

50AF MCCB

ABN50c, ABS50c, ABH50c



ABS52c



ABS53c



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, I _n		15-20-30-40-50A											
Rated operational voltage, U _e		AC: 690V											
		DC: 500V											
Rated insulation voltage, U _i		AC: 750V											
Rated impulse withstand voltage, U _{imp}		8kV											
Rated short-circuit breaking capacity, I_{cu}		N-Type			S-Type			H-Type					
AC 690V		2.5kA			5kA			10kA					
480/500V		7.5kA			10kA			35kA					
IEC 60947-2 (I _{cu})		460V			14kA			18kA			50kA		
I _{cs} =100%I _{cu}		415V			14kA			18kA			50kA		
		380V			18kA			22kA			50kA		
		220/250V			30kA			35kA			100kA		
DC 500V(3P)		5kA			10kA			30kA					
250V(2P)		5kA			10kA			30kA					
Protective function		Overload, Short-circuit											
Type of trip unit		Thermal-Magnetic											
Magnetic trip range		12 × I _n (30A and under: 400A)											
Endurance		Mechanical			25000 operations								
		Electrical			10000 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 <small>Note)</small>		60			60			60			
		c2 <small>Note)</small>		64			64			64			
		d		82			82			82			
		d			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) Depth by door cut size : c1 for large cut, c2 for small cut

For more information

- Drawings ▶ 106, 107 page
- Trip curves ▶ 98, 99 page
- Accessories ▶ 74 page
- Connection and mounting ▶ 123 page

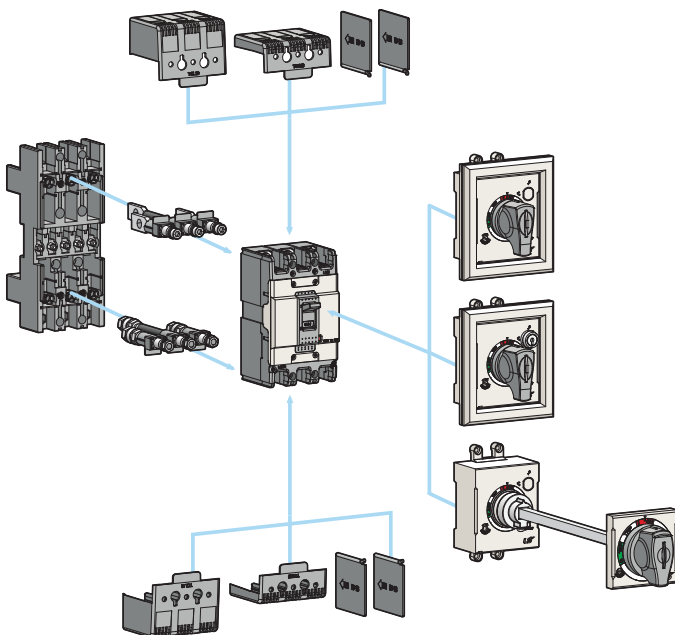
Ordering types

Breaker types

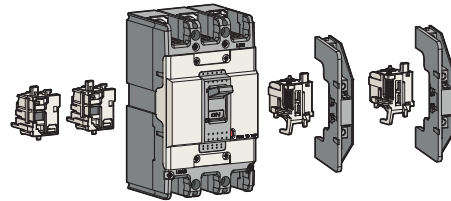
ABN type (14kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
15 A	ABN52c/15	ABN53c/15	ABN54c/15
20 A	ABN52c/20	ABN53c/20	ABN54c/20
30 A	ABN52c/30	ABN53c/30	ABN54c/30
40 A	ABN52c/40	ABN53c/40	ABN54c/40
50 A	ABN52c/50	ABN53c/50	ABN54c/50

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

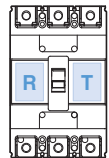


Accessories



Electrical auxiliaries

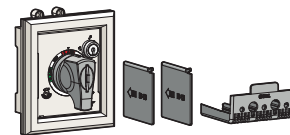
AX	Auxiliary Switch
AL	Alarm Switch
AX+AL	Combination switch
SHT	Shunt Trip
UVT	Undervoltage trip



