Quick selection table
Molded Case Circuit Breakers



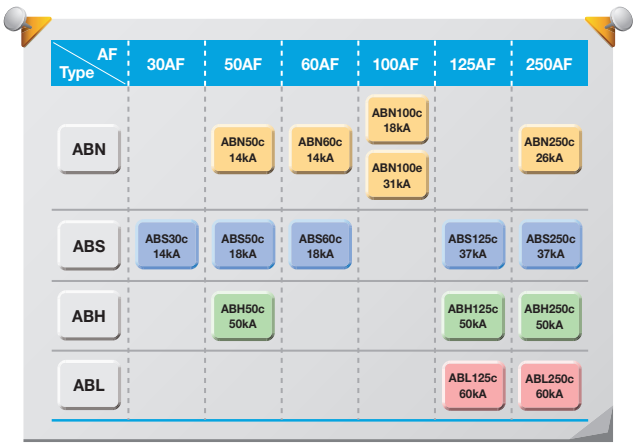


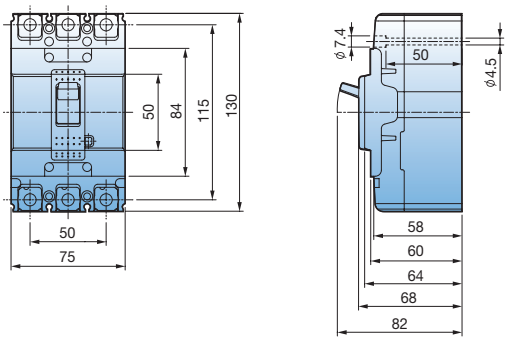
MCCBs

AF		30AF		50AF			60AF	
Type		E-type	S-type	N-type	S-type	H-type	N-type	S-type
Type and pole	2-pole	ABE32b	ABS32c	ABN52c	ABS52c	ABH52c	ABN62c	ABS62c
	3-pole	ABE33b	ABS33c	ABN53c	ABS53c	ABH53c	ABN63c	ABS63c
	4-pole	-	ABS34c	ABN54c	ABS54c	ABH54c	ABN64c	ABS64c
Rated current, In	A	(3, 5, 10) Note) 1, 15, 20, 30		15, 20, 30, 40, 50			15, 20, 30, 40, 50, 60	
Rated operational voltage, Ue	AC (V)	460	690	690	690	690	690	690
	DC (V)	-	500	500	500	500	500	500
Rated insulation voltage, Ui	V	460	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage, Uimp	kV	6	8	8	8	8	8	8
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2								
AC	690V	-	2.5	2.5	5	10	2.5	5
	480/500V	-	7.5 (5)	7.5	10	35	7.5	10
	415/460V	2.5	14 (10)	14	18	50	14	18
	380V	2.5	18 (14)	18	22	50	18	22
	220/250V	5	30 (25)	30	35	100	30	35
DC	500V (3P)	-	5	5	10	30	5	10
	250V (2P)	-	5	5	10	30	5	10
Ics=%×Icu		50	100	100	100	100	100	100
Dimensions (mm)	W×H×D (3-pole)	75×96×60	75×130×60 (Fig. 1)	75×130×60 (Fig. 1)		90×155×60 (Fig. 2)	75×130×60 (Fig. 1)	

* For more detail see the page. Ratings 5-1page ~ 5-14page, Curves 8-1page ~ 8-3page, and Drawings 9-1page ~ 9-4page

Note) 1.The short-circuit breaking capacities of ABS30AF type in ( ) are applied to the rated current in (3, 5, 10A)
2. MCCBs can be applied to both 50 and 60Hz.
3.Standard type is designed on the basis of 40℃ of ambient temperature.
4.There are certain products for hot areas. (30~250AF on the basis of 55℃)
5. The Ics(service breaking capacity) of ABN100e, ABL125/250AF are in ( )





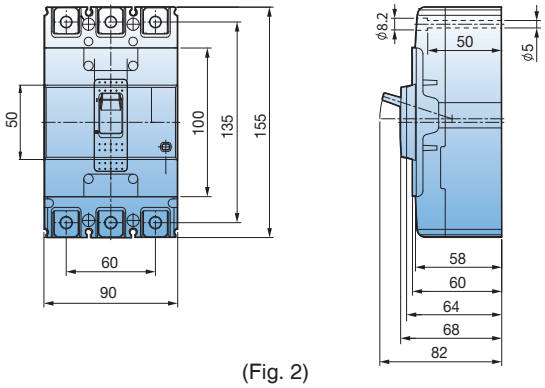
(Fig. 1)



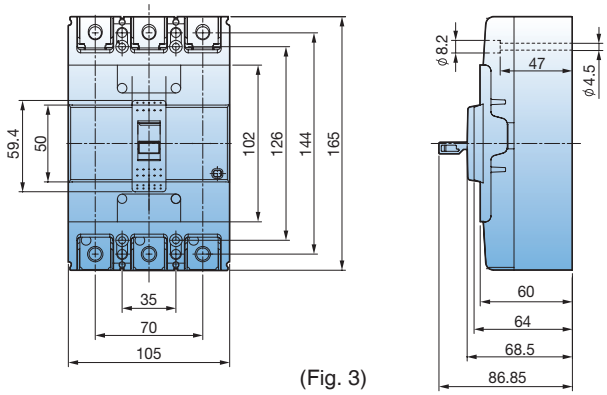




	100AF		125AF			250AF			
	N-type		S-type	H-type	L-type	N-type	S-type	H-type	L-type
	ABN102c	ABN102e	ABS102c	ABH102c	ABL102c	ABN202c	ABS202c	ABH202c	ABL202c
	ABN103c	ABN103e	ABS103c	ABH103c	ABL103c	ABN203c	ABS203c	ABH203c	ABL203c
	ABN104c	ABN104e	ABS104c	ABH104c	ABL104c	ABN204c	ABS204c	ABH204c	ABL204c
	15, 20, 30, 40, 50, 60, 75, 100		15, 20, 30, 40, 50, 60, 75, 100, 125			100, 125, 150, 175, 200, 225, 250			
	690	690	690	690	690	690	690	690	690
	500	500	500	500	500	500	500	500	500
	1000	1000	1000	1000	1000	750	1000	1000	1000
	8	8	8	8	8	8	8	8	8
	5	7.5 (5)	8	10	10 (10)	8	8	10	10 (10)
	10	14 (10)	26	35	35 (35)	18	26	35	35 (35)
	18	31 (18)	37	50	60 (50)	26	37	50	60 (50)
	22	31 (22)	42	50	60 (50)	30	42	50	60 (50)
	35	65 (35)	85	100	125 (100)	65	85	100	125 (100)
	10	15 (10)	20	30	30 (30)	10	20	30	30 (30)
	10	15 (10)	20	30	30 (30)	10	20	30	30 (30)
	100	( )	100	100	( )	100	100	100	( )
	75×130×60 (Fig. 1)		90×155×60 (Fig. 2)			105×165×60 (Fig. 3)			



(Fig. 2)



(Fig. 3)

Quick selection table
Molded Case Circuit Breakers

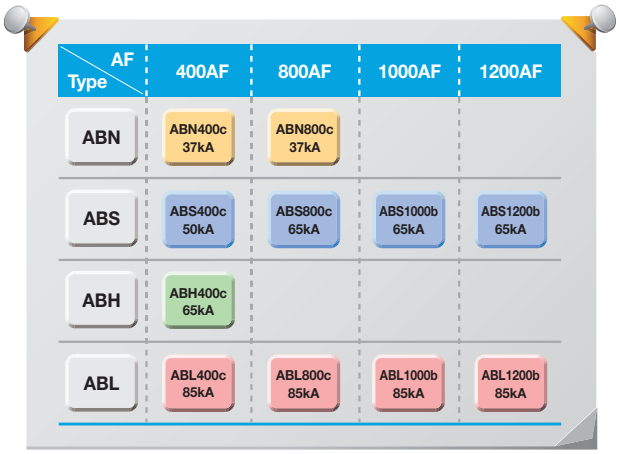


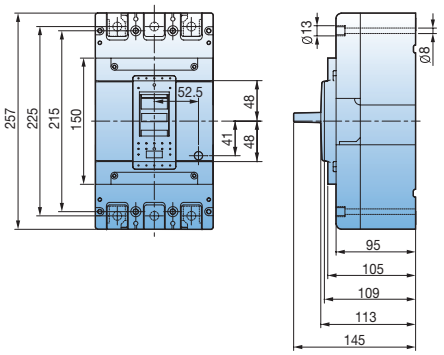
MCCBs

AF		400AF			
Type		N-type	S-type	H-type	L-type
Type and pole	2-pole	ABN402c	ABS402c	ABH402c	ABL402c
	3-pole	ABN403c	ABS403c	ABH403c	ABL403c
	4-pole	ABN404c	ABS404c	ABH404c	ABL404c
Rated current, In	A	250, 300, 350, 400			
Rated operational	AC (V)	690	690	690	690
voltage, Ue	DC (V)	500	500	500	500
Rated insulation voltage, Ui	V	1000	1000	1000	1000
Rated impulse withstand voltage, Uimp	kV	8	8	8	8
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2					
AC	690V	5	8	10	14
	480/500V	18	35	50	65
	415/460V	37	50	65	85
	380V	42	65	70	100
	220/250V	50	75	85	125
DC	500V (3P)	10	20	40	40
	250V (2P)	10	20	40	40
Ics=%×Icu		100	100	100	75
Dimensions (mm)	W×H×D (3-pole)	140×257×109 (Fig. 4)			

* For more detail see the page. Ratings 5-15page ~ 5-22page, Curves 8-4page ~ 8-5page, and Drawings 9-5page ~ 9-8page

Note) 1.The short-circuit breaking capacities in ( ) are applied to the rated current in (3, 5, 10A)
2.Standard type is designed on the basis of 40℃ of ambient temperature.
3.There are certain products for hot areas. (400~800AF on the basis of 50℃)



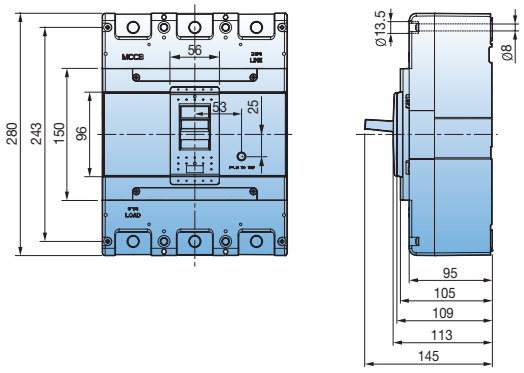


(Fig. 4)

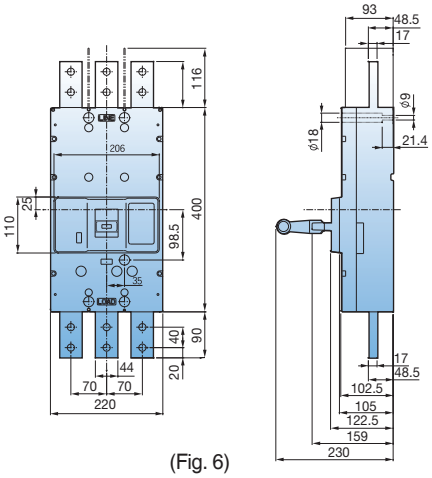




	800AF			1000AF		1200AF		
	N-type	S-type	L-type	S-type	L-type	S-type		L-type
	ABN802c	ABS802c	ABL802c	-	-	-	-	-
	ABN803c	ABS803c	ABL803c	ABS1003b	ABL1003b	ABS1203b	ABS1203bE	ABL1203b
	ABN804c	ABS804c	ABL804c	ABS1004b	ABL1004b	ABS1204b	-	ABL1204b
	500, 630, 700, 800			1000		1200		
	690	690	690	600	600	600	600	600
	500	500	500	-	-	-	-	-
	1000	1000	1000	690	690	690	690	690
	8	8	8	6	6	6	6	6
	8	10	14	-	-	-	-	-
	25	45	65	50	75	50	50	75
	37	65	85	65	85	65	65	85
	45	75	100	65	85	65	65	85
	50	85	125	100	125	100	100	125
	10	20	40	-	-	-	-	-
	10	20	40	-	-	-	-	-
	100	100	75	50	50	50	50	50
	210×280×109 (Fig. 5)			220×400×105 (Fig. 6)		220×400×105 (Fig. 6)		



