

Quick selection table

Molded Case Circuit Breakers

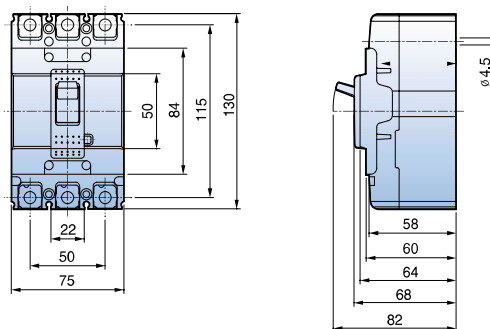


MCCBs

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), 15, 20, 30		15, 20, 30, 40, 50		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	750	750	750	750	750	750
Rated impulse withstand voltage, Uimp	kV	6	8	8	8	8	8	8
Rated short-circuit breaking capacity(Icu) 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
Ics=% × Icu		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) The short-circuit breaking capacities in () are applied to the rated current in (3, 5, 10A)

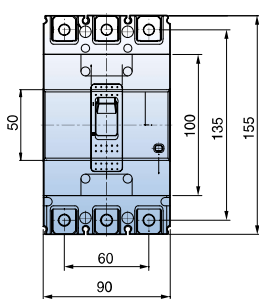
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ABN		ABN50c 14kA	ABN60c 14kA	ABN100c 18kA		ABN250c 26kA
ABS	ABS30c 14kA	ABS50c 18kA	ABS60c 18kA		ABS125c 37kA	ABS250c 37kA
ABH		ABH50c 50kA			ABH125c 50kA	ABH250c 50kA



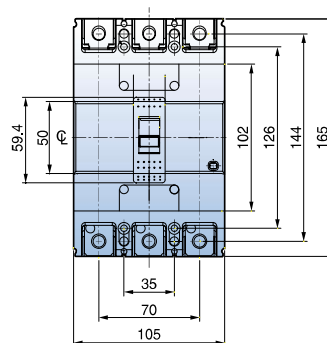
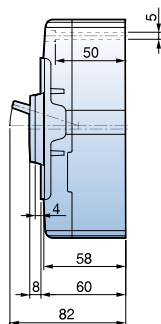
(Fig. 1)



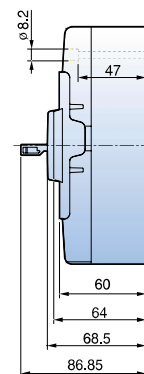
	100AF			125AF			250AF			
	N-Type	S-Type	H-Type	N-Type	S-Type	H-Type	N-Type	S-Type	H-Type	
	ABN102c	ABS102c	ABH102c	ABN202c	ABS202c	ABH202c	ABN203c	ABS203c	ABH203c	
	ABN103c	ABS103c	ABH103c	ABN203c	ABS203c	ABH203c	ABN204c	ABS204c	ABH204c	
	ABN104c	ABS104c	ABH104c	ABN204c	ABS204c	ABH204c				
	15, 20, 30, 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	690	690	690	
	500	500	500	500	500	500	500	500	500	
	750	750	750	750	750	750	750	750	750	
	8	8	8	8	8	8	8	8	8	
	5	8	10	8	8	10	8	8	10	
	10	26	35	18	26	35	18	26	35	
	18	37	50	26	37	50	26	37	50	
	22	42	50	30	42	50	30	42	50	
	35	85	100	65	85	100	65	85	100	
	10	20	30	10	20	30	10	20	30	
	10	20	30	10	20	30	10	20	30	
	100	100	100	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)



Quick selection table

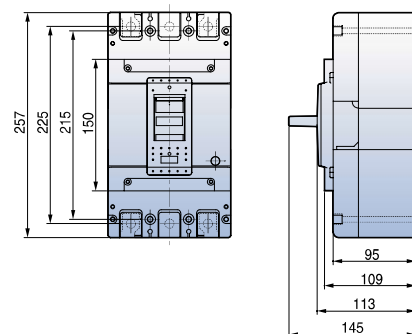
Molded Case Circuit Breakers



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 voltage, Ue	AC(V)	690	690	690	690
	DC(V)	500	500	500	500
Rated insulation voltage, Ui	V	750	750	750	750
Rated impulse withstand voltage, Uimp	kV	8	8	8	8
Rated short-circuit breaking capacity(Icu) kA (Sym), KSC8321, 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 × 109mm (Fig. 4)			
More info.	Ratings	46 page			
	Curves	90 page			
	Drawings	96 page			

