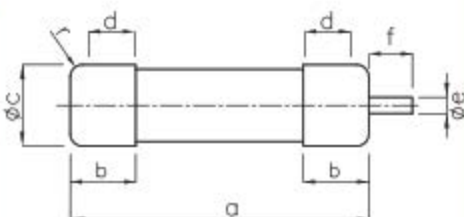


Technical data

Cylindrical fuse-link

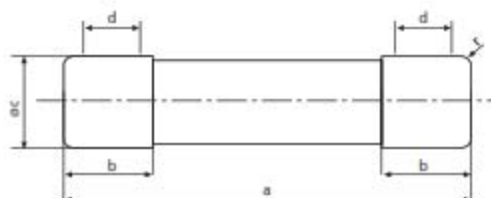
Technical data

Rated voltage	400 V AC, 500 V AC, 690 V AC
Rated current	CH 8 1-25 A/400 V
	CH 10 0,5-16 A/500 V, 20-32 A/400 V
	CH 14 2-25 A/690 V, 32-50 A/500 V
	CH 22 16-40 A/690 V (50 A/690 V aM), 50-100 A/500 V
Rated frequency	50 Hz
Rated breaking capacity	CH 8 50 kA
	CH 10 100 kA
	CH 14 2-25 A/80 kA, 32-50 A/120 kA
	CH 22 16-40 A/80 kA (50 A/80 kA aM), 50-100 A/120 kA
Characteristics	gG, aM
Body material	ceramic
Material of contact parts	CuZn28, galAg



