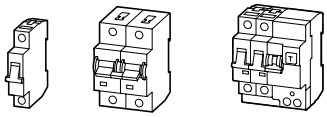
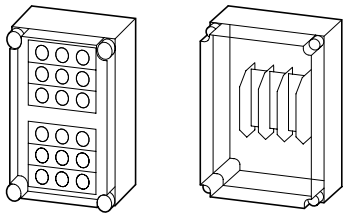
Miniature Circuit-Breakers, MCB Enclosures, Fuse Enclosures

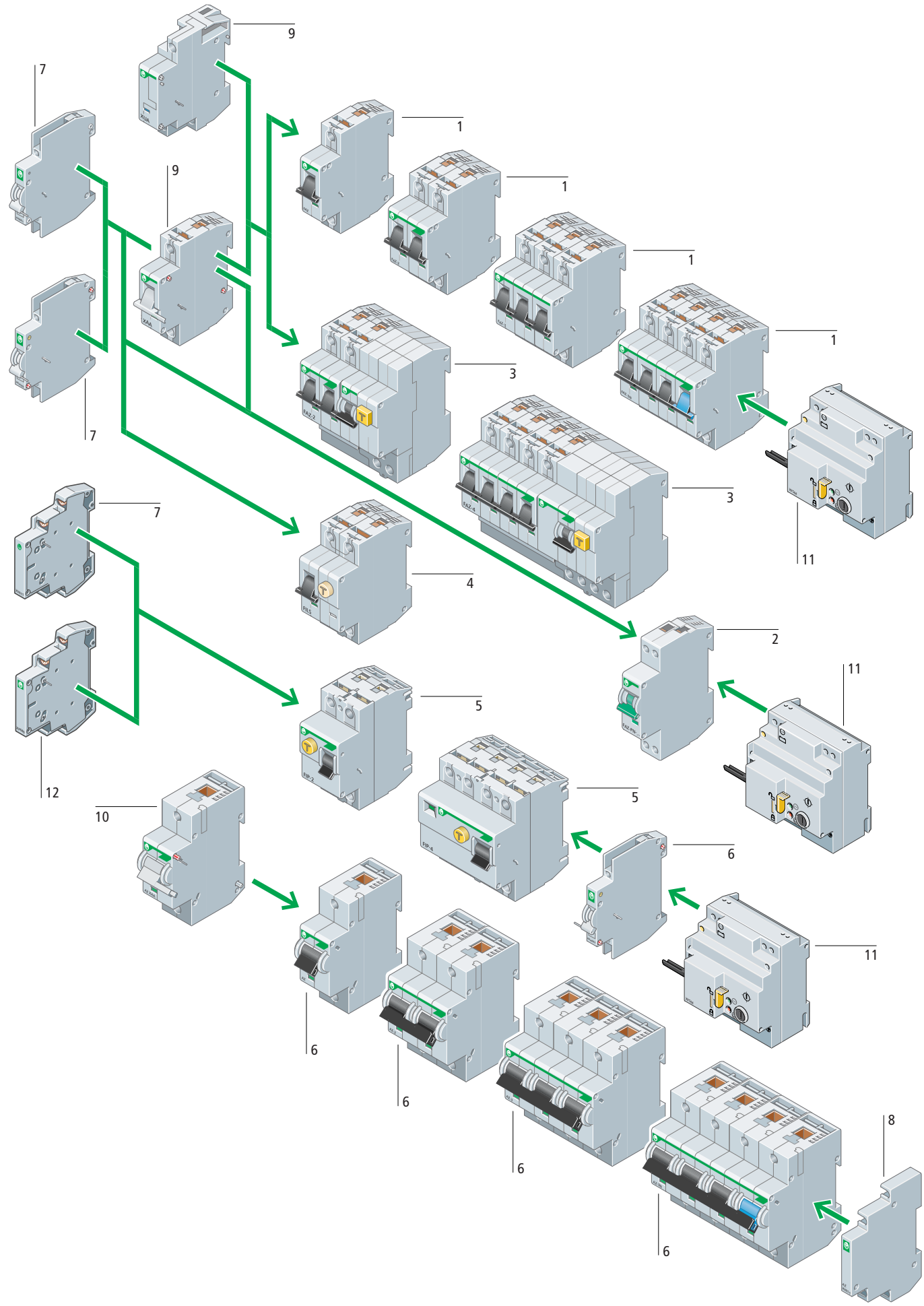
Overview

Miniature circuit-breakers



MCB enclosures, fuse enclosures

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Miniature Circuit-Breakers, MCB Enclosures, Fuse Enclosures
System Overview

Basic units

FAZ miniature circuit-breakers 1

Characteristic/rated current ranges
B/4 – 63 A; C/0,5 – 63 A; D/6 – 40 A
S/1 – 16 A; R/2 – 50 A

Switching capacity:
10 kA to IEC/EN 60 898
B, C, D characteristics

4,5 kA to IEC/EN 60 947-2
S characteristic

6 kA to IEC/EN 60 947-2
R characteristic

1-, 1N-, 2-, 3-, 3N-, 4-pole
(S:1-, 2-pole; R:1-, 2-, 3-pole)

Special miniature circuit-breakers for control circuit protection (1-, 2-pole)

Special miniature circuit-breakers for DC applications up to 500 V DC

→ Page 12/004

FAZ-PN miniature circuit-breakers 2

Characteristic/rated current ranges
B/6 – 40 A; C/2 – 40 A

Switching capacity:
6 kA to IEC/EN 60 898
B, C characteristic

1-pole+N

→ Page 12/014

Approvals for world markets:
→ Moeller SK0200-1043

Miniature circuit-breakers with residual-current protective module 3

Protection against overload, short circuit and fault current

Characteristic/rated current ranges
B/10-63 A; C/10-63 A; 2-, 4-pole

Switching capacity:
15 kA to IEC/EN 60 947-2

Rated fault current 30 mA, 300 mA

→ Page 12/010

FILS combined RCD/MCB device 4

Protection against overload, short circuit and fault current

Characteristic/rated current ranges
B/6-40 A; C/6-40 A; 1-pole+N

Switching capacity:
10 kA to IEC/EN 60 898

Rated fault current 30 mA, 300 mA

→ Page 12/010

Residual-current circuit-breakers 5

Alternating-current sensitive
2-pole 16 – 80 A
4-pole 25 – 80 A
Pulse-current sensitive
2-pole 16 – 40 A,
4-pole 25 – 125 A