(Fig. 5)



(Fig. 6)

Quick selection table
Motor protection Molded Case Circuit Breakers

MCCBs

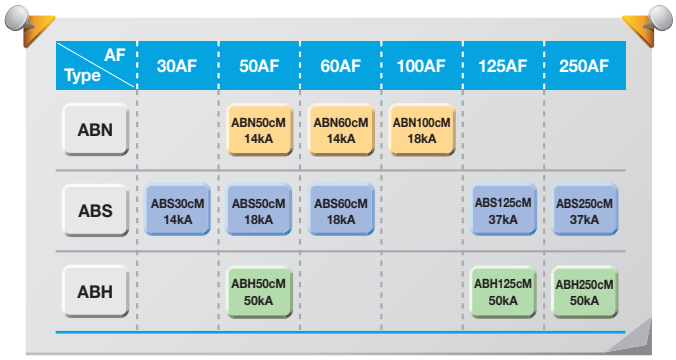


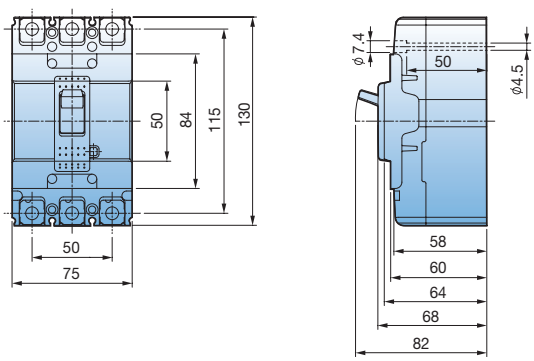


AF		30AF	50AF			60AF	
Type		S-type	N-type	S-type	H-type	N-type	S-type
Type and pole	3-pole	ABS33cM	ABN53cM	ABS53cM	ABH53cM	ABN63cM	ABS63cM
Rated current, In	A	16, 24	16, 24, 32, 45			60	
Rated operational voltage, Ue	AC (V)	690	690	690	690	690	690
	DC (V)	500	500	500	500	500	500
Rated insulation voltage, Ui	V	750	750	750	750	750	750
Rated impulse withstand voltage, Uimp	kV	8	8	8	8	8	8
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2							
AC	690V	2.5	2.5	5	10	2.5	5
	480/500V	7.5	7.5	10	35	7.5	10
	415/460V	14	14	18	50	14	18
	380V	18	18	22	50	18	22
	220/250V	30	30	35	100	30	35
DC	500V (3P)	5	5	10	30	5	10
Ics=%×Icu		100	100	100	100	100	100
Dimensions (mm)	W×H×D (3-pole)	75×130×60 (Fig. 1)	75×130×60 (Fig. 1)		90×155×60 (Fig. 2)	75×130×60 (Fig. 1)	

* For more detail see the page. Ratings 5-3page ~ 5-14page, Curves 8-7page ~ 8-8page, and Drawings 9-2page ~ 9-4page

Note) 1. Same electrical and physical specification with MCCB.
2. Accessory: same application with MCCB
3. MCCBs can be applied to both 50 and 60Hz.





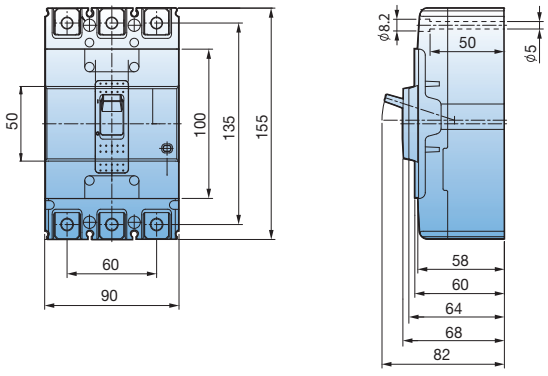
(Fig. 1)



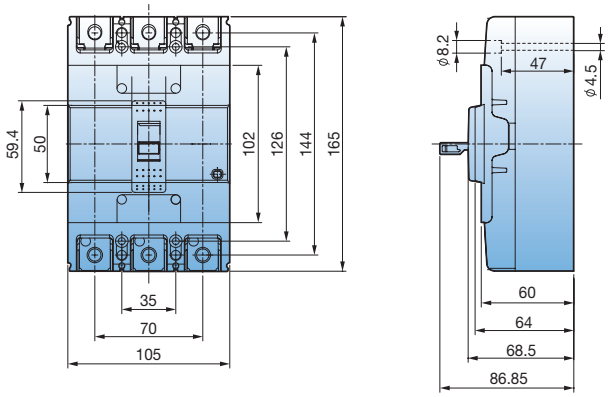




	100AF	125AF		250AF	
	N-type	S-type	H-type	S-type	H-type
	ABN103c	ABS103cM	ABS33cM	ABS203cM	ABH203cM
	60, 75, 90	60, 75, 90		125, 150, 175, 225	
	690	690	690	690	690
	500	500	500	500	500
	750	750	750	750	750
	8	8	8	8	8
	5	8	10	8	10
	10	26	35	26	35
	18	37	50	37	50
	22	42	50	42	50
	35	85	100	85	100
	10	20	30	20	30
	100	100	100	100	100
	75×130×60 (Fig. 1)	90×155×60 (Fig. 2)		105×165×60 (Fig. 3)	



(Fig. 2)



(Fig. 3)

Quick selection table
ZCT Molded Case Circuit Breakers

MCCBs



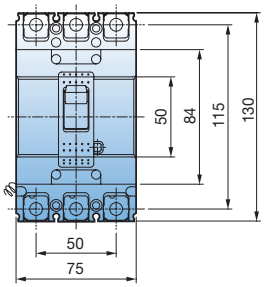


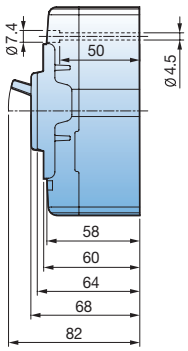
AF		30AF	50AF			60AF	
Type		S-type	N-type	S-type	H-type	N-type	S-type
Type and pole	2-pole	-	-	-	ABH52cZ	-	-
	3-pole	ABS33cZ	ABN53cZ	ABS53cZ	ABH53cZ	ABN63cZ	ABS63cZ
	4-pole	ABS34cZ	ABN54cZ	ABS54cZ	ABH54cZ	ABN64cZ	ABS64cZ
Rated current, In	A	15, 20, 30	15, 20, 30, 40, 50			15, 20, 30, 40, 50, 60	
Rated operational voltage, Ue	AC (V)	690	690	690	690	690	690
Rated insulation voltage, Ui	V	1000	1000	1000	1000	1000	1000
Rated impulse withstand voltage, Uimp	kV	8	8	8	8	8	8
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2							
AC	690V	2.5	2.5	5	10	2.5	5
	480/500V	7.5	7.5	10	35	7.5	10
	415/460V	14	14	18	50	14	18
	380V	18	18	22	50	18	22
	220/250V	30	30	35	100	30	35
Ics=%×Icu		100	100	100	100	100	100
Dimensions (mm)	W×H×D (3-pole)	75×130×60 (Fig. 1)	75×130×60 (Fig. 1)		90×155×60 (Fig. 2)	75×130×60 (Fig. 1)	

* For more detail see the page. Ratings 5-3page ~ 5-14page, Curves 8-1page ~ 8-3page, and Drawings 9-2page ~ 9-4page

Note) 1. Same electrical and physical specification with MCCB.
2. Accessory: Same application with MCCB
3. MCCBs can be applied to both 50 and 60Hz.
4. Marking ZCT on the Aux. cover right side
5. Dimension of ABH52c, ABS102c and ABH102, which have a built-in ZCT, is 60 (W) X 155 (H) X 60 (D) mm
6. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.

AF / Type	30AF	50AF	60AF	100AF	125AF	250AF
ABN		ABN50cZ 14kA	ABN60cZ 14kA	ABN100cZ 18kA		ABN250cZ 26kA
ABS	ABS30cZ 14kA	ABS50cZ 18kA	ABS60cZ 18kA		ABS125cZ 37kA	ABS250cZ 37kA
ABH		ABH50cZ 50kA			ABH125cZ 50kA	ABH250cZ 50kA





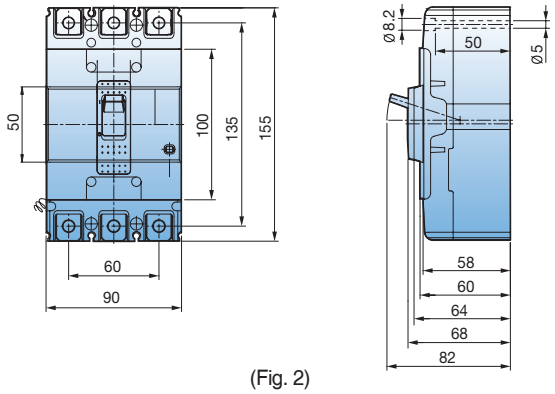
(Fig. 1)



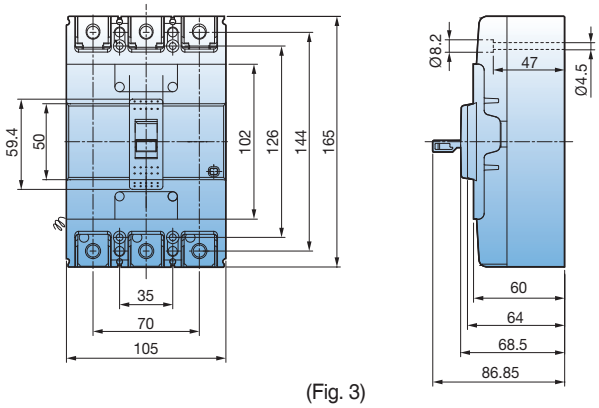




	100AF	125AF		250AF		
	N-type	S-type	H-type	N-type	S-type	H-type
	-	ABS102cZ	ABH102cZ	-	-	-
	ABN103cZ	ABS103cZ	ABH103cZ	ABN203cZ	ABS203cZ	ABH203cZ
	ABN104cZ	ABS104cZ	ABH104cZ	ABN204cZ	ABS204cZ	ABH204cZ
	15, 20, 30, 40, 50 60, 75, 100	15, 20, 30, 40, 50, 60, 75, 100, 125		100, 125, 150, 175, 200, 225, 250		
	690	690	690	690	690	690
	1000	1000	1000	1000	1000	1000
	8	8	8	8	8	8
	5	8	10	8	8	10
	10	26	35	18	26	35
	18	37	50	26	37	50
	22	42	50	30	42	50
	35	85	100	65	85	100
	100	100	100	100	100	100
	75×130×60 (Fig. 1)	90×155×60 (Fig. 2)		105×165×60 (Fig. 3)		



(Fig. 2)



(Fig. 3)

