

MOLDED CASE CIRCUIT BREAKER

EARTH LEAKAGE CIRCUIT BREAKER



 **MIRDC**
ISO 9001
4A6Y010-10

 **MIRDC**
ISO 14001
4A6E003-10



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	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			
	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			
	LTD	85	36	36	32	5*	2, 3, 4	10, 15, 16, 20, 25, 30, 32, 40, 50, 60, 63, 70, 75, 80, 100, 125		
	HTA	100	50	50	50	10*	2, 3, 4			
160	RTA	100	70	70	50	10*	2, 3, 4	125, 140, 160		
	SN	50	30	25	25	15	2, 3, 4			
	HN	85	36	36	32	20	3, 4			
	HS	125	85	85	70	50	3, 4			
	HTA	100	50	50	50	10*	3, 4			
250	RTA	100	70	70	50	10*	3, 4	40, 50, 60, 63, 70, 75, 80, 100, 125, 140, 150, 160		
	CN	30	22	15	15	7.5	2, 3, 4			
	SN	50	30	25	25	15	3, 4			
	HN	85	36	36	32	20	3, 4			
	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	175, 200, 225, 250		
	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	250, 300, 350, 400		
	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			
	RTA	100	70	70	70	15*	3, 4			
	630	CN	35	25	25	22	14		2, 3, 4	400, 500, 600, 630
SN		50	35	35	30	20	3, 4			
HN		85	50	50	50	25	3, 4			
RN		100	70	70	70	42	3, 4			
UN		125	100	85	85	65	3, 4			
800	CN	50	35	35	30	20	3, 4	500, 630		
	SN	85	50	50	50	25	3, 4			
	HN	100	70	70	70	42	3, 4			
	RN	125	100	85	85	65	3, 4			
1000	HS	130	100	85	85	65	3	700, 800		
1200	HS	130	100	85	85	65	3	1000		
1600	HS	130	100	85	85	65	3	1200		
								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

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			
	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			





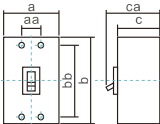
BMA Series Frame Size Selection Table

Frame Size	Type	Rated Breaking Capacity (kA)			Pole	Ir Adjustable	Rated Current In(A)	Accessory	
		IEC60947-2						Blank	No Acc.
		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					
RTA	100	70	15						
630	HTD	85	50	10	3, 4	N/A	500, 600, 630		
	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											
BL	2.5kA		30-SN	50-CN										
	1.5kA		30-CN											
	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





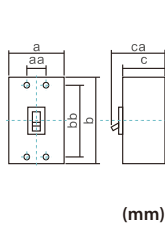
Frame size (AF) (Inm)		30		50		60			
Type		BM30-CN		BM30-SN		BM50-CN		BM60-HBN	
Appearance									
Rated current In (A) at ambient temp. 40°C		3, 5, 10, 15, 20, 30.		3, 5, 10, 15, 20, 30.		10, 15, 20, 30, 40, 50.		10, 15, 20, 30, 40, 50, 60.	
Number of poles (P)		2	3	2	3	2	3	3	
Rated insulation voltage 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%		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		
○	○	○	○	○	○	—	○	○	○	○	○	○	○
○	○	○	○	○	○	—	○	○	○	○	○	○	○
○	○	○	○	○	○	—	○	○	○	○	○	○	○
○	○	○	○	○	○	—	○	○	○	○	○	○	○
●	●	●	●	●	●	—	●	●	●	●	●	●	●
●	●	●	●	●	●	—	●	●	●	●	●	●	●
●	●	●	●	●	●	●	●	●	●	●	●	●	●
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 I_n (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 U_i (V)		AC		800			800			800			800		
		DC		—			—			—			—		
Rated operational voltage U_e (V AC)		500			690			690			690				
$U_{imp}(kV)$		8			8			8			8				
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); margin-right: 5px;">Dimensions</div>  <div style="margin-left: 10px;">(mm)</div> </div>		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	
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. Ics= 50% Icu
 3. Adjustable thermal: 80%~100% In.

Molded Case Circuit Breaker

125

BM125-SN

BM125-HN

BM125-LTD

BM125-HTA






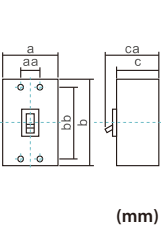
BM125-RTA



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		
—			—			—			—			—		
—			—			—			—			—		
10ln ± 20%			10ln ± 20%			400A ± 20% (10~32A) 10ln ± 20% (40~125A)			500A ± 20% (10~40A) 10ln ± 20% (50~125A)			500A ± 20% (10~40A) 10ln ± 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		500			
Uimp(kV)		8		8		8		8		8		8			
<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg); font-weight: bold; margin-right: 5px;">Dimensions</div>  </div>		a	105	105	140	105	140	105	140	105	140	105	140		
		b	165			165		165		165		165		165	
		c	68			68		68		68		86		86	
		ca	92			92		92		92		112		112	
		bb	126			126		126		126		126		126	
		aa	35			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)		IEC 60947-2 EN 60947-2 Icu	AC	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 magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Adj. thermal Fixed magnetic	Thermal magnetic	
Equipped	Equipped	Equipped	Equipped	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






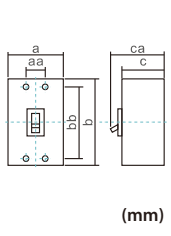
ACC.

DIM.









Curve.

Other

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	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 (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	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				






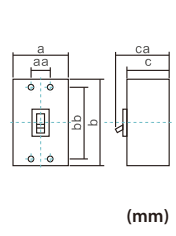
Note 1. "●" which can be installed by client, "○" which have to be installed by manufacturer. "—" which is not available.
 Above accessories table is for 3P breaker.
 2. Ics= 50% Icu
 3. Adjustable thermal: 80%~100% In.
 4. * DC application MCCB trip characteristic is different from AC type, please specify when place the order.