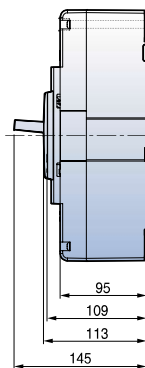
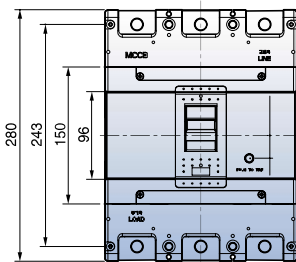
Type	AF	400AF	800AF	1000AF	1200AF
ABN		ABN400c 37kA	ABN800c 37kA		
ABS		ABS400c 50kA	ABS800c 65kA	ABS1000b 65kA	ABS1200b 65kA
ABH		ABH400c 65kA			
ABL		ABL400c 85kA	ABL800c 85kA	ABL1000b 85kA	ABL1200b 85kA



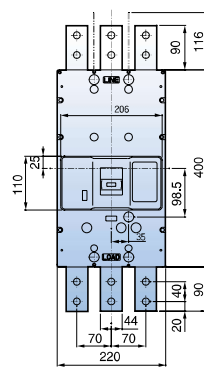
(Fig. 4)



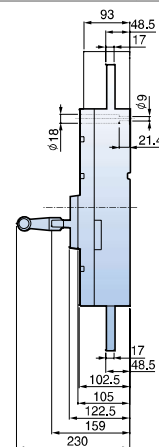
	800 AF			1000 AF		1200 AF		
	N-Type	S-Type	L-Type	S-Type	L-Type	S-Type		L-Type
	ABN802c	ABS802c	ABL802c	-	-	-	-	-
	ABN803c	ABS803c	ABL803c	ABS1003b	ABL1003b	ABS1203b	ABS1203bE	ABL1203b
	ABN804c	ABS804c	ABL804c	ABS1004b	ABL1004b	ABS1204b	-	ABL1204b
	500, 630, 700, 800			1000		1200		
	690	690	690					
	500	500	500					
	750	750	750					
	8	8	8					
	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					
	210 × 280 × 109mm (Fig. 5)			220 × 400 × 105mm (Fig. 6)		220 × 400 × 105mm (Fig. 6)		
	48 page			50 page		50 page	51 page	50 page
	90 page			91 page		91 page	92 page	91 page
	97 page			98 page		98 page	99 page	98 page



(Fig. 5)



(Fig. 6)



Quick selection table

ZCT Molded Case Circuit Breakers

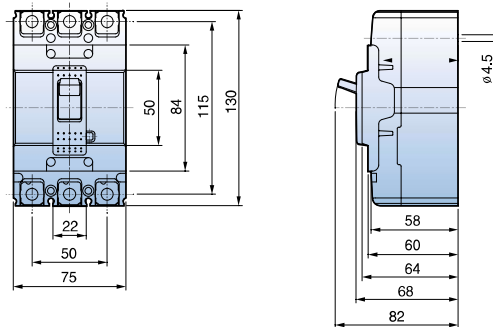


MCCBs

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	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), 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	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	75 × 130 × 60mm (Fig. 1)	75 × 130 × 60mm (Fig. 1)		90 × 155 × 60mm (Fig. 2)	75 × 130 × 60mm (Fig. 1)	
More info.	Ratings	32 page	36 page		36 page	38 page	
	Curves	87 page	87 page		88 page	87 page	
	Drawings	92 page	92 page		94 page	92 page	

Note) 1. MCCB와 동일 사양임(Size 동일).
2. ACCE : MCCB와 동일하게 취급 가능.

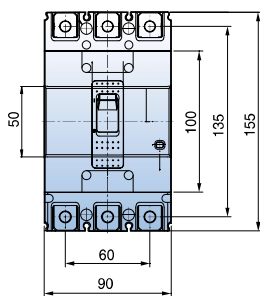
AF Type	30AF	50AF	60AF	100AF	125AF	250AF
ABN		ABN50c 14kA	ABN60c 14kA	ABN100c 18kA		ABN250c 26kA
ABS	ABS30c 14kA	ABS50c 18kA	ABS60c 18kA		ABS125c 37kA	ABS250c 37kA
ABH		ABH50c 50kA			ABH125c 50kA	ABH250c 50kA



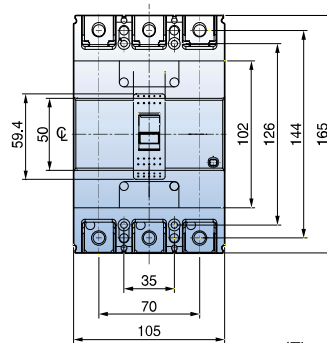
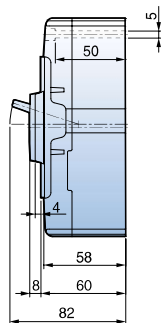
(Fig. 1)