Quick selection table
ZCT Molded Case Circuit Breakers

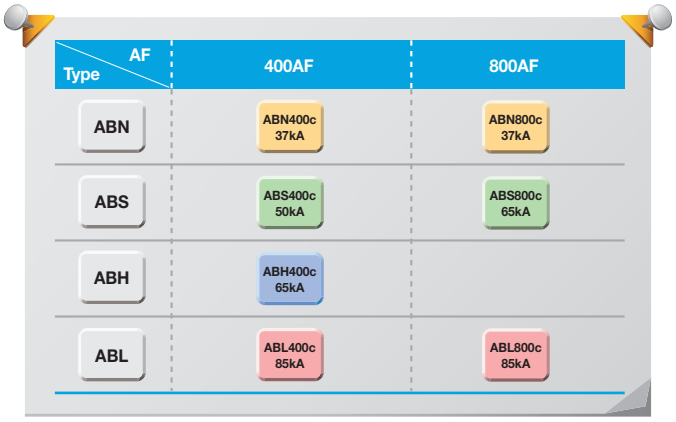


MCCBs

AF		400AF				
Type		N-type	S-type	H-type	L-type	
Type and pole	2-pole	-	-	-	-	
	3-pole	ABN403cZ	ABS403cZ	ABH403cZ	ABL403cZ	
	4-pole	ABN404cZ	ABS404cZ	ABH404cZ	ABL404cZ	
Rated current, In	A	250, 300, 350, 400				
Rated operational voltage, Ue	AC (V)	690	690	690	690	
Rated insulation voltage, Ui	V	1000	1000	1000	1000	
Rated impulse withstand voltage, Uimp	kV	8	8	8	8	
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2						
AC	690V	5	8	10	14	
	480/500V	18	35	50	65	
	415/460V	37	50	65	85	
	380V	42	65	70	100	
	220/250V	50	75	85	125	
Ics=%×Icu		100	100	100	75	
Dimensions (mm)	W×H×D (3-pole)	140×257×109 (Fig. 4)				

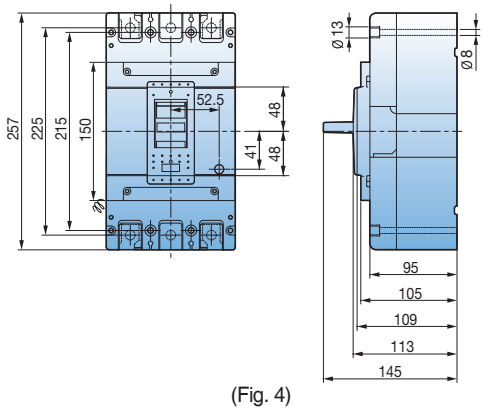
* For more detail see the page. Ratings 5-15page ~ 5-18page, Curves 8-4page and Drawings 9-5page ~ 9-6page

Note) 1. Same electrical and physical specification with MCCB.
2. Accessory: Same application with MCCB
3. MCCBs can be applied to both 50 and 60Hz.
4. Marking ZCT on the Aux. cover right side
5. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.

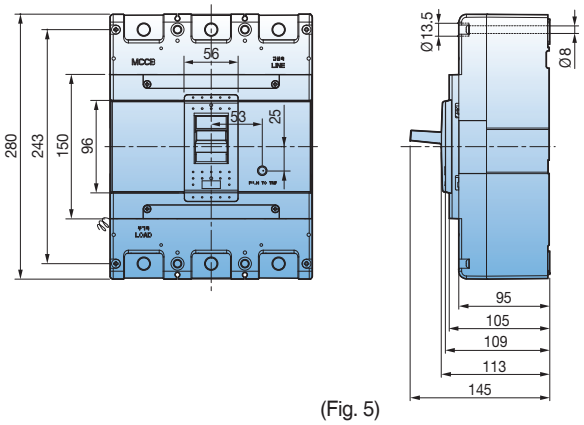




	800AF		
	N-type	S-type	L-type
	-	-	-
	ABN803cZ	ABS803cZ	ABL803cZ
	-	-	-
	500, 630, 700, 800		
	690	690	690
	1000	1000	1000
	8	8	8
	8	10	14
	25	45	65
	37	65	85
	45	75	100
	50	85	125
	100	100	75
	210×280×109 (Fig. 5)		



(Fig. 4)



(Fig. 5)

Quick selection table
Earth Leakage Circuit Breakers



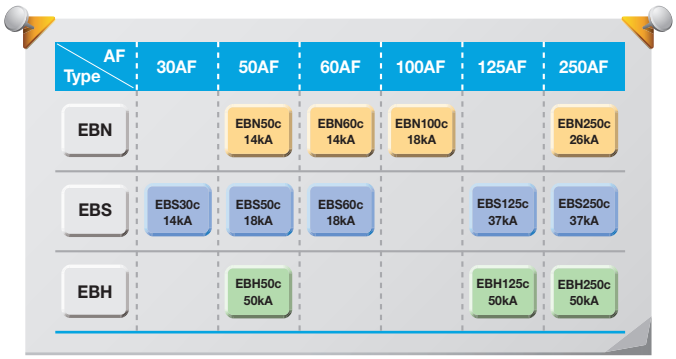


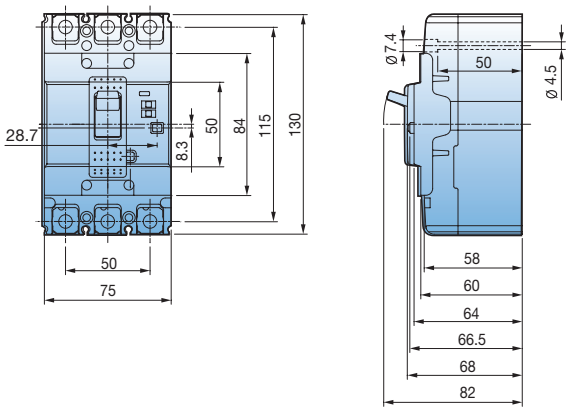
ELCBs

AF			30AF	50AF			60AF	
Type			S-type	N-type	S-type	H-type	N-type	S-type
Type and pole		2-pole	EBS32c	EBN52c	-	-	-	-
		3-pole	EBS33c	EBN53c	EBS53c	EBH53c	EBN63c	EBS63c
		4-pole	EBS34c	-	EBS54c	EBH54c	-	EBS64c
Protective function			Overload, short-circuit and ground fault	Overload, short-circuit and ground fault			Overload, short-circuit and ground fault	
Rated current, In		A	(5, 10) Note)3,15, 20, 30	15, 20, 30, 40, 50			60	
Rated impulse withstand voltage, Uimp		kV	6	6			6	
Instantaneous type	Rated residual current, I△n	mA	30, 100, 100/200/500, 100/300/500	30, 100, 100/200/500, 100/300/500			30, 100, 100/200/500, 100/300/500	
	Residual current off-time at I△n	sec	≤0.1	≤0.1			≤0.1	
	Rated operational voltage, Ue	AC (V)	220/460	220/460			220/460	
Time delay type	Rated residual current	1A	0.1/0.2/0.5/1	0.1/0.2/0.5/1			0.1/0.2/0.5/1	
	Intentional time delay	1s	0/0.2/0.5/1	0/0.2/0.5/1			0/0.2/0.5/1	
	Rated residual current	2A	0.1/0.4/1/2	0.1/0.4/1/2			0.1/0.4/1/2	
	Intentional time delay	2s	0.5/1/1.5/2	0.5/1/1.5/2			0.5/1/1.5/2	
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2								
AC		415/460V	14 (10)	14	18	50	14	18
		220/250V	30 (25)	30	35	100	30	35
Ics=%×Icu			100	100	100	100	100	100
Dimensions (mm)		W×H×D (3-pole)	75×130×60 (Fig. 1)	75×130×60 (Fig. 1)		90×155×60 (Fig. 2)	75×130×60 (Fig. 1)	

* For more detail see the page. Ratings 6-1page ~ 6-12page, Curves 8-1 ~ 8-3page and Drawings 9-9page ~ 9-11page

Note) 1. MCCBs can be applied to both 50 and 60Hz.
2. Do not test withstand voltage or insulation resistance test between poles to avoid the damage of the PCB.
3. The short-circuit breaking capacities in ( ) are applied to the rated current in (5, 10A)
4. Below 250AF Some ELCBs have a test lead type for remote testing.





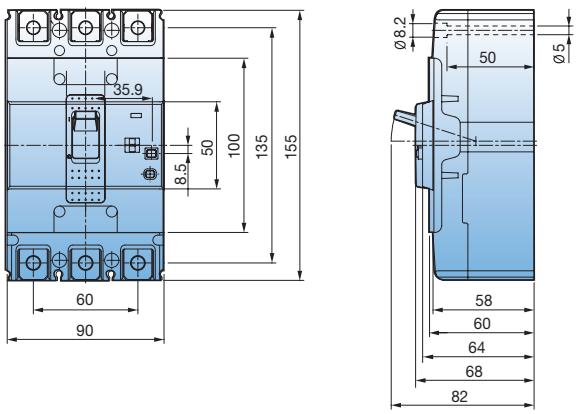
(Fig. 1)



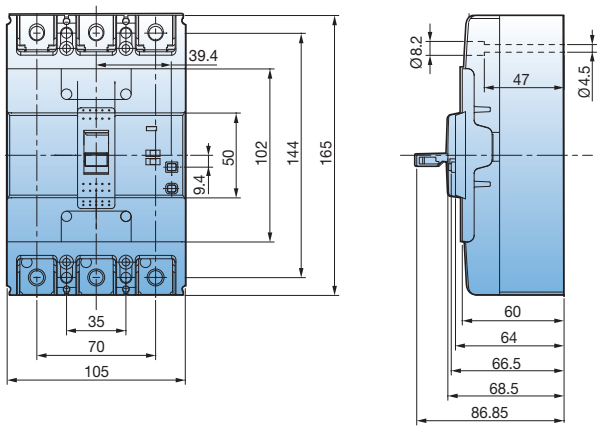




	100AF	125AF		250AF		
	N-type	S-type	H-type	N-type	S-type	H-type
	EBN102c	-	-	EBN202c	-	-
	EBN103c	EBS103c	EBH103c	EBN203c	EBS203c	EBH203c
	EBN104c	EBS104c	EBH104c	-	EBS204c	EBH204c
	Overload, short-circuit and ground fault	Overload, short-circuit and ground fault		Overload, short-circuit and ground fault		
	60, 75, 100	15, 20, 30, 40, 50, 60, 75, 100, 125		100, 125, 150, 175, 200, 225, 250		
	6	6		6		
	30, 100, 100/200/500, 100/300/500	30, 100, 100/200/500, 100/300/500		30, 100, 100/200/500, 100/300/500mA		
	≤0.1	≤0.1		≤0.1		
	220/460	220/460		220/460		
	0.1/0.2/0.5/1	0.1/0.2/0.5/1		0.1/0.2/0.5/1		
	0/0.2/0.5/1	0/0.2/0.5/1		0/0.2/0.5/1		
	0.1/0.4/1/2	0.1/0.4/1/2		0.1/0.4/1/2		
	0.5/1/1.5/2	0.5/1/1.5/2		0.5/1/1.5/2		
	18	37	50	26	37	50
	35	85	100	65	85	100
	100	100	100	100	100	100
	75×130×60 (Fig. 1)	90×155×60 (Fig. 2)		105×165×60 (Fig. 3)		



(Fig. 2)



(Fig. 3)