Maximum possibilities

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

Note) For more detail see 74 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
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
PHL100	PHL125	Pad handle lock

Note) For more detail see 82 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



ABS102c



ABS103c



ABS104c

For more information

- Drawings ▶ 107 page
- Trip curves ▶ 99 page
- Accessories ▶ 74 page
- Connection and mounting ▶ 123 page

Ratings

Frame size		125AF						
Type and Pole		S-Type			H-Type			
	2-pole	ABS102c			ABH102c			
	3-pole	ABS103c			ABH103c			
	4-pole	ABS104c			ABH104c			
Rated current, I _n		15-20-30-40-50-60-75-100-125A						
Rated operational voltage, U _e		AC: 690V						
		DC: 500V						
Rated insulation voltage, U _i		AC: 750V						
Rated impulse withstand voltage, U _{imp}		8kV						
Rated short-circuit breaking capacity, I_{cu}		S-Type			H-Type			
AC	690V	8kA			10kA			
	480/500V	26kA			35kA			
IEC 60947-2 (I _{cu})		460V			37kA			
I _{cs} =100%I _{cu}	415V	37kA			50kA			
	380V	42kA			50kA			
	220/250V	85kA			100kA			
DC	500V(3P)	20kA			30kA			
	250V(2P)	20kA			30kA			
Protective function		Overload, Short-circuit						
Type of trip unit		Thermal-Magnetic						
Magnetic trip range		12 × I _n (30A and under: 400A)						
Endurance	Mechanical	25000 operations						
	Electrical	10000 operations						
Connection	Standard	Front connection						
	Optional	Rear connection						
Mounting		Plug-in						
Standard		Screw fixing						
Dimensions (mm)		Pole	2p	3p	4p	2p	3p	4p
		a	60	90	120	60	90	120
		b	155			155		
		c1 <i>Note)</i>	60			60		
		c2 <i>Note)</i>	64			64		
		d	82			82		
		Weight, kg	Standard	0.7	1	1.2	0.7	1
Certification		Pole	2p	3p	4p	2p	3p	4p
CE marking		☑			○			

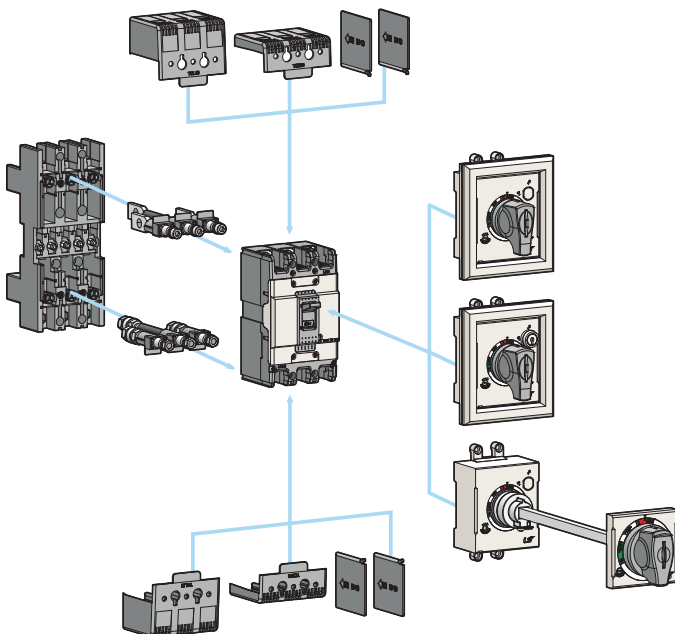
Note) Depth by door cut size : c1 for large cut, c2 for small cut

Ordering types

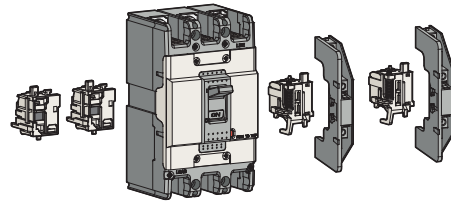
Breaker types

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

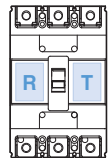


Accessories



Electrical auxiliaries

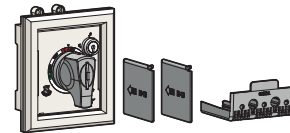
AX	Auxiliary Switch
AL	Alarm Switch
AX+AL	Combination switch
SHT	Shunt Trip
UVT	Undervoltage trip



