

# Quick selection table

## Molded Case Circuit Breakers



### MCCBs

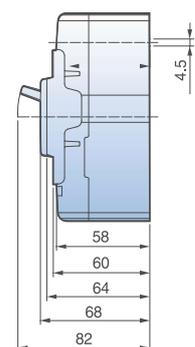
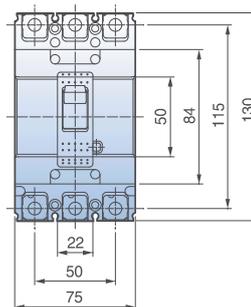
AF		30AF		50AF			60AF	
Type		E-Type	S-Type	N-Type	S-Type	H-Type	N-Type	S-Type
Type and Pole	2-pole	ABE32b	ABS32c	ABN52c	ABS52c	ABH52c	ABN62c	ABS62c
	3-pole	ABE33b	ABS33c	ABN53c	ABS53c	ABH53c	ABN63c	ABS63c
	4-pole	-	ABS34c	ABN54c	ABS54c	ABH54c	ABN64c	ABS64c
Rated current, I <sub>n</sub>	A	(3, 5, 10), 15, 20, 30		15, 20, 30, 40, 50		15, 20, 30, 40, 50	15, 20, 30, 40, 50, 60	
Rated operational voltage, U <sub>e</sub>	AC(V)	460	690	690	690	690	690	690
	DC(V)	-	500	500	500	500	500	500
Rated insulation voltage, U <sub>i</sub>	V	460	750	750	750	750	750	750
Rated impulse withstand voltage, U <sub>imp</sub>	kV	6	8	8	8	8	8	8

### Rated short-circuit breaking capacity(I<sub>cu</sub>) kA (Sym), KSC8321, 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	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
I <sub>cs</sub> =% × I <sub>cu</sub>		50	100	100	100	100	100	100
Dimensions (mm)	W × H × D	75 × 96 × 60mm	75 × 130 × 60mm	75 × 130 × 60mm		90 × 155 × 60mm	75 × 130 × 60mm	
	(3-pole)		(Fig. 1)	(Fig. 1)		(Fig. 2)	(Fig. 1)	
More info.	Ratings	32 page	34 page	36 page		36 page	38 page	
	Curves	87 page	87 page	87 page		88 page	87 page	
	Drawings	92 page	93 page	93 page		94 page	93 page	

Note) 1. The short-circuit breaking capacities in ( ) are applied to the rated current in (3, 5, 10A) 2. MCCBs can be applied to both 50 and 60Hz.

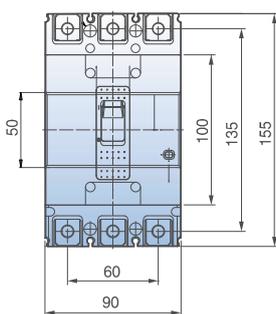
AF Type	30AF	50AF	60AF	100AF	125AF	250AF
ABN		ABN50c 14kA	ABN60c 14kA	ABN100c 18kA		ABN250c 26kA
ABS	ABS30c 14kA	ABS50c 18kA	ABS60c 18kA		ABS125c 37kA	ABS250c 37kA
ABH		ABH50c 50kA			ABH125c 50kA	ABH250c 50kA



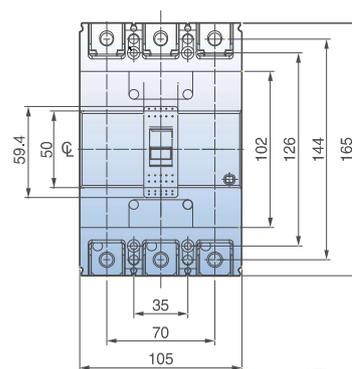
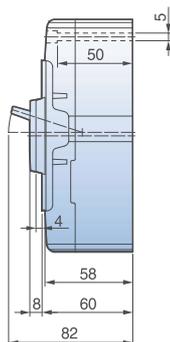
(Fig. 1)



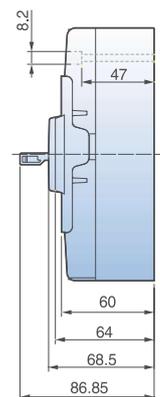
100AF		125AF		250AF		
N-Type	S-Type	H-Type	N-Type	S-Type	H-Type	
ABN102c	ABS102c	ABH102c	ABN202c	ABS202c	ABH202c	
ABN103c	ABS103c	ABH103c	ABN203c	ABS203c	ABH203c	
ABN104c	ABS104c	ABH104c	ABN204c	ABS204c	ABH204c	
15, 20, 30, 40, 50, 60, 75, 100	15, 20, 30, 40, 50, 60, 75, 100, 125		100, 125, 150, 175, 200, 225, 250			
690	690	690	690	690	690	
500	500	500	500	500	500	
750	750	750	750	750	750	
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	
10	20	30	10	20	30	
10	20	30	10	20	30	
100	100	100	100	100	100	
75 × 130 × 60mm (Fig. 1)	90 × 155 × 60mm (Fig. 2)		105 × 165 × 60mm (Fig. 3)			
40 page	42 page		44 page			
87 page	88 page		89 page			
93 page	94 page		95 page			