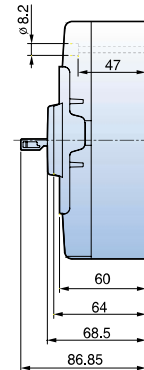
100AF		125AF		250AF	
N-Type	S-Type	H-Type	N-Type	S-Type	H-Type
-	ABS102cZ	ABH102cZ	-	-	-
ABN103cZ	ABS103cZ	ABH103cZ	ABN203cZ	ABS203cZ	ABH203cZ
ABN104cZ	ABS104cZ	ABH104cZ	ABN204cZ	ABS204cZ	ABH204cZ
15, 20, 30, 40, 50 60, 75, 100, 125	15, 20, 30, 40, 50, 60, 75, 100, 125		100, 125, 150, 175, 200, 225, 250		
690	690	690	690	690	690
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
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		
92 page	94 page		95 page		



(Fig. 2)



(Fig. 3)



Quick selection table

ZCT Molded Case Circuit Breakers



MCCBs

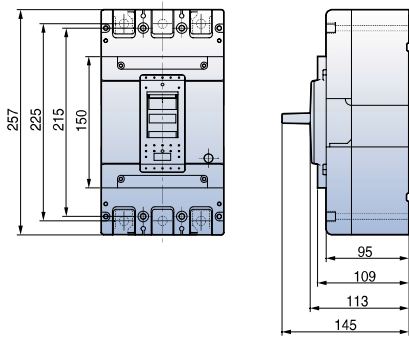
AF		400AF			
Type		N-Type	S-Type	H-Type	L-Type
Type and Pole	2-pole	-	-		
	3-pole	ABN403cZ	ABS403cZ	ABH403cZ	ABL403cZ
	4-pole	ABN404cZ	ABS404cZ	ABH404cZ	ABL404cZ
Rated current, In	A	250, 300, 350, 400			
Rated operational voltage, Ue	AC(V)	690	690	690	690
Rated insulation voltage, Ui	V	750	750	750	750
Rated impulse withstand voltage, Uimp	kV	8	8	8	8
Rated short-circuit breaking capacity(Icu) kA (Sym), KSC8321, 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 × 109mm (Fig. 4)			
More info.	Ratings	46 page			
	Curves	90 page			
	Drawings	96 page			

Note) 1. MCCB와 동일 사양임(Size 동일).
2. ACCE : MCCB와 동일하게 취급 가능.

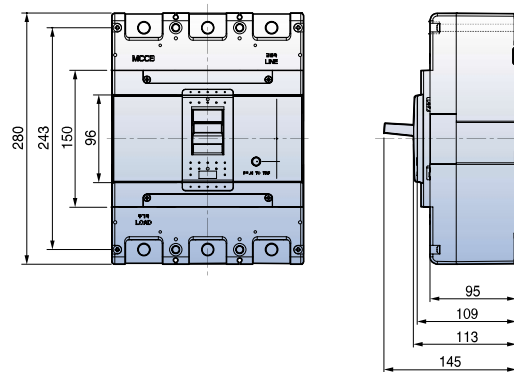
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ABN	ABN400c 37kA	ABN800c 37kA
ABS	ABS400c 50kA	ABS800c 65kA
ABH	ABH400c 65kA	
ABL	ABL400c 85kA	ABL800c 85kA



800 AF		
N-Type	S-Type	L-Type
-	-	-
ABN803cZ	ABS803cZ	ABL803cZ
-	-	-
500, 630, 700, 800		
690	690	690
750	750	750
8	8	8
8		
10		
45		
65		
75		
85		
100		
125		
75		
210×280×109mm		
(Fig. 5)		
48 page		
90 page		
97 page		



(Fig. 4)



(Fig. 5)

