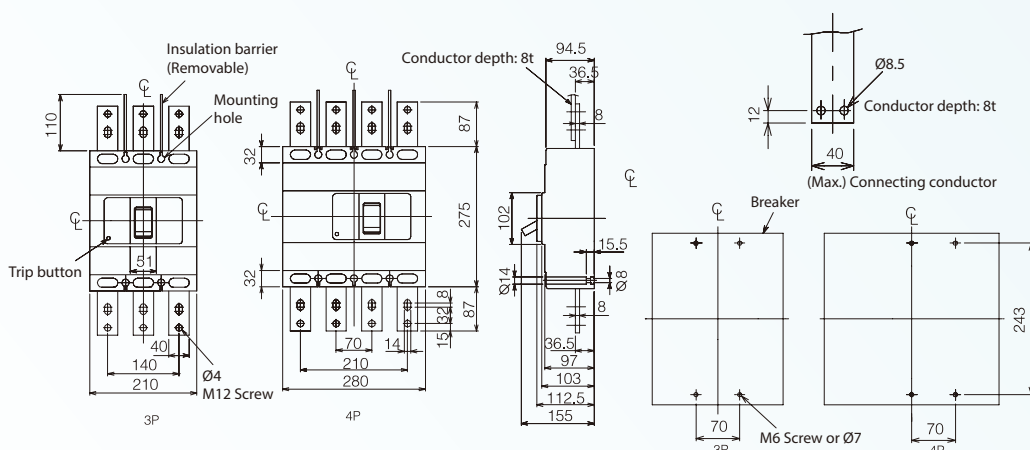
BM630s-STD/LTD/HTD/RTD/STA/LTA/HTA/RTA



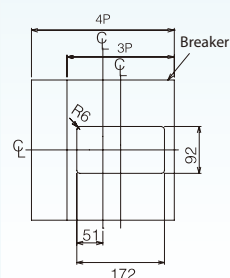
Panel cut



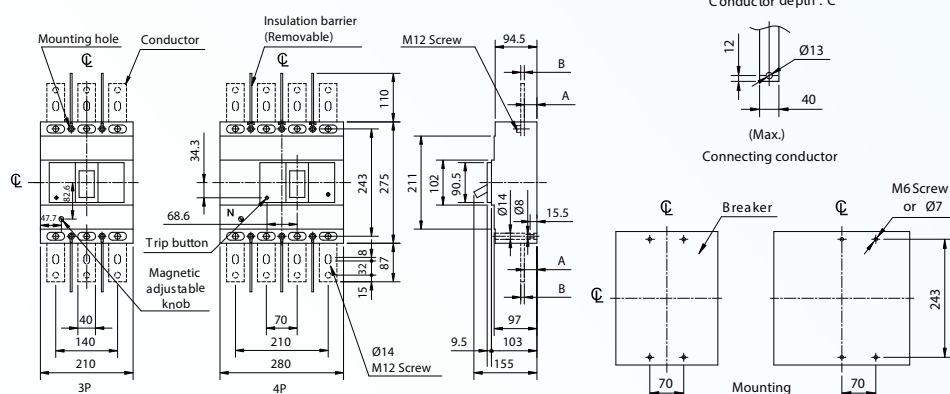
BM630-SN/HN/RN/UN



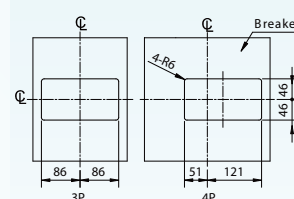
Panel cut



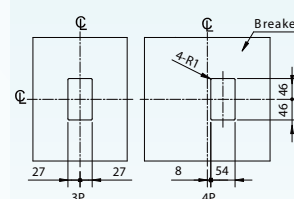
BM800-CN/SN/HN/RN



Nameplate Panel cut

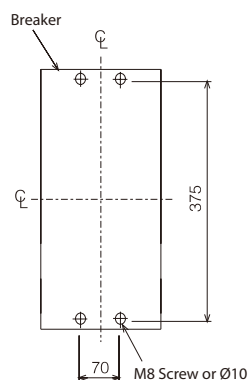


Handle Panel cut

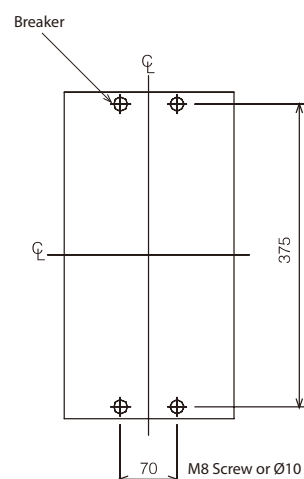


Model	A-value	B-value	C-value
BM630-AF	28.5	8	8
BM800-AF	28.5	10	10

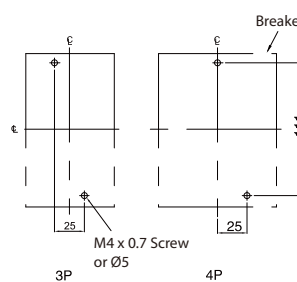
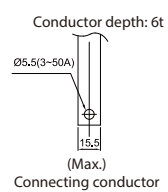
BM1000-HS, BM1200-HS



Technical drawing of a mechanical part, labeled "Breaker". The drawing shows a cross-section of a component with a central vertical slot. The width of the slot is 80. The height of the slot is 97. The radius of the inner corner is R11.5. The drawing is labeled "Breaker" with an arrow pointing to the top right corner.

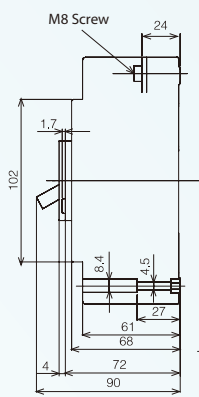
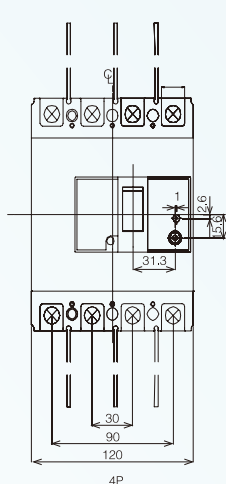
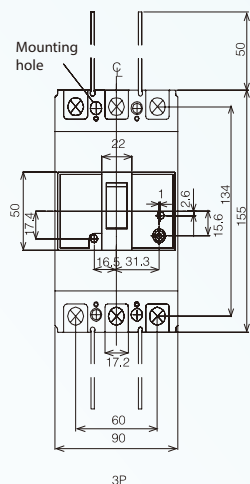
[illegible]

Technical drawing of a mechanical part, likely a bracket or support. The drawing shows a cross-section with a central rectangular hole. Dimensions are indicated: a vertical dimension of 80 on the left, a horizontal dimension of 96 on the right, and a radius of R11.5 for the inner corner. A break symbol (two parallel lines) is shown on the right side, indicating that the part is longer than shown. The word "Breaker" is written near the break symbol.

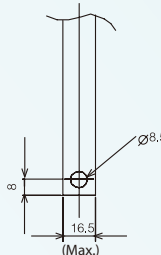


The schematic diagram illustrates the test system. It features a power source at the top, connected to a circuit containing a component labeled '4P' and '3P'. A 'Breaker' is indicated by a diagonal line. Below this, a transformer is shown with a primary winding connected to the circuit and a secondary winding labeled '22.5/70'.

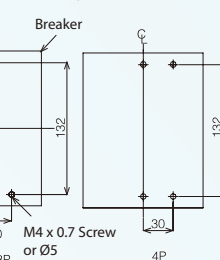
BL100-SN/HN



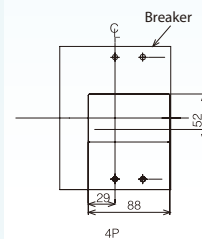
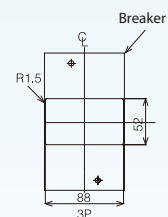
Conductor depth: 6t



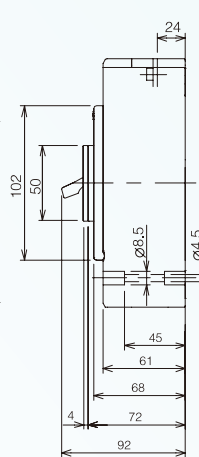
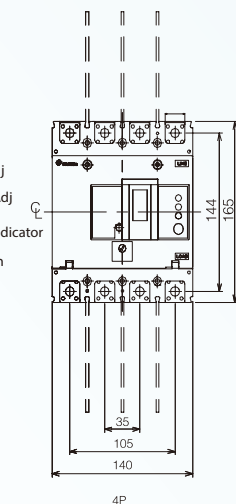
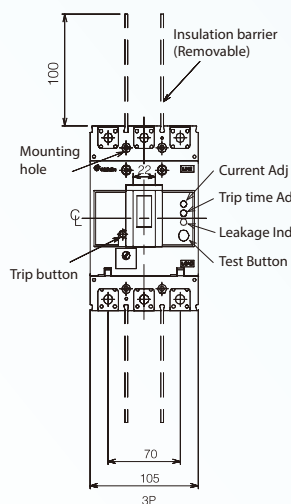
Connecting conductor



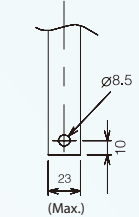
Panel cut



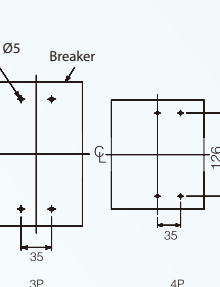
BL160-SN, BL250-SN



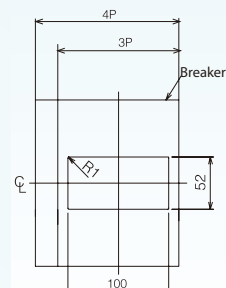
Conductor depth: 7t



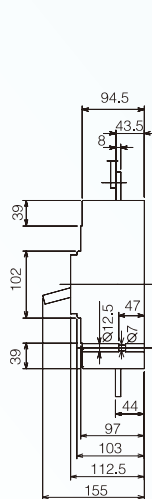
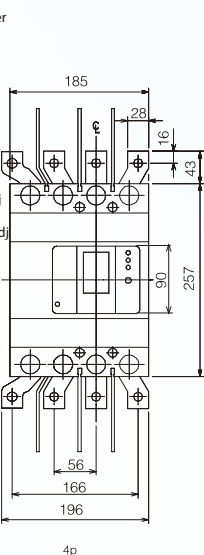
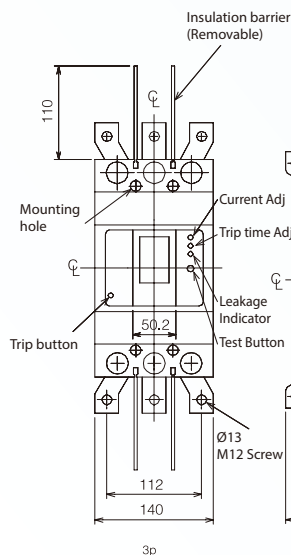
Connecting conductor



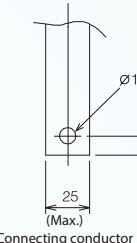
Panel cut



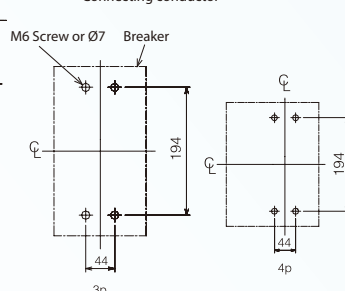
BL400-SN/HN/RN/UN



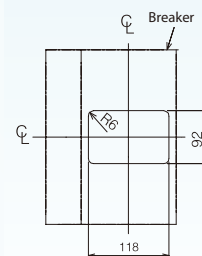
Conductor depth: 8t



Connecting conductor

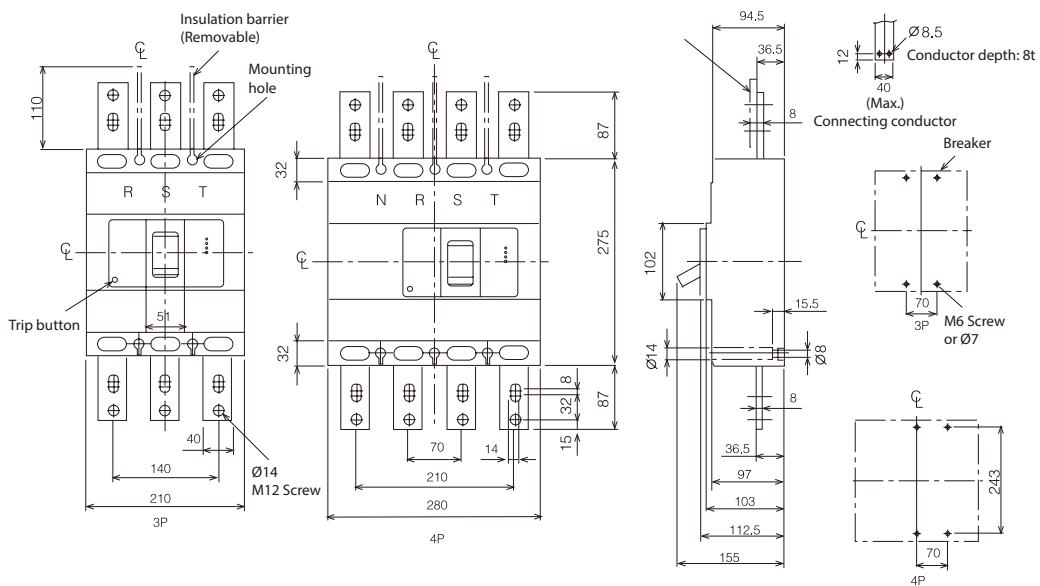


Panel cut

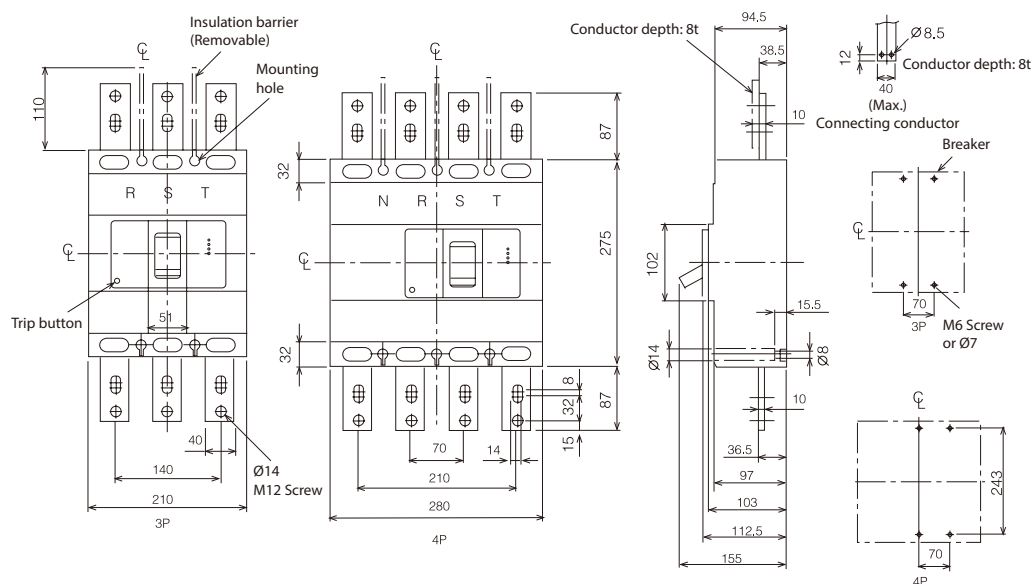


Dimension of circuit breaker

BL630-HN/RN/UN

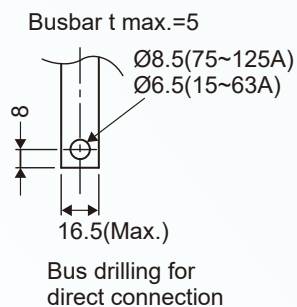
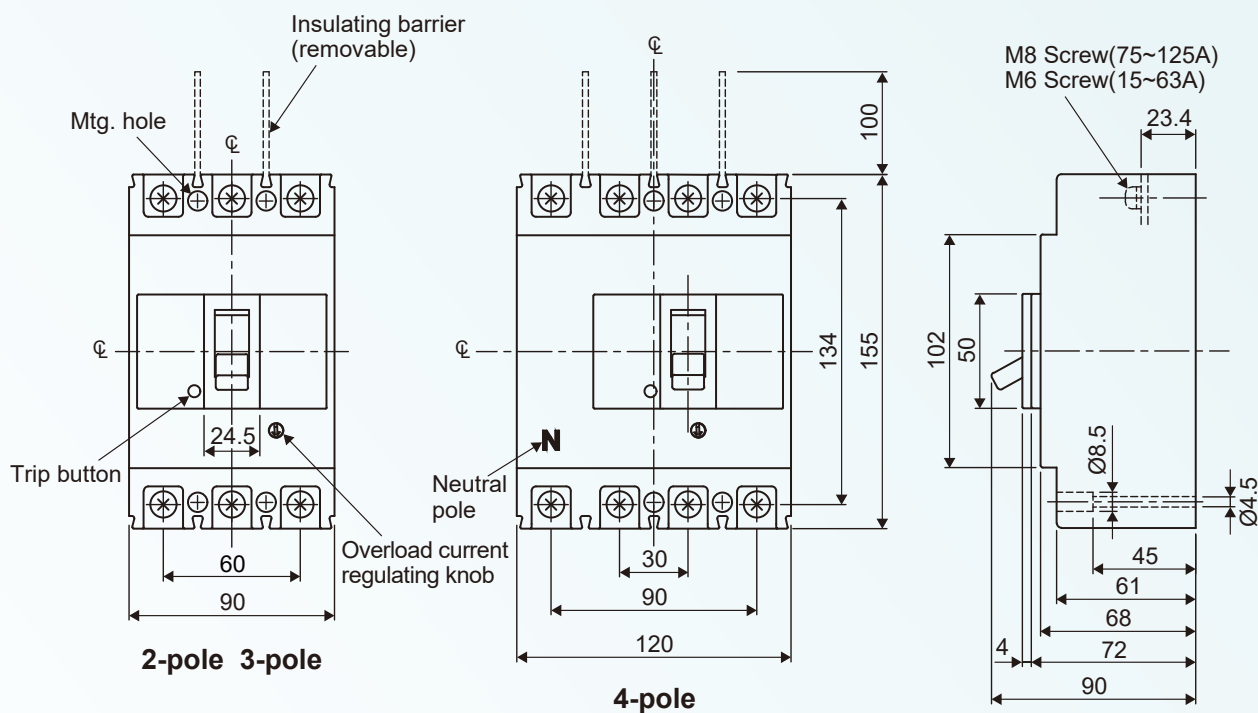