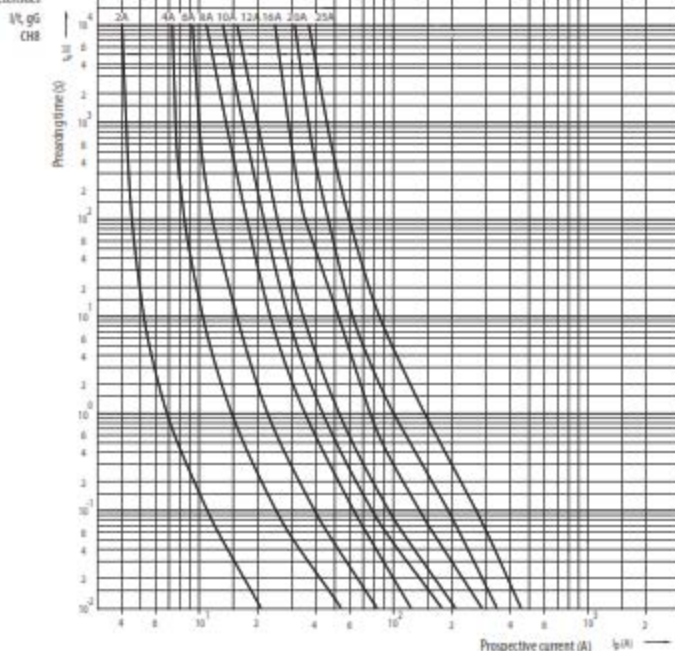
With striker pin

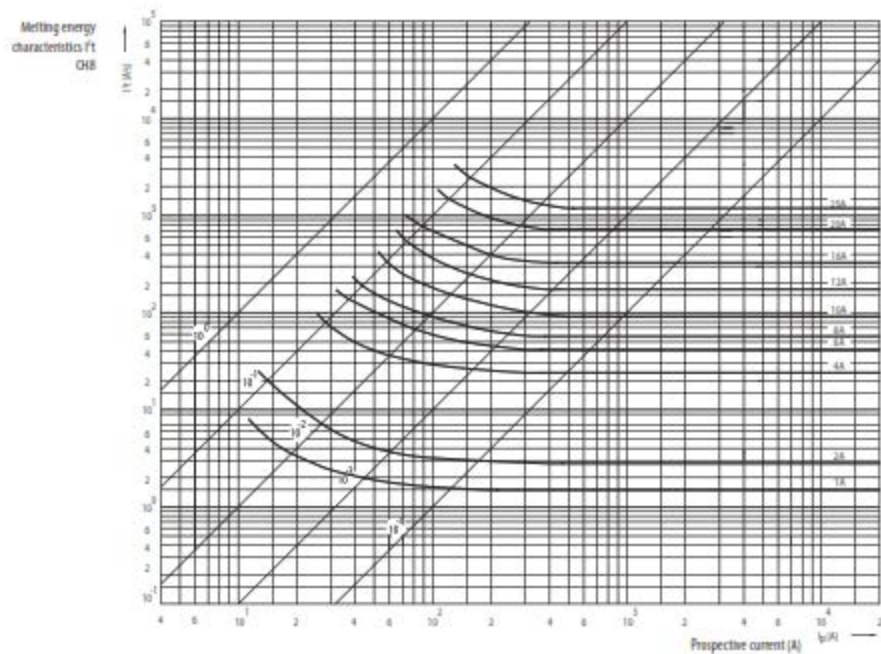
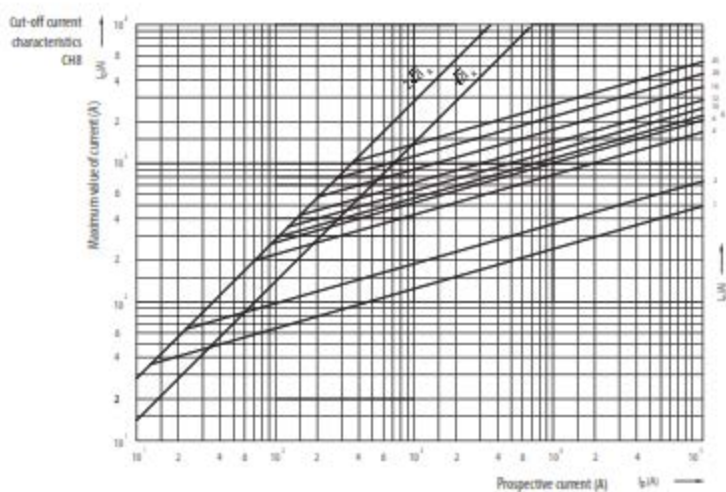
size	e	f
14 x 51	3,8	7,5
22 x 58	3,8	7,5



size	a	b _{min}	c	d _{min}	r
8 x 32	31,5±0,5	6,7	8,5±0,1	4	1±0,5
10 x 38	38,0±0,6	10,5	10,3±0,1	6	1,5±0,5
14 x 51	51,0±0,6/-1	13,8	14,3±0,1	7,5	±1
22 x 58	58,0±0,1	16,2	22,2±0,1	11	±1