Rated fault current
30 mA, 100 mA, 300 mA, 500 mA

4-pole selective, 63 – 80 A
Rated fault current 100 mA, 300 mA

→ Page 12/012

AZ miniature circuit-breakers 6

Characteristic/rated current ranges
C/20-125 A; D/50-100 A

Switching capacity:
15 – 25 kA to IEC/EN 60 947-2
1-, 2-, 3-, 3-pole+N-, 4-pole

→ Page 12/008

Add-on functions

FAZ auxiliary contacts 7

Standard auxiliary contacts

Trip-indicating auxiliary contacts

Auxiliary contacts

Supplied separately or complete from the factory

→ Page 12/015

AZ auxiliary contacts 8

Standard auxiliary contacts
Supplied separately or complete from the factory

→ Page 12/015

FAZ voltage releases 9

Undervoltage release

Shunt releases
Can be fitted to FAZ or FAZ-FIM
Supplied separately or complete from the factory

→ Page 12/015

AZ voltage releases 10

Shunt releases
Supplied separately or complete from the factory

→ Page 12/015

Remote switching module 11

For remote switching and automatic resetting of miniature circuit-breakers or residual-current circuit-breakers; for remote testing of residual-current circuit-breakers in conjunction with the remote test module

Supplied separately or complete from the factory

→ Page 12/016

Remote test module 12

For the remote tripping test of residual-current circuit-breakers to the rated fault current
Supplied separately or complete from the factory

→ Page 12/016

FAZ Miniature Circuit-Breakers
Switching Capacity 10 kA (IEC/EN 60 898)

Characteristic	Rated current I_n A	1-pole Type Article no.	Price See Price List	Std. pack	2-pole With 2 protected poles Type Article no.	Price See Price List	3-pole With 3 protected poles Type Article no.	Price See Price List
FAZ miniature circuit-breakers								
B Response current of short-circuit release $3-5 \times I_n$	4	**FAZ-B4HI** 214570		12 off	**FAZ-2-B4HI** 214571		–	
	6	**FAZ-B6** 211352			**FAZ-2-B6** 211353		**FAZ-3-B6** 211354	
	10	**FAZ-B10** 211358			**FAZ-2-B10** 211359		**FAZ-3-B10** 211360	
	13	**FAZ-B13** 211364			**FAZ-2-B13** 211365		**FAZ-3-B13** 211366	
	16	**FAZ-B16** 211370			**FAZ-2-B16** 211371		**FAZ-3-B16** 211372	
	20	**FAZ-B20** 211376			**FAZ-2-B20** 211377		**FAZ-3-B20** 211378	
	25	**FAZ-B25** 211382			**FAZ-2-B25** 211383		**FAZ-3-B25** 211384	
	32	**FAZ-B32** 211388			**FAZ-2-B32** 211389		**FAZ-3-B32** 211390	
	40	**FAZ-B40** 211394			**FAZ-2-B40** 211395		**FAZ-3-B40** 211396	
	50	**FAZ-B50** 211400			**FAZ-2-B50** 211401		**FAZ-3-B50** 211402	
	63	**FAZ-B63** 211406			**FAZ-2-B63** 211407		**FAZ-3-B63** 211408	
C Response current of short-circuit release $5-10 \times I_n$	0.5	**FAZ-C0,5** 211474		12 off	**FAZ-2-C0,5** 211475		**FAZ-3-C0,5** 211476	
	1	**FAZ-C1** 211480			**FAZ-2-C1** 211481		**FAZ-3-C1** 211482	
	2	**FAZ-C2** 211486			**FAZ-2-C2** 211487		**FAZ-3-C2** 211488	
	3	**FAZ-C3** 211492			**FAZ-2-C3** 211493		**FAZ-3-C3** 211494	
	4	**FAZ-C4** 211498			**FAZ-2-C4** 211499		**FAZ-3-C4** 211500	
	6	**FAZ-C6** 211504			**FAZ-2-C6** 211505		**FAZ-3-C6** 211506	
	10	**FAZ-C10** 211510			**FAZ-2-C10** 211511		**FAZ-3-C10** 211512	
	13	**FAZ-C13** 211516			**FAZ-2-C13** 211517		**FAZ-3-C13** 211518	
	16	**FAZ-C16** 211522			**FAZ-2-C16** 211523		**FAZ-3-C16** 211524	
	20	**FAZ-C20** 211528			**FAZ-2-C20** 211529		**FAZ-3-C20** 211530	
	25	**FAZ-C25** 211534			**FAZ-2-C25** 211535		**FAZ-3-C25** 211536	
	32	**FAZ-C32** 211540			**FAZ-2-C32** 211541		**FAZ-3-C32** 211542	
	40	**FAZ-C40** 211546			**FAZ-2-C40** 211547		**FAZ-3-C40** 211548	
	50	**FAZ-C50** 211552			**FAZ-2-C50** 211553		**FAZ-3-C50** 211554	
	63	**FAZ-C63** 211558			**FAZ-2-C63** 211559		**FAZ-3-C63** 211560	

FAZ Miniature Circuit-Breakers
Switching Capacity 10 kA (IEC/EN 60 898)

4-pole With 4 protected poles Type Article no.	Price See Price List	2-pole With 1 protected pole N switching with pole Type Article no.	Price See Price List	4-pole With 3 protected poles N switching with poles Type Article no.	Price See Price List	Std. pack	Notes
–		–		–		1 off	
FAZ-4-B6 211355		**FAZ-1N-B6** 211356		**FAZ-3N-B6** 211357			
FAZ-4-B10 211361		**FAZ-1N-B10** 211362		**FAZ-3N-B10** 211363			
FAZ-4-B13 211367		**FAZ-1N-B13** 211368		**FAZ-3N-B13** 211369			
FAZ-4-B16 211373		**FAZ-1N-B16** 211374		**FAZ-3N-B16** 211375			
FAZ-4-B20 211379		**FAZ-1N-B20** 211380		**FAZ-3N-B20** 211381			
FAZ-4-B25 211385		**FAZ-1N-B25** 211386		**FAZ-3N-B25** 211387			
FAZ-4-B32 211391		**FAZ-1N-B32** 211392		**FAZ-3N-B32** 211393			
FAZ-4-B40 211397		**FAZ-1N-B40** 211398		**FAZ-3N-B40** 211399			
FAZ-4-B50 211403		**FAZ-1N-B50** 211404		**FAZ-3N-B50** 211405			
FAZ-4-B63 211409		**FAZ-1N-B63** 211410		**FAZ-3N-B63** 211411			
FAZ-4-C0,5 211477		**FAZ-1N-C0,5** 211478		**FAZ-3N-C0,5** 211479		1 off	
FAZ-4-C1 211483		**FAZ-1N-C1** 211484		**FAZ-3N-C1** 211485			
FAZ-4-C2 211489		**FAZ-1N-C2** 211490		**FAZ-3N-C2** 211491			
FAZ-4-C3 211495		**FAZ-1N-C3** 211496		**FAZ-3N-C3** 211497			
FAZ-4-C4 211501		**FAZ-1N-C4** 211502		**FAZ-3N-C4** 211503			
FAZ-4-C6 211507		**FAZ-1N-C6** 211508		**FAZ-3N-C6** 211509			
FAZ-4-C10 211513		**FAZ-1N-C10** 211514		**FAZ-3N-C10** 211515			
FAZ-4-C13 211519		**FAZ-1N-C13** 211520		**FAZ-3N-C13** 211521			
FAZ-4-C16 211525		**FAZ-1N-C16** 211526		**FAZ-3N-C16** 211527			
FAZ-4-C20 211531		**FAZ-1N-C20** 211532		**FAZ-3N-C20** 211533			
FAZ-4-C25 211537		**FAZ-1N-C25** 211538		**FAZ-3N-C25** 211539			
FAZ-4-C32 211543		**FAZ-1N-C32** 211544		**FAZ-3N-C32** 211545			
FAZ-4-C40 211549		**FAZ-1N-C40** 211550		**FAZ-3N-C40** 211551			
FAZ-4-C50 211555		**FAZ-1N-C50** 211556		**FAZ-3N-C50** 211557			
FAZ-4-C63 211561		**FAZ-1N-C63** 211562		**FAZ-3N-C63** 211563			