BL800-SN/HN/RN

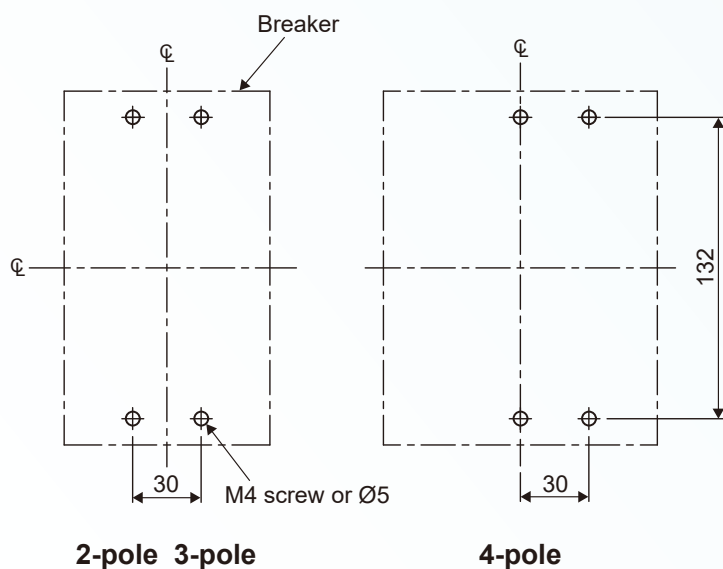


Dimension of circuit breaker

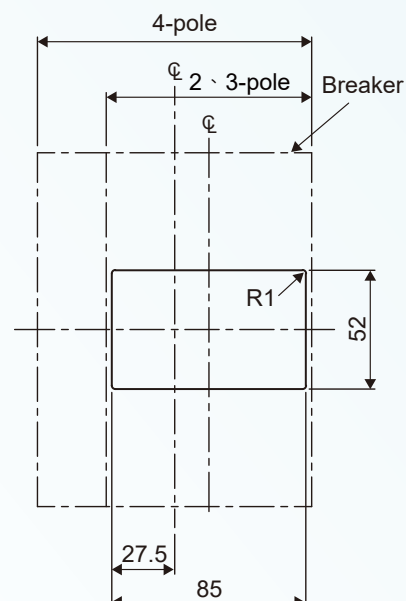
BMA125-STA/LTA/HTA

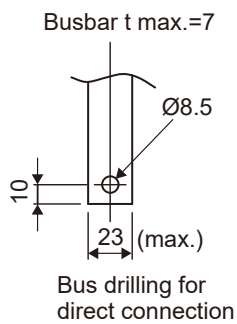
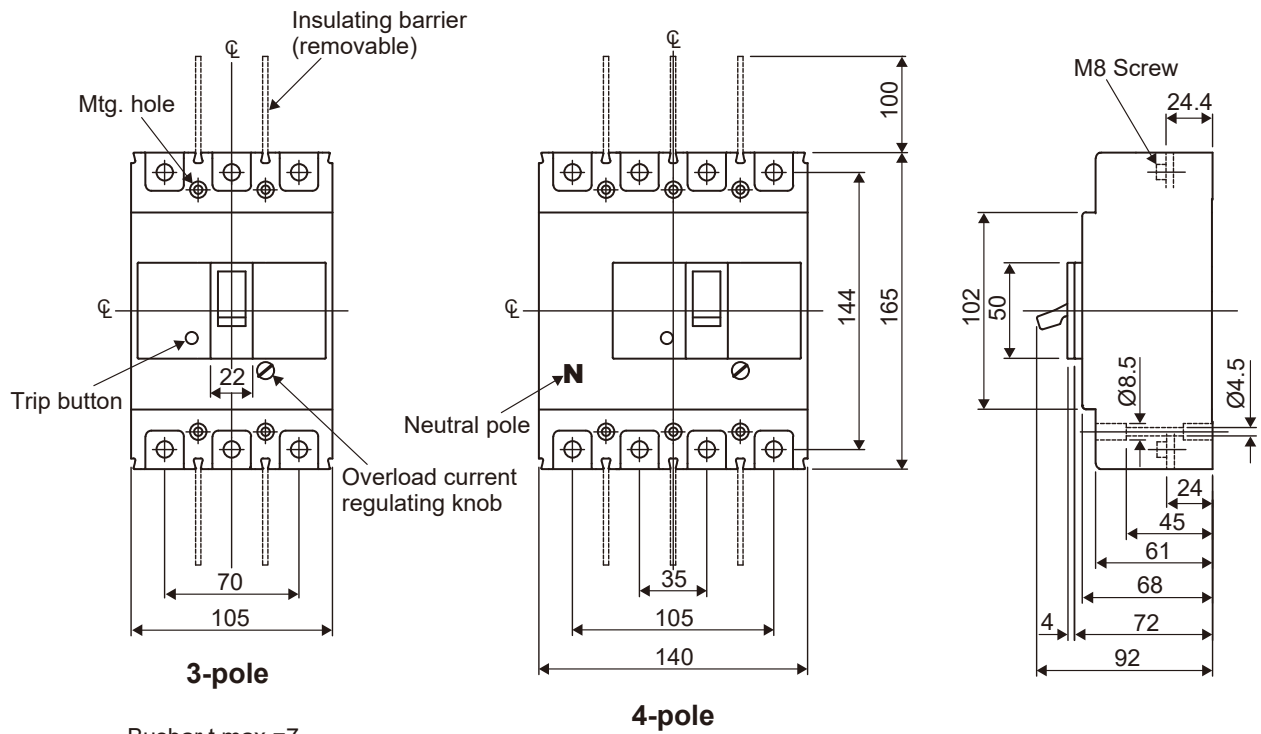


Mounting

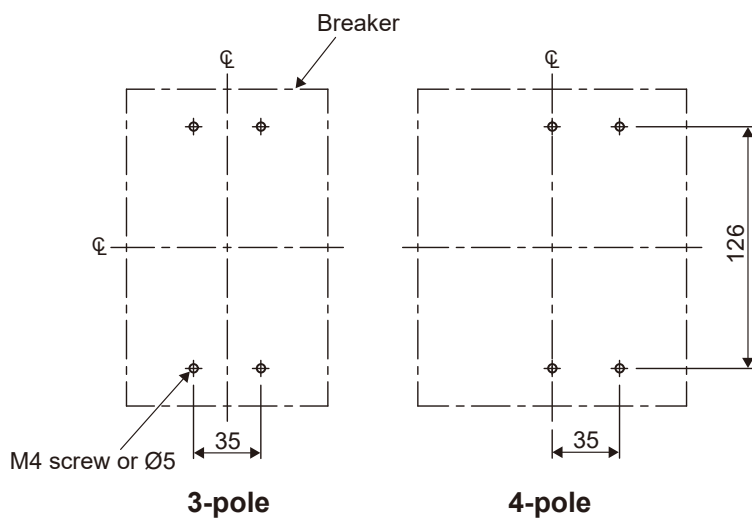


Panel cut

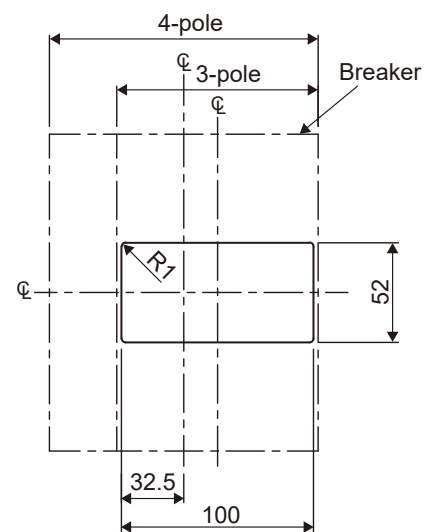




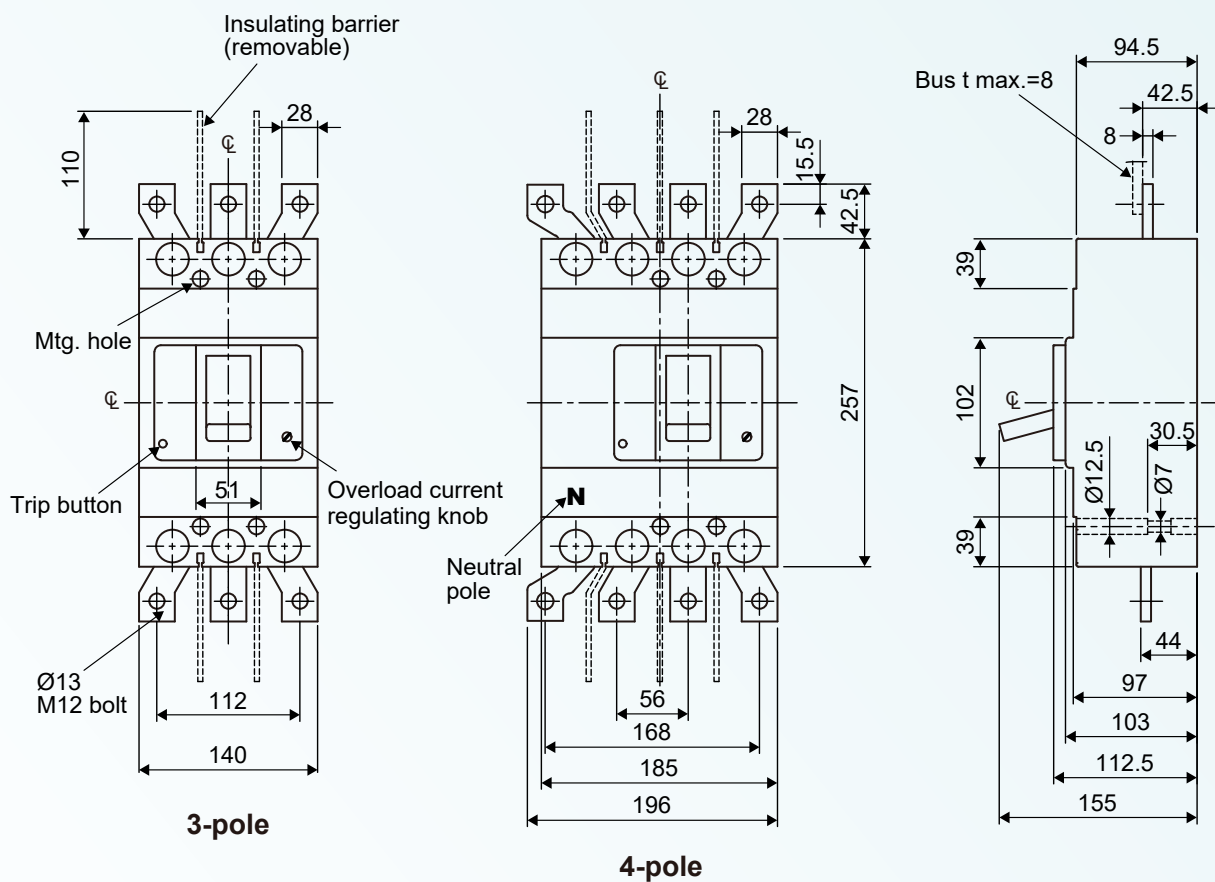
Mounting



Panel cut

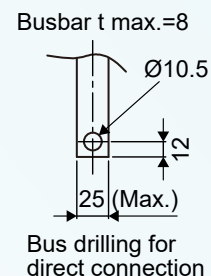
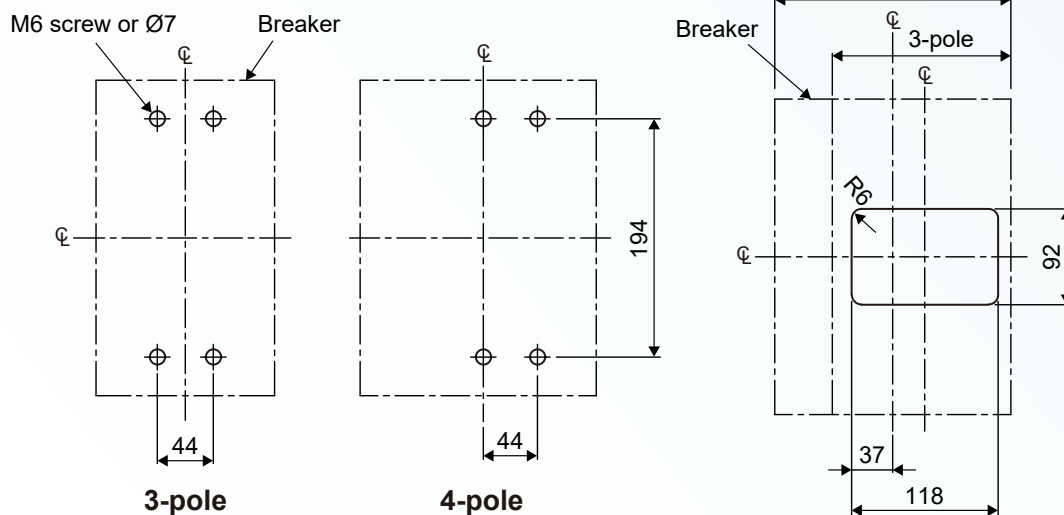