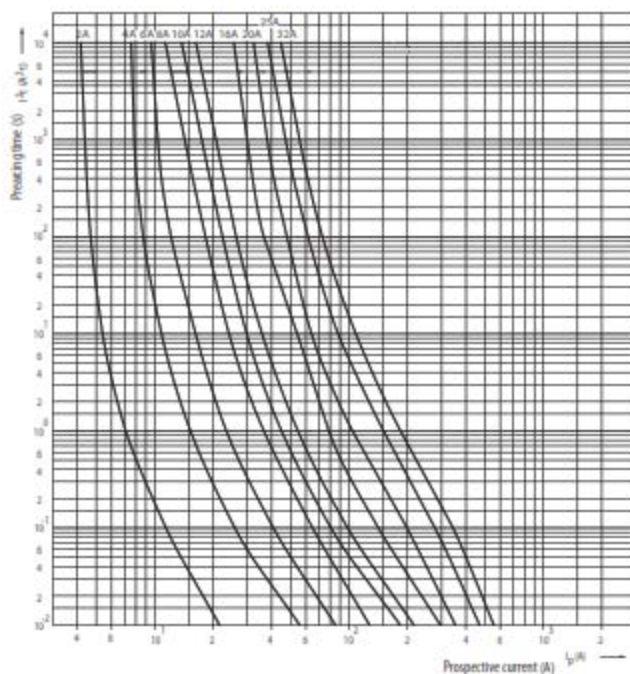
Time current characteristics



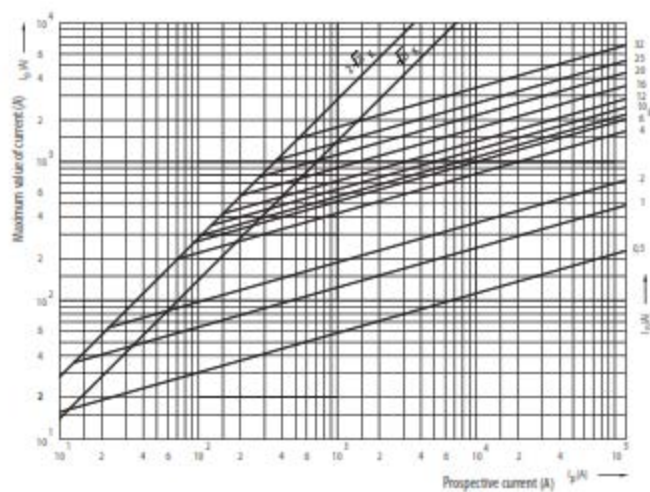


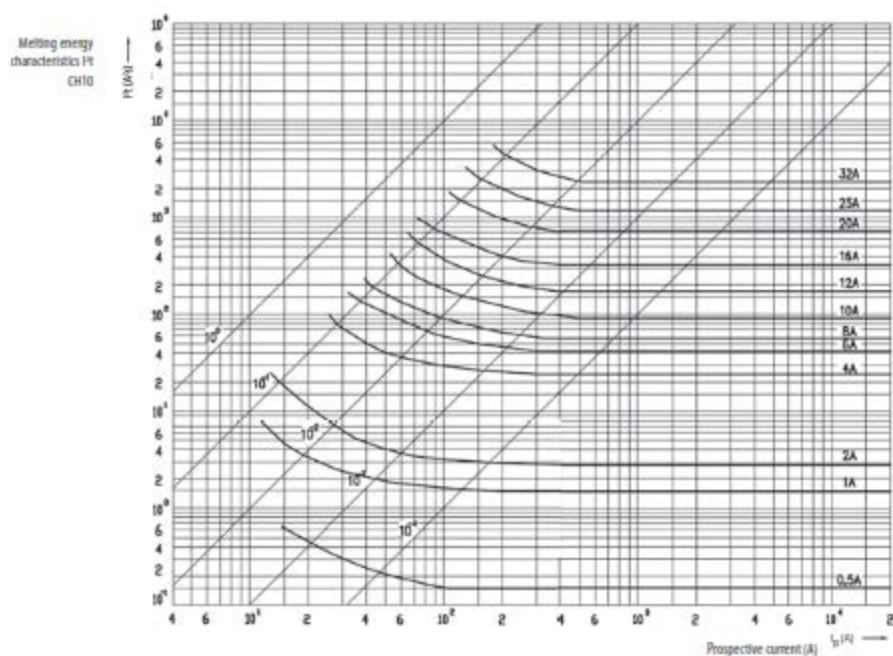
Technical data

Time current characteristics
 I/t , gG
 CH10