Switching capacity (IEC/EN 60 898) 10 kA

Switching capacity (IEC/EN 60 947-2) 15 kA

Accessories **Page**

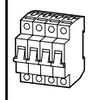
FAZ-B4HI, FAZ-2-B4HI
Special miniature circuit-breakers with drastically reduced let-through energy to prevent contact welding **in auxiliary contact modules**

1-pole
Depth 71 mm
Width 17.5 mm

2-pole; 1-pole+N
Depth 71 mm
Width 35 mm

3-pole
Depth 71 mm
Width 52,5 mm

4-pole; 3-pole+N
Depth 71 mm
Width 70 mm



FAZ Miniature Circuit-Breakers
Switching Capacity 10 kA (IEC/EN 60 898)

Characteristic	Rated current I_n A	1-pole Type Article no.	Price See Price List	Std. pack	2-pole With 2 protected poles Type Article no.	Price See Price List	3-pole With 3 protected poles Type Article no.	Price See Price List
FAZ miniature circuit-breakers								
D Response current of short-circuit release 10 – 20 × I_n Switching capacity (IEC/EN 60 898) 10 kA Switching capacity (IEC/EN 60 947-2) 15 kA	6	**FAZ-D6** 214572		12 off	**FAZ-2-D6** 214573		**FAZ-3-D6** 214574	
	10	**FAZ-D10** 214577			**FAZ-2-D10** 214578		**FAZ-3-D10** 214579	
	13	**FAZ-D13** 214582			**FAZ-2-D13** 214583		**FAZ-3-D13** 214584	
	16	**FAZ-D16** 214587			**FAZ-2-D16** 214588		**FAZ-3-D16** 214589	
	20	**FAZ-D20** 214592			**FAZ-2-D20** 214593		**FAZ-3-D20** 214594	
	25	**FAZ-D25** 214597			**FAZ-2-D25** 214598		**FAZ-3-D25** 214599	
	32	**FAZ-D32** 214602			**FAZ-2-D32** 214603		**FAZ-3-D32** 214604	
	40	**FAZ-D40** 214607			**FAZ-2-D40** 214608		**FAZ-3-D40** 214609	
AC miniature circuit-breakers for control circuit protection S Response current of short-circuit release 13 – 17 × I_n Switching capacity (IEC/EN 60 947-2) 4.5 kA	1	**FAZ-S1** 211739			**FAZ-2-S1** 211740		–	
	2	**FAZ-S2** 211741			**FAZ-2-S2** 211742		–	
	3	**FAZ-S3** 211743			**FAZ-2-S3** 211744		–	
	4	**FAZ-S4** 211745			**FAZ-2-S4** 211746		–	
	6	**FAZ-S6** 211747			**FAZ-2-S6** 211748		–	
	10	**FAZ-S10** 211749			**FAZ-2-S10** 211750		–	
	16	**FAZ-S16** 211751			**FAZ-2-S16** 211752		–	
R Response current of short-circuit release 2 – 3 × I_n Switching capacity (IEC/EN 60947-2) 6 kA	2	**FAZ-R2** 225293			**FAZ-2-R2** 225296		**FAZ-3-R2** 225299	
	3	**FAZ-R3** 225294			**FAZ-2-R3** 225297		**FAZ-3-R3** 225300	
	4	**FAZ-R4** 225295			**FAZ-2-R4** 225298		**FAZ-3-R4** 225301	
	6	**FAZ-R6** 211712			**FAZ-2-R6** 211713		**FAZ-3-R6** 211714	
	10	**FAZ-R10** 211715			**FAZ-2-R10** 211716		**FAZ-3-R10** 211717	
	13	**FAZ-R13** 211718			**FAZ-2-R13** 211719		**FAZ-3-R13** 211720	
	16	**FAZ-R16** 211721			**FAZ-2-R16** 211722		**FAZ-3-R16** 211723	
	20	**FAZ-R20** 211724			**FAZ-2-R20** 211725		**FAZ-3-R20** 211726	
	25	**FAZ-R25** 211727			**FAZ-2-R25** 211728		**FAZ-3-R25** 211729	
	32	**FAZ-R32** 211730			**FAZ-2-R32** 211731		**FAZ-3-R32** 211732	
	40	**FAZ-R40** 211733			**FAZ-2-R40** 211734		**FAZ-3-R40** 211735	
	50	**FAZ-R50** 211736			**FAZ-2-R50** 211737		**FAZ-3-R50** 211738	

FAZ Miniature Circuit-Breakers
Switching Capacity 10 kA (IEC/EN 60 898)

4-pole With 4 protected poles Type Article no.	Price See Price List	4-pole With 3 protected poles N switching with poles Type Article no.	Price See Price List	Std. pack	Notes
FAZ-4-D6 214575		**FAZ-3N-D6** 214576		1 off	
FAZ-4-D10 214580		**FAZ-3N-D10** 214581			
FAZ-4-D13 214585		**FAZ-3N-D13** 214586			
FAZ-4-D16 214590		**FAZ-3N-D16** 214591			
FAZ-4-D20 214595		**FAZ-3N-D20** 214596			
FAZ-4-D25 214600		**FAZ-3N-D25** 214601			
FAZ-4-D32 214605		**FAZ-3N-D32** 214606			
FAZ-4-D40 214610		**FAZ-3N-D40** 214611			

Miniature circuit-breakers for DC applications

1-pole Type Article no.	2-pole With 2 protected poles Type Article no.	Std. pack
FAZ-C2-DC 221479	**FAZ-2-C2-DC** 221480	1 off
FAZ-C3-DC 221481	**FAZ-2-C3-DC** 221482	
FAZ-C4-DC 221484	**FAZ-2-C4-DC** 221485	
FAZ-C6-DC 211654	**FAZ-2-C6-DC** 211655	
FAZ-C10-DC 211656	**FAZ-2-C10-DC** 211657	
FAZ-C13-DC 211658	**FAZ-2-C13-DC** 211659	
FAZ-C16-DC 211660	**FAZ-2-C16-DC** 211661	
FAZ-C20-DC 211662	**FAZ-2-C20-DC** 211663	
FAZ-C25-DC 211664	**FAZ-2-C25-DC** 211665	
FAZ-C32-DC 211666	**FAZ-2-C32-DC** 211667	
FAZ-C40-DC 211668	**FAZ-2-C40-DC** 211669	
FAZ-C50-DC 211670	**FAZ-2-C50-DC** 211671	