Quick selection table
Earth Leakage Circuit Breakers

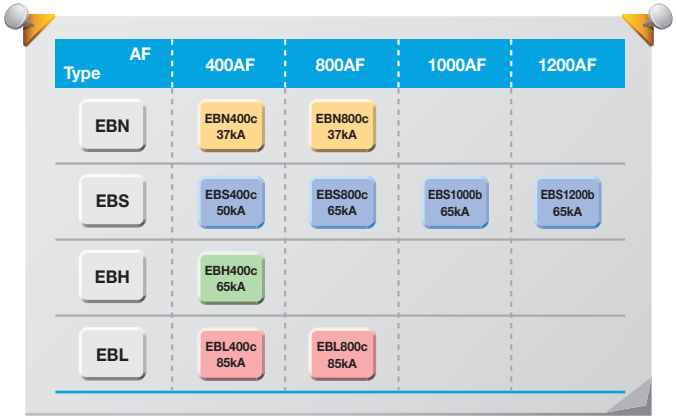


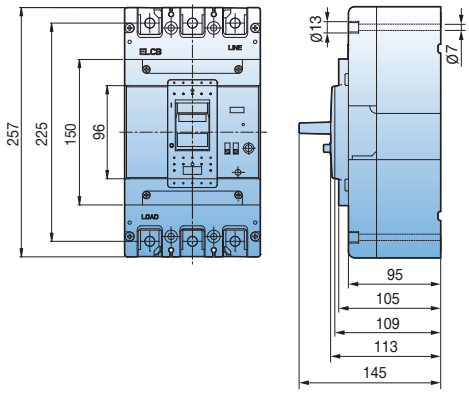
ELCBs

AF			400AF			
Type			N-type	S-type	H-type	L-type
		3-pole	EBN403c	EBS403c	EBH403c	EBL403c
		4-pole	EBN404c	EBS404c	EBH404c	EBL404c
Protective function			Overload, short-circuit and ground fault			
Rated current, In		A	250, 300, 350, 400			
Rated impulse withstand voltage, Uimp		kV	6	6	6	6
Rated operational voltage, Ue		AC (V)	220/460	220/460	220/460	220/460
Instantaneous type	Rated residual current, I∆n	mA	30, 100/200/500			
	Residual current off-time at I∆n	sec	≤0.1	≤0.1	≤0.1	≤0.1
Time delay type	Rated residual current	A	0.1/0.4/1/2			
	Intentional time delay	s	0.5/1/1.5/2			
Rated short-circuit breaking capacity (Icu) kA (Sym) , IEC 60947-2						
	AC	415/460V	37	50	65	85
		220/250V	50	75	85	125
	Ics=%×Icu		100	100	100	75
Dimensions (mm)		W×H×D (3-pole)	140×257×109 (Fig. 4)			

* For more detail see the page. Ratings 6-13page ~ 6-18page, Curves 8-4~ 8-5page and Drawings 9-12page ~ 9-14page

Note) 1. MCCBs other than 1,000/1200AF can be applied to both 50 and 60Hz.
2. Do not test withstand voltage or insulation resistance test between poles to avoid the damage of the PCB.



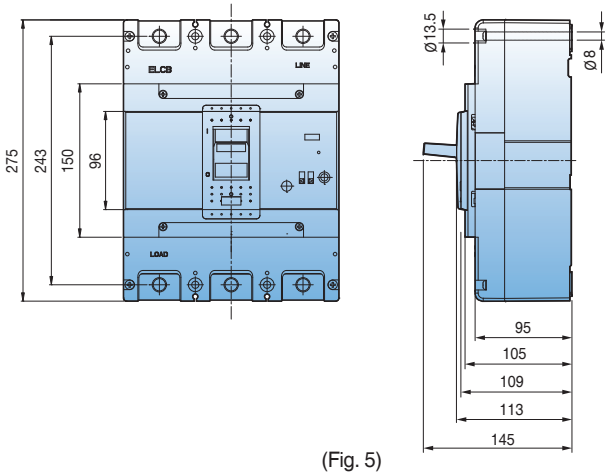


(Fig. 4)

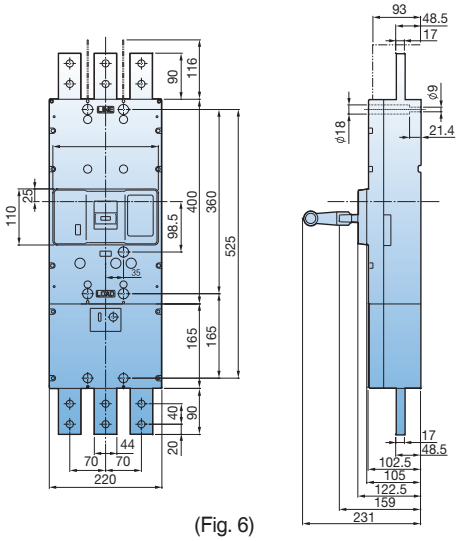




	800AF			1000AF	1200AF
	N-type	S-type	L-type	S-type	S-type
	EBN803c	EBS803c	EBL803c	EBN1003b	EBS1203b
	-	-	-	-	-
	Overload, short-circuit and ground fault			Overload, short-circuit and ground fault	
	500, 630, 700, 800			1000	1200
	6	6	6	-	-
	220/460	220/460	220/460	220/460	220/460
	30, 100/200/500			100/200/500	100/200/500
	≤0.1	≤0.1	≤0.1	≤0.1	≤0.1
	0.1/0.4/1/2			-	
	0.5/1/1.5/2			-	
	37	65	85	85	85
	50	85	125	125	125
	100	100	75	-	-
	210×280×109 (Fig. 5)			220×565×105 (Fig. 6)	



(Fig. 5)



(Fig. 6)

Type numbering system

MCCB



MCCB

AB

Ampere frame

3	30AF
5	50AF
6	60AF
10	100/125AF
20	225/250AF
40	400AF
80	800AF
100	1,000AF
120	1200AF

Series

C

Rated current

3A	175A
5A	200A
10A	225A
15A	250A
20A	300A
30A	350A
40A	400A
50A	500A
60A	630A
75A	700A
100A	800A
125A	1000A
150A	1200A

Position & type

T LWT	Right side mounting	Lead wire type
R LWT	Left side mounting	
T TBT	Right side mounting	Terminal block type
R TBT	Left side mounting	

Type

N	N-type
S	S-type
H	H-type
L	L-type

Pole

2	2-pole
3	3-pole
4	4-pole

Application

-	General purpose
M	Motor protection

Accessory

AX	Auxiliary switch
AL	Alarm switch
SHT	Shunt trip
UVT	Undervoltage trip
DH	Rotary handle (Direct)
EH	Rotary handle (Extended)
RTR RTB	Rear terminal

Control voltage of accessory

SHT
AC/DC 12V
AC/DC 24V
AC/DC 48V
AC/DC 60V
AC/DC 100V~130V
AC/DC 200V~250V
AC 380V~450V
AC 440V~500V
UVT
AC/DC 24V
AC/DC 48V
AC/DC 100V~110V
AC/DC 200V~220V
AC 380V~440V
AC 440V~480V

* Warning: Mounting accessories is not available at the left side of 2pole MCCB (Up to 125AF)

ELCB

EB | S | 10 | 3 | C | / | 100A | 30mA | AX | R

ELCB

Ampere

3	30AF
5	50AF
6	60AF
10	100/125AF
20	225/250AF
40	400AF
80	800AF
100	1000AF
120	1200AF

Series

Rated current

5A	200A
10A	225A
15A	250A
20A	300A
30A	350A
40A	400A
50A	500A
60A	630A
75A	700A
100A	800A
125A	1000A
150A	1200A
175A	

Accessory

AX	Auxiliary switch
AL	Alarm switch
DH	Rotary handle (Direct)
EH	Rotary handle (Extended)
RTR RTB	Rear terminal

Type

N	N-type
S	S-type
H	H-type
L	L-type

Pole

2	2-pole
3	3-pole
4	4-pole

Rated residual current, Intentional time delay

30mA	30mA
100mA	100mA
100/200/500mA	100/200/500mA
1A, 1s	0.1/0.2/0.5/1A, 0/0.2/0.5/1s
2A, 2s	0.1/0.4/1/2A, 0.5/1/1.5/2s

Position & type

R LWT	Left Side Mounting	Lead Wire type
R TBT	Left Side Mounting	Terminal Block ype

* Warning: Mounting accessories is not available at the right side ELCB (Up to 250AF)

30AF MCCB
ABE30b



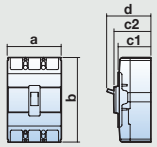
ABE32b



ABE33b

Ratings

Frame size			30AF	
Type and pole			**E-type**	
	2-pole		**ABE32b**	
	3-pole		**ABE33b**	
	4-pole		-	
Rated current, In			3-5-10-15-20-30A	
Rated operational voltage, Ue			AC: 460V	
			-	
Rated insulation voltage, Ui			AC: 460V	
Rated impulse withstand voltage, Uimp			6kV	
Rated short-circuit breaking			**E-type**	
capacity, Icu	AC	690V	-	
IEC 60947-2 (Icu)		480/500V	-	
		460V	**2.5kA**	
		415V	2.5kA	
		380V	2.5kA	
		220/250V	**5kA**	
	DC	500V (3P)	-	
		250V (2P)	-	
Ics=%×Icu			50%	
Protective function			Overload, short-circuit	
Type of trip unit			Hydraulic-magnetic	
Magnetic trip range			12In	
Life cycle Note2)	Mechanical		8,500 operations	
	Electrical		1,500 operations	
Connection	Standard		Front connection	
	Optional		-	
			-	
Mounting	Standard		Screw fixing	

Dimensions (mm)	Pole	2p	3p
	a	50	75
	b	96	96
	c1 Note1)	60	60
	c2 Note1)	-	-
	d	80	80
Weight, kg	Standard	0.5	0.7

Certification	Pole	2p	3p
CE marking	CE	○	○

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

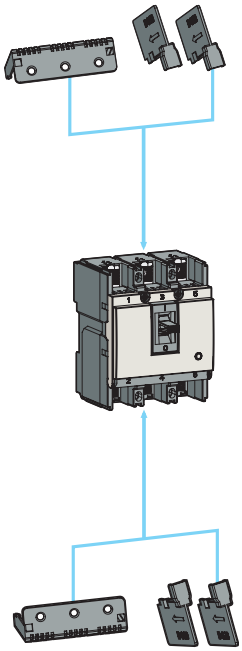
For more information

• Accessories	▶ 7-1 page
• Trip curves	▶ 8-1 page
• Drawings	▶ 9-1 page
• Connection and mounting	▶ 10-2 page

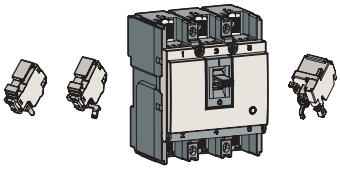
Ordering types

Breaker types

ABE type (2.5kA/460V)		
Rated current, In	**2-pole**	**3-pole**
3 A	ABE32b/3	ABE33b/3
5 A	ABE32b/5	ABE33b/5
10 A	ABE32b/10	ABE33b/10
15 A	ABE32b/15	ABE33b/15
20 A	ABE32b/20	ABE33b/20
30 A	ABE32b/30	ABE33b/30

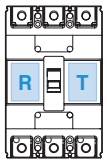


Accessories



Electrical auxiliaries

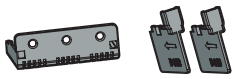
AX	Auxiliary switch
AL	Alarm switch
SHT	Shunt trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL

Note) For more detail see 7-1 page



External accessories

ABE30b	Name
B-03B	Insulation barrier
TBS23	Short type

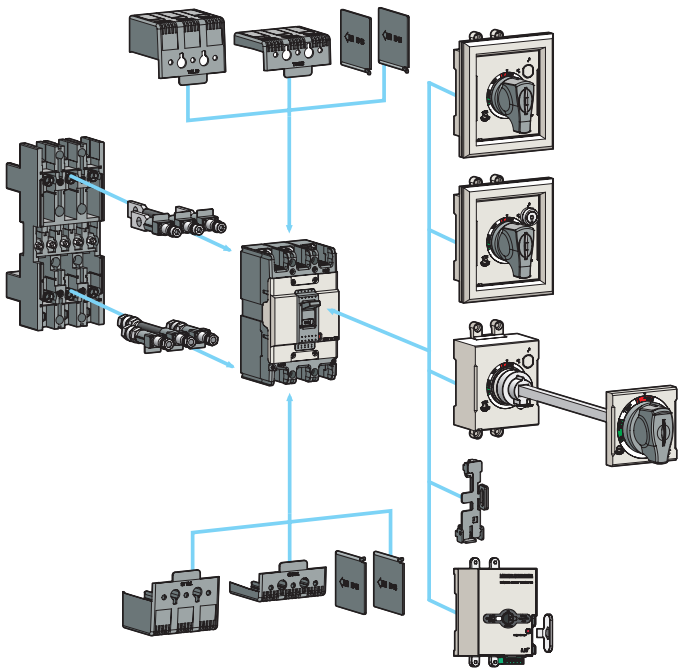
Note) For more detail see 7-9 ~ 7-26 page