Maximum possibilities

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

Note) For more detail see 74 page



External accessories

ABS125c ABH125c	Name
IB23	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
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
PHL125	Pad handle lock

Note) For more detail see 82 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



ABS202c



ABS203c



ABS204c

Ratings

Frame size		250AF									
Type and Pole		N-Type			S-Type			H-Type			
2-pole		ABN202c			ABS202c			ABH202c			
3-pole		ABN203c			ABS203c			ABH203c			
4-pole		ABN204c			ABS204c			ABH204c			
Rated current, I _n		100-125-150-175-200-225-250A									
Rated operational voltage, U _e		AC: 690V									
		DC: 500V									
Rated insulation voltage, U _i		AC: 750V									
Rated impulse withstand voltage, U _{imp}		8kV									
Rated short-circuit breaking capacity, I_{cu}		N-Type			S-Type			H-Type			
AC 690V		8kA			8kA			10kA			
480/500V		18kA			26kA			35kA			
IEC 60947-2 (I _{cu})		460V			26kA			37kA			
IEC 60947-2 (I _{cs})		26kA			37kA			50kA			
415V		26kA			37kA			50kA			
380V		30kA			42kA			50kA			
220/250V		65kA			85kA			100kA			
DC 500V(3P)		10kA			20kA			30kA			
250V(2P)		10kA			20kA			30kA			
Protective function		Overload, Short-circuit									
Type of trip unit		Thermal-Magnetic									
Magnetic trip range		12 × I _n									
Endurance		Mechanical			25000 operations						
		Electrical			10000 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	105	105	140	105	105	140	105	105	140
		b	165			165			165		
		c1 <small>Note)</small>	60			60			60		
		c2 <small>Note)</small>	64			64			64		
		d	87			87			87		
Weight, kg		Standard	1.1	1.2	1.6	1.1	1.2	1.6	1.1	1.2	1.6
Certification		Pole	2p	3p	4p	2p	3p	4p	2p	3p	4p
CE marking		CE	○			○			○		

Note) Depth by door cut size : c1 for large cut, c2 for small cut

For more information

- Drawings ▶ 108 page
- Trip curves ▶ 100 page
- Accessories ▶ 74 page
- Connection and mounting ▶ 123 page

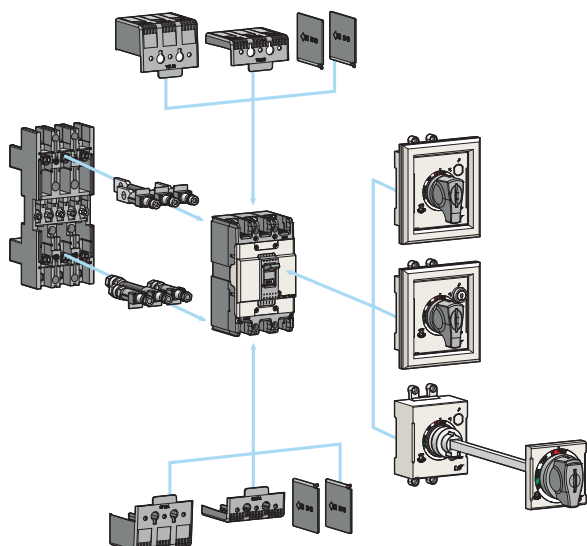
Ordering types

Breaker types

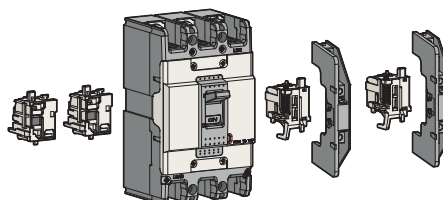
ABN type (25kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
100 A	ABN202c/100	ABN203c/100	ABN204c/100
125 A	ABN202c/125	ABN203c/125	ABN204c/125
150 A	ABN202c/150	ABN203c/150	ABN204c/150
175 A	ABN202c/175	ABN203c/175	ABN204c/175
200 A	ABN202c/200	ABN203c/200	ABN204c/200
225 A	ABN202c/225	ABN203c/225	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