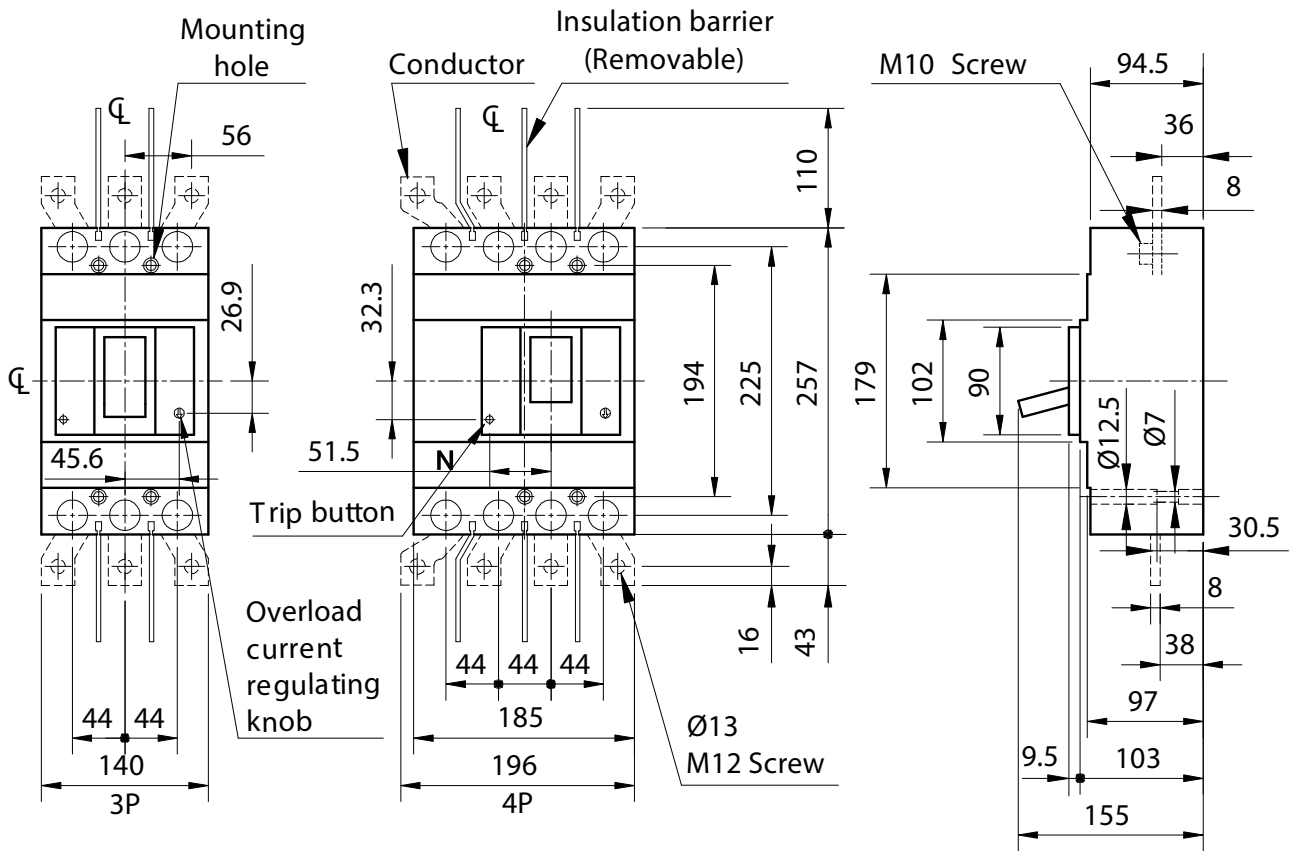
BMA400-LTA/HTA/RTA



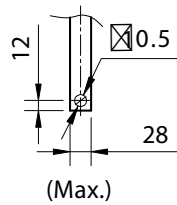
Mounting

Panel cut

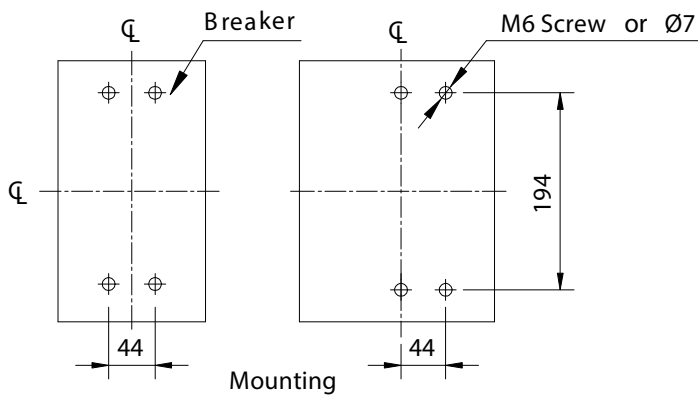




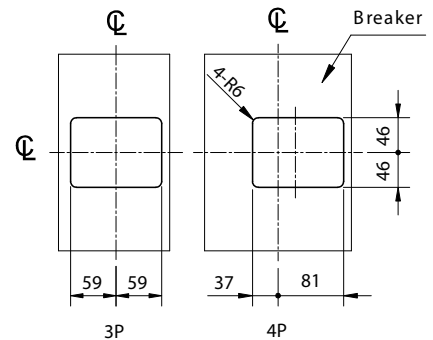
Conductor depth 8t
(Suggestion)



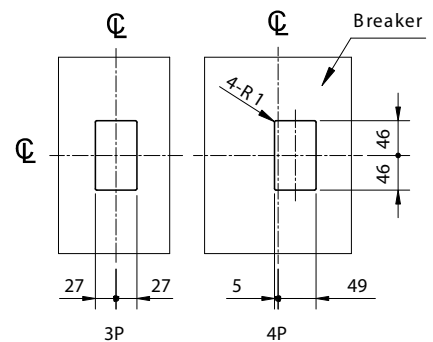
Connecting conductor



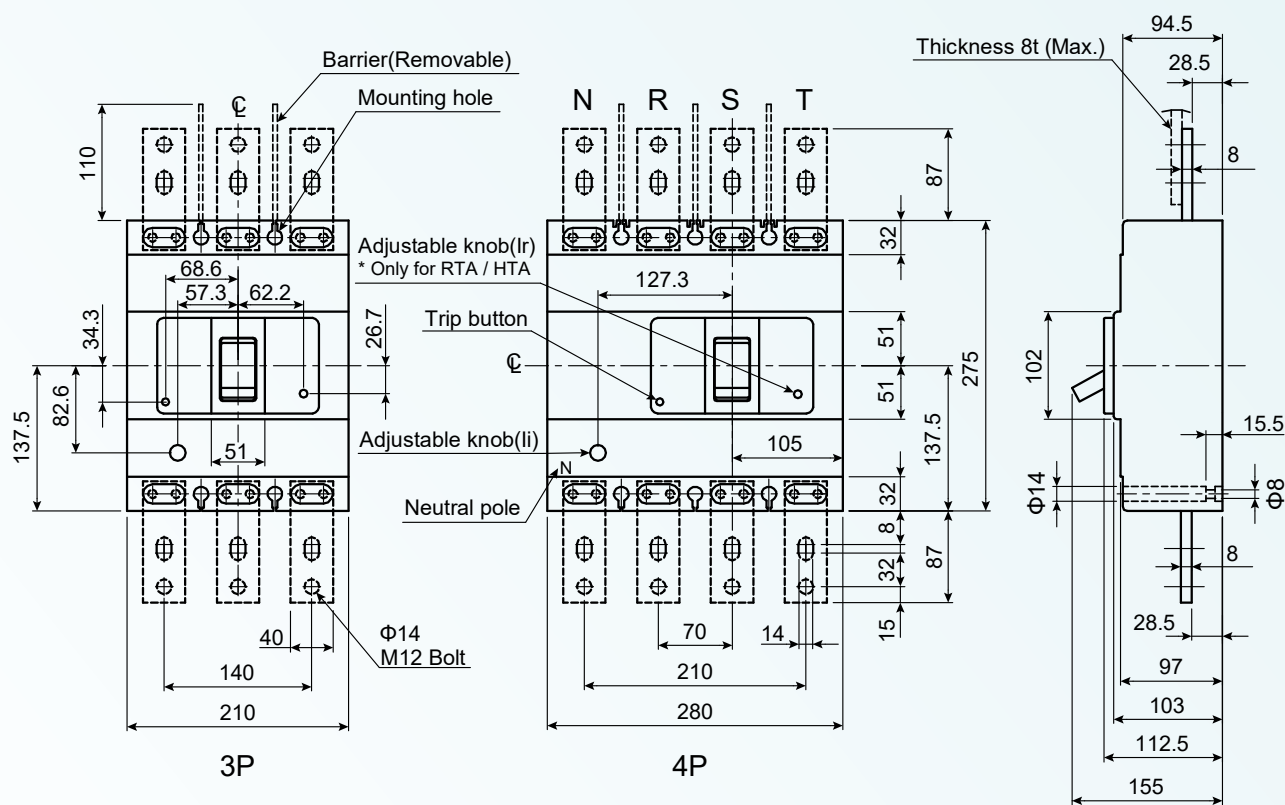
Nameplate Panel Cut



Handle Panel Cut



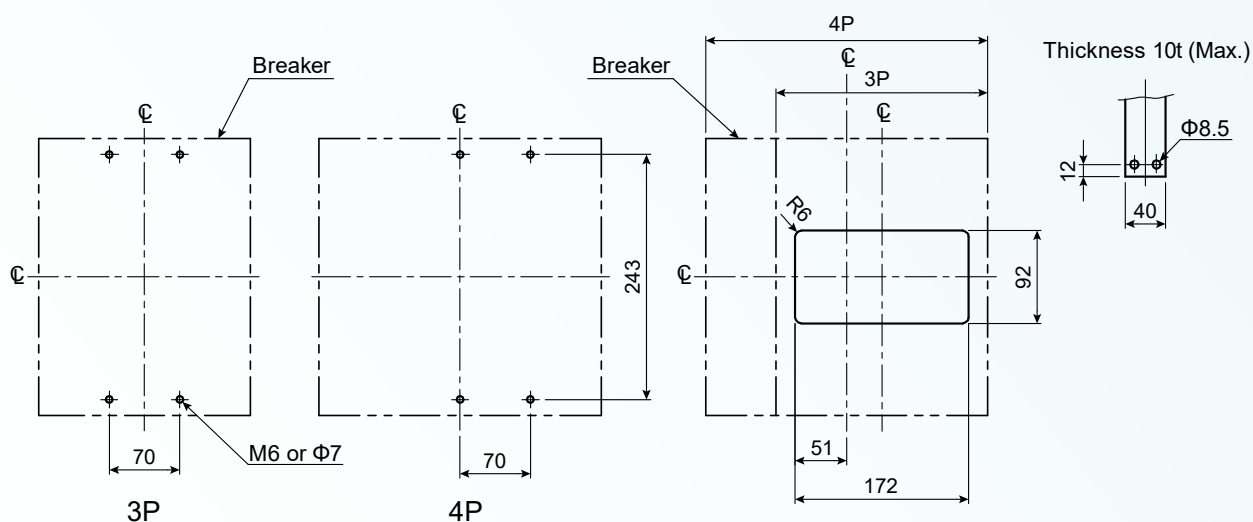
BMA630-HTA/RTA, BMA800-HTA/RTA

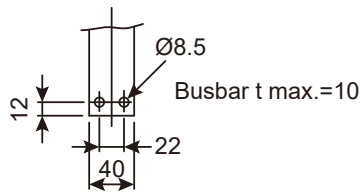
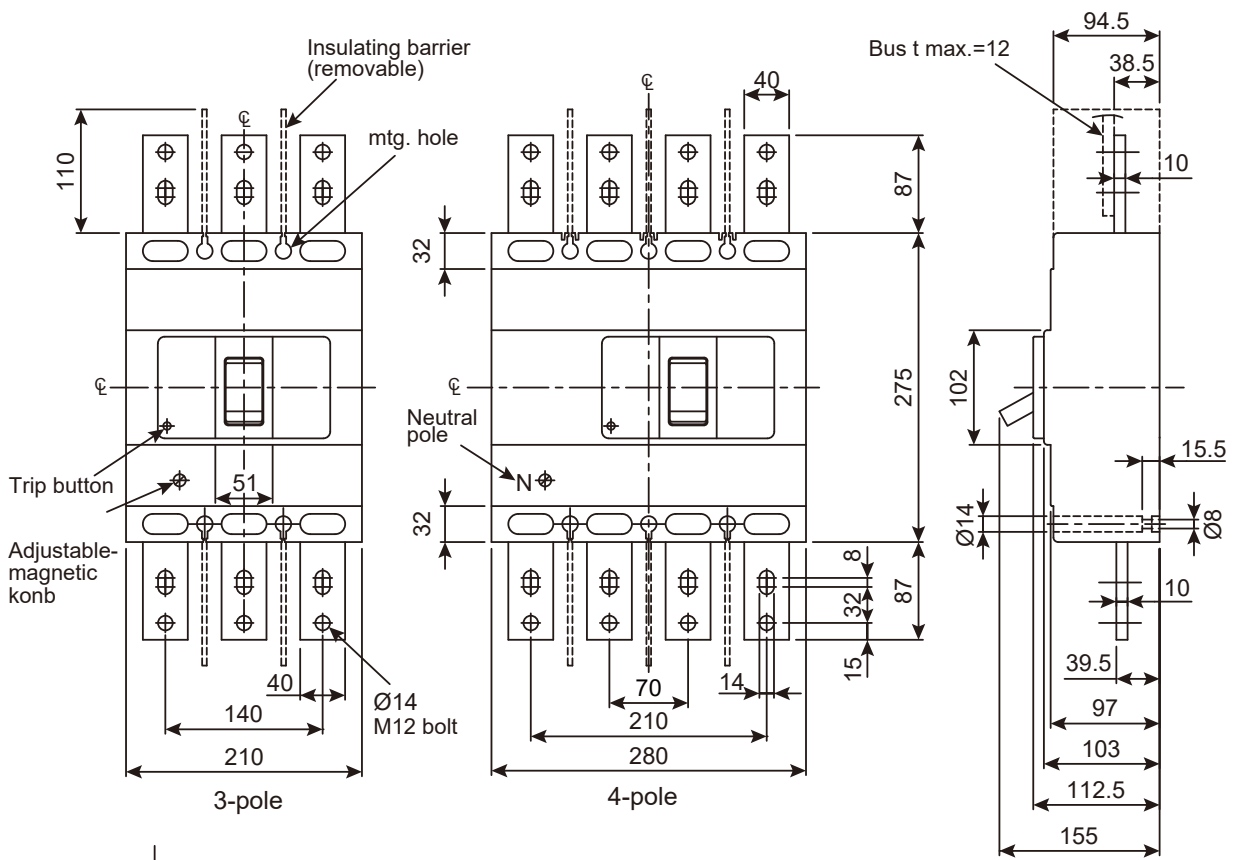


Mounting

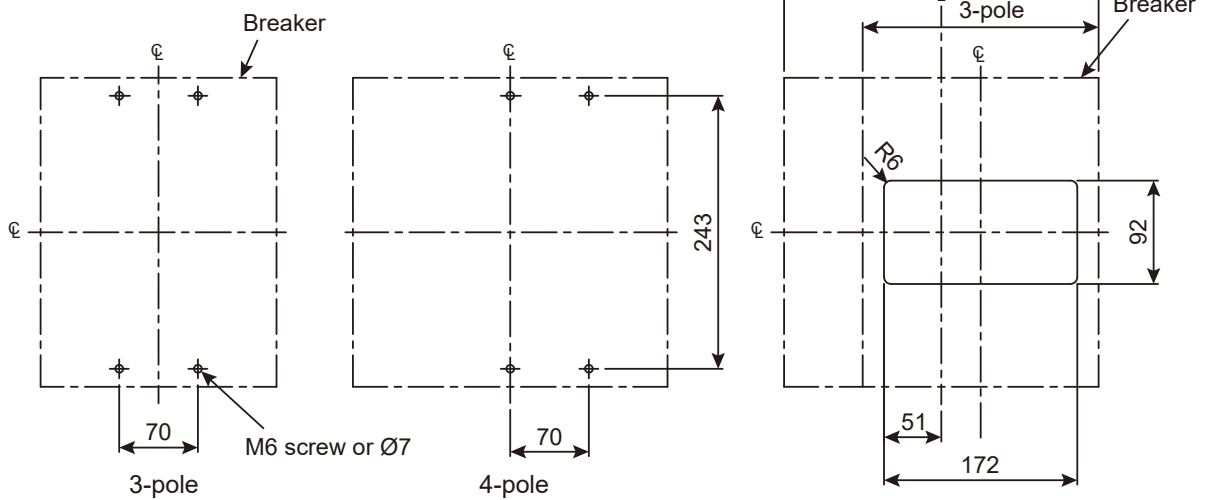
Panel cut

Conductor

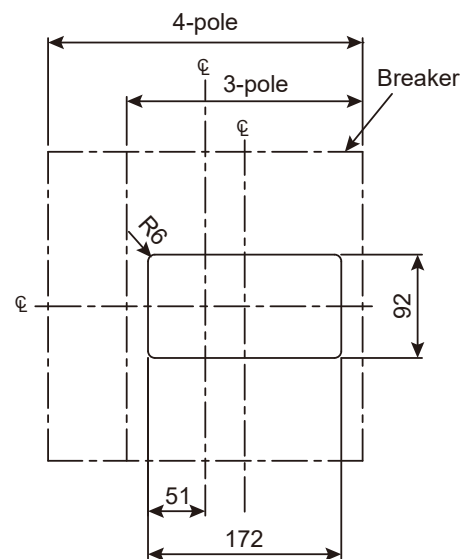




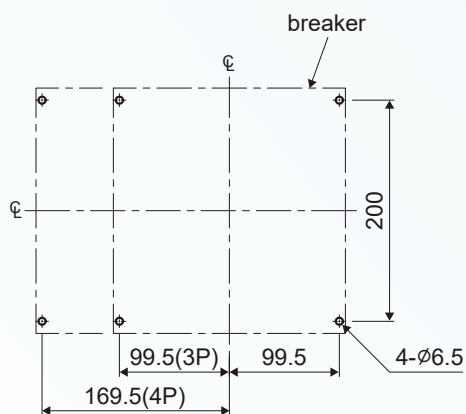
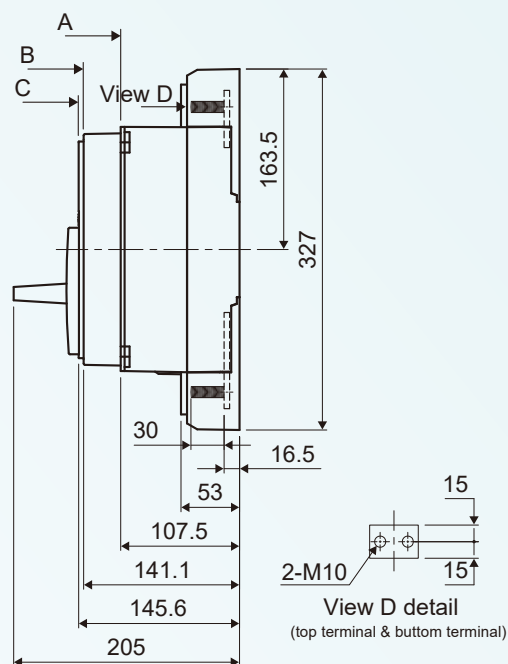
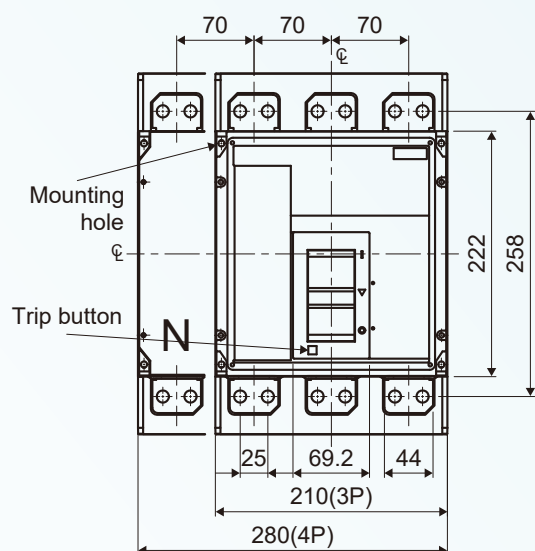
Mounting