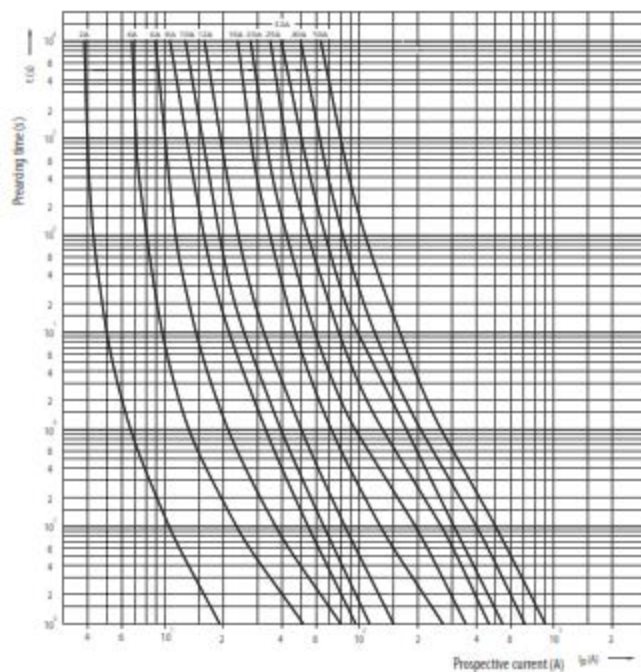


Out-off current
 characteristics
 CH10

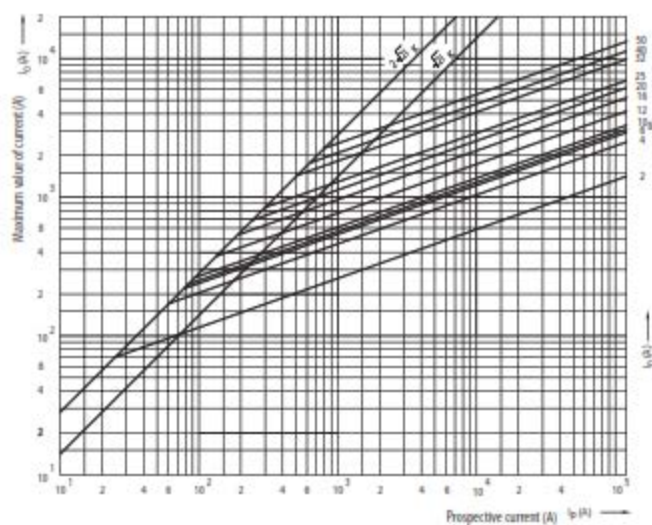
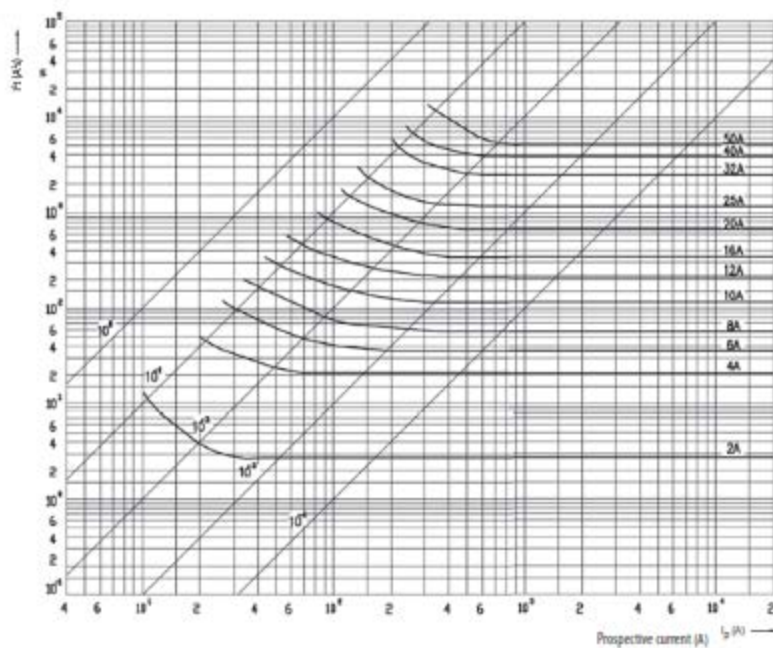




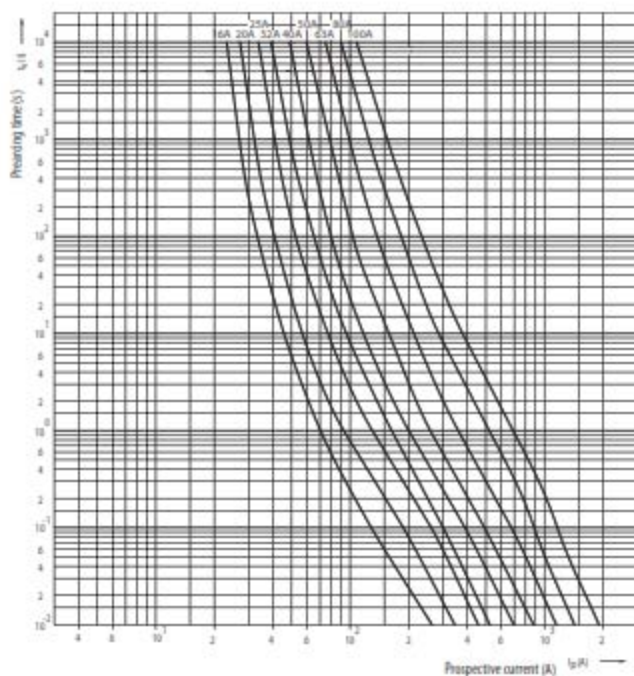
Time current characteristics
I/t, g6
CH14