Ordering types

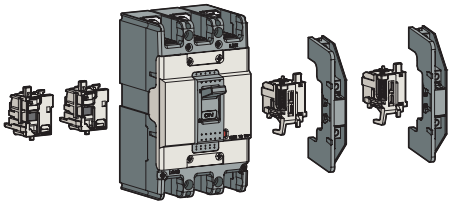
Breaker types

ABS type (10kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
3 A	ABS32c/3	ABS33c/3	ABS34c/3
5 A	ABS32c/5	ABS33c/5	ABS34c/5
10 A	ABS32c/10	ABS33c/10	ABS34c/10

ABS type (14kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABS32c/15	ABS33c/15	ABS34c/15
20 A	ABS32c/20	ABS33c/20	ABS34c/20
30 A	ABS32c/30	ABS33c/30	ABS34c/30

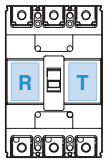


Accessories



Electrical auxiliaries

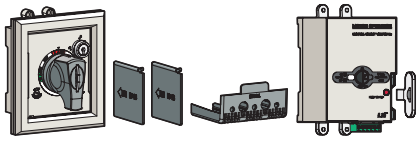
AX	Auxiliary switch
AL	Alarm switch
AX+AL	Combination switch
SHT	Shunt trip
UVT	Undervoltage trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL or AX+AL

Note) For more detail see 7-1 page



External accessories

ABS30c	Name
IB13	Insulation barrier
TCL13	Terminal cover (Long) - Inde type, D-handle type, N-handle type
TCS13	Terminal cover (Short) - Inde type, D-handle type, N-handle type
N-30c	Rotary handle (Direct)
DH100	Rotary handle (Direct)
DHK100	Rotary handle (Direct, key lock)
EH100	Rotary handle (Extended)
RTR1	Rear terminal (Round)
PB-A3	Plug-in kit
Handle lock	
MOP-M1	Remote operation

Note) For more detail see 7-9 ~ 7-26 page
- Inde type: This cover is used without auxiliary handle.
- D-handle type: This cover is used with D-handle.
- N-handle type: This cover is used with N-handle.

50AF MCCB
ABN50c, ABS50c, ABH50c

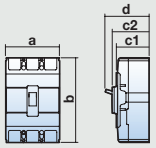

ABS52c


ABS53c


ABS54c

Ratings

Frame size			50AF		
Type and pole			**N-type**	**S-type**	**H-type**
	2-pole		**ABN52c**	**ABS52c**	**ABH52c**
	3-pole		**ABN53c**	**ABS53c**	**ABH53c**
	4-pole		**ABN54c**	**ABS54c**	**ABH54c**
Rated current, In			15-20-30-40-50A		
Rated operational voltage, Ue			AC: 690V		
			DC: 500V		
Rated insulation voltage, Ui			AC: 1000V		
Rated impulse withstand voltage, Uimp			8kV		
Rated short-circuit breaking			**N-type**	**S-type**	**H-type**
capacity, Icu	AC	690V	2.5kA	5kA	10kA
IEC 60947-2 (Icu)		480/500V	7.5kA	10kA	35kA
		460V	**14kA**	**18kA**	**50kA**
		415V	14kA	18kA	50kA
		380V	18kA	22kA	50kA
		220/250V	**30kA**	**35kA**	**100kA**
	DC	500V (3P)	5kA	10kA	30kA
		250V (2P)	5kA	10kA	30kA
Ics=%×Icu			100%	100%	100%
Protective function			Overload, short-circuit		
Type of trip unit			Thermal-magnetic		
Magnetic trip range			12×In (30A and under: 400A)		
Life cycle Note3)	Mechanical		25,000 operations		
	Electrical		10,000 operations		
Connection	Standard		Front connection		
	Optional		Rear connection		
			Plug-in		
Mounting	Standard		Screw fixing		

Dimensions (mm)	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
	a	50	75	100	50	75	100	60	90	120
	b	130			130			155		
	c1 Note1)	60			60			60		
	c2 Note1)	64			64			64		
	d	82			82			82		
Weight, kg	Standard	0.5	0.7	0.9	0.5	0.7	0.9	0.7	1	1.2

Certification	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
CE marking	CE		○			○			○	

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information

• Accessories	▶ 7-1 page
• Trip curves	▶ 8-1 page
• Drawings	▶ 9-2 page
• Connection and mounting	▶ 10-2 page

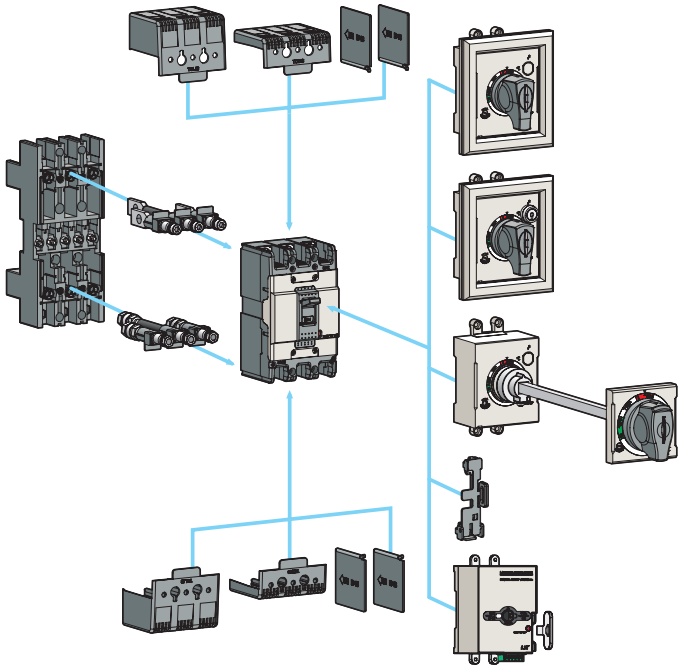
Ordering types

Breaker types

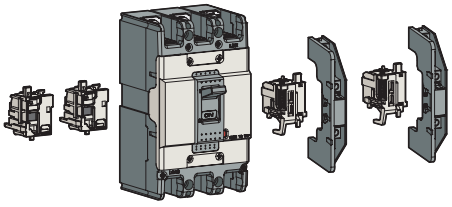
ABN type (14kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABN52c/15	ABN53c/15	ABN54c/15
20 A	ABN52c/20	ABN53c/20	ABN54c/20
30 A	ABN52c/30	ABN53c/30	ABN54c/30
40 A	ABN52c/40	ABN53c/40	ABN54c/40
50 A	ABN52c/50	ABN53c/50	ABN54c/50

ABS type (18kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABS52c/15	ABS53c/15	ABS54c/15
20 A	ABS52c/20	ABS53c/20	ABS54c/20
30 A	ABS52c/30	ABS53c/30	ABS54c/30
40 A	ABS52c/40	ABS53c/40	ABS54c/40
50 A	ABS52c/50	ABS53c/50	ABS54c/50

ABH type (50kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABH52c/15	ABH53c/15	ABH54c/15
20 A	ABH52c/20	ABH53c/20	ABH54c/20
30 A	ABH52c/30	ABH53c/30	ABH54c/30
40 A	ABH52c/40	ABH53c/40	ABH54c/40
50 A	ABH52c/50	ABH53c/50	ABH54c/50

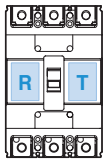


Accessories



Electrical auxiliaries

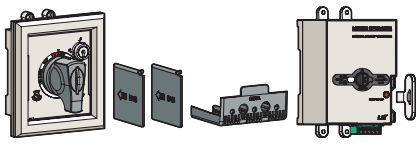
AX	Auxiliary switch
AL	Alarm switch
AX+AL	Combination switch
SHT	Shunt trip
UVT	Undervoltage trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL or AX+AL

Note) For more detail see 7-1 page



External accessories

ABN50c ABS50c	ABH50c	Name
IB13	**IB23**	Insulation barrier
TCL13	**TCL23**	Terminal cover (Long) - Inde type, D-handle type, N-handle type
TCS13	**TCS23**	Terminal cover (Short) - Inde type, D-handle type, N-handle type
N-30c	**N-40c**	Rotary handle (Direct)
DH100	**DH125**	Rotary handle (Direct)
DHK100	**DHK125**	Rotary handle (Direct, key lock)
EH100	**EH125**	Rotary handle (Extended)
-	**RTB2**	Rear terminal (Bar)
RTR1	**RTR2**	Rear terminal (Round)
PB-A3	**PB-C3**	Plug-in kit
Handle lock		
MOP-M1	**MOP-M2**	Remote operation

Note) For more detail see 7-9 ~ 7-26 page
- Inde type: This cover is used without auxiliary handle.
- D-handle type: This cover is used with D-handle.
- N-handle type: This cover is used with N-handle.

60AF MCCB
ABN60c, ABS60c

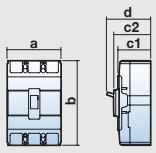

ABS62c


ABS63c


ABS64c

Ratings

Frame size			60AF	
Type and pole			**N-type**	**S-type**
	2-pole		**ABN62c**	**ABS62c**
	3-pole		**ABN63c**	**ABS63c**
	4-pole		**ABN64c**	**ABS64c**
Rated current, In			15-20-30-40-50-60A	
Rated operational voltage, Ue			AC: 690V	
			DC: 500V	
Rated insulation voltage, Ui			AC: 1000V	
Rated impulse withstand voltage, Uimp			8kV	
Rated short-circuit breaking			**N-type**	**S-type**
capacity, Icu	AC	690V	2.5kA	5kA
IEC 60947-2 (Icu)		480/500V	7.5kA	10kA
		460V	**14kA**	**18kA**
		415V	14kA	18kA
		380V	18kA	22kA
		220/250V	**30kA**	**35kA**
	DC	500V (3P)	5kA	10kA
		250V (2P)	5kA	10kA
Ics=%×Icu			100%	100%
Protective function			Overload, short-circuit	
Type of trip unit			Thermal-magnetic	
Magnetic trip range			12×In (30A and under: 400A)	
Life cycle Note3)	Mechanical		25,000 operations	
	Electrical		10,000 operations	
Connection	Standard		Front connection	
	Optional		Rear connection	
			Plug-in	
Mounting	Standard		Screw fixing	

Dimensions (mm)	Pole	2p	3p	4p	2p	3p	4p
	a	50	75	100	50	75	100
	b	130			130		
	c1 Note1)	60			60		
	c2 Note1)	64			64		
	d	82			82		
Weight, kg	Standard	0.5	0.7	0.9	0.5	0.7	0.9

Certification	Pole	2p	3p
CE marking	CE	○	○

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information

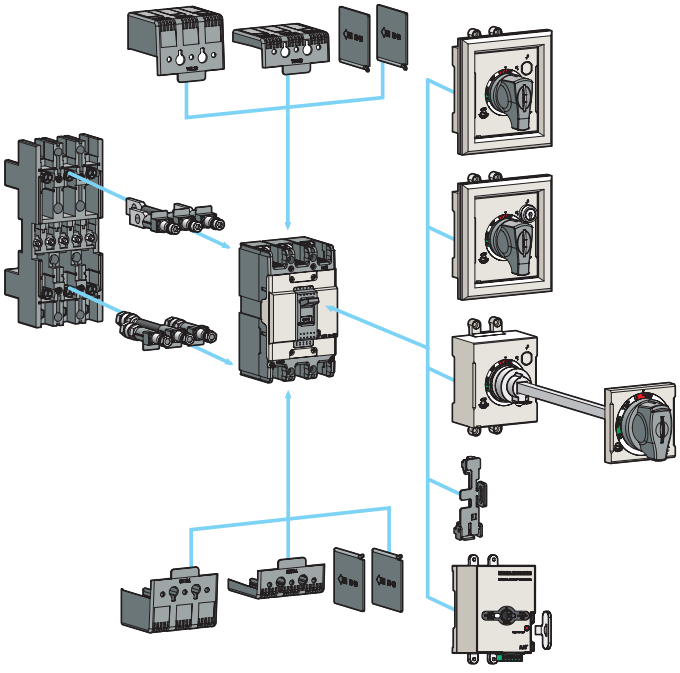
• Accessories	▶ 7-1 page
• Trip curves	▶ 8-1 page
• Drawings	▶ 9-2 page
• Connection and mounting	▶ 10-2 page