(Fig. 2)



(Fig. 3)



# 100AF MCCB

## ABN100c

Metasol



ABN102c



ABN103c



ABN104c

### For more information

- Drawings ▶ 93 page
- Trip curves ▶ 87 page
- Accessories ▶ 72 page
- Connection and mounting ▶ 110 page

## Ratings

Frame size		<b>100AF</b>			
<b>Type and Pole</b>		<b>N-Type</b>			
2-pole		<b>ABN102c</b>			
3-pole		<b>ABN103c</b>			
4-pole		<b>ABN104c</b>			
Rated current, I <sub>n</sub>		15-20-30-40-50-60-75-100A			
Rated operational voltage, U <sub>e</sub>		AC: 690V			
		DC: 500V			
Rated insulation voltage, U <sub>i</sub>		AC: 750V			
Rated impulse withstand voltage, U <sub>imp</sub>		8kV			
<b>Rated short-circuit breaking capacity, I<sub>cu</sub></b>		<b>N-Type</b>			
AC 690V		5kA			
480/500V		10kA			
IEC 60947-2 (I <sub>cu</sub> )		<b>460V</b>		<b>18kA</b>	
I <sub>cs</sub> =100%I <sub>cu</sub>		415V		18kA	
		380V		22kA	
		<b>220/250V</b>		<b>35kA</b>	
DC 500V(3P)		10kA			
250V(2P)		10kA			
<b>Protective function</b>		Overload, Short-circuit			
Type of trip unit		Thermal-Magnetic			
Magnetic trip range		400A			
Endurance		Mechanical		25000 operations	
		Electrical		10000 operations	
Connection		Standard		Front connection	
		Optional		Rear connection	
				Plug-in	
Mounting		Standard		Screw fixing	
<b>Dimensions (mm)</b>		Pole	2p	3p	4p
		a	50	75	100
		b	130	130	130
		c1 <small>Note)</small>	60	60	60
		c2 <small>Note)</small>	64	64	64
		d	82	82	82
		Weight, kg	Standard	0.5	0.7
<b>Certification</b>		Pole	2p	3p	4p
CE marking			○	○	○

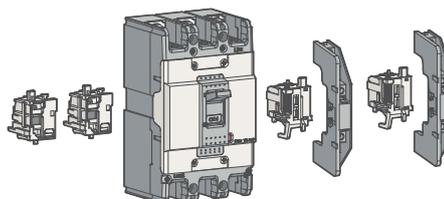
Note) Depth by door cut size : c1 for large cut, c2 for small cut

## Ordering types

### Breaker types

ABN type (14kA/460V)			
Rated current, I <sub>n</sub>	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

### Accessories



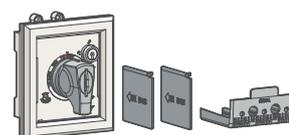
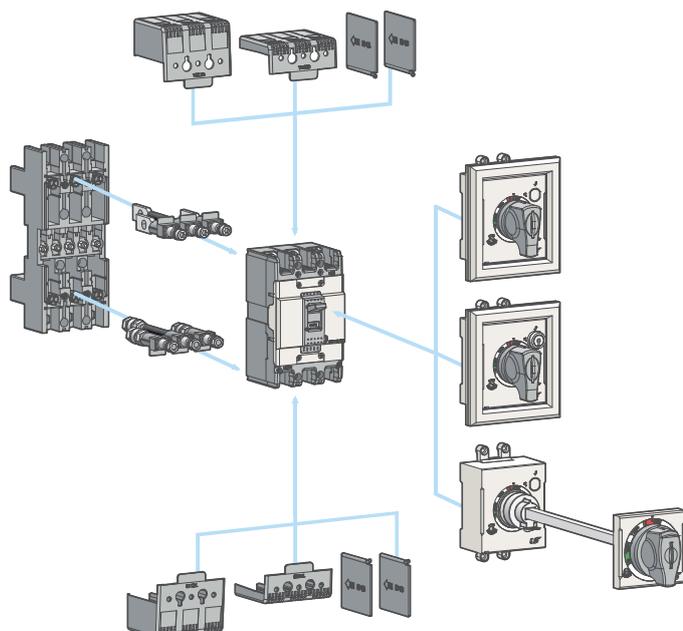
#### Electrical auxiliaries