Accessories	Page
Auxiliary contacts,	12/015
Voltage releases	12/015
Mounting accessories	12/019
Maximum mounting options	12/045

1-pole
Depth 71 mm
Width 17.5 mm

2-pole; 1-pole+N
Depth 71 mm
Width 35 mm

3-pole
Depth 71 mm
Width 52.5 mm

4-pole; 3-pole+N
Depth 71 mm
Width 70 mm

For FAZ-...-DC
C characteristic

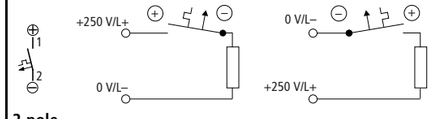
Response current of short-circuit release
7 – 14 × I_n

Switching capacity 6 kA (L/R = 4 ms)

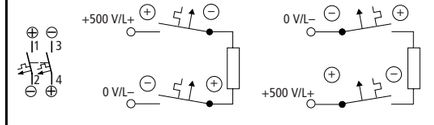
Rated voltage 250 V DC on each pole

DC application: FAZ-...-C...-DC
Circuit design notes:
Note polarity !

1-pole



2-pole



AZ High-Capacity Miniature Circuit-Breakers
Switching Capacity 15 – 25 kA (IEC/EN 60 947-2)

Characteristic	Rated current I_n A	1-pole Type Article no.	Price See Price List	Std. pack	2-pole With 2 protected poles Type Article no.	Price See Price List	3-pole With 3 protected poles Type Article no.	Price See Price List	Std. pack
AZ high-capacity miniature circuit-breakers									
C Response current of short-circuit release 5 – 10 × I_n	20	**AZ-C20** 211769		12 off	**AZ-2-C20** 211770		**AZ-3-C20** 211771		1 off
	25	**AZ-C25** 211774			**AZ-2-C25** 211775		**AZ-3-C25** 211776		
	32	**AZ-C32** 211779			**AZ-2-C32** 211780		**AZ-3-C32** 211781		
	40	**AZ-C40** 211784			**AZ-2-C40** 211785		**AZ-3-C40** 211786		
	50	**AZ-C50** 211789			**AZ-2-C50** 211790		**AZ-3-C50** 211791		
	63	**AZ-C63** 211794			**AZ-2-C63** 211795		**AZ-3-C63** 211796		
	80	**AZ-C80** 211799			**AZ-2-C80** 211800		**AZ-3-C80** 211801		
	100	**AZ-C100** 211804			**AZ-2-C100** 211805		**AZ-3-C100** 211806		
	125	**AZ-C125** 211809			**AZ-2-C125** 211810		**AZ-3-C125** 211811		
D Response current of short-circuit release 10 – 20 × I_n	50	**AZ-D50** 211814		12 off	**AZ-2-D50** 211815		**AZ-3-D50** 211816		1 off
	63	**AZ-D63** 211818			**AZ-2-D63** 211819		**AZ-3-D63** 211820		
	80	**AZ-D80** 211822			**AZ-2-D80** 211823		**AZ-3-D80** 211824		
	100	**AZ-D100** 211826			**AZ-2-D100** 211827		**AZ-3-D100** 211828		

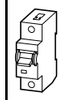
AZ High-Capacity Miniature Circuit-Breakers
Switching Capacity 15 – 25 kA (IEC/EN 60 947-2)

4-pole With 4 protected poles Type Article no.	Price See Price List	4-pole With 3 protected poles N switching with poles Type Article no.	Price See Price List	Std. pack	Notes
AZ-4-C20 211772		**AZ-3N-C20** 211773		1 off	
AZ-4-C25 211777		**AZ-3N-C25** 211778			
AZ-4-C32 211782		**AZ-3N-C32** 211783			
AZ-4-C40 211787		**AZ-3N-C40** 211788			
AZ-4-C50 211792		**AZ-3N-C50** 211793			
AZ-4-C63 211797		**AZ-3N-C63** 211798			
AZ-4-C80 211802		**AZ-3N-C80** 211803			
AZ-4-C100 211807		**AZ-3N-C100** 211808			
AZ-4-C125 211812		**AZ-3N-C125** 211813			
–		**AZ-3N-D50** 211817		1 off	
–		**AZ-3N-D63** 211821			
–		**AZ-3N-D80** 211825			
–		**AZ-3N-D100** 211829			

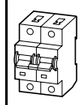
More information	Page
Switching capacity See Technical Data	12/041

Accessories	Page
Auxiliary contacts	12/015
Mounting accessories	12/019

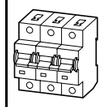
1-pole
Depth 75 mm
Width 27 mm



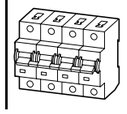
2-pole
Depth 75 mm
Width 54 mm



3-pole
Depth 75 mm
Width 81 mm



4-pole; 3-pole+N
Depth 75 mm
Width 108 mm



FAZ Miniature Circuit-Breakers with FIM Residual-Current Protection Module, FILS Combined RCD/MCB Devices
Switching Capacity 15 kA (IEC/EN 60 947-2)