Ordering types

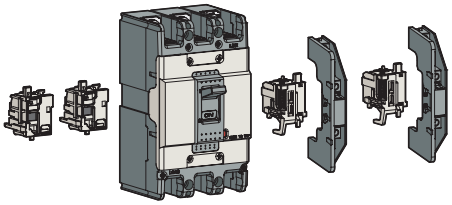
Breaker types

ABN type (14kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABN62c/15	ABN63c/15	ABN64c/15
20 A	ABN62c/20	ABN63c/20	ABN64c/20
30 A	ABN62c/30	ABN63c/30	ABN64c/30
40 A	ABN62c/40	ABN63c/40	ABN64c/40
50 A	ABN62c/50	ABN63c/50	ABN64c/50
60 A	ABN62c/60	ABN63c/60	ABN64c/60

ABS type (18kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABS62c/15	ABS63c/15	ABS64c/15
20 A	ABS62c/20	ABS63c/20	ABS64c/20
30 A	ABS62c/30	ABS63c/30	ABS64c/30
40 A	ABS62c/40	ABS63c/40	ABS64c/40
50 A	ABS62c/50	ABS63c/50	ABS64c/50
60 A	ABS62c/60	ABS63c/60	ABS64c/60

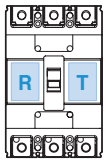


Accessories



Electrical auxiliaries

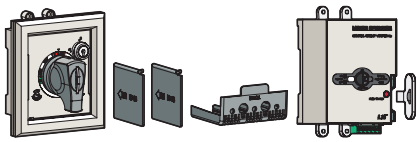
AX	Auxiliary switch
AL	Alarm switch
AX+AL	Combination switch
SHT	Shunt trip
UVT	Undervoltage trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL or AX+AL

Note) For more detail see 7-1 page



External accessories

ABN50c ABS50c	Name
IB13	Insulation barrier
TCL13	Terminal cover (Long) - Inde type, D-handle type, N-handle type
TCS13	Terminal cover (Short) - Inde type, D-handle type, N-handle type
N-30c	Rotary handle (Direct)
DH100	Rotary handle (Direct)
DHK100	Rotary handle (Direct, key lock)
EH100	Rotary handle (Extended)
RTB1	Rear terminal (Bar)
RTR1	Rear terminal (Round)
PB-A3	Plug-in kit
handle lock	
MOP-M1	Remote operation

Note) For more detail see 7-9 ~ 7-26 page
- Inde type: This cover is used without auxiliary handle.
- D-handle type: This cover is used with D-handle.
- N-handle type: This cover is used with N-handle.

100AF MCCB
ABN100c, ABN100e

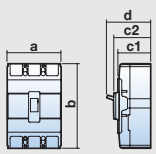

ABN102c


ABN103c


ABN104c

Ratings

Frame size			100AF	
Type and pole			N-type	
	2-pole		**ABN102c**	**ABN102e**
	3-pole		**ABN103c**	**ABN103e**
	4-pole		**ABN104c**	**ABN104e**
Rated current, In			15-20-30-40-50-60-75-100A	
Rated operational voltage, Ue			AC: 690V	
			DC: 500V	
Rated insulation voltage, Ui			AC: 1000V	
Rated impulse withstand voltage, Uimp			8kV	
Rated short-circuit breaking			N-type	
capacity, Icu	AC	690V	5kA	7.5 (5)kA
IEC 60947-2 (Icu)		480/500V	10kA	14 (10)kA
		460V	**18kA**	**31 (18)kA**
		415V	18kA	31 (18)kA
		380V	22kA	31 (22)kA
		220/250V	**35kA**	**65 (35)kA**
	DC	500V (3P)	10kA	15 (10)kA
		250V (2P)	10kA	15 (10)kA
Ics=%×Icu			100%	( )
Protective function			Overload, short-circuit	
Type of trip unit			Thermal-magnetic	
Magnetic trip range			400A	
Life cycle Note4)	Mechanical		25,000 operations	
	Electrical		10,000 operations	
Connection	Standard		Front connection	
	Optional		Rear connection	
			Plug-in	
Mounting	Standard		Screw fixing	

Dimensions (mm)	Pole	2p	3p	4p
	a	50	75	100
	b	130	130	130
	c1 Note1)	60	60	60
	c2 Note1)	64	64	64
	d	82	82	82
Weight, kg	Standard	0.5	0.7	0.9

Certification	Pole	2p	3p	4p
CE marking	CE	○	○	○

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. The Ics(Service breaking capacity) of ABN100e are in ( )
4. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information

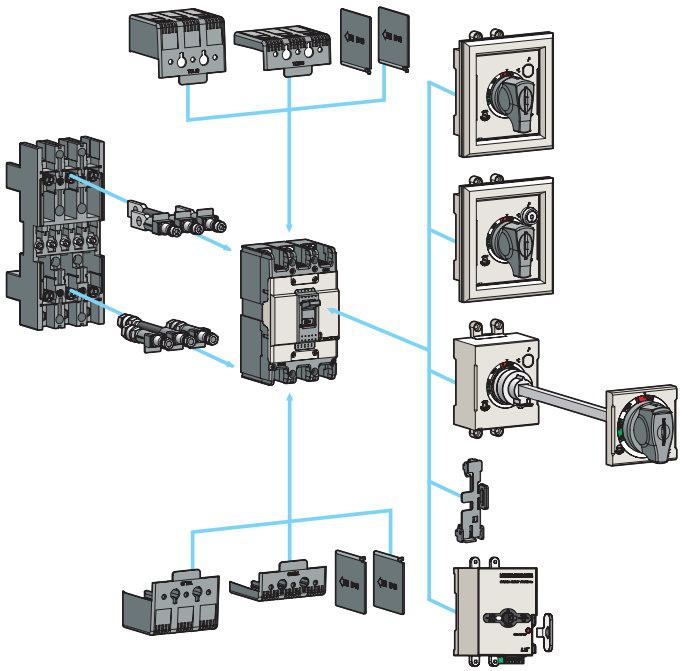
• Accessories	▶ 7-1 page
• Trip curves	▶ 8-1 page
• Drawings	▶ 9-2 page
• Connection and mounting	▶ 10-2 page

Ordering types

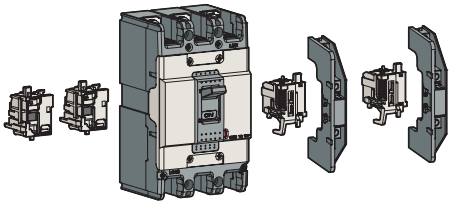
Breaker types

ABN-c type (18kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABN102c/15	ABN103c/15	ABN104c/15
20 A	ABN102c/20	ABN103c/20	ABN104c/20
30 A	ABN102c/30	ABN103c/30	ABN104c/30
40 A	ABN102c/40	ABN103c/40	ABN104c/40
50 A	ABN102c/50	ABN103c/50	ABN104c/50
60 A	ABN102c/60	ABN103c/60	ABN104c/60
75 A	ABN102c/75	ABN103c/75	ABN104c/75
100 A	ABN102c/100	ABN103c/100	ABN104c/100

ABN-e type (31kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABN102e/15	ABN103e/15	ABN104e/15
20 A	ABN102e/20	ABN103e/20	ABN104e/20
30 A	ABN102e/30	ABN103e/30	ABN104e/30
40 A	ABN102e/40	ABN103e/40	ABN104e/40
50 A	ABN102e/50	ABN103e/50	ABN104e/50
60 A	ABN102e/60	ABN103e/60	ABN104e/60
75 A	ABN102e/75	ABN103e/75	ABN104e/75
100 A	ABN102e/100	ABN103e/100	ABN104e/100

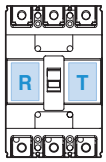


Accessories



Electrical auxiliaries

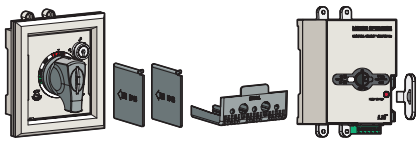
AX	Auxiliary switch
AL	Alarm switch
AX+AL	Combination switch
SHT	Shunt trip
UVT	Undervoltage trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL or AX+AL

Note) For more detail see 7-1 page



External accessories

ABN100c	Name
IB13	Insulation barrier
TCL13	Terminal cover (Long) - Inde type, D-handle type, N-handle type
TCS13	Terminal cover (Short) - Inde type, D-handle type, N-handle type
N-30c	Rotary handle (Direct)
DH100	Rotary handle (Direct)
DHK100	Rotary handle (Direct, key lock)
EH100	Rotary handle (Extended)
RTB1	Rear terminal (Bar)
RTR1	Rear terminal (Round)
PB-A3	Plug-in kit
Handle lock	
MOP-M1	Remote operation

Note) For more detail see 7-9 ~ 7-26 page
- Inde type: This cover is used without auxiliary handle.
- D-handle type: This cover is used with D-handle.
- N-handle type: This cover is used with N-handle.

125AF MCCB
ABS125c, ABH125c, ABL125c


ABS102c


ABS103c

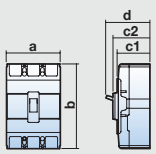

ABS104c

For more information

• Accessories	▶ 7-1 page
• Trip curves	▶ 8-2 page
• Drawings	▶ 9-3 page
• Connection and mounting	▶ 10-2 page

Ratings

Frame size			125AF		
Type and pole			**N-type**	**H-type**	**L-type**
	2-pole		**ABS102c**	**ABH102c**	**ABL102c**
	3-pole		**ABS103c**	**ABH103c**	**ABL103c**
	4-pole		**ABS104c**	**ABH104c**	**ABL104c**
Rated current, In			15-20-30-40-50-60-75-100-125A		
Rated operational voltage, Ue			AC: 690V		
			DC: 500V		
Rated insulation voltage, Ui			AC: 1000V		
Rated impulse withstand voltage, Uimp			8kV		
Rated short-circuit breaking			**N-type**	**H-type**	**L-type**
capacity, Icu	AC	690V	8kA	10kA	10 (10)kA
IEC 60947-2 (Icu)		480/500V	26kA	35kA	35 (35)kA
		460V	**37kA**	**50kA**	**60 (50)kA**
		415V	37kA	50kA	60 (50)kA
		380V	42kA	50kA	60 (50)kA
		220/250V	**85kA**	**100kA**	**125 (100)kA**
	DC	500V (3P)	20kA	30kA	30 (30)kA
		250V (2P)	20kA	30kA	30 (30)kA
Ics=%×Icu			100%	100%	( )
Protective function			Overload, short-circuit		
Type of trip unit			Thermal-magnetic		
Magnetic trip range			12×In (30A and under: 400A)		
Life cycle Note4)	Mechanical		25,000 operations		
	Electrical		10,000 operations		
Connection	Standard		Front connection		
	Optional		Rear connection		
			Plug-in		
Mounting	Standard		Screw fixing		

Dimensions (mm)	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
	a	60	90	120	60	90	120	60	90	120
	b	155			155			155		
	c1 Note1)	60			60			60		
	c2 Note1)	64			64			64		
	d	82			82			82		
Weight, kg	Standard	0.7	1	1.2	0.7	1	1.2	0.7	1	1.2

Certification	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
CE marking	CE		○			○			○	

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. The Ics(Service breaking capacity) of ABL125AF are in ( )
4. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