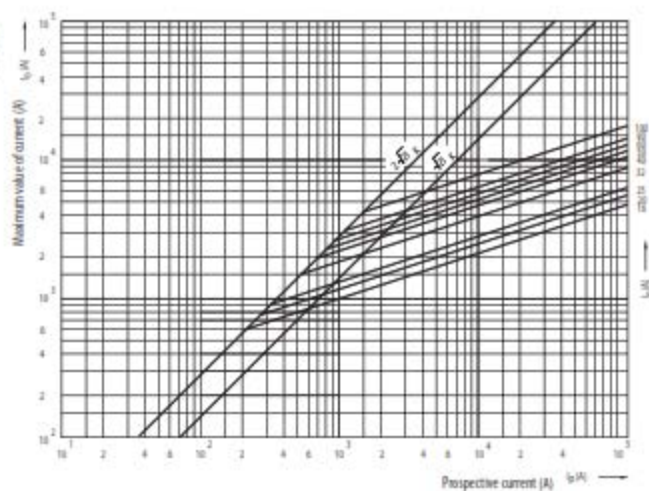
Technical data

Cut-off current
characteristics
CH14Melting energy
characteristic P1
CH14

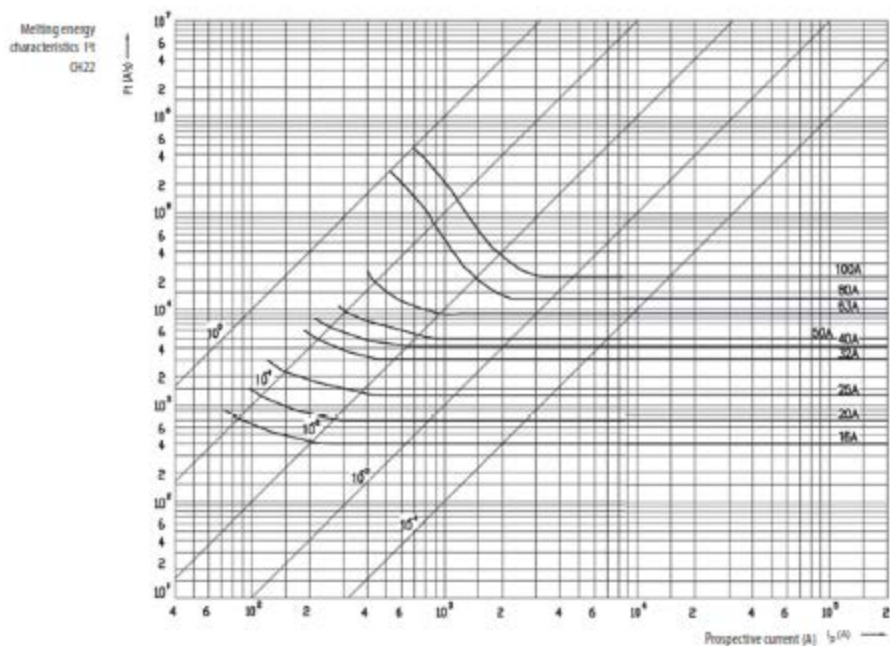
Time current characteristics
 I/t , gG
 CH22