Characteristic	Rated current I_n A	2-pole Type Article no.	Price See Price List	2-pole Type Article no.	Price See Price List	4-pole Type Article no.	Price See Price List	Std. pack
Rated fault current								
$I_{\triangle N}$ = 30 mA								
B Response current of short-circuit release 3 – 5 × I_n	6	–		**FILS-B6-0,03** 211958		–		1 off
	10	**FAZ-2-B10-FIM0,03** 211830		**FILS-B10-0,03** 211960		**FAZ-4-B10-FIM0,03** 211832		
	13	–		**FILS-B13-0,03** 224564		–		
	16	**FAZ-2-B16-FIM0,03** 211834		**FILS-B16-0,03** 211962		**FAZ-4-B16-FIM0,03** 211836		
	20	**FAZ-2-B20-FIM0,03** 211838		**FILS-B20-0,03** 211964		**FAZ-4-B20-FIM0,03** 211840		
	25	**FAZ-2-B25-FIM0,03** 211842		**FILS-B25-0,03** 211966		**FAZ-4-B25-FIM0,03** 211844		
	32	**FAZ-2-B32-FIM0,03** 211846		**FILS-B32-0,03** 211968		**FAZ-4-B32-FIM0,03** 211848		
	40	**FAZ-2-B40-FIM0,03** 211850		**FILS-B40-0,03** 211970		**FAZ-4-B40-FIM0,03** 211852		
	50	**FAZ-2-B50-FIM0,03** 211854		–		**FAZ-4-B50-FIM0,03** 211856		
	63	**FAZ-2-B63-FIM0,03** 211858		–		**FAZ-4-B63-FIM0,03** 211860		
C Response current of short-circuit release 5 – 10 × I_n	6	–		**FILS-C6-0,03** 211972		–		
	10	**FAZ-2-C10-FIM0,03** 211894		**FILS-C10-0,03** 211974		**FAZ-4-C10-FIM0,03** 211896		
	13	–		**FILS-C13-0,03** 224566		–		
	16	**FAZ-2-C16-FIM0,03** 211898		**FILS-C16-0,03** 211976		**FAZ-4-C16-FIM0,03** 211900		
	20	**FAZ-2-C20-FIM0,03** 211902		**FILS-C20-0,03** 211978		**FAZ-4-C20-FIM0,03** 211904		
	25	**FAZ-2-C25-FIM0,03** 211906		**FILS-C25-0,03** 211980		**FAZ-4-C25-FIM0,03** 211908		
	32	**FAZ-2-C32-FIM0,03** 211910		**FILS-C32-0,03** 211982		**FAZ-4-C32-FIM0,03** 211912		
	40	**FAZ-2-C40-FIM0,03** 211914		**FILS-C40-0,03** 211984		**FAZ-4-C40-FIM0,03** 211916		
	50	**FAZ-2-C50-FIM0,03** 211918		–		**FAZ-4-C50-FIM0,03** 211920		
	63	**FAZ-2-C63-FIM0,03** 211922		–		**FAZ-4-C63-FIM0,03** 211924		
Residual-current protective modules								
	40	**FIM-2-40-0,03** 212023		–		**FIM-4-40-0,03** 212025		1 off
	63	**FIM-2-63-0,03** 212027		–		**FIM-4-63-0,03** 212029		1 off

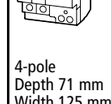
FAZ Miniature Circuit-Breakers with FIM Residual-Current Protection Module, FILS Combined RCD/MCB Devices
Switching Capacity 15 kA (IEC/EN 60 947-2)

2-pole Type Article no.	Price See Price List	2-pole Type Article no.	Price See Price List	4-pole Type Article no.	Price See Price List	Std. pack	Notes
Rated fault current							
$I_{\triangle N}$ = 300 mA							
–		**FILS-B6-0,3** 211959		–		1 off	
FAZ-2-B10-FIM0,3 211831		**FILS-B10-0,3** 211961		**FAZ-4-B10-FIM0,3** 211833			
–		**FILS-B13-0,3** 224565		–			
FAZ-2-B16-FIM0,3 211835		**FILS-B16-0,3** 211963		**FAZ-4-B16-FIM0,3** 211837			
FAZ-2-B20-FIM0,3 211839		**FILS-B20-0,3** 211965		**FAZ-4-B20-FIM0,3** 211841			
FAZ-2-B25-FIM0,3 211843		**FILS-B25-0,3** 211967		**FAZ-4-B25-FIM0,3** 211845			
FAZ-2-B32-FIM0,3 211847		**FILS-B32-0,3** 211969		**FAZ-4-B32-FIM0,3** 211849			
FAZ-2-B40-FIM0,3 211851		**FILS-B40-0,3** 211971		**FAZ-4-B40-FIM0,3** 211853			
FAZ-2-B50-FIM0,3 211855		–		**FAZ-4-B50-FIM0,3** 211857			
FAZ-2-B63-FIM0,3 211859		–		**FAZ-4-B63-FIM0,3** 211861			
–		**FILS-C6-0,3** 211973		–			
FAZ-2-C10-FIM0,3 211895		**FILS-C10-0,3** 211975		**FAZ-4-C10-FIM0,3** 211897			
–		**FILS-C13-0,3** 224567		–			
FAZ-2-C16-FIM0,3 211899		**FILS-C16-0,3** 211977		**FAZ-4-C16-FIM0,3** 211901			
FAZ-2-C20-FIM0,3 211903		**FILS-C20-0,3** 211979		**FAZ-4-C20-FIM0,3** 211905			
FAZ-2-C25-FIM0,3 211907		**FILS-C25-0,3** 211981		**FAZ-4-C25-FIM0,3** 211909			
FAZ-2-C32-FIM0,3 211911		**FILS-C32-0,3** 211983		**FAZ-4-C32-FIM0,3** 211913			
FAZ-2-C40-FIM0,3 211915		**FILS-C40-0,3** 211985		**FAZ-4-C40-FIM0,3** 211917			
FAZ-2-C50-FIM0,3 211919		–		**FAZ-4-C50-FIM0,3** 211921			
FAZ-2-C63-FIM0,3 211923		–		**FAZ-4-C63-FIM0,3** 211925			
FIM-2-40-0,3 212024		–		**FIM-4-40-0,3** 212026		1 off	
FIM-2-63-0,3 212028		–		**FIM-4-63-0,3** 212030		1 off	

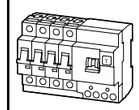
Pulse-current sensitive
Surge-proof up to 250 A

Accessories	Page
Auxiliary contacts,	12/015
Voltage releases	12/015
Mounting accessories	12/019