Quick selection table

Earth Leakage Circuit Breakers

Metasol

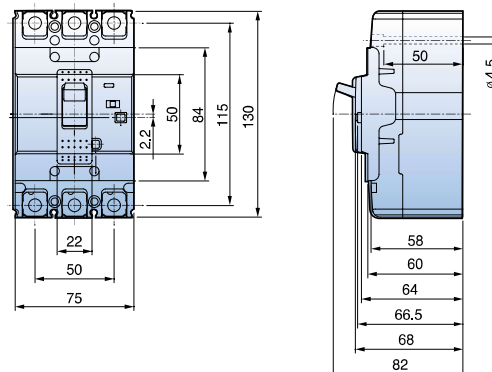


ELCBs

AF		30AF	50AF		60AF		
Type		S-Type	N-Type	S-Type	H-Type	N-Type	S-Type
Type and Pole	2-pole	-	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	Overload, Short-circuit and Ground fault	Overload, Short-circuit and Ground fault	Overload, Short-circuit and Ground fault
Rated current, I _n	A	15, 20, 30	15, 20, 30, 40, 50	15, 20, 30, 40, 50	15, 20, 30, 40, 50	60	
Rated residual current, I _{Δn}	mA	30, 100/200/500mA	30, 100/200/500mA	30, 100/200/500mA	30, 100/200/500mA	30, 100/200/500mA	
Rated operational voltage, U _e	AC(V)	220/460	220/460	220/460	220/460	220/460	
Rated impulse withstand voltage, U _{imp}	kV	6	6	6	6	6	
Residual current off-time at I _{Δn}	sec	≤0.1 sec	≤0.1 sec	≤0.1 sec	≤0.1 sec	≤0.1 sec	

Rated short-circuit breaking capacity (I _{cu}) kA (Sym), KSC8321, IEC 60947-2							
AC	415/460V	14	14	18	50	14	18
	220/250V	30	30	35	100	30	35
Dimensions (mm)	W × H × D	75 × 130 × 60mm (Fig. 1)		90 × 155 × 60mm (Fig. 2)		75 × 130 × 60mm (Fig. 1)	
More info.	Ratings	54 page		56 page		58 page	
	Curves	87 page		87 page		87 page	
	Drawings	100 page		100 page		100 page	

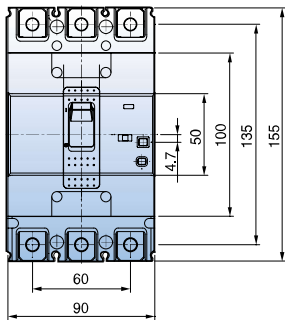
AF Type	30AF	50AF	60AF	100AF	125AF	250AF
EBN		EBN50c 14kA	EBN60c 14kA	EBN100c 18kA		EBN250c 26kA
EBS	EBS30c 14kA	EBS50c 18kA	EBS60c 18kA		EBS125c 37kA	EBS250c 37kA
EBH		EBH50c 50kA			EBH125c 50kA	EBH250c 50kA



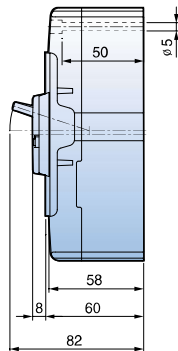
(Fig. 1)



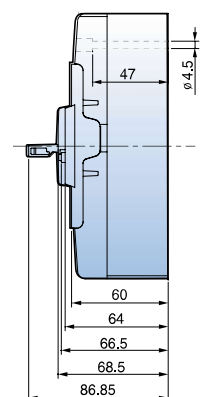
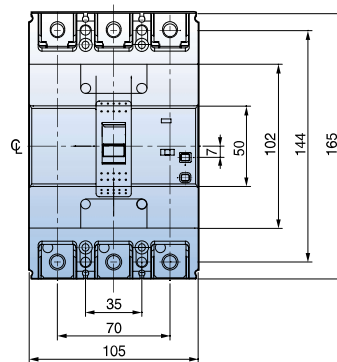
	100AF			125AF			250AF			
	N-Type	S-Type	H-Type	N-Type	S-Type	H-Type	N-Type	S-Type	H-Type	
	EBN102c	-	-	EBN202c	-	-	EBN202c	-	-	
	EBN103c	EBS103c	EBH103c	EBN203c	EBS203c	EBH203c	EBN203c	EBS203c	EBH203c	
	EBN104c	EBS104c	EBH104c	-	EBS204c	EBH204c	-	EBS204c	EBH204c	
	Overload, Short-circuit and Ground fault	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			100, 125, 150, 175, 200, 225, 250		
	30, 100/200/500mA	30,100/200/500mA			30,100/200/500mA			30,100/200/500mA		
	220/460	220/460			220/460			220/460		
	6	6			6			6		
	≤0.1 sec	≤0.1 sec			≤0.1 sec			≤0.1 sec		
	18	37	50	26	37	50	26	37	50	
	35	85	100	65	85	100	65	85	100	
	75 × 130 × 60mm (Fig. 1)	90 × 155 × 60mm (Fig. 2)			105 × 165 × 60mm (Fig. 3)			105 × 165 × 60mm (Fig. 3)		
	60 page	62 page			64 page			64 page		
	87 page	88 page			89 page			89 page		
	100 page	101 page			102 page			102 page		