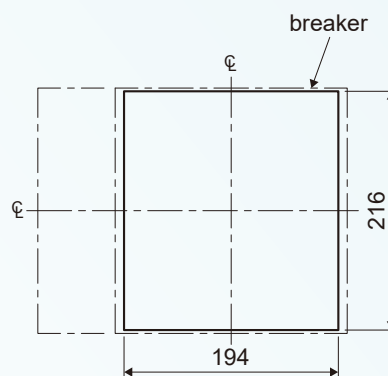
Panel Cut



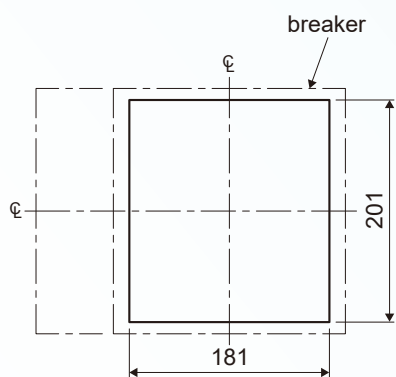
BMA1000-HED/RED, BMA1250-HED/RED, BMA1600-HED/RED



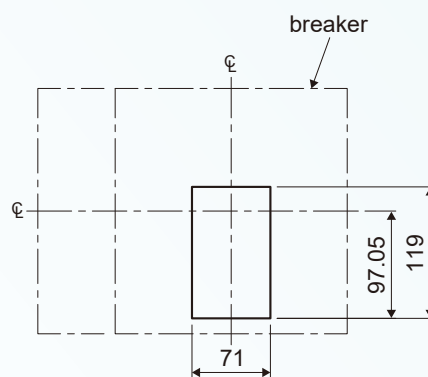
Panel drilling



Panel dimension: A



Panel dimension: B



Panel dimension: C

Optional Accessories | Dimensions

Rotary Handle

Type	Poles	fig.1				fig.2			fig.3		
		A	B	C	D	E	F	G	H	J	K
EH-100N	3P, 4P	104	105	39	44	90	78	10	25	111	M4 or $\phi 5$
EH-100T	3P, 4P	104	105	39	44	90	78	10	25	111	
EH-100L	3P, 4P	104	105	39	44	90	78	10	35	126	
EH-125N	3P, 4P	104	105	39	44	90	78	10	30	132	
EH-250N	3P, 4P	104	105	39	44	90	78	10	35	126	
EH-250H	3P, 4P	104	125	39	44	90	78	10	35	126.5	
EH-400N	3P, 4P	150	173	60	77	108	112	10	44	194	
EH-800N	3P, 4P	150	173	60	77	108	112	10	70	243	

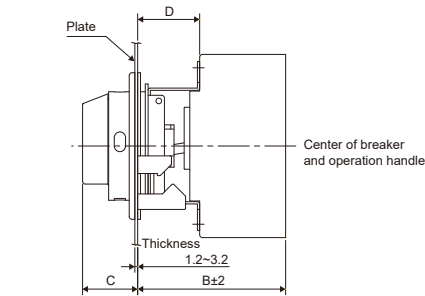
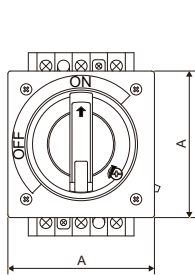
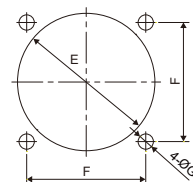
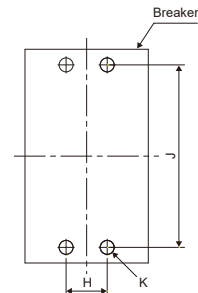


Fig. 1



Panel Dimension
Fig. 2

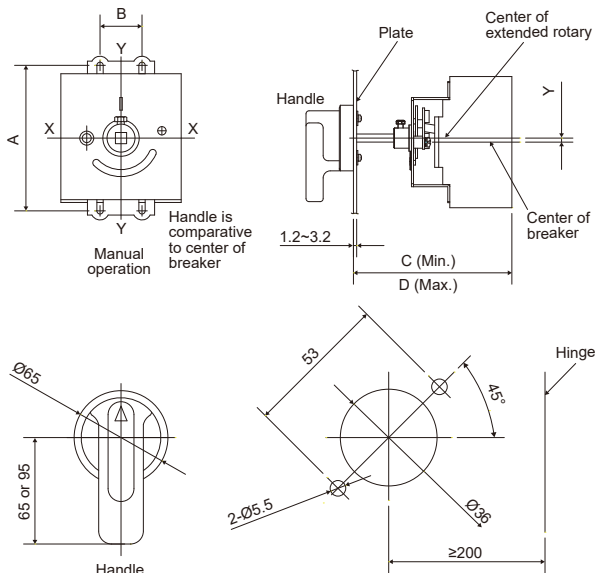


Breaker Dimension
Fig. 3

Note: 1. Optional for dust and water protection.

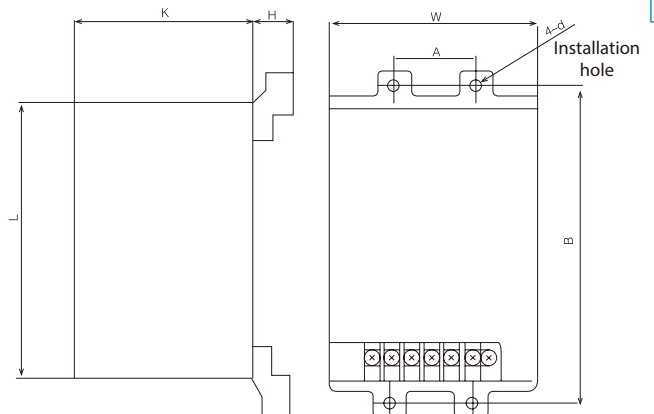
Extended Rotary Handle

Type	Dimensions (mm)					Screw
	A	B	C	D	Y	
MA-100N	111	25	125	229	+8	M4x80
MA-100T	111	25	125	229	0	M4x75
MA-100L	111	25	125	229	0	M4x75
MA-125N	114	30	125	229	+8	M4x80
MA-250N	126	35	125	229	0	ST3x10
MA-250H	126	35	143	247	0	M4x50
MA-400N	221	44	190	290	+10	M5x50
MA-800N	242	70	190	290	+10	M6x125 & M6x12



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	35	126	$\phi 4.5$	15	77	116	90
MT-250E	35	143.5	$\phi 4.5$	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



DIMENSION

BM

Series

BL

Series

ACC.

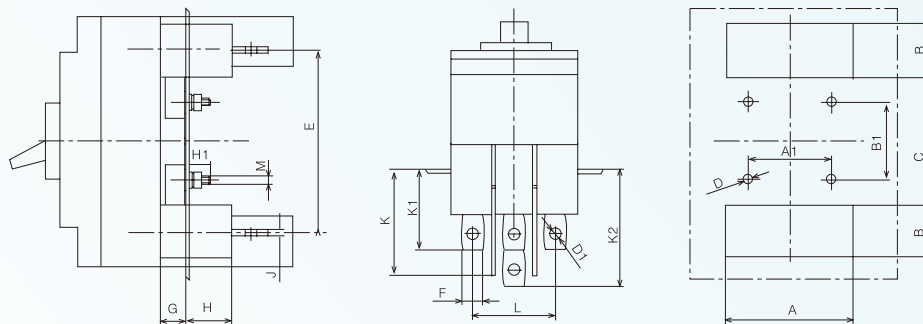
DIM.

Curve.

Other

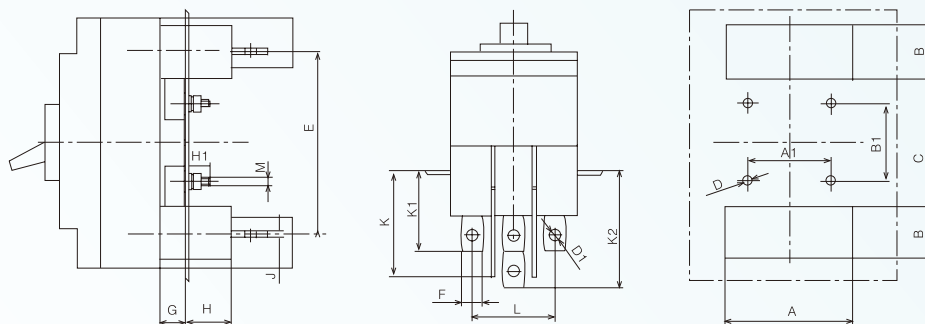
Rear Connection

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			



Rear Connection

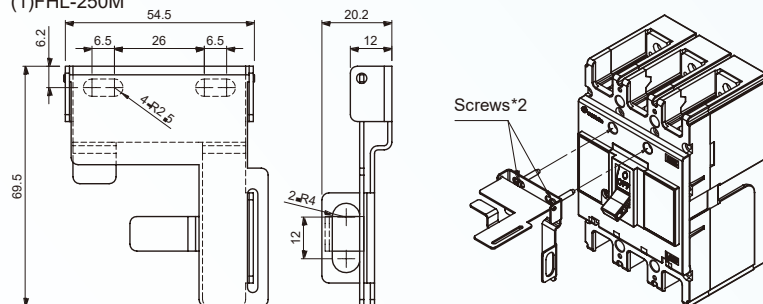
Type	Poles	Dimensions (mm)																	Connect Direction		
		A	A1	B	B1	C	D	D1	E	F	G	H	H1	J	K	K1	K2	L	M	Horizontal	Vertical
PGI-BM250	3	107	70	38	76	106	ø6	ø10	144	25	13	34	15	6	/	79	134	70	M5		