<b>AX</b>	Auxiliary Switch	
<b>AL</b>	Alarm Switch	
<b>AX+AL</b>	Combination switch	
<b>SHT</b>	Shunt Trip	
<b>UVT</b>	Undervoltage trip	

#### Maximum possibilities

<b>T-position</b>	One of above auxiliaries
<b>R-position</b>	Option of AX or AL or AX+AL

Note) For more detail see 72 page



#### External accessories

ABN100c	Name
<b>IB13</b>	Insulation barrier
<b>TCL13</b>	Terminal cover (Long)
<b>TCS13</b>	Terminal cover (Short)
<b>DH100</b>	Rotary handle (Direct)
<b>DHK100</b>	Rotary handle (Direct, Key lock)
<b>EH100</b>	Rotary handle (Extended)
<b>RTB1</b>	Rear terminal (Bar)
<b>RTR1</b>	Rear terminal (Round)
<b>PB-A3</b>	Plug-in kit
<b>PHL100</b>	Pad handle lock

Note) For more detail see 80 page

# 125AF MCCB

## ABS125c, ABH125c



ABS102c



ABS103c



ABS104c

### For more information

- Drawings ▶ 94 page
- Trip curves ▶ 88 page
- Accessories ▶ 72 page
- Connection and mounting ▶ 110 page

## Ratings

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

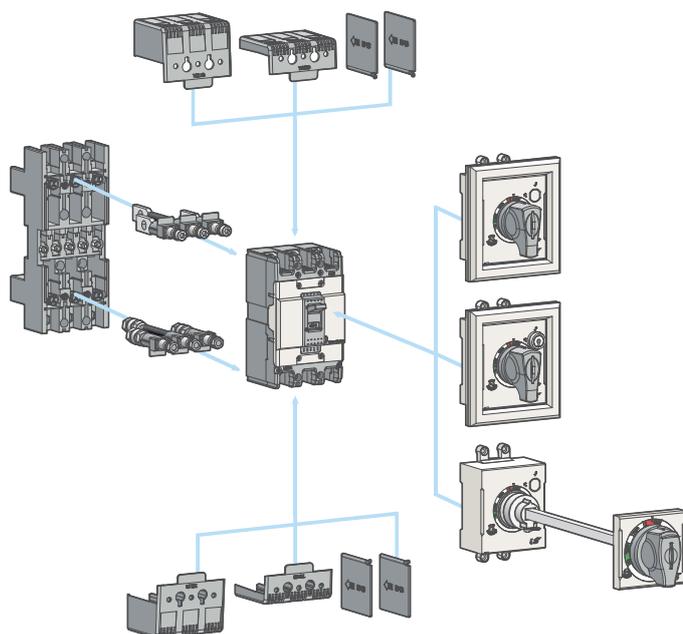
Note) Depth by door cut size : c1 for large cut, c2 for small cut

## Ordering types

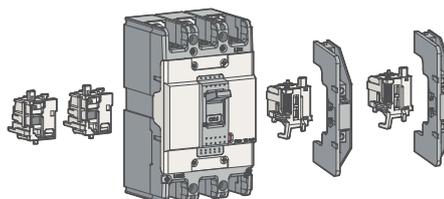
### Breaker types

ABS type (37kA/460V)			
Rated current, I <sub>n</sub>	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, I <sub>n</sub>	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



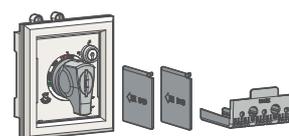
#### Electrical auxiliaries

<b>AX</b>	Auxiliary Switch	
<b>AL</b>	Alarm Switch	
<b>AX+AL</b>	Combination switch	
<b>SHT</b>	Shunt Trip	
<b>UVT</b>	Undervoltage trip	

#### Maximum possibilities

<b>T-position</b>	One of above auxiliaries
<b>R-position</b>	Option of AX or AL or AX+AL

Note) For more detail see 72 page



#### External accessories

ABS125c ABH125c	Name
<b>IB23</b>	Insulation barrier
<b>TCL23</b>	Terminal cover (Long)
<b>TCS23</b>	Terminal cover (Short)
<b>DH125</b>	Rotary handle (Direct)
<b>DHK125</b>	Rotary handle (Direct, Key lock)
<b>EH125</b>	Rotary handle (Extended)
<b>RTB2</b>	Rear terminal (Bar)
<b>RTR2</b>	Rear terminal (Round)
<b>PB-C3</b>	Plug-in kit
<b>PHL125</b>	Pad handle lock

Note) For more detail see 80 page