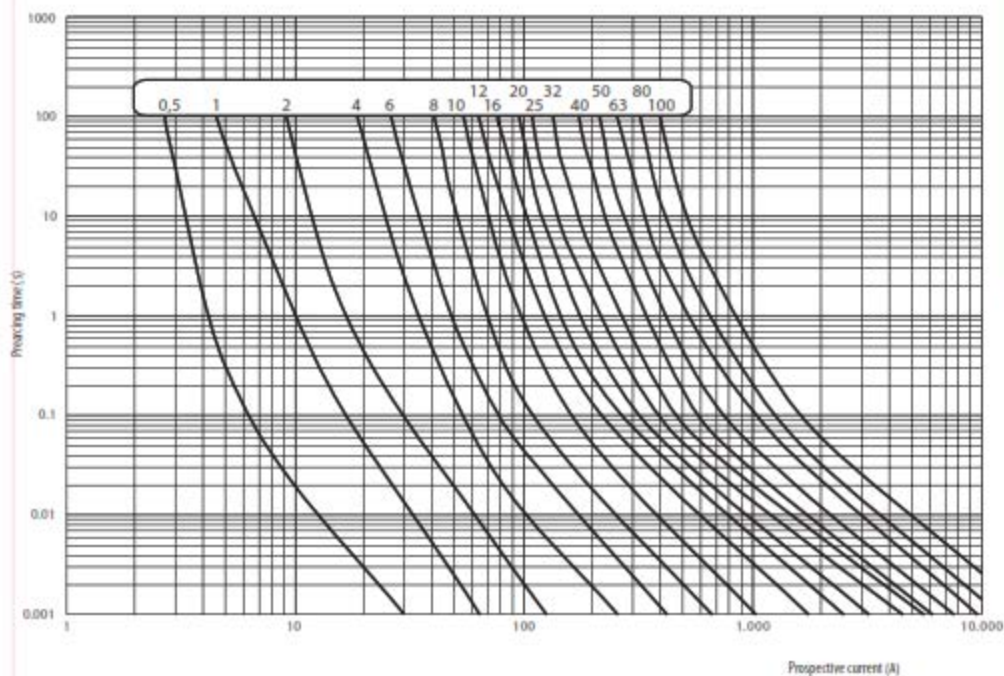
Cut-off current
 characteristics
 CH22



Technical data



Time current characteristics
I/t, aM
CH10, 14, 22



Fuse-switch disconnectors for cylindrical fuse-links EFD

Technical data EFD

	EFD 8	EFD 10	EFD CC		EFD 14		EFD 22		EFD 330
Fuse type	CH 8x32	CH 10x38	Class CC		CH 14x51		CH 22x58		Class I, size J30
Versions	IEC	IEC	UL	UL	IEC	UL	IEC	UL	UL
	Without indicator/LED indicator/NEON indicator		Without indicator / LED indicator						
Number of poles	1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p		1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p, 1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p
Rated operational voltage U _e	400V a.c. 690V a.c.		600V a.c./d.c.	600V a.c./d.c.	690V a.c. 600V a.c./d.c.		690V a.c.		600V a.c./d.c. 600V a.c./d.c.
Rated operational current I _e	20A 32A		30A 30A		50A 50A		100A		100A 30A
Maximum rated current of fuse-links	690V	10A gG			25A gG 25A aM		50A gG 50A aM		
	500V	25A gG 16A aM			50A gG		100A gG		
	400V	20A gG 10A aM	32A gG		50A aM		100A aM		
Rated frequency	50Hz 50Hz		60Hz 60Hz		50Hz 60Hz		50Hz 60Hz		60Hz 60Hz
Rated short-time withstand current I _{cw}	240A 300A/1s				600A/1s		1200A/1s		
Conventional free air thermal current I _{th}					50A		100A		
Rated conditional short-circuit current	50kA 100kA/400V		100kA 200kA		gG: 120kA/500V (50A gG) aM: 50kA/400V (50A aM)		gG: 120kA/500V (100A gG) aM: 50kA/400V (100A aM)		100kA 200kA
Rated insulation voltage U _i	400V 690V				690V				
Rated imp. withstand voltage U _{imp}	8kV 8kV				8kV				
Overvoltage category (according to Table H.1 in IEC 60947-1 and according to IEC 60099-1)	II III				III		II		
Max power dissipation of the fuse-link (W)	gG: 2,5W aM: 0,9W		gG: 3W aM: 1,2W		3W		gG: 5W aM: 3W		gG: 9,5W aM: 7W 6W
LED indicator operating range	50V-690V a.c.		50V - 600V a.c. 80V - 600V d.c.		50V-690V a.c.		50V-600V a.c. 80V - 600V d.c.		50V - 600V a.c. 80V - 600V d.c.
NEON indicator operating range	100V-750V a.c.		100V-750V a.c.						
Utilization category	AC-22B AC-22B		Do not operate under load		AC-22B at 690V/50A Do not operate underload		AC-21B at 690V/100A		Do not operate under load
Operational performance (cycles with current)	300		300		300		300		
Operational performance (cycles without current)	1700		1700		1700		1700		
Humidity									
Operating ambient temperature	-5°C ... +40°C				-5°C ... +40°C		-5°C ... +40°C		
Store ambient temperature	-25°C ... +55°C				-25°C ... +55°C		-25°C ... +55°C		
Degree of protection (IEC 60529)	IP 20 IP 20				IP 20		IP 20		
Terminal capacity	1-25mm ² 1-25mm ²		AWG 18-8 solid&stranded Cu only		1,5-35mm ² rigid or flexible		AWG 18-4 solid&stranded Cu only 4-50mm ² rigid or flexible		AWG 12-2 solid&stranded Cu only
Screw	PZ M5 PZ M5		PZ M5 PZ M5		PZ M5 PZ M5		PZ M6		PZ M6 PZ M6
Torque	2Nm 2Nm		2Nm; 17,7 lb-in		2,5-3Nm 2Nm; 17,7 lb-in		3Nm		3Nm; 26,6 lb-in
Mounting on EN 60715 rail	35mm rail								
Sealing possibility	ON and OFF								
Standards - fuse links	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	UL 248-4 IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	IEC/EN 60269-2	UL 248-8 IEC/EN 60269-2
Standards - Fuse-switch disconnectors/fuse holders	IEC 60947-1 IEC 60947-3		UL 4248-1 UL 4248-4 UL 486E		IEC 60947-1 IEC 60947-3		UL 4248-1 UL 486E		UL 4248-1 UL 4248-8 UL 486E
Test reports	CCA/CB		UL UL		CCA/CB		CCA/CB		UL UL
Certificates			UL UL		UL UL		UL UL		UL UL