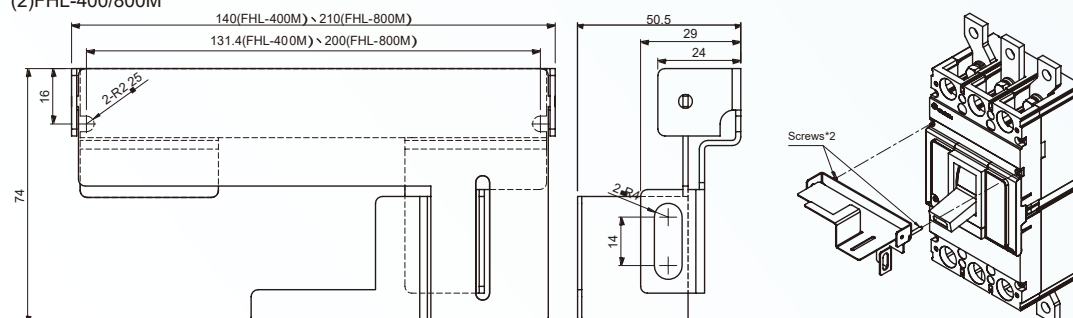
Locking Device

Dimensions

(1)FHL-250M

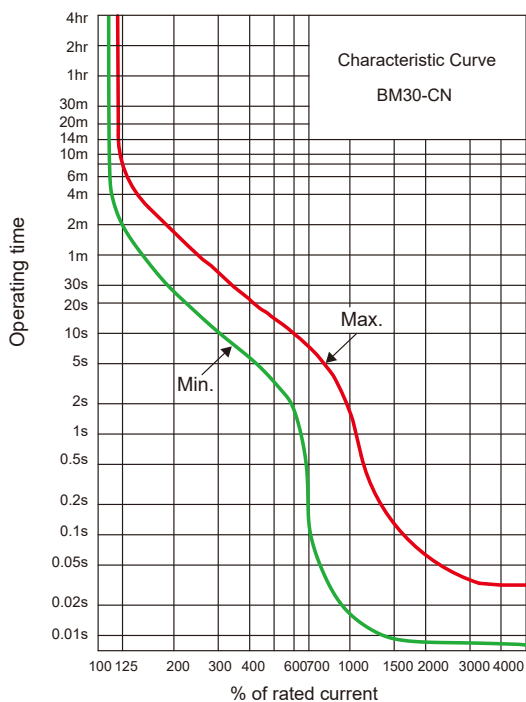


(2)FHL-400/800M

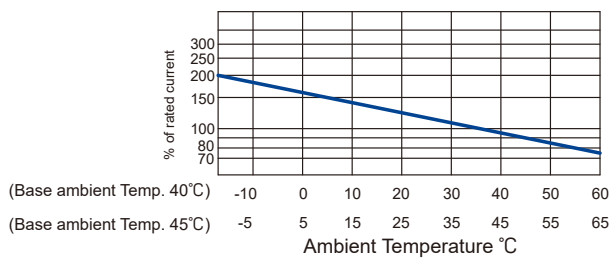


Tripping Characteristic Curve

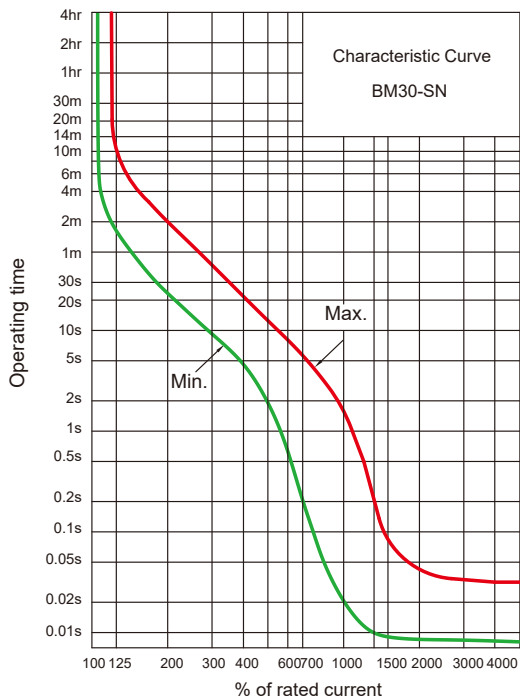
BM30-CN



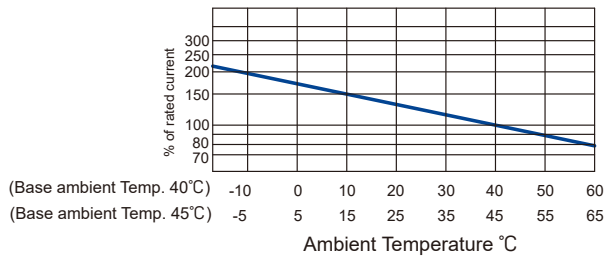
Compensation Curve



BM30-SN

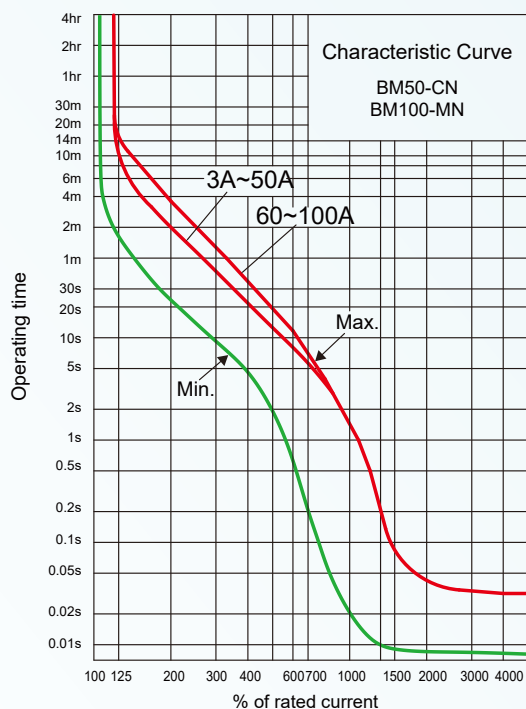


Compensation Curve

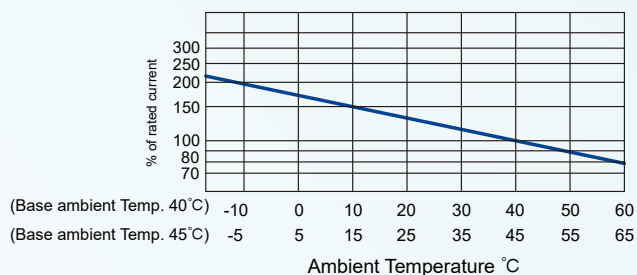


Tripping Characteristic Curve

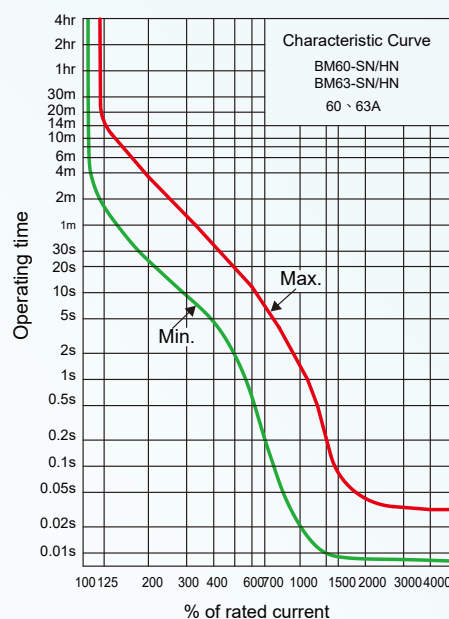
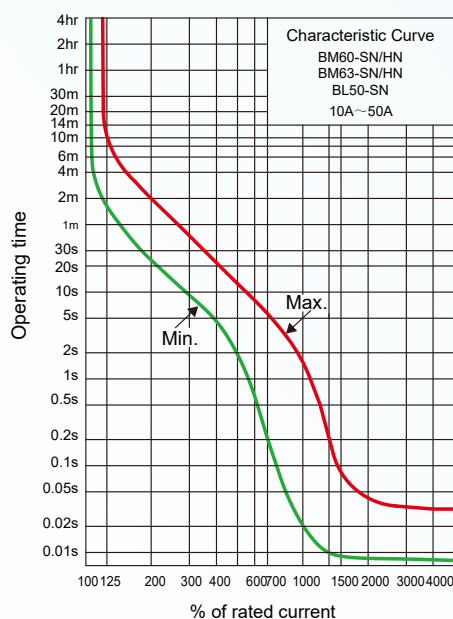
BM50-CN BM100-MN



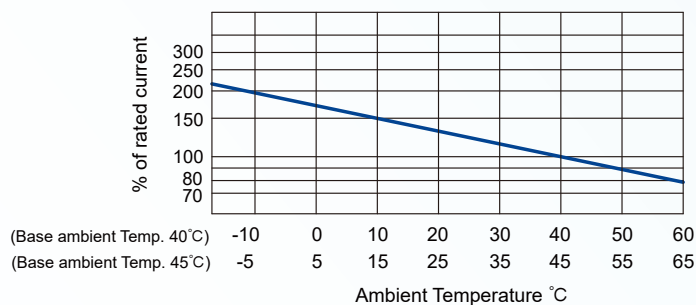
Compensation Curve



BM60-SN、BM60-HN、BM63-SN、BM63-HN、BL50-SN

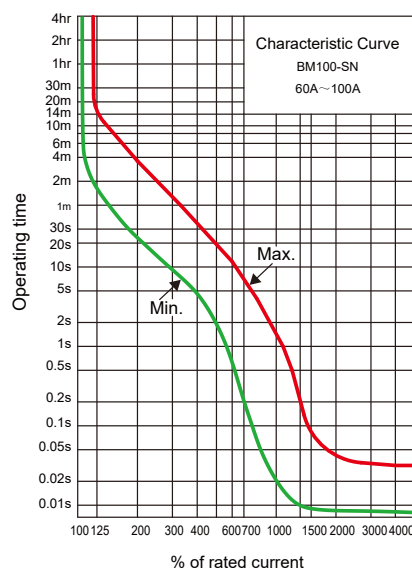
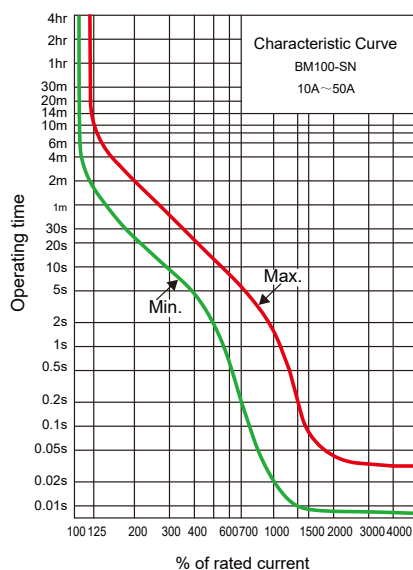


Compensation Curve

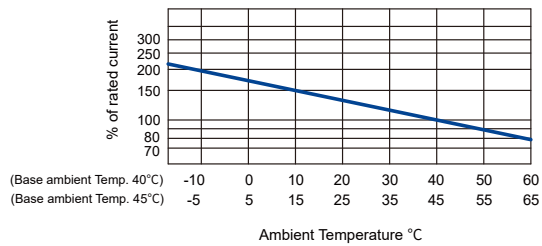


Tripping Characteristic Curve

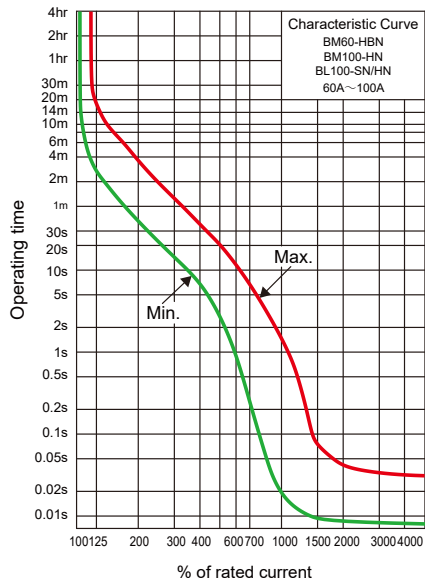
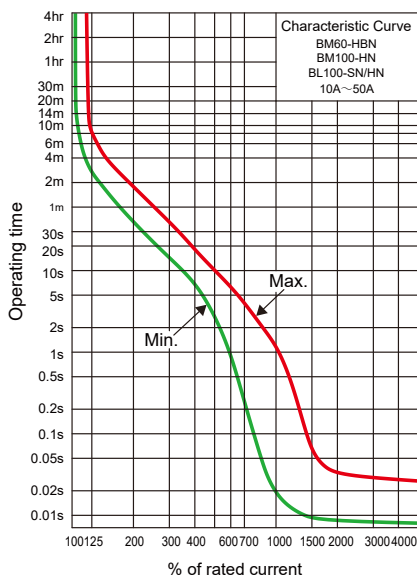
BM100-SN



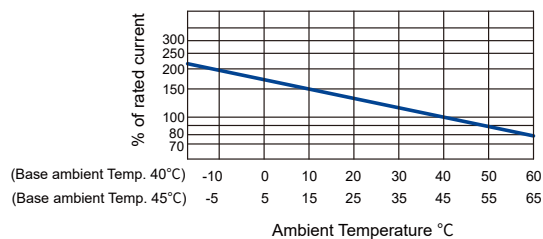
Compensation Curve



BM60-HBN、BM100-HN、BL100-SN/HN

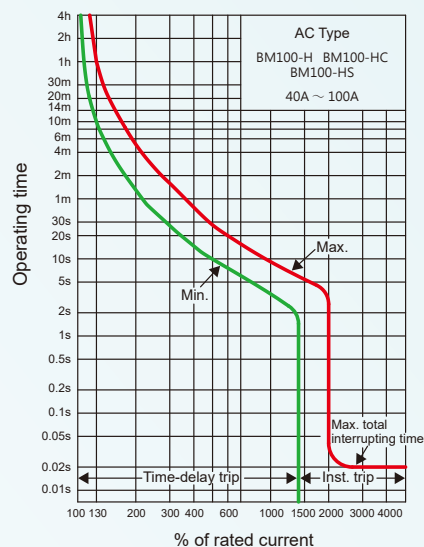
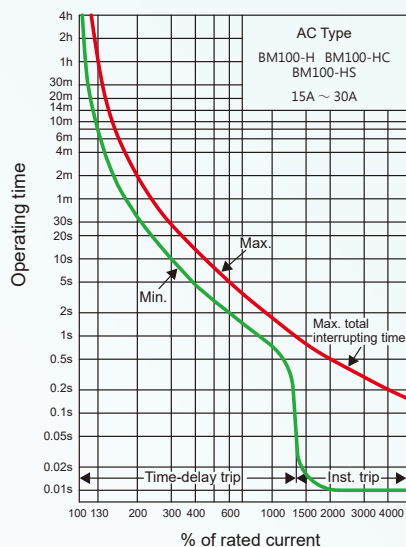


Compensation Curve

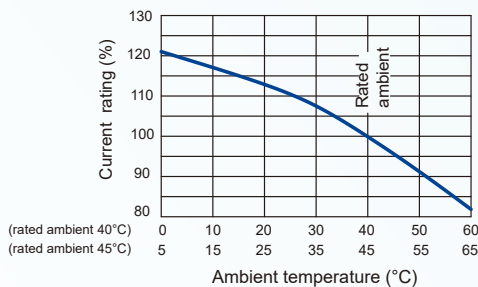


Tripping Characteristic Curve

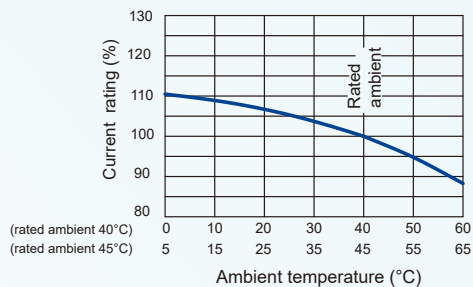
BM100-HS



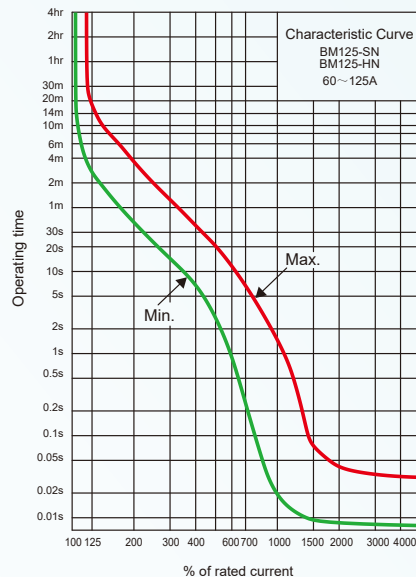
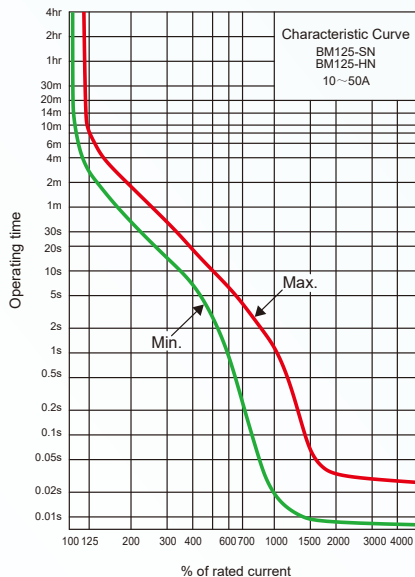
Compensation Curve



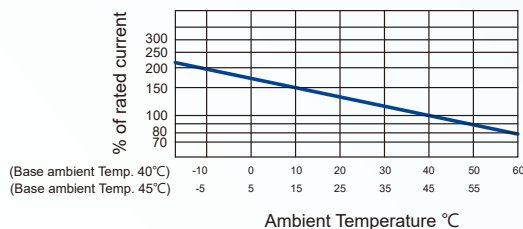
Compensation Curve



BM125-SN/HN

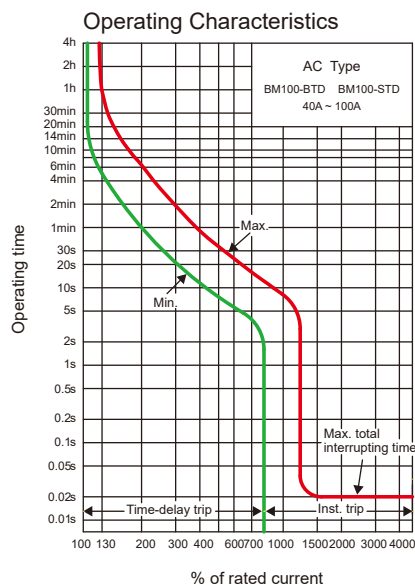
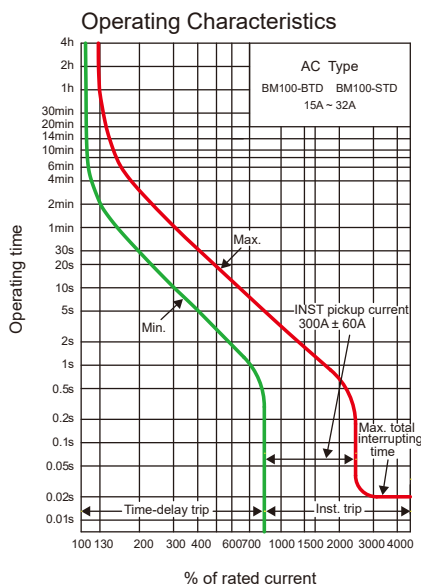


Compensation Curve

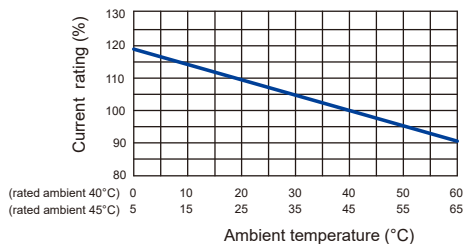


Tripping Characteristic Curve

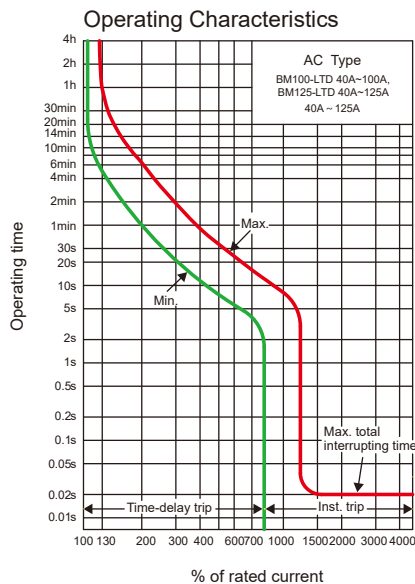
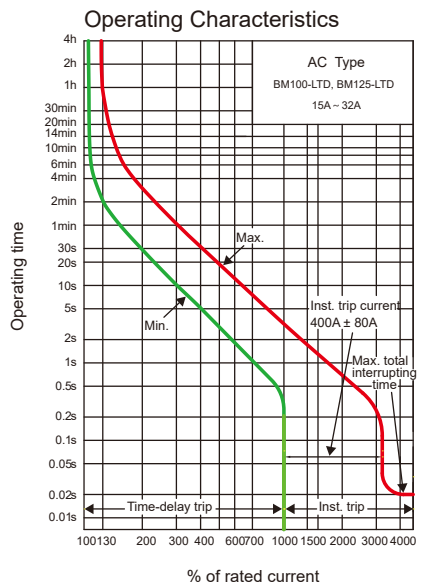
BM100-BTD/STD