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	Thermal magnetic	Thermal magnetic	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed magnetic"	"Adjustable Thermal Fixed 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	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

Molded Case Circuit Breaker





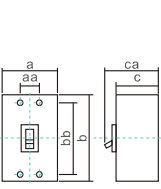
Frame size (AF) (Inm)		630										
Type		BM630-CN		BM630-SN		BM630-HN		BM630-RN		BM630-UN		
Appearance												
Rated current In (A) at ambient temp. 40°C		500, 600, 630.		500, 600, 630.		500, 630.		500, 630.		500, 630.		
Number of poles (P)		3	4	3	4	3	4	3	4	3	4	
Rated insulation voltage Ui (V)	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	13
Rated breaking capacity (kA)	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 (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		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	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	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	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	Fixed thermal Adj. magnetic	Fixed thermal Adj. magnetic
Equipped	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.

Molded Case Circuit Breaker (BMA Series)





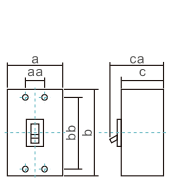
Frame size (AF) (Inm)		125			160			250			400			
Model		BMA 125-STA	BMA 125-LTA	BMA 125-HTA	BMA 160-STA	BMA 160-LTA	BMA 160-HTA	BMA 250-STA	BMA 250-LTA	BMA 250-HTA	BMA 400-LTA	BMA 400-HTA	BMA 400-RTA	
Appearance														
Rated current In (A) at ambient temp. 40°C		15,16,20,25,30,32,40,50,60,63,75,80,100,125A			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		800		
Rated operational voltage Ue(V AC)		690		690		690		690		690		690		
Uimp(kV)		8		8		8		8		8		8		
Dimensions		a	90	120	105	140	105	140	140	185				
		b	155	155	165	165	165	165	165	257	257			
		c	68	68	68	68	68	68	68	68	103	103		
		ca	92	92	92	92	92	92	92	92	155	155		
		bb	132	132	126	126	126	126	126	126	194	194		
		aa	30	30	35	35	35	35	35	35	44	44		
		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 lcu	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. Ics=100%Icu




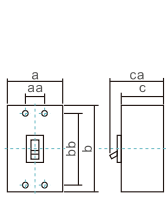
BMA630s-STD		BMA630s-LTD		BMA630s-HTD		BMA630s-RTD		BMA630s-STA		BMA630s-LTA		BMA630s-HTA		BMA630s-RTA	
															
400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A		400, 500, 600, 630A	
3	4	3	4	3	4	3	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	Thermal magnetic	Adjustable Thermal Fixed magnetic	Adjustable Thermal Fixed magnetic	Adjustable Thermal Fixed magnetic	Adjustable Thermal Fixed magnetic	Adjustable Thermal Fixed magnetic	Adjustable Thermal Fixed 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	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 	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				
	(mm)																	
Weight (kg)		10	13	10	13	10	13	10	13	10	13	10	13	10	13	10	13	
Rated breaking capacity (kA)	IEC 60947-2 EN 60947-2 AC Icu	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		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)		1000				1000				1000				
Rated operational voltage Ue(V AC)		690				690				690				
Uimp(kV)		8				8				8				
Dimensions		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
		mm	200				200				200			
Weight (kg)		13.3	17.2	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		

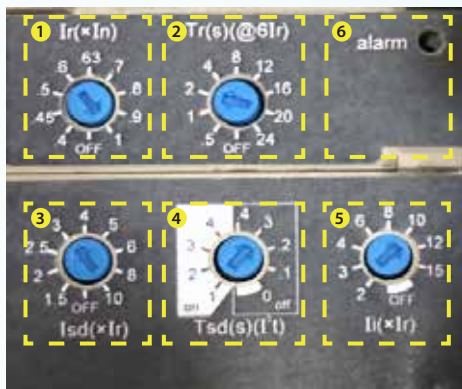
Condition:

1. Operation Temp.: -25°C ~ +70 °C
2. Storage Temp.: -40 °C ~ 85 °C
3. Altitude: ≤2000m
4. Pollution class: 3
5. Category: B
6. Relative humidity: ≤ 90%

Neutral Protection:



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



1. Overload Setting Knob
(Ir=0.4/0.45/0.5/0.6/0.63/0.7/0.8/0.9/1/OFF)
2. Overload Tripping Time Setting Knob
(Tr=0.5/1/2/4/8/12/16/20/24/OFF)
3. (I_{sd}=1.5/2/2.5/3/4/5/6/8/10/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/OFF)
6. Alarm indicator: Overload (red light)

Protection												
Long-time												
Current setting(A)	I _r =I _n ×	0.4	0.45	0.5	0.6	0.63	0.7	0.8	0.9	1	OFF	
Time Delay (s)	Tr (s)	0.5	1	2	4	8	12	16	20	24	OFF	
Accuracy: ±20%	1.5×I _r	8	16	32	64	128	192	256	320	384		
	6×I _r	0.5	1	2	4	8	12	16	20	24		
	7.2×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: ±10%	I _{sd} =I _r ×	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×I _r (I _{2t} off or on)		T _{sd} (Max. resettable time)	20	80	140	230	350					
		T _{sd} (Max. trip time)	80	140	200	320	500					
Instantaneous												
Current setting(A)	Accuracy: ±10%	I _i =I _r ×	2	3	4	6	8	10	12	15	OFF	
Tripping time			60 ±20 ms									