Ordering types

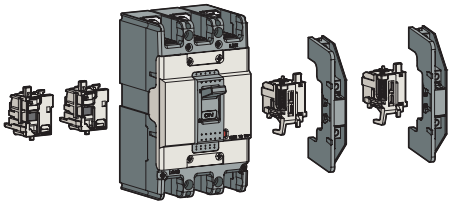
Breaker types

ABS type (37kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABS102c/15	ABS103c/15	ABS104c/15
20 A	ABS102c/20	ABS103c/20	ABS104c/20
30 A	ABS102c/30	ABS103c/30	ABS104c/30
40 A	ABS102c/40	ABS103c/40	ABS104c/40
50 A	ABS102c/50	ABS103c/50	ABS104c/50
60 A	ABS102c/60	ABS103c/60	ABS104c/60
75 A	ABS102c/75	ABS103c/75	ABS104c/75
100 A	ABS102c/100	ABS103c/100	ABS104c/100
125 A	ABS102c/125	ABS103c/125	ABS104c/125

ABH type (50kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABH102c/15	ABH103c/15	ABH104c/15
20 A	ABH102c/20	ABH103c/20	ABH104c/20
30 A	ABH102c/30	ABH103c/30	ABH104c/30
40 A	ABH102c/40	ABH103c/40	ABH104c/40
50 A	ABH102c/50	ABH103c/50	ABH104c/50
60 A	ABH102c/60	ABH103c/60	ABH104c/60
75 A	ABH102c/75	ABH103c/75	ABH104c/75
100 A	ABH102c/100	ABH103c/100	ABH104c/100
125 A	ABH102c/125	ABH103c/125	ABH104c/125

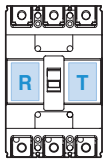
ABL type (60kA/460V)			
Rated current, In	**2-pole**	**3-pole**	**4-pole**
15 A	ABL102c/15	ABL103c/15	ABL104c/15
20 A	ABL102c/20	ABL103c/20	ABL104c/20
30 A	ABL102c/30	ABL103c/30	ABL104c/30
40 A	ABL102c/40	ABL103c/40	ABL104c/40
50 A	ABL102c/50	ABL103c/50	ABL104c/50
60 A	ABL102c/60	ABL103c/60	ABL104c/60
75 A	ABL102c/75	ABL103c/75	ABL104c/75
100 A	ABL102c/100	ABL103c/100	ABL104c/100
125 A	ABL102c/125	ABL103c/125	ABL104c/125

Accessories



Electrical auxiliaries

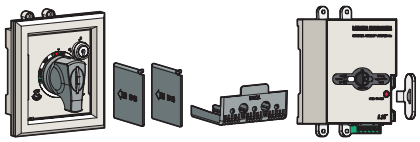
AX	Auxiliary switch
AL	Alarm switch
AX+AL	Combination switch
SHT	Shunt trip
UVT	Undervoltage trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL or AX+AL

Note) For more detail see 7-1 page



External accessories

ABS125c ABH125c	Name
IB13	Insulation barrier
TCL23	Terminal cover (Long) - Inde type, D-handle type, N-handle type
TCS23	Terminal cover (Short) - Inde type, D-handle type, N-handle type
N-40c	Rotary handle (Direct)
DH125	Rotary handle (Direct)
DHK125	Rotary handle (Direct, key lock)
EH125	Rotary handle (Extended)
RTB2	Rear terminal (Bar)
RTR2	Rear terminal (Round)
PB-C3	Plug-in kit
Handle lock	
MOP-M2	Remote operation

Note) For more detail see 7-9 ~ 7-26 page
- Inde type: This cover is used without auxiliary handle.
- D-handle type: This cover is used with D-handle.
- N-handle type: This cover is used with N-handle.

250AF MCCB
ABN250c, ABS250c, ABH250c, ABL250c

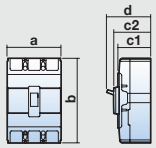

ABS202c


ABS203c


ABS204c

Ratings

Frame size			250AF			
Type and pole			**N-type**	**S-type**	**H-type**	**L-type**
	2-pole		**ABN202c**	**ABS202c**	**ABH202c**	**ABL202c**
	3-pole		**ABN203c**	**ABS203c**	**ABH203c**	**ABL203c**
	4-pole		**ABN204c**	**ABS204c**	**ABH204c**	**ABL204c**
Rated current, In			100-125-150-175-200-225-250A			
Rated operational voltage, Ue			AC: 690V			
			DC: 500V			
Rated insulation voltage, Ui			AC: 1000V			
Rated impulse withstand voltage, Uimp			8kV			
Rated short-circuit breaking			**N-type**	**S-type**	**H-type**	**L-type**
capacity, Icu	AC	690V	8kA	8kA	10kA	10 (10)kA
IEC 60947-2 (Icu)		480/500V	18kA	26kA	35kA	35 (35)kA
		460V	**26kA**	**37kA**	**50kA**	**60 (50)kA**
		415V	26kA	37kA	50kA	60 (50)
		380V	30kA	42kA	50kA	60 (50)
		220/250V	**65kA**	**85kA**	**100kA**	**125 (100)kA**
	DC	500V (3P)	10kA	20kA	30kA	30 (30)kA
		250V (2P)	10kA	20kA	30kA	30 (30)kA
Ics=%×Icu			100%	100%	100%	( )
Protective function			Overload, short-circuit			
Type of trip unit			Thermal-magnetic			
Magnetic trip range			12×In			
Life cycle Note4)	Mechanical		25,000 operations			
	Electrical		10,000 operations			
Connection	Standard		Front connection			
	Optional		Rear connection			
			Plug-in			
Mounting	Standard		Screw fixing			

Dimensions (mm)	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p	2p	3p	4p
	a	60	90	120	690	120	140	105	105	140	105	105	140
	b	155			155			165			165		
	c1 Note1)	60			60			60			60		
	c2 Note1)	64			64			64			64		
	d	82			82			87			87		
Weight, kg	Standard	0.7	1	1.2	0.7	1	1.2	1.1	1.2	1.6	1.1	1.2	1.6

Certification	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p	2p	3p	4p
CE marking	CE	○			○			○			○		

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. The Ics(Service breaking capacity) of ABL250AF are in ( )
4. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information
- Accessories ▶ 7-1 page
- Trip curves ▶ 8-3 page
- Drawings ▶ 9-4 page
- Connection and mounting ▶ 10-2 page

Ordering types

Breaker types

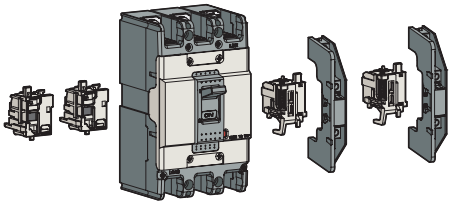
ABN type (26kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
100 A	ABN202c/100	ABN203c/100	ABN204c/100
125 A	ABN202c/125	ABN203c/125	ABN204c/125
150 A	ABN202c/150	ABN203c/150	ABN204c/150
175 A	ABN202c/175	ABN203c/175	ABN204c/175
200 A	ABN202c/200	ABN203c/200	ABN204c/200
225 A	ABN202c/225	ABN203c/225	ABN204c/225
250 A	ABN202c/250	ABN203c/250	ABN204c/250

ABS type (37kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
100 A	ABS202c/100	ABS203c/100	ABS204c/100
125 A	ABS202c/125	ABS203c/125	ABS204c/125
150 A	ABS202c/150	ABS203c/150	ABS204c/150
175 A	ABS202c/175	ABS203c/175	ABS204c/175
200 A	ABS202c/200	ABS203c/200	ABS204c/200
225 A	ABS202c/225	ABS203c/225	ABS204c/225
250 A	ABS202c/250	ABS203c/250	ABS204c/250

ABH type (50kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
100 A	ABH202c/100	ABH203c/100	ABH204c/100
125 A	ABH202c/125	ABH203c/125	ABH204c/125
150 A	ABH202c/150	ABH203c/150	ABH204c/150
175 A	ABH202c/175	ABH203c/175	ABH204c/175
200 A	ABH202c/200	ABH203c/200	ABH204c/200
225 A	ABH202c/225	ABH203c/225	ABH204c/225
250 A	ABH202c/250	ABH203c/250	ABH204c/250

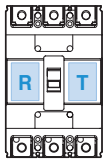
ABL type (60kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
100 A	ABL202c/100	ABL203c/100	ABL204c/100
125 A	ABL202c/125	ABL203c/125	ABL204c/125
150 A	ABL202c/150	ABL203c/150	ABL204c/150
175 A	ABL202c/175	ABL203c/175	ABL204c/175
200 A	ABL202c/200	ABL203c/200	ABL204c/200
225 A	ABL202c/225	ABL203c/225	ABL204c/225
250 A	ABL202c/250	ABL203c/250	ABL204c/250

Accessories



Electrical auxiliaries

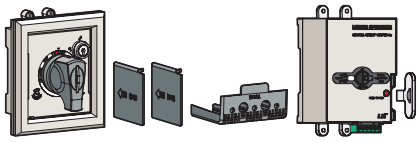
AX	Auxiliary switch
AL	Alarm switch
AX+AL	Combination switch
SHT	Shunt trip
UVT	Undervoltage trip



Maximum possibilities

T-position	One of above auxiliaries
R-position	Option of AX or AL or AX+AL

Note) For more detail see 7-1 page



External accessories

ABH250c	Name
B33	Insulation barrier
TCL33	Terminal cover (Long) - Inde type, D-handle type, N-handle type
TCS33	Terminal cover (Short) - Inde type, D-handle type, N-handle type
N-50c	Rotary handle (Direct)
DH250	Rotary handle (Direct)
DHK250	Rotary handle (Direct, key lock)
EH250	Rotary handle (Extended)
RTB3	Rear terminal (Bar)
RTR3	Rear terminal (Round)
PBA250C	Plug-in kit
Handle lock	
MOP-M3	Remote operation

Note) For more detail see 7-9 ~ 7-26 page
- Inde type: This cover is used without auxiliary handle.
- D-handle type: This cover is used with D-handle.
- N-handle type: This cover is used with N-handle.

400AF MCCB
ABN400c, ABS400c, ABH400c, ABL400c



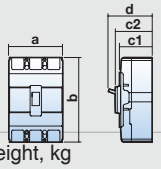
ABS403c



ABL404c

Ratings

Frame size			400AF			
Type and pole			**N-type**	**S-type**	**H-type**	**L-type**
	2-pole		**ABN402c**	**ABS402c**	**ABH402c**	**ABL402c**
	3-pole		**ABN403c**	**ABS403c**	**ABH403c**	**ABL403c**
	4-pole		**ABN404c**	**ABS404c**	**ABH404c**	**ABL404c**
Rated current, In			250-300-350-400A			
Rated operational voltage, Ue			AC: 690V			
			DC: 500V			
Rated insulation voltage, Ui			AC: 1000V			
Rated impulse withstand voltage, Uimp			8kV			
Rated short-circuit breaking			**N-type**	**S-type**	**H-type**	**L-type**
capacity, Icu	AC	690V	5kA	8kA	10kA	14kA
IEC 60947-2 (Icu)		480/500V	18kA	35kA	50kA	65kA
		415/460V	**37kA**	**50kA**	**65kA**	**85kA**
		380V	42kA	65kA	70kA	100kA
		220/250V	**50kA**	**75kA**	**85kA**	**125kA**
	DC	500V (3P)	10kA	20kA	40kA	40kA
		250V (2P)	10kA	20kA	40kA	40kA
Ics=%×Icu			100%	100%	100%	75
Protective function			Overload, short-circuit			
Type of trip unit			Thermal-magnetic			
Magnetic trip range			8~12In			
Life cycle Note3)	Mechanical		4,000 operations			
	Electrical		1,000 operations			
Connection	Standard		Front connection			
	Optional		Plug-in			
Mounting	Standard		Screw fixing			