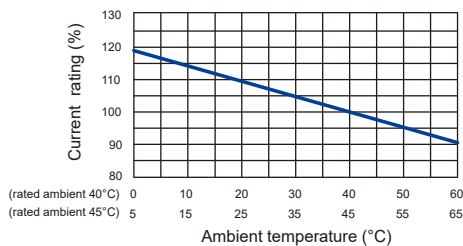
Compensation Curve



BM100-LTD,BM125-LTD

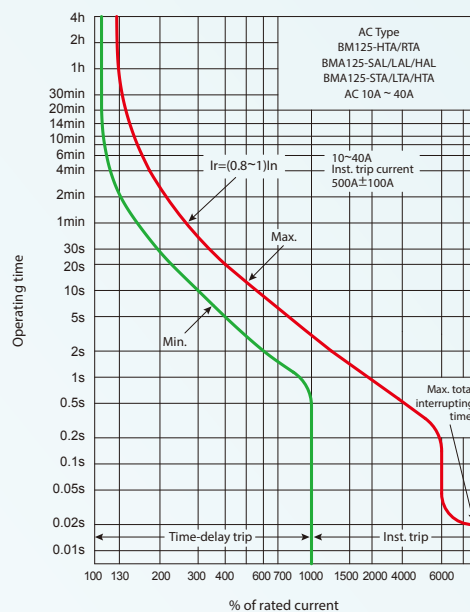
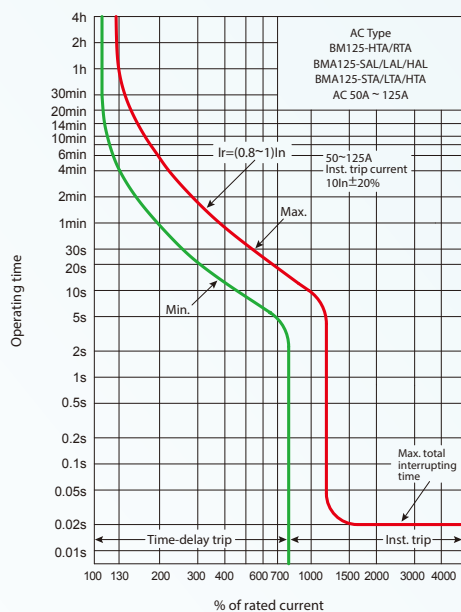


Compensation Curve

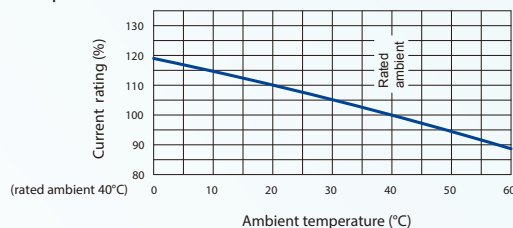


Tripping Characteristic Curve

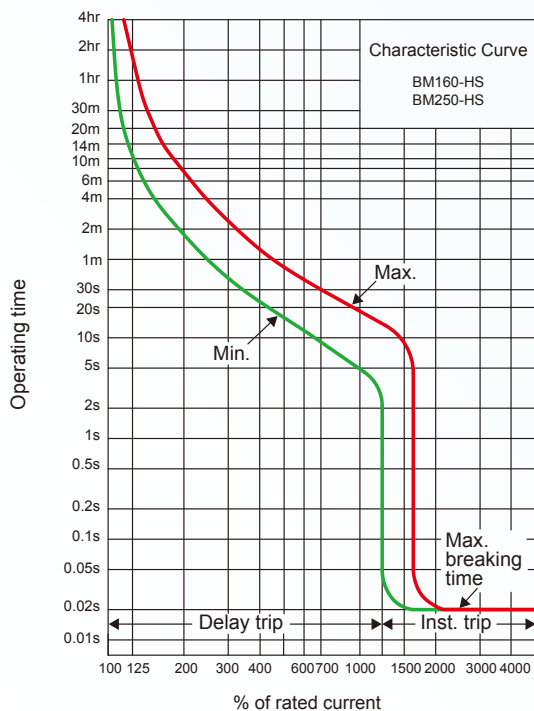
BM125-HTA/RTA



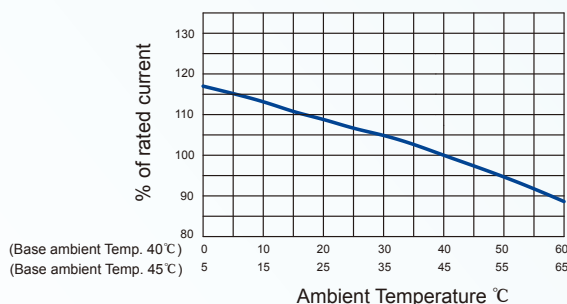
Compensation Curve



BM160-HS、BM250-HS

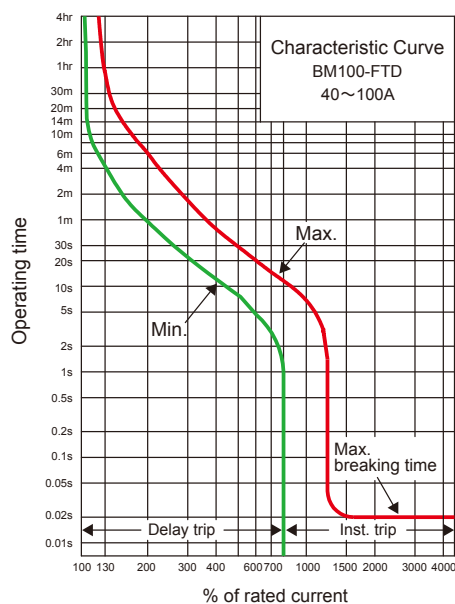
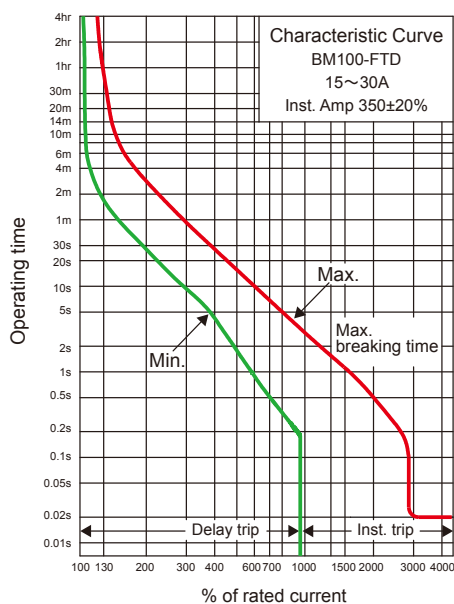


Compensation Curve

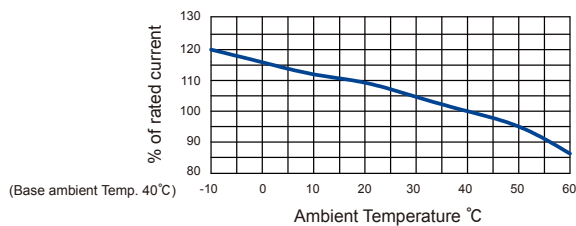


Tripping Characteristic Curve

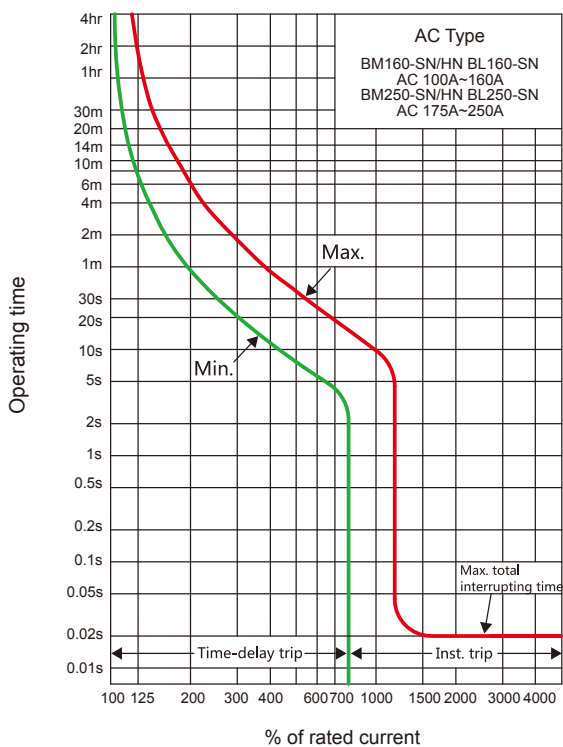
BM100-FTD



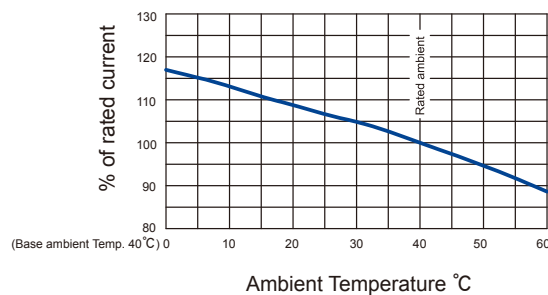
Compensation Curve



BM(BL)160-SN/HN、BM(BL)250-CN/SN/HN

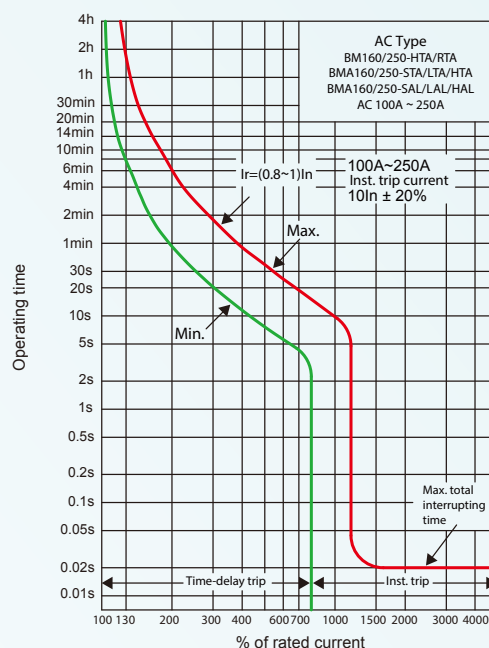
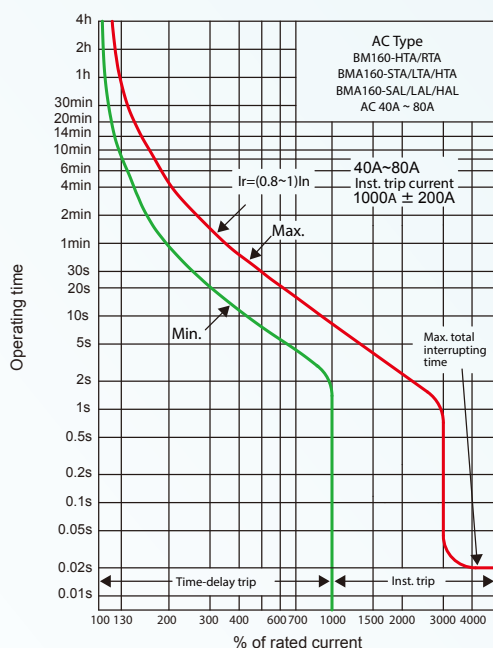