FAZ-...-FIM
2-pole
Depth 71 mm
Width 70 mm

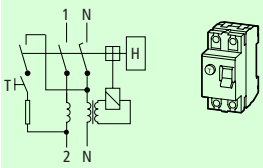


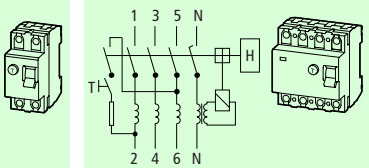
4-pole
Depth 71 mm
Width 125 mm

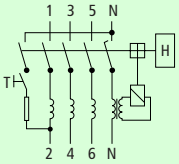


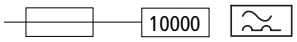
FILS-...
2-pole
Depth 71 mm
Width 35 mm

FIP, FIPS Residual-Current Circuit-Breakers







Rated uninterrupted current I_u A	2-pole Type Article no.	2-pole Price See Price List	4-pole[2] Type Article no.	4-pole[2] Price See Price List	4-pole[3] Type Article no.	4-pole[3] Price See Price List	Std. pack
FIP, FIPS residual-current circuit-breakers							
Pulse-current sensitive 	Surge-proof up to 250 A				Selective[1] and surge-proof 5 kA		
With rated fault current $I_{\triangle N}$ = 30 mA							
16	**FIP-2-16-0,03** 212004		–		–		1 off
25	**FIP-2-25-0,03** 212005		**FIP-4-25-0,03** 212011		–		
40	**FIP-2-40-0,03** 212008		**FIP-4-40-0,03** 212015		–		
63	–		**FIP-4-63-0,03** 212148		–		
80	–		**FIP-4-80-0,03** 212152		–		
100	–		**FIP-4-100-0,03** 212155		–		
125	–		**FIP-4-125-0,03** 212158		–		
With rated fault current $I_{\triangle N}$ = 100 mA							
25	**FIP-2-25-0,1** 212006		**FIP-4-25-0,1** 212012		–		
40	**FIP-2-40-0,1** 212009		**FIP-4-40-0,1** 212016		–		
63	–		**FIP-4-63-0,1** 212149		**FIPS-4-63-0,1** 212019		
With rated fault current $I_{\triangle N}$ = 300 mA							
25	**FIP-2-25-0,3** 212007		**FIP-4-25-0,3** 212013		–		
40	**FIP-2-40-0,3** 212010		**FIP-4-40-0,3** 212017		–		
63	–		**FIP-4-63-0,3** 212150		**FIPS-4-63-0,3** 212020		
80	–		**FIP-4-80-0,3** 212153		**FIPS-4-80-0,3** 212021		
100	–		**FIP-4-100-0,3** 212156		–		
125	–		**FIP-4-125-0,3** 212159		–		
With rated fault current $I_{\triangle N}$ = 500 mA							
25	–		**FIP-4-25-0,5** 212014		–		
40	–		**FIP-4-40-0,5** 212018		–		
63	–		**FIP-4-63-0,5** 212151		–		
80	–		**FIP-4-80-0,5** 212154		–		
100	–		**FIP-4-100-0,5** 212157		–		
125	–		**FIP-4-125-0,5** 212160		–		

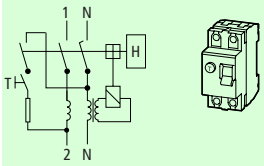
Notes

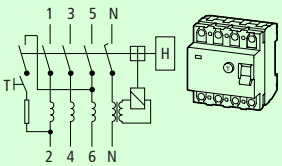
[1] The rated fault current of the higher-level FIPS protective switch must be greater by at least the factor of 3. The time delay is greater than 40 ms.
[2] FIP, FIPS ≦ 80 A
[3] FIP ≧ 100 A

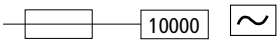
Accessories	Page
Auxiliary contacts	12/015
Mounting accessories	12/019

FI, FIS Residual-Current Circuit-Breakers for Export

FI and FIS residual-current circuit-breakers are NOT approved for protective measure "Residual-current protection (FI) circuits" to VDE 0100. They do not bear the VDE mark.





Rated uninterrupted current I_u A	2-pole Type Article no.	2-pole Price See Price List	4-pole Type Article no.	4-pole Price See Price List	Selective and surge-proof [1] 5 kA Type Article no.	Selective and surge-proof [1] 5 kA Price See Price List	Std. pack
FI, FIS residual-current circuit-breakers							
Alternating-current sensitive 	Surge-proof up to 250 A						
With rated fault current $I_{\triangle N}$ = 30 mA							1 off
16	**FI-2-16-0,03** 211986		–		–		
25	**FI-2-25-0,03** 211987		**FI-4-25-0,03** 211993		–		
40	**FI-2-40-0,03** 211990		**FI-4-40-0,03** 211997		–		
63	**FI-2-63-0,03** 218940		**FI-4-63-0,03** 212142		–		
80	**FI-2-80-0,03** 218941		**FI-4-80-0,03** 212146		–		
With rated fault current $I_{\triangle N}$ = 100 mA							
25	**FI-2-25-0,1** 211988		**FI-4-25-0,1** 211994		–		
40	**FI-2-40-0,1** 211991		**FI-4-40-0,1** 211998		–		
63	**FI-2-63-0,1** 218942		**FI-4-63-0,1** 212143		**FIS-4-63-0,1** 212001		
80	**FI-2-80-0,1** 218943		**FI-4-80-0,1** 218944		–		
With rated fault current $I_{\triangle N}$ = 300 mA							
25	**FI-2-25-0,3** 211989		**FI-4-25-0,3** 211995		–		
40	**FI-2-40-0,3** 211992		**FI-4-40-0,3** 211999		–		
63	–		**FI-4-63-0,3** 212144		**FIS-4-63-0,3** 212002		
80	–		**FI-4-80-0,3** 212147		**FIS-4-80-0,3** 212003		
With rated fault current $I_{\triangle N}$ = 500 mA							
25	–		**FI-4-25-0,5** 211996		–		
40	–		**FI-4-40-0,5** 212000		–		
63	–		**FI-4-63-0,5** 212145		–		

Notes

[1] The rated fault current of the higher-level FIS protective switch must be greater by at least the factor of 3. The time delay is greater than 40 ms.

Accessories	Page
Auxiliary contacts	12/015
Mounting accessories	12/019

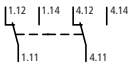
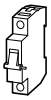
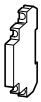
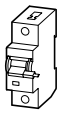
FAZ-PN Miniature Circuit-Breakers
Switching Capacity 6 kA (IEC/EN) 60 898

Characteristic	Rated uninterrupted current I_u A	2-pole With 1 protected pole N switching with pole  Type Article no.	Price See Price List	Std. pack	Notes
FAZ miniature circuit-breakers					
B Response current of short-circuit release $3-5 \times I_n$	6	**FAZ-PN-B6** 211753		12 off	
	10	**FAZ-PN-B10** 211754			
	13	**FAZ-PN-B13** 211755			
	16	**FAZ-PN-B16** 211756			
	20	**FAZ-PN-B20** 211757			
	25	**FAZ-PN-B25** 211758			
	32	**FAZ-PN-B32** 211759			
	40	**FAZ-PN-B40** 225399			
C Response current of short-circuit release $3-5 \times I_n$	2	**FAZ-PN-C2** 211760		12 off	
	4	**FAZ-PN-C4** 211761			
	6	**FAZ-PN-C6** 211762			
	10	**FAZ-PN-C10** 211763			
	13	**FAZ-PN-C13** 211764			
	16	**FAZ-PN-C16** 211765			
	20	**FAZ-PN-C20** 211766			
	25	**FAZ-PN-C25** 211767			
	32	**FAZ-PN-C32** 211768			
	40	**FAZ-PN-C40** 225400			

Accessories	Page
Auxiliary contacts	12/015
Voltage releases	12/015
Mounting accessories	12/019