Technical data

Technical data EFD

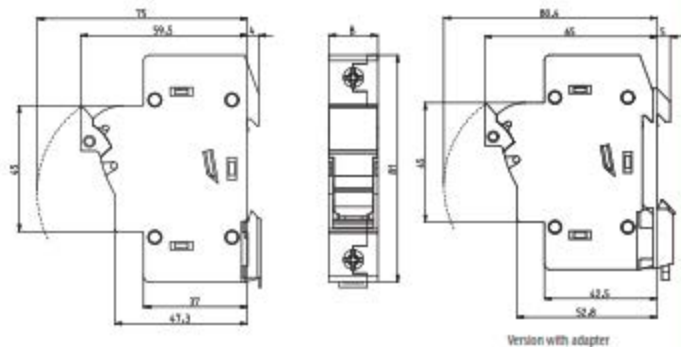
	EFD B	EFD 10		EFD CC	EFD 14		EFD 22		EFD 330
Fuse type	CH 8x32	CH 10x38		Class CC	CH 14x51		CH 22x58		Class I, size I30
	IEC	IEC	UL	UL	IEC	UL	IEC	UL	UL
Derating factor of current I _n for different ambient temperatures	20°				1				
	30°				0,95				
	40°				0,9				
	50°				0,8				
	60°				0,7				
	70°				0,5				
Derating factor of current I _n for side by side mounting fuse holders (no. of poles)	1-4				1				
	5-6				0,8				
	7-9				0,7				
	≥ 10				0,6				

Fuse-switch disconnecter EFD 8, EFD 10

type	dimension B
EFDA, 10 1p	17,5
EFDA, 10 1p+N	35
EFDA, 10 2p	35
EFDA, 10 3p	52,5
EFDA, 10 3p+N	70

Fuse-switch disconnecter EFD CC

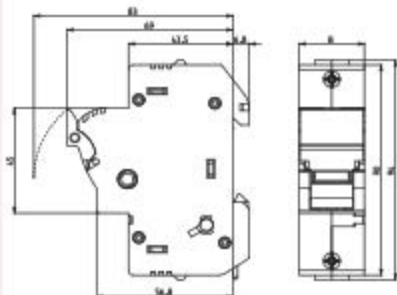
type	dimension
EFDCC 1p	17,5
EFDCC 2p	35
EFDCC 3p	52,5



Version with adapter

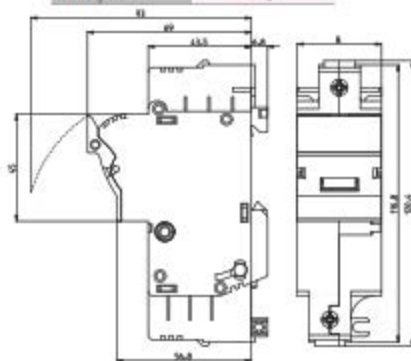
Fuse-switch disconnecter EFD 14

type	dimension n
EPD 14 1p	27
EPD 14 1p+N	54
EPD 14 2p	54
EPD 14 3p	81
EPD 14 3p+N	108