Compensation Curve

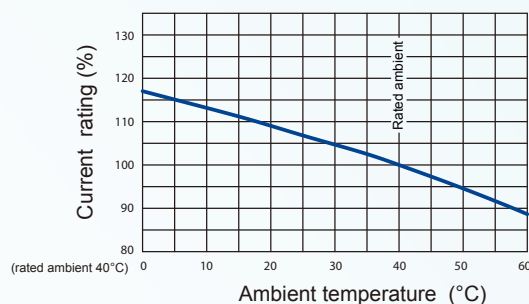


Tripping Characteristic Curve

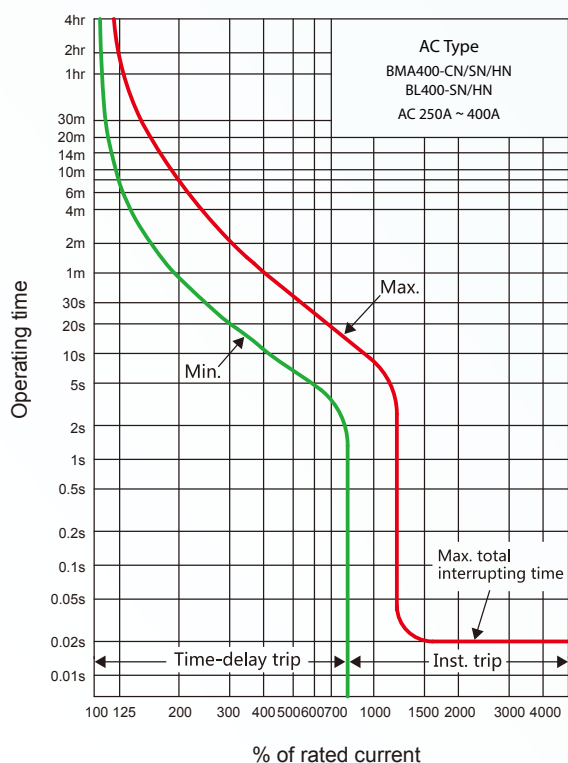
BM160/250-HTA/RTA



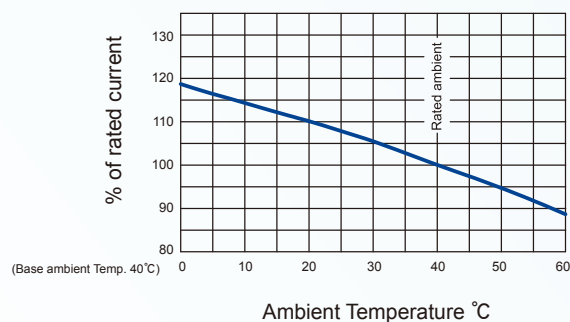
Compensation Curve



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

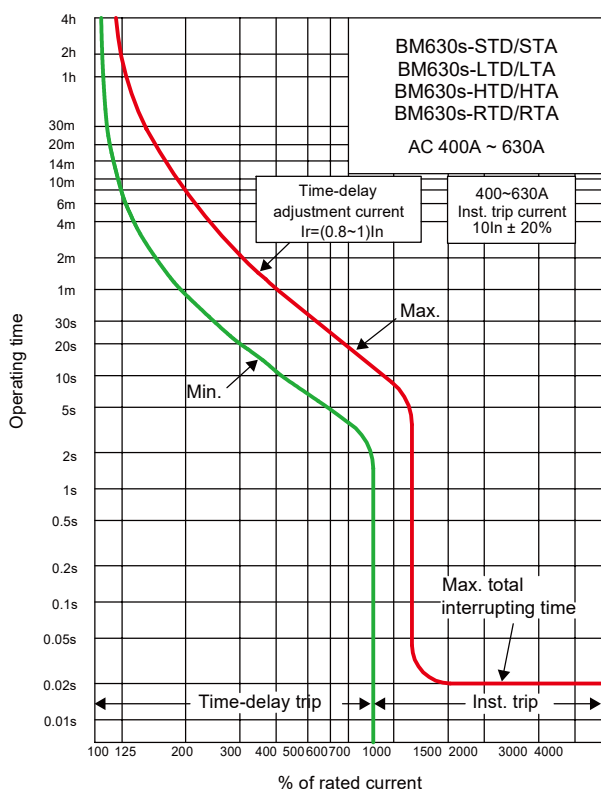


Compensation Curve

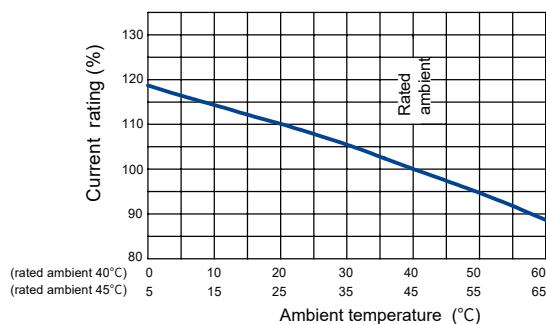


Tripping Characteristic Curve

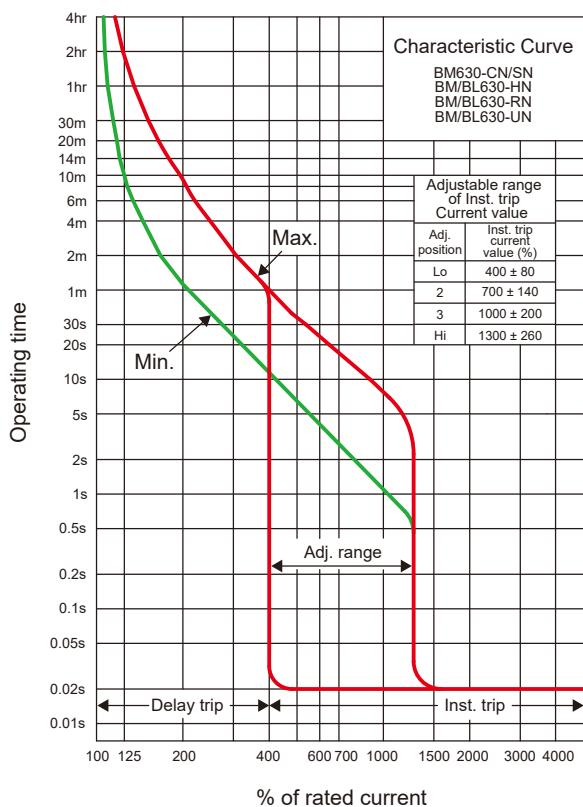
BM630s-STD/LTD/HTD/RTD/STA/LTA/HTA/RTA



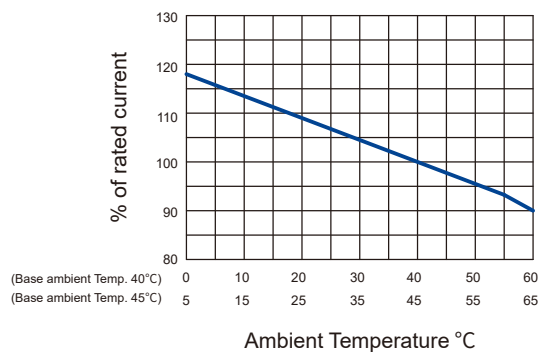
Compensation Curve



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

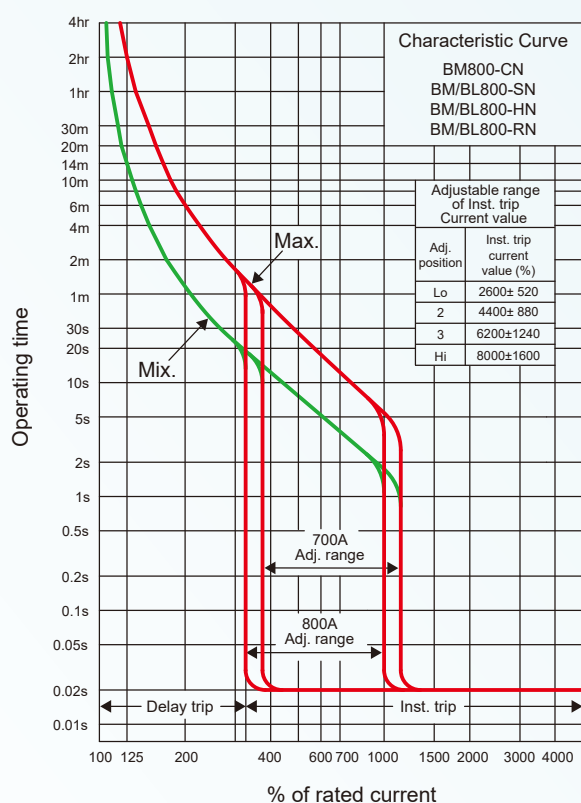


Compensation Curve

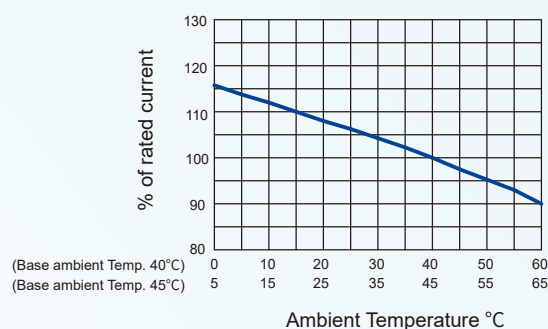


Tripping Characteristic Curve

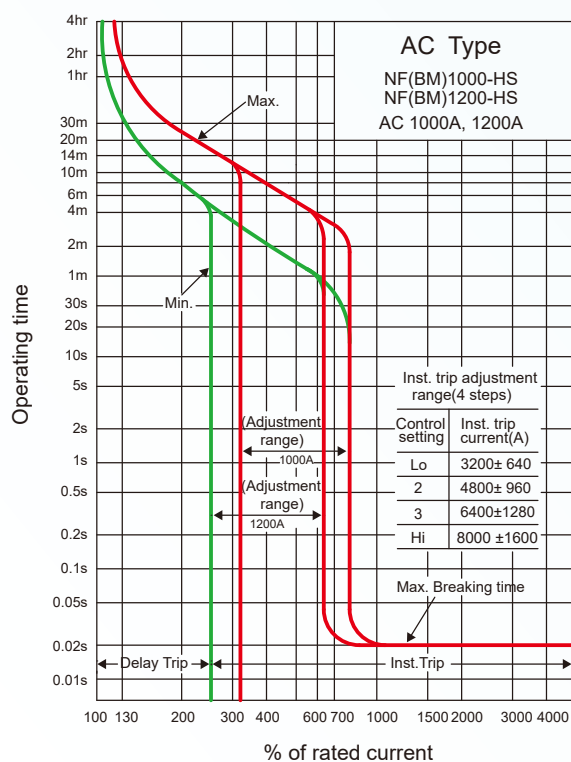
BM(BL)800-CN/SN/HN/RN



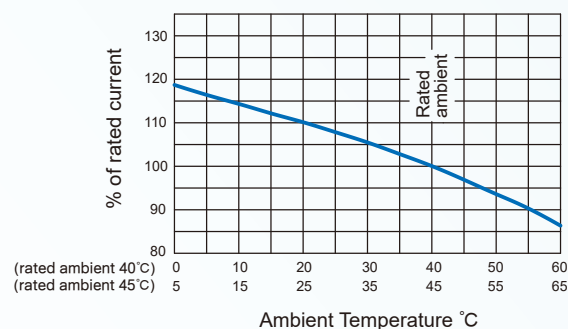
Compensation Curve



BM1000-HS、BM1200-HS

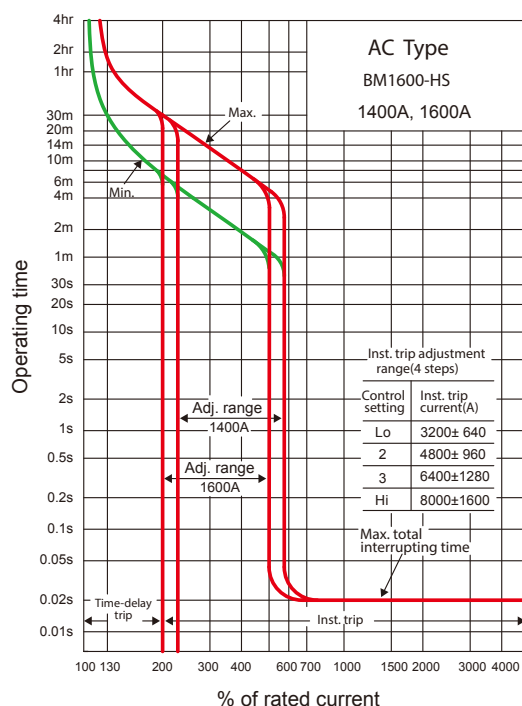


Compensation Curve

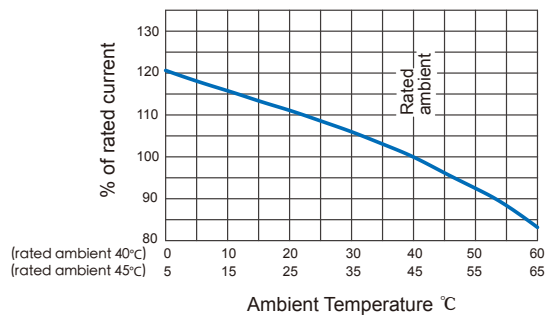


Tripping Characteristic Curve

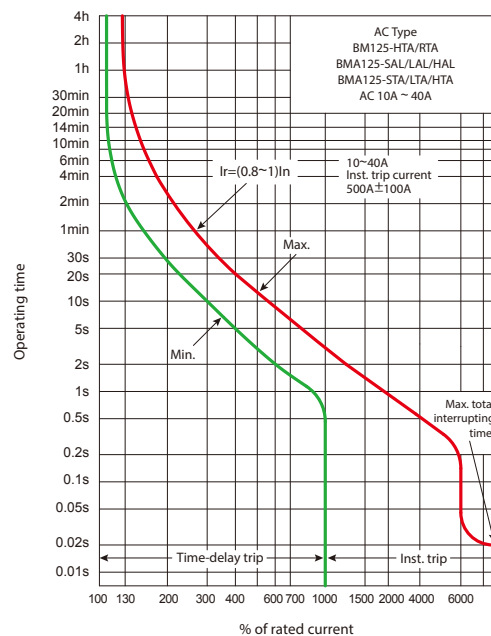
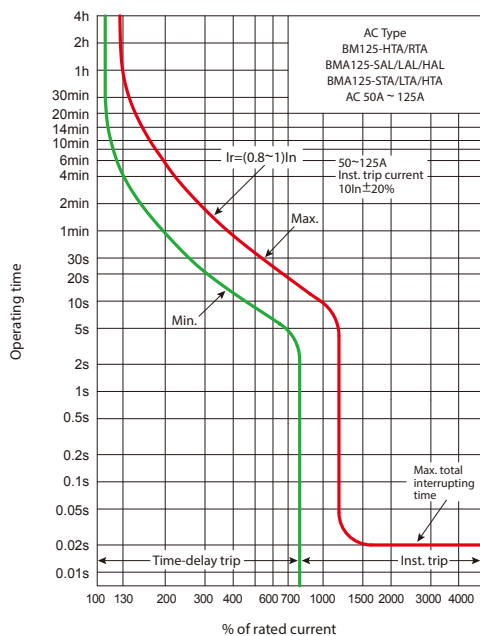
BM1600-HS



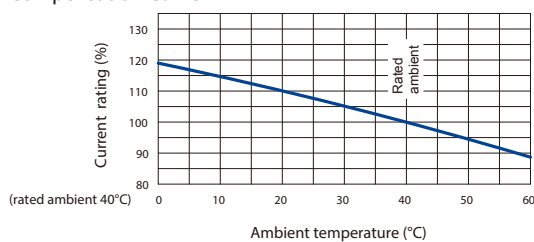
Compensation Curve



BMA125-ST/LTA/HTA

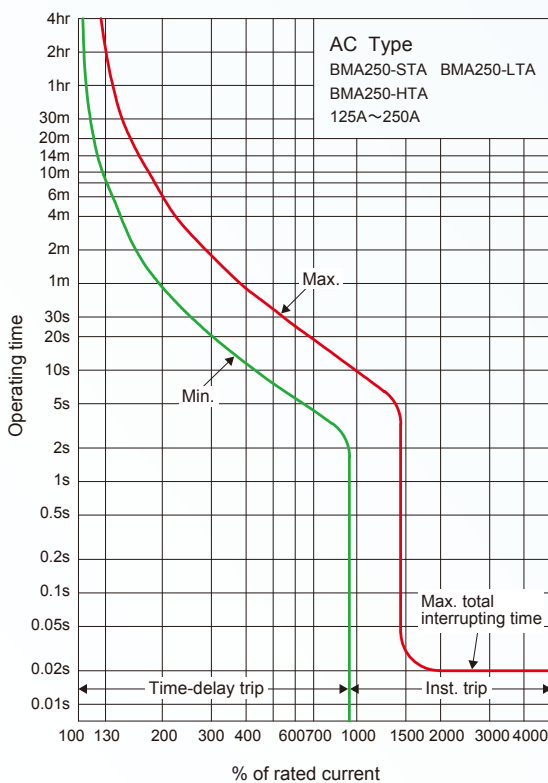
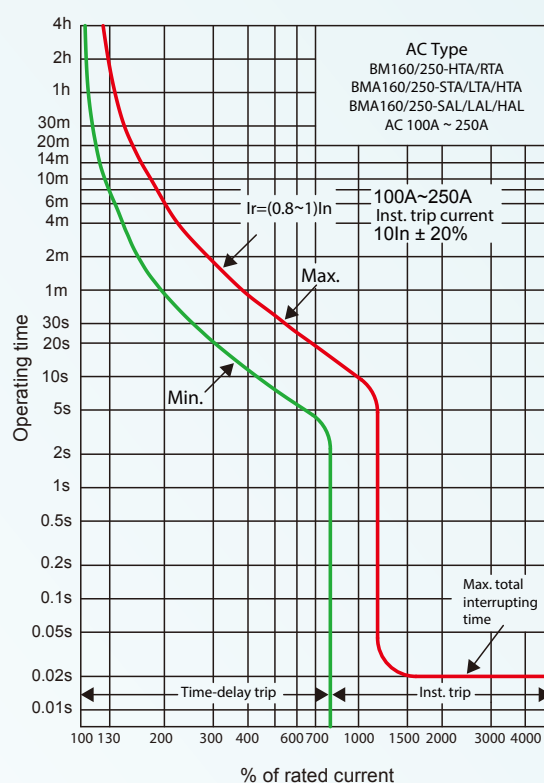
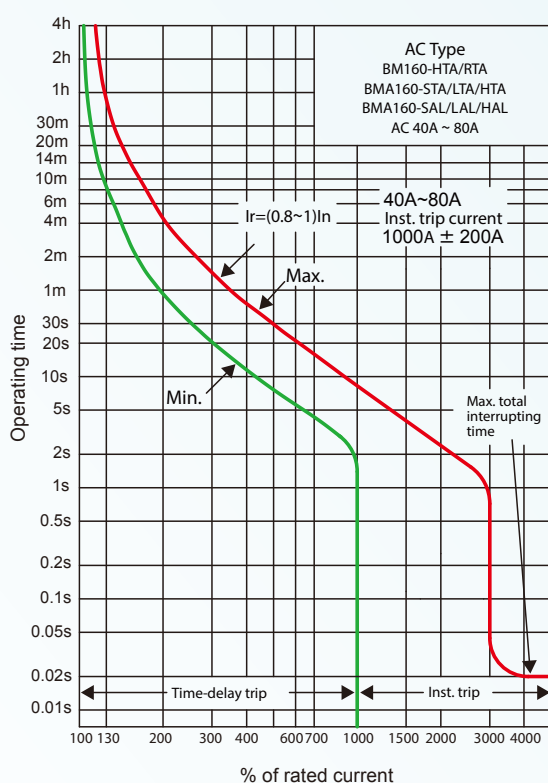