1-pole+N
Depth 75 mm
Width 17.5 mm

Add-On Functions
Auxiliary Contacts, Voltage Releases

	Contact sequence	Contacts	Space unit PLE 1 PLE = 18 mm	Type suffix[2] When ordered with basic unit Article no.	Price See Price List	Type When ordered separately Article no.	Price See Price List	Std. pack
Auxiliary contacts and voltage releases								
Standard auxiliary contacts for FAZ, FILS 		1 CO	0.5	**+FAZ-XHI001** 225120		**FAZ-XHI001** 225119		8 off
Standard auxiliary contacts for FIP 		1 M/1 B	0.5	**+FIP-XHI11** 225122		**FIP-XHI11** 225121		8 off
Standard auxiliary contacts for FIP ≧ 100 A 		1 M/1 B	0.5	–		**FIP100/125-XHI11** 211305		1 off
Trip-indicating auxiliary contact convertible to auxiliary contact[1] for FAZ, FIP 		2 CO	0.5	**+FAZ/FIP-XRHI002** 212066		**FAZ/FIP-XRHI002** 212065		10 off
Undervoltage releases for FAZ 			1	**+FAZ-XUA(115VAC)** 212050		**FAZ-XUA(115VAC)** 212049		7 off
			1	**+FAZ-XUA(230VAC)** 212052		**FAZ-XUA(230VAC)** 212051		
			1	**+FAZ-XUA(400VAC)** 212054		**FAZ-XUA(400VAC)** 212053		
Shunt releases for FAZ 			1	**+FAZ-XAA(110-415VAC)** 212056		**FAZ-XAA(110-415VAC)** 212055		7 off
			1	**+FAZ-XAA(12-110VAC)** 212058		**FAZ-XAA(12-110VAC)** 212057		7 off
Standard auxiliary contacts for AZ 		1 M/1 B	0.5	**+AZ-XHI11** 212068		**AZ-XHI11** 212067		8 off
Shunt releases for AZ 			1.5	**+AZ-XAA(110-415VAC)** 212060		**AZ-XAA(110-415VAC)** 212059		8 off
			1.5	**+AZ-XAA(12-60VAC)** 212062		**AZ-XAA(12-60VAC)** 212061		8 off

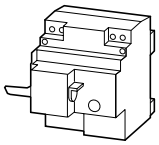
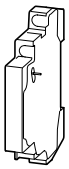
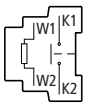
Notes

[1] The component is supplied with the groove of the yellow selector button horizontal: this means that the changeover contact 4.11 – 4.12/4.14 switches when actuated by hand as well as electrically. If the yellow selector button is turned through 90°, the contact 4.11 – 4.12/4.14 switches only when actuated electrically, but remains closed when operated by hand.

[2] The standard pack of +(suffix) Types is 1 off

Combination options of miniature circuit-breakers and residual-current protective switches → Page 12/045

FAZ/FIP-X FSM Remote Switching Module, FIP-XPM Test Module

	Rated fault current $I_{\triangle N}$	Type suffix When ordered with basic unit Article no.	Type Article no.	Price See Price List	Std. pack
FAZ/FIP-XFSM remote switching module					
		**+FAZ/FIP-XFSM** 215334	**FAZ/FIP-XFSM** 212069		1 off
FIP-XPM test module					
 	30 mA	**+FIP-XPM0,03** 215335	**FIP-XPM0,03** 212070		1 off
	100 mA	**+FIP-XPM0,1** 215336	**FIP-XPM0,1** 212071		
	300 mA	**+FIP-XPM0,3** 215337	**FIP-XPM0,3** 212072		
	500 mA	**+FIP-XPM0,5** 215338	**FIP-XPM0,5** 212073		

Notes

FAZ/FIP-XFSM remote switching module

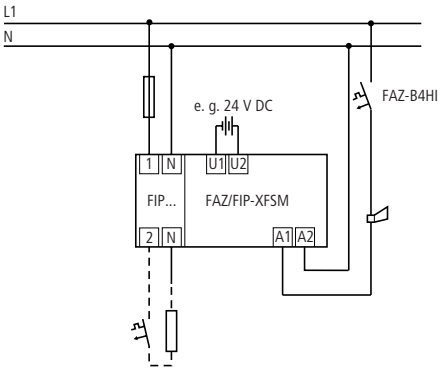
- IEC/EN 60 669-2-2
- For remote switching and automatic resetting of FAZ miniature circuit-breakers and FI, FIS, FIP, FIPS residual-current circuit-breakers
- For remote testing of residual-current protective devices in conjunction with the FIP-XPM test module
- Can be mechanically interlocked and sealed
- LED indication of operational status and alarm status
- Mechanical switching capacity up to FAZ-4-... 63 and up to FI(P)(S)-4-80
- –25 °C/+40 °C
- Rated operational voltage 24 – 240 V AC, 24 – 80 V DC
- Control voltage for remote control 24 – 230 V AC/DC
- Relay output for tripping test 400 V AC
- Terminal capacity 2 × 1.5 mm², 1 × 2.5 mm²; 0.4 Nm
- Lifespan, mechanical/electrical 10 000 switching operations
- Own power consumption 5 W

FIP-XPM test module

- External test module with defined test impedance corresponding to the rated fault current of the residual-current circuit-breaker
- Enables remote testing according to the Standard
- Can be used for remote tripping of FI(P)(S) residual-current circuit-breakers up to 80 A
- 2 × 2.5 mm²; 0.8 Nm

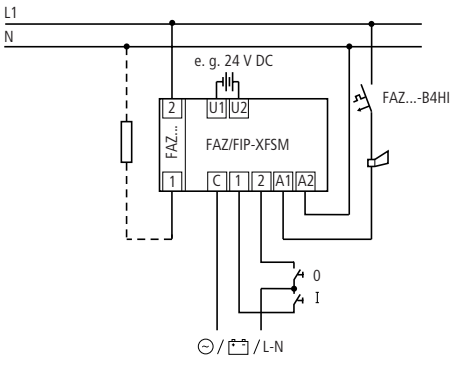
Circuit examples: (Note installation instructions!)

Automatic resetting
(1× or 5×): (max. 5 s; 10 s; 1 min; 10 min; 1 h)

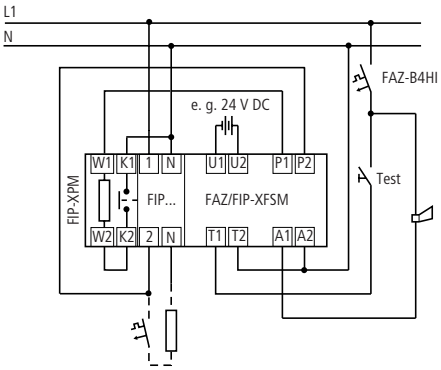


After unintended tripping or a brief disruption, the installation is immediately ready for renewed operation.

Remote switching:



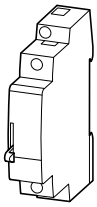
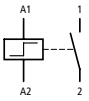
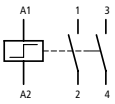
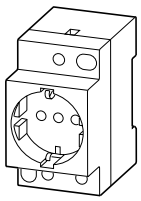
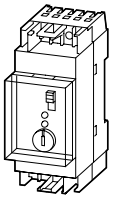
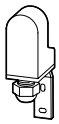
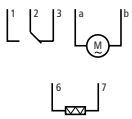
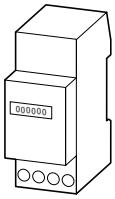
Remote tripping test:
(monitoring can be effected via alarm contact or auxiliary contact)



Function control of residual-current circuit-breakers as if by pressing the test button (electrically equivalent).