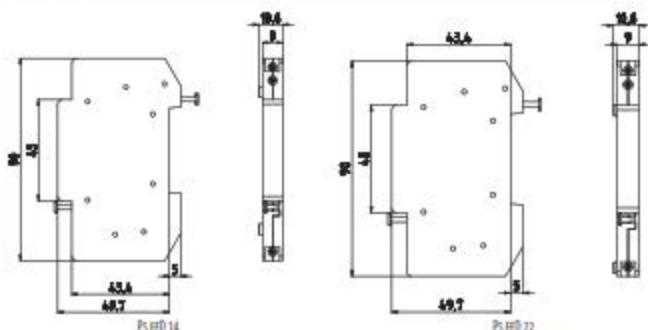


Fuse-switch disconnecter EFD 22 & EFD J30

type	dimension n
EF0 22, f30 1p	15,6
EF0 22 1p+N	71,2
EF0 22, f30 2p	71,2
EF0 22, f30 3p	106,8
EF0 22 3p+N	142,4



Auxiliary switch EFD



Fuse-switch disconnectors for cylindrical fuse-links PCF

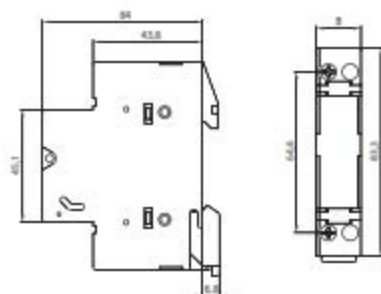
Technical data PCF

	PCF II	PCF 10	PCF CC
Fuse type	CH 8x32	CH 10x38	Class CC
	IEC	IEC UL	UL
Versions	Without indicator / LED indicator		
Number of poles	1p, 1p+N, 2p, 3p, 3p+N		1p, 2p, 3p
Rated operational voltage U_e	400V a.c.	690V a.c.	600V a.c./d.c.
Rated operational current I_e	20A	32A	30A
Maximum rated current of fuselinks	690V 500V 400V	10A gG 25A gG, 16A aM 32A gG	30A
Rated frequency	50Hz	50Hz	60Hz
Rated short-time withstand current I_{cw}	240A	300A	600A
Rated conditional short-circuit current	50kA	100kA	200kA
Rated insulation voltage U_i	400V	690V	600V
Rated imp. withstand voltage U_{imp}	4kV	4kV	60kV
Overvoltage category	III	III	III
Max power dissipation of the fuse-link (W)	gG: 2,5W / aM: 0,9W	gG: 3W / aM: 1,2W	
LED indicator operating range	50V-600V a.c.		50V-600V a.c., 80V-600V d.c.
Utilization category	AC-22B	AC-22B	Do not operate under load
Operational performance (cycles with current)	300	300	
Operational performance (cycles without current)	1700	1700	
Humidity	98% at 20°C		
Operating ambient temperature	-5°C ... +40°C		
Store ambient temperature	-25°C ... +55°C		
Degree of protection (IEC 60529)	IP 20	IP 20	
Terminal capacity	0,5-10mm ² , Double connection	20-10 stranded, Cu only	20-10 solid/stranded, Cu only
Screw	PZ M4	PZ M4	PZ M4
Torque	1,2Nm	1,2Nm	1,2Nm
Mounting on EN 60715 rail	35mm rail		
Sealing possibility	ON and OFF		
Standards - fuse links	IEC/EN 60269-2		UL 248-4, IEC/EN 60269-2
Standards - Fuse-switch disconnectors/fuse holders	IEC 60947-1, IEC 60947-3		UL 4248-1, UL 4248-4
Test reports	Int.	CCA/CB	UL
Certificates			UL

Technical data

Technical data PCF

		PCF 8	PCF 10		PCF CC
Fuse type		CH 8x32	CH 10x38		Class CC
		IEC	IEC	UL	UL
Derating factor of current I _n for different ambient temperatures	20°	1			
	30°	0,95			
	40°	0,9			
	50°	0,8			
	60°	0,7			
	70°	0,5			
Derating factor of current I _n for side by side mounting fuse holders (n _l of poles)	1-4	1			
	5-6	0,8			
	7-9	0,7			
	≥10	0,6			



Fuse-switch disconnecter PCF 8, PCF 10, PCF CC

type	dimension B
PCF 8, 10, CC 1p	17,8
PCF 8, 10 1p+N	17,8
PCF 8, 10, CC 2p	35,6
PCF 8, 10, CC 3p	53,4
PCF 8, 10 3p+N	53,4

Auxiliary switch PS PCF