Dimensions (mm)	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p	2p	3p	4p
	a	140	140	184	140	140	184	140	140	184	140	140	184
	b	257			257			257			257		
	c1 Note)	109			109			109			109		
	c2 Note)	113			113			113			113		
	d	145			145			145			145		
Weight, kg	Standard	5.2	6.2	7.8	5.2	6.2	7.8	5.2	6.2	7.8	5.2	6.2	7.8

Certification	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p	2p	3p	4p
CE marking	CE	○			○			○			○		

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information

• Accessories	▶ 7-2 page
• Trip curves	▶ 8-4 page
• Drawings	▶ 9-5 page
• Connection and mounting	▶ 10-3 page

Ordering types

Breaker types

ABN type (37kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
250 A	ABN402c/250	ABN403c/250	ABN404c/250
300 A	ABN402c/300	ABN403c/300	ABN404c/300
350 A	ABN402c/350	ABN403c/350	ABN404c/350
400 A	ABN402c/400	ABN403c/400	ABN404c/400

ABS type (50kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
250 A	ABS402c/250	ABS403c/250	ABS404c/250
300 A	ABS402c/300	ABS403c/300	ABS404c/300
350 A	ABS402c/350	ABS403c/350	ABS404c/350
400 A	ABS402c/400	ABS403c/400	ABS404c/400

ABH type (65kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
250 A	ABH402c/250	ABH403c/250	ABH404c/250
300 A	ABH402c/300	ABH403c/300	ABH404c/300
350 A	ABH402c/350	ABH403c/350	ABH404c/350
400 A	ABH402c/400	ABH403c/400	ABH404c/400

ABL type (85kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
250 A	ABL402c/250	ABL403c/250	ABL404c/250
300 A	ABL402c/300	ABL403c/300	ABL404c/300
350 A	ABL402c/350	ABL403c/350	ABL404c/350
400 A	ABL402c/400	ABL403c/400	ABL404c/400

Accessories

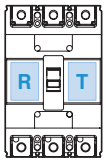






Electrical auxiliaries

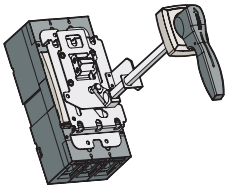
AX	Auxiliary switch
AL	Alarm switch
SHT	Shunt trip
UVT	Undervoltage trip



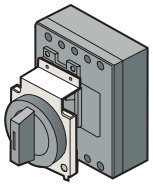
Maximum possibilities

T-position	Option of 2AX, 2AL and SHT or UVT
R-position	Option of 2AX, 2AL and SHT or UVT

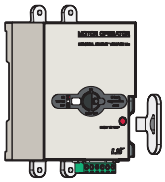
Note) For more detail see 7-2 page



E-70U



N-70



MOP-M4

External accessories

B-43B	Insulation barrier
T1-43A	Terminal cover (Long) - 2, 3pole
T1-44A	Terminal cover (Long) - 4pole
N-70	Rotary handle (Direct)
E-70U	Rotary handle (Extended)
MI-43	Mechanical interlock - 2, 3pole
MI-44	Mechanical interlock - 4pole
PB-I3-FR	Plug-in kit
MOP-M4	Remote operation

Note) For more detail see 7-9 ~ 7-26 page

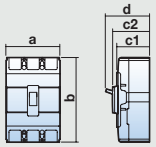
800AF MCCB
ABN800c, ABS800c, ABL800c


ABS803c


ABL804c

Ratings

Frame size			800AF		
Type and pole			**N-type**	**S-type**	**L-type**
	2-pole		**ABN802c**	**ABS802c**	**ABL802c**
	3-pole		**ABN803c**	**ABS803c**	**ABL803c**
	4-pole		**ABN804c**	**ABS804c**	**ABL804c**
Rated current, In			500-630-700-800A		
Rated operational voltage, Ue			AC: 690V		
			DC: 500V		
Rated insulation voltage, Ui			AC: 1000V		
Rated impulse withstand voltage, Uimp			8kV		
Rated short-circuit breaking			**N-type**	**S-type**	**L-type**
capacity, Icu	AC	690V	8kA	10kA	14kA
IEC 60947-2 (Icu)		480/500V	25kA	45kA	65kA
		415/460V	**37kA**	**65kA**	**85kA**
		380V	45kA	75kA	100kA
		220/250V	**50kA**	**85kA**	**125kA**
	DC	500V (3P)	10kA	20kA	40kA
		250V (2P)	10kA	20kA	40kA
Ics=%×Icu			100%	100%	75%
Protective function			Overload, short-circuit		
Type of trip unit			Thermal-magnetic		
Magnetic trip range			8~12In		
Life cycle Note3)	Mechanical		2,500 operations		
	Electrical		500 operations		
Connection	Standard		Front connection		
	Optional		Plug-in		
Mounting	Standard		Screw fixing		

Dimensions (mm)	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
	a	210	210	280	210	210	280	210	210	280
	b	280			280			280		
	c1 Note1)	109			109			109		
	c2 Note1)	113			113			113		
	d	145			145			145		
Weight, kg	Standard	11	11.5	18.2	11	11.5	18.2	11	11.5	18.2

Certification	Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
CE marking	CE		○			○			○	

Note) 1. Depth by door cut size: c1 for large cut, c2 for small cut
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information

• Accessories	▶ 7-2 page
• Trip curves	▶ 8-4 page
• Drawings	▶ 9-6 page
• Connection and mounting	▶ 10-3 page

Ordering types

Breaker types

ABN type (37kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
500 A	ABN802c/500	ABN803c/500	ABN804c/500
630 A	ABN802c/630	ABN803c/630	ABN804c/630
700 A	ABN802c/700	ABN803c/700	ABN804c/700
800 A	ABN802c/800	ABN803c/800	ABN804c/800

ABS type (65kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
500 A	ABS802c/500	ABS803c/500	ABS804c/500
630 A	ABS802c/630	ABS803c/630	ABS804c/630
700 A	ABS802c/700	ABS803c/700	ABS804c/700
800 A	ABS802c/800	ABS803c/800	ABS804c/800

ABL type (85kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
500 A	ABL802c/500	ABL803c/500	ABL804c/500
630 A	ABL802c/630	ABL803c/630	ABL804c/630
700 A	ABL802c/700	ABL803c/700	ABL804c/700
800 A	ABL802c/800	ABL803c/800	ABL804c/800

Accessories

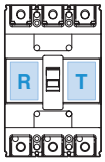






Electrical auxiliaries

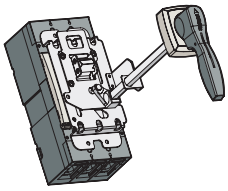
AX	Auxiliary switch
AL	Alarm switch
SHT	Shunt trip
UVT	Undervoltage trip



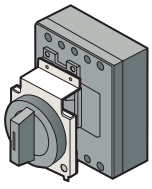
Maximum possibilities

T-position	Option of 2AX, 2AL and SHT or UVT
R-position	Option of 2AX, 2AL and SHT or UVT

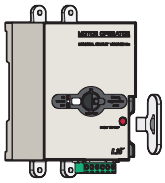
Note) For more detail see 7-2 page



E-80U



N-80



MOP-M5

External accessories

B-33C	Insulation barrier
T1-63A	Terminal cover (Long) - 2, 3pole
T1-64A	Terminal cover (Long) - 4pole
N-80	Rotary handle (Direct)
E-80U	Rotary handle (Extended)
MI-83S	Mechanical interlock - 2, 3pole
MI-84S	Mechanical interlock - 4pole
PB-J3-FR	Plug-in kit
MOP-M5	Remote operation

Note) For more detail see 7-9 ~ 7-26 page

1000/1200AF MCCB
ABS1000b/1200b, ABL1000b/1200b



① Adjustable instantaneous
for each phase

Ratings

Frame size			1000AF		1200AF	
Type and pole			S-type	L-type	S-type	L-type
	2-pole		-	-	-	-
	3-pole		ABS1003b	ABL1003b	ABS1203b	ABL1203b
	4-pole		ABS1004b	ABL1004b	ABS1204b	ABL1204b
Rated current, In			1000A		1200A	
Rated operational voltage, Ue			AC: 600V			
Rated insulation voltage, Ui			690V			
Rated impulse withstand voltage, Uimp			6kV			
Rated short-circuit breaking			S-type	L-type	S-type	L-type
capacity, Icu	AC	690V	45kA	65kA	45kA	65kA
IEC 60947-2 (Icu)		480/500V	50kA	75kA	50kA	75kA
		460V/415V	65kA	85kA	65kA	85kA
		380V	65kA	85kA	65kA	85kA
		220/250V	100kA	125kA	100kA	125kA
Ics=%×Icu			50%	50%	50%	50%
Protective function			Overload, short-circuit			
Type of trip unit			Thermal-magnetic			
Magnetic trip range			3~6×In ...①			
Life cycle Note3)	Mechanical		2,500 operations			
	Electrical		500 operations			
Connection	Standard		Front connection			
Mounting	Standard		Screw fixing			
Dimensions (mm)		Pole	3p	4p	3p	4p
		a	220	290	220	290
		b	400	400	400	400
		c	105	105	105	105
		d	159	159	159	159
Weight, kg		Standard	19.6	25.7	19.6	25.7
Certification		Pole	3p	4p	3p	4p
CE marking		CE	ABS1003b	ABS1004b	ABS1203b	ABS1204b
			○	×	○	×
			ABL1003b	ABL1004b	ABL1203b	ABL1204b
			×	×	×	×

Note) 1. Please specify the frequency when ordering.
2. 4-pole product's ampacity on neutral conductor is equal to or less than 50% of the rated current.
3. Life cycle means not guarantee but limitation
(Quality guarantee: On/Off frequency on the basis of IEC60947-2 within the term of guarantee.)

For more information
• Trip curves ▶ 8-5 page
• Drawings ▶ 9-7 page

Ordering types

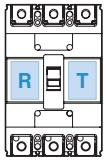
Breaker types

ABS type (65kA/460V)		
Rated current, In	**3-pole**	**4-pole**
1000 A	ABS1003b/1000	ABS1004b/1000
1200 A	ABS1203b/1200	ABS1204b/1200

ABL type (85kA/460V)		
Rated current, In	**3-pole**	**4-pole**
1000 A	ABL1003b/1000	ABL1004b/1000
1200 A	ABL1203b/1200	ABL1204b/1200

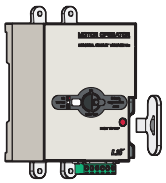
Option of below items for T-position

AX1	Auxiliary switch (1c)
AX2	Auxiliary switch (2c)
AL1	Alarm switch (1c)
AL2	Alarm switch (2c)
AX1+AL	Auxiliary (1c) + Alarm (1c) switch
AX2+AL	Auxiliary (2c) + Alarm (1c) switch



Option of below items for R-position

SHT	Shunt trip
UVT	Undervoltage trip



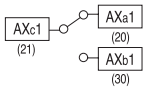
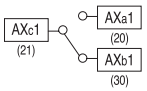
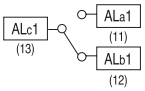
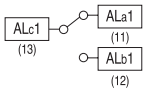
MOP-M6

External accessories

MOP-M6	Remote operation

Note) For more detail see7-25 page

Contact operation for auxiliary and alarm switches

MCCB	On	Off	Trip
AX			
AL			

Contact rating for auxiliary and alarm switches

AC			DC		
Voltage (V)	**Current (A)**		**Voltage (V)**	**Current (A)**	
	Resistive load	**Inductive load**		**Resistive load**	**Inductive load**
125	20	20	30	6	5
250	20	20	125	0.4	0.05
500	10	5	250	0.2	0.03

Rating for shunt trip (SHT)

Control voltage		Time rating	Operational voltage
AC	100~110V 125V 200~220V 380~440V 480~550V	Continuous	85~110% of control voltage
DC	24V 48V 100~110V 125V 200~220V		75~125% of control voltage

Rating for undervoltage release (UVT)

Control voltage		Time rating	Operational voltage	Trip voltage
AC	100~110V 125V 200~220V 380~440V	Continuous	85~110% of control voltage	20~70% of control voltage