Accessories



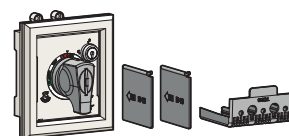
Electrical auxiliaries

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 74 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
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
PHL250	Pad handle lock

Note) For more detail see 82 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

Metasol



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, I _n		250-300-350-400A														
Rated operational voltage, U _e		AC: 690V														
		DC: 500V														
Rated insulation voltage, U _i		AC: 750V														
Rated impulse withstand voltage, U _{imp}		8kV														
Rated short-circuit breaking capacity, I_{cu}		N-Type			S-Type			H-Type			L-Type					
	AC 690V	5kA			8kA			10kA			14kA					
		480/500V			18kA			35kA			50kA			65kA		
IEC 60947-2 (I _{cu})		415/460V			37kA			50kA			65kA			85kA		
	380V	42kA			65kA			70kA			100kA					
	DC 500V(3P)	10kA			20kA			40kA			40kA					
		250V(3P)	10kA			20kA			40kA			40kA				
I _{cs} =100%I _{cu}	125V		100%			100%			100%			75%				
Protective function		Overload, Short-circuit														
Type of trip unit		Thermal-Magnetic														
Magnetic trip range		8~12I _n														
Endurance	Mechanical	4000 operations														
	Electrical	1000 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	140	140	184	140	140	184	140	140	184	140	140	184		
		b	257			257			257			257				
		c1 <small>Note)</small>	109			109			109			109				
		c2 <small>Note)</small>	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			○			○			○			○				

Note) Depth by door cut size : c1 for large cut, c2 for small cut

For more information

- Drawings ▶ 109 page
- Trip curves ▶ 101 page
- Accessories ▶ 75 page
- Connection and mounting ▶ 124 page

Ordering types

Breaker types

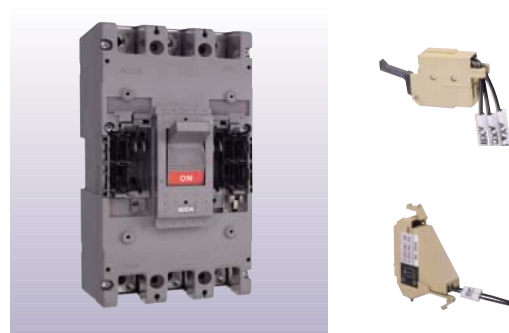
ABN type (37kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
250 A	ABN402c/250	ABN403c/250	ABN404c/250
300 A	ABN402c/300	ABN403c/300	ABN404c/300
350 A	ABN402c/350	ABN403c/350	ABN404c/350
400 A	ABN402c/400	ABN403c/400	ABN404c/400

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

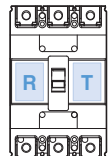
ABL type (85kA/460V)			
Rated current, In	2-pole	3-pole	4-pole
250 A	ABL402c/250	ABL403c/250	ABL404c/250
300 A	ABL402c/300	ABL403c/300	ABL404c/300
350 A	ABL402c/350	ABL403c/350	ABL404c/350
400 A	ABL402c/400	ABL403c/400	ABL404c/400

Accessories



Electrical auxiliaries

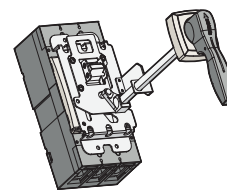
AX	Auxiliary Switch
AL	Alarm Switch
SHT	Shunt Trip
UVT	Undervoltage trip



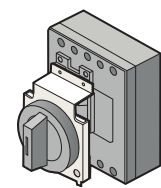
Maximum possibilities

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 75 page



E-70U



N-70

External accessories

IBL400	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

Note) For more detail see 82 page