Compensation Curve

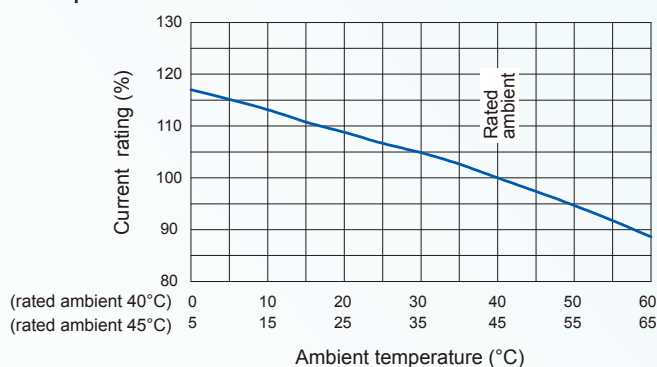


Tripping Characteristic Curve

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

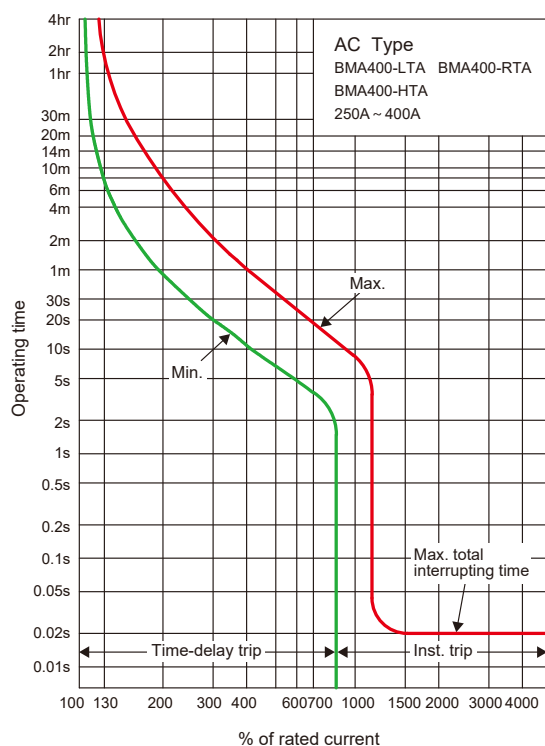


Compensation Curve

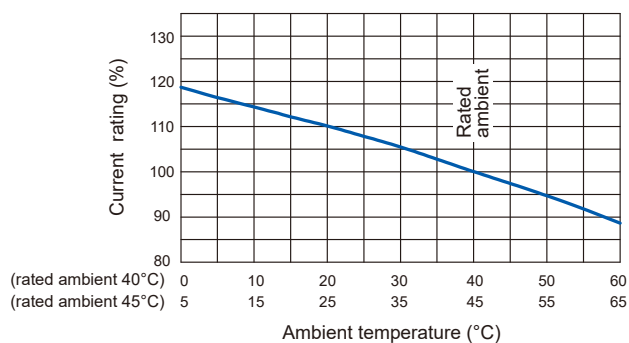


Tripping Characteristic Curve

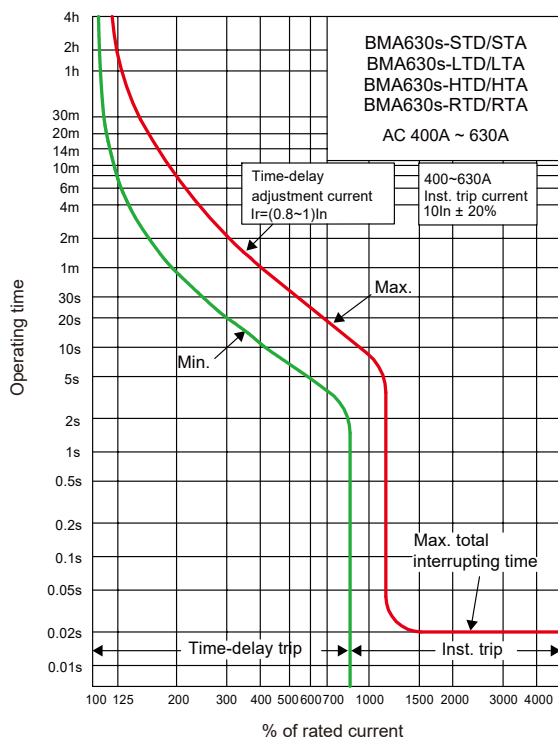
BMA400-LTA/HTA/RTA



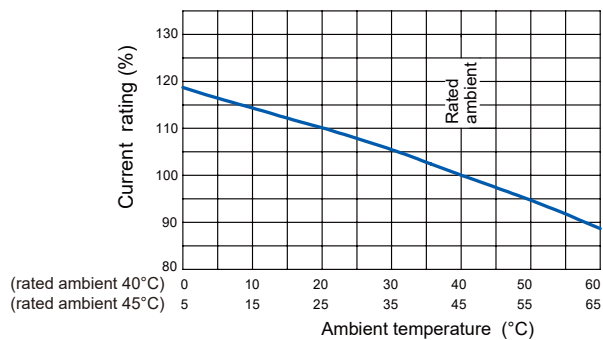
Compensation Curve



BMA630s-STD/LTD/HTD/RTD/STA/LTA/HTA/RTA

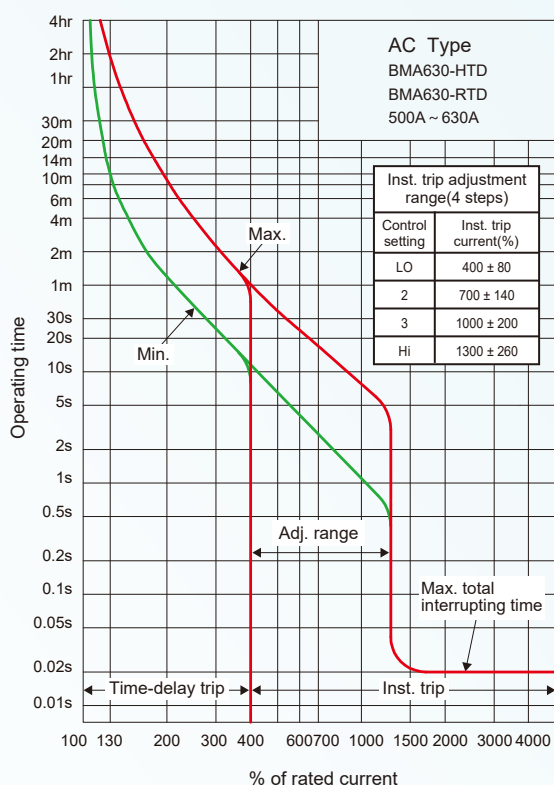


Compensation Curve

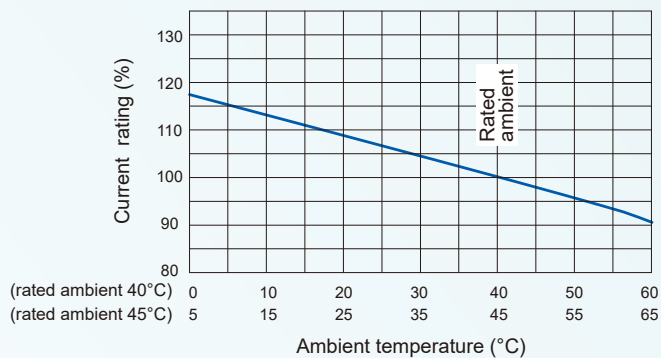


Tripping Characteristic Curve

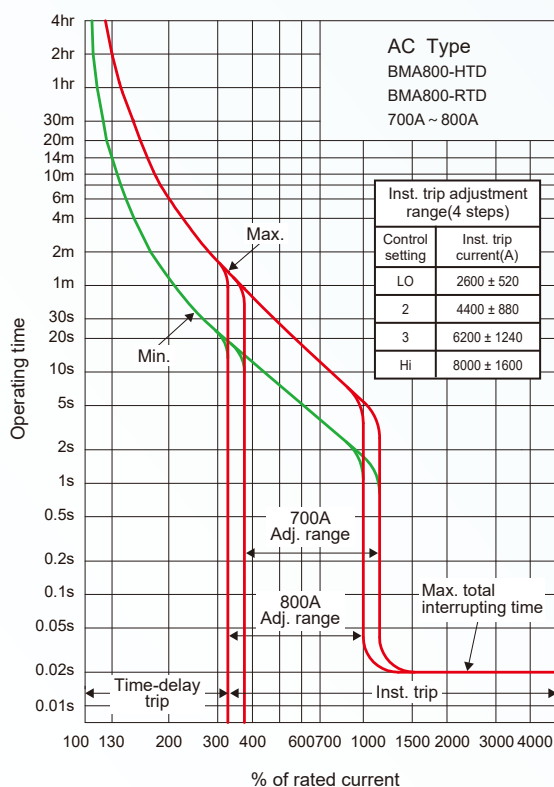
BMA630-HTD/RTD/HTA/RTA



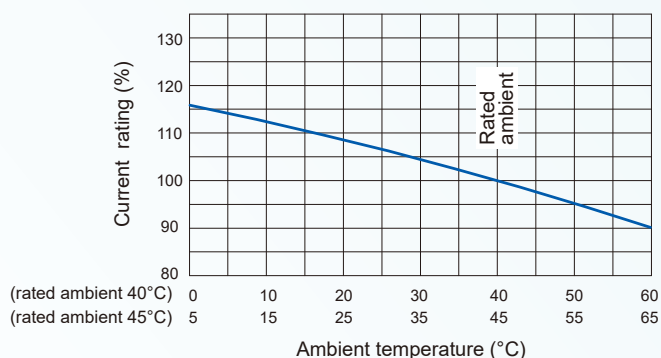
Compensation Curve



BMA800-HTD/RTD/HTA/RTA

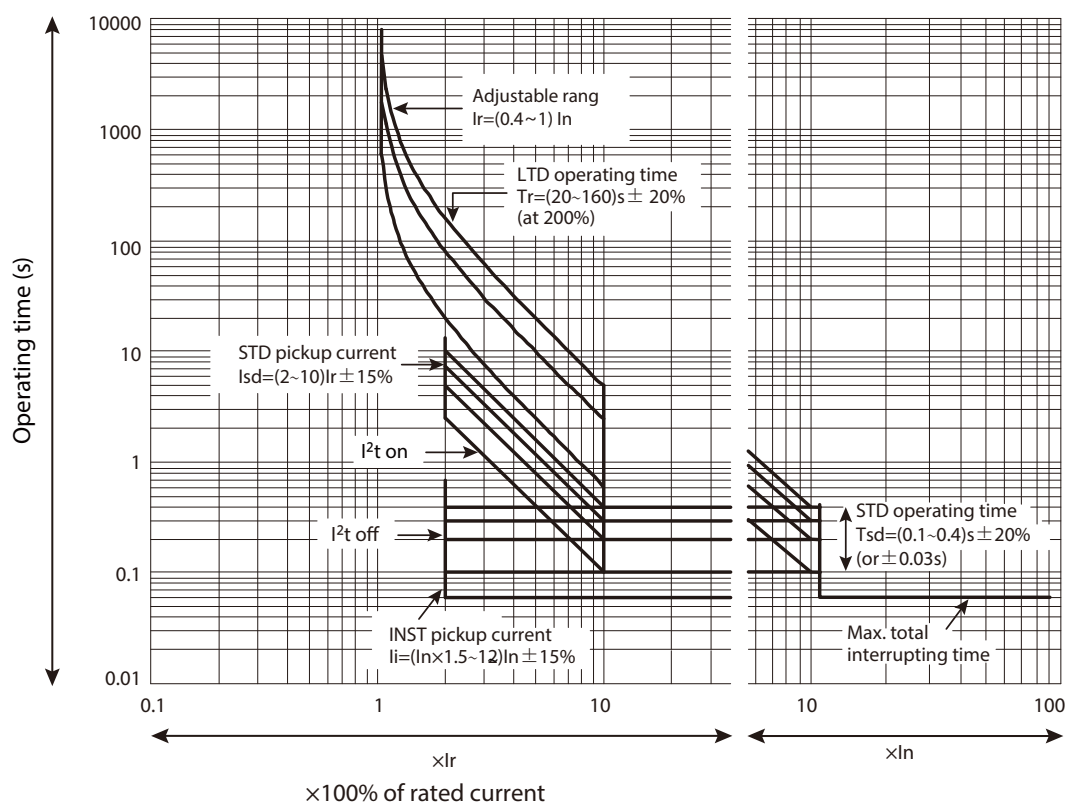


Compensation Curve

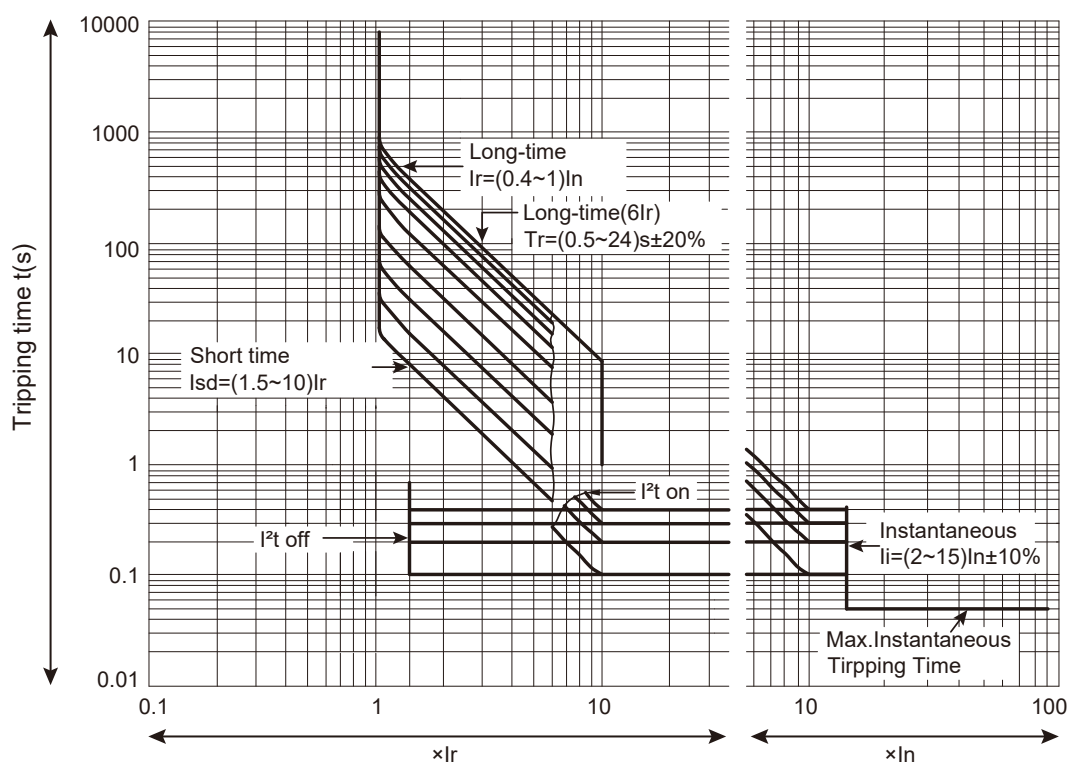


Tripping Characteristic Curve

BMA630-HED/RED, BMA800-HED/RED



BMA1000-HED/RED, BMA1250-HED/RED, BMA1600-HED/RED

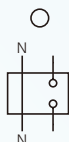


Wiring Example

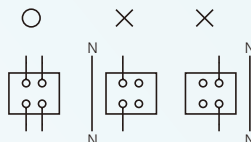
■ ELCB Wiring Diagram

○ Correct ✕ Incorrect

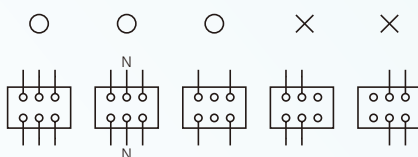
1P



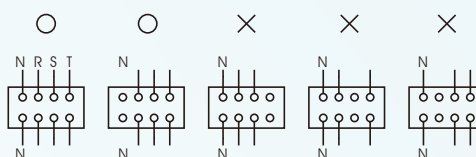
2P



3P

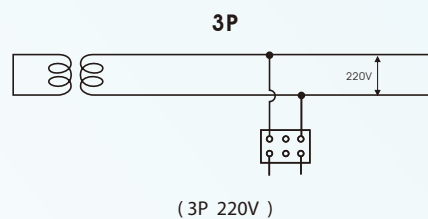
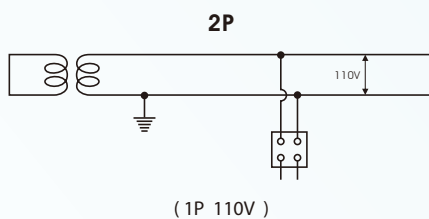


4P

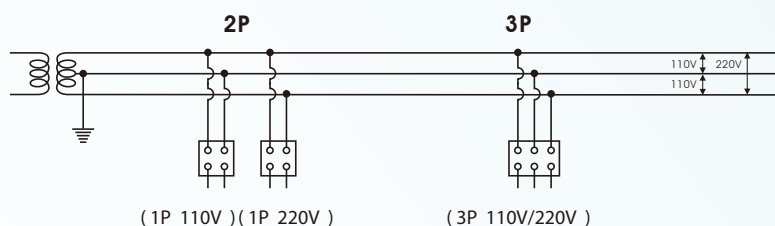


■ Power Circuit System

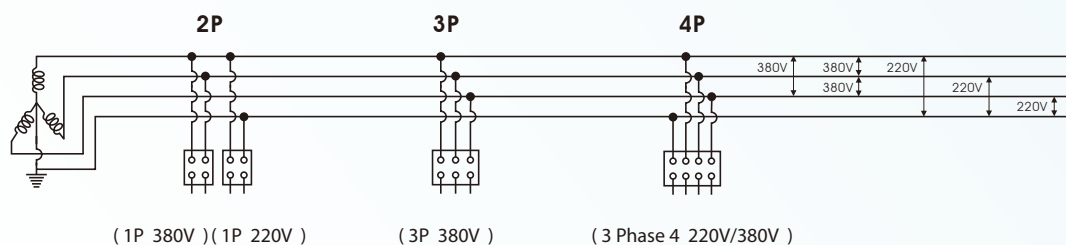
1 Phase 2 Wire
110V - 220V



1 Phase 3 Wire
110V - 220V



3 Phase 4 Wire
220V - 380V





CIRCUIT BREAKER (MCCB / ELCB / EMCCB / MCB)

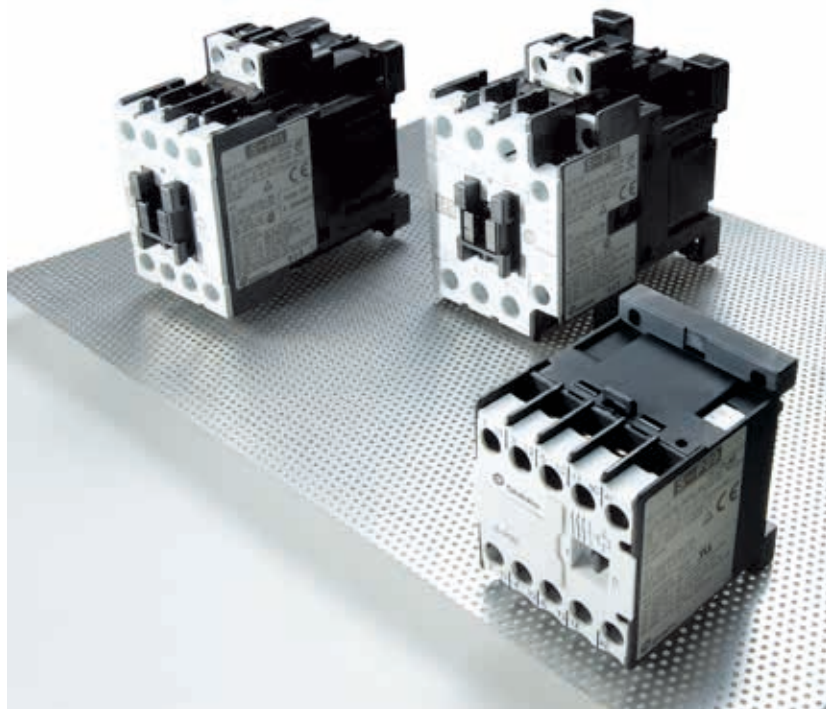
Breaker & Switchgear System



AIR CIRCUIT BREAKER



AUTOMATIC TRANSFER SWITCHES



MAGNETIC CONTACTOR / SWITCH (CONTACTOR / MS / MMS)



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

<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

B250122E.MCCB-OB