(Fig. 2)



(Fig. 3)



Quick selection table

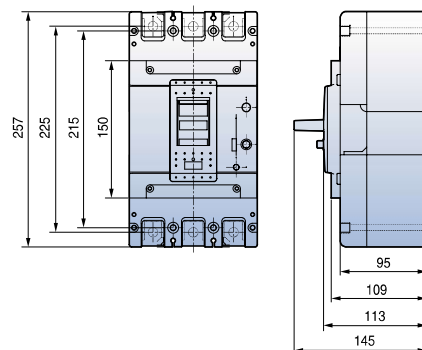
Earth Leakage Circuit Breakers



ELCBs

AF		400AF			
Type		N-Type	S-Type	H-Type	L-Type
Type and Pole	3-pole	EBN403c	EBS403c	EBH403c	EBL403c
	4-pole	EBN404c	EBS404c	EBH404c	EBL404c
Protective function		Overload, Short-circuit and Ground fault			
Rated current, I _n	A	250, 300, 350, 400			
Rated residual current, I _{Δn}	mA	30, 100/200/500mA			
Rated operational voltage, U _e	AC(V)	220/460	220/460	220/460	220/460
Rated impulse withstand voltage, U _{imp}	kV	6	6	6	6
Residual current off-time at I _{Δn}	sec	0.1 sec	0.1 sec	0.1 sec	0.1 sec
Rated short-circuit breaking capacity (I_{cu}) kA (Sym), KSC8321, IEC 60947-2					
AC	415/460V	37	50	65	85
	220/250V	50	75	85	125
I _{cs} =% × I _{cu}		100	100	100	75
Dimensions (mm)	W × H × D	140 × 257 × 109mm			
	(3-pole)	(Fig. 4)			
More info.	Ratings	66 page			
	Curves	90 page			
	Drawings	103 page			

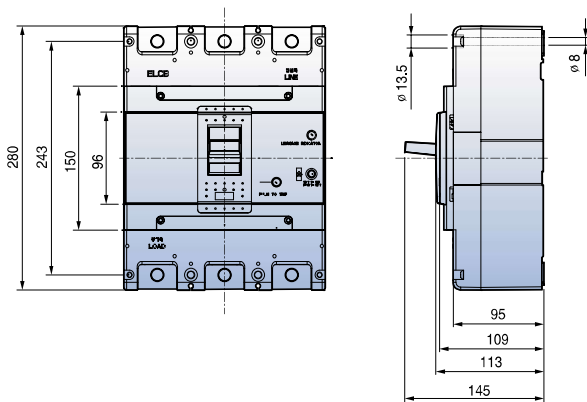
Type \ AF	400AF	800AF	1000AF	1200AF
EBN	EBN400c 37kA	EBN800c 37kA		
EBS	EBS400c 50kA	EBS800c 65kA	EBS1000b 65kA	EBS1200b 65kA
EBH	EBH400c 65kA			
EBL	EBL400c 85kA	EBL800c 85kA		



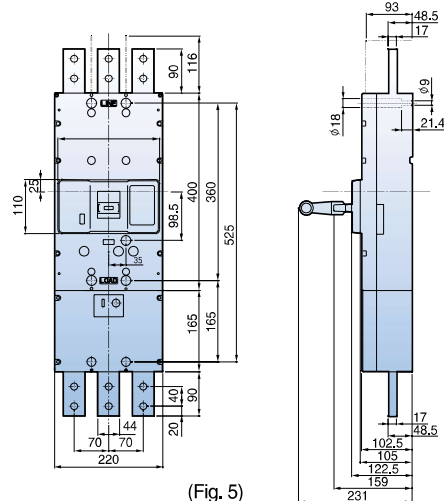
(Fig. 4)



	800 AF			1000 AF	1200 AF
	N-Type	S-Type	L-Type	S-Type	S-Type
	EBN803c	EBS803c	EBL803c	EBS1003b	EBS1203b
	-	-	-	-	-
	Overload, Short-circuit and Ground fault			Overload, Short-circuit and Ground fault	
	500, 630, 700, 800			1000	1200
	30, 100/200/500mA			100/200/500mA	100/200/500mA
	220/460	220/460	220/460	220/460	220/460
	6	6	6		
	0.1 sec	0.1 sec	0.1 sec	0.1 sec	0.1 sec
	37	65	85	85	85
	50	85	125	125	125
	100	100	75		
	210 × 280 × 109mm (Fig. 5)			220 × 565 × 105mm (Fig. 6)	
	68 page			70 page	
	90 page			91 page	
	104 page			105 page	



(Fig. 5)



(Fig. 5)