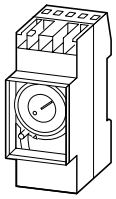
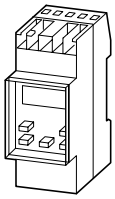
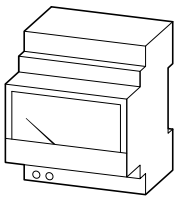
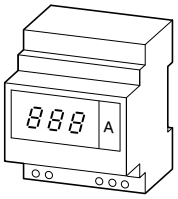
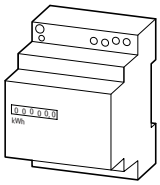
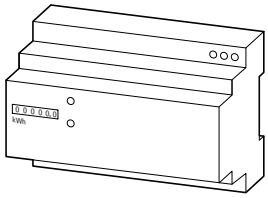
Rail-Mounted Service Installation Devices

Impulse Relays, Schuko Sockets, Light Intensity Switches

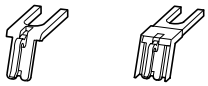
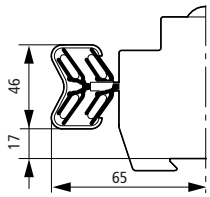
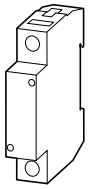
	Contact sequence	Rated uninterrupted current I_n A	Actuating voltage 50/60 Hz V AC	Type Article no.	Price See Price List	Std. pack	
Impulse relays							
							
With 1 make contact		16	24	**REG-SS10-24** 212102		12 off	
		16	230	**REG-SS10-230** 212103			
With 2 make contacts		16	24	**REG-SS20-24** 212104			
		16	230	**REG-SS20-230** 212105			
Schuko sockets, 2.5 space units							
		16	250	**REG-SD230** 212074		1 off	• Terminal capacity: 1 – 2.5 mm², 2 × 1 – 2.5 mm² • BS: protected to French Standards
		16	250	**REG-SD230-BS** 212075		1 off	
Light intensity switch with sensor							
 			230	**REG-DS-ST** 212076		1 off	• Rated current 16 A • Own power consumption approx. 2 VA • Switching contact: 1 changeover contact • Setting ranges: 2 – 100, 2 – 1000, 2 – 10000 lux • 1.5 – 2.5 mm²; 0.6 Nm • Length of sensor lead ≦ 100 m ≧ 2 × 0.35 mm²
Hours-run meters/pulse counters							
							
5 + 1-digit (hours)			230	**REG-BSZ230** 212080		1 off	• Counter frequency: max. 10 I_{mp}/sec • Pulse duration/pause 10 ms • Terminal capacity: 1 – 2.5 mm², 2 × 1 – 2.5 mm²; 0.6 Nm • No reset facility • Own power consumption 0.1 W
			24	**REG-BSZ24** 212081			
6-digit (pulses)			230	**REG-IZ230** 212082			

Rail-Mounted Service Installation Devices

Timers, Measuring Instruments, Counters

		Actuating voltage 50/60 Hz V AC	Type Article no.	Price See Price List	Std. pack	
Analog timers, 2 space units						
	Synchronous/day	230	**REG-SUAS-D** 212086		1 off	• Rated current Switching contact 16 A • Operational voltage 100 – 240 V • Min. switching interval 30 min
	Synchronous/week		**REG-SUAS-W** 212087			
	Quartz/day		**REG-SUAQ-D** 212088			
	Quartz/week		**REG-SUAQ-W** 212089			
Digital timers, 2 space units						
	Day, 1 channel	230	**REG-SUD-D** 212090		1 off	• Rated current Switching contact 16 A • Min. switching interval 1 minute/1 second • 20 freely configurable switch blocks ON + OFF • With direct manual switching of relay • Switching via 1 – 99 s pulse
	Week, 1 channel		**REG-SUD-W1K** 212091			
	Week, 2 channels		**REG-SUD-W2K** 212092			
Analog measuring instruments, 4 space units						
	Ammeter 0 – 10 A		**REG-AMA10** 212095		1 off	• Measuring accuracy, Class 1.5 • Moving-iron measuring element • Terminal capacity Voltmeter: 1 – 4 mm² Ammeter: 1 – 6 mm²
	Ammeter 0 – 40 A		**REG-AMA40** 212096			
	Voltmeter 0 – 250 V		**REG-VMA250** 212097			
	Voltmeter 0 – 500 V		**REG-VMA500** 212098			
Digital measuring instruments, 4 space units						
	Ammeter 0 – 20 A		**REG-AMD20** 212099		1 off	• Measuring accuracy, Class 1 • Own power consumption 4.5 VA • Auxiliary voltage 115/230 V
	Ammeter with range selection 0 – 999 A/5 A		**REG-AMD999** 212100			
	Voltmeter 0 – 600 V		**REG-VMD600** 212101			
Power meter, 1-phase						
	6-digit Direct connection, 16 A		**REG-KWH230** 212083		1 off	• Without control voltage • With pulse output 1 pulse/Wh 1 pulse/100 Wh • Not suitable for certification by electricity supply companies as power consumption measuring device
Power meter, 3-phase						
	6-digit Transformer connection, .../5 A	230/400	**REG-KWH400** 212084		1 off	• Suitable for uneven loading • Auxiliary voltage 230 V AC • No reset facility • With down-counter block • Not suitable for certification by electricity supply companies as power consumption measuring device • With pulse output • Own power consumption 1.5 W
	6-digit Direct connection, 25 A	230/400	**REG-KWH400-25** 212085		1 off	

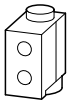
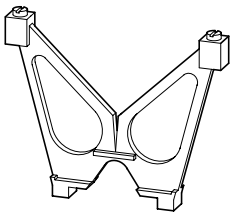
Mounting Accessories
FAZ/FIP-XVS Busbar System

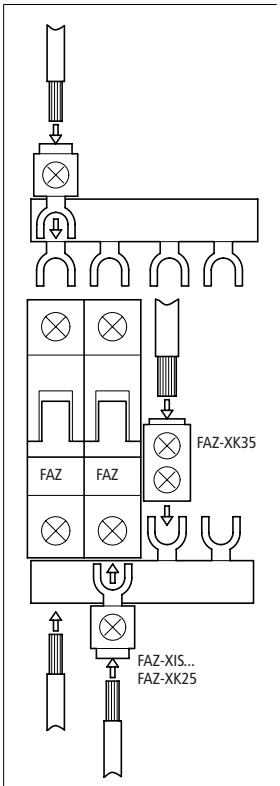
		Rated operational current I_e A	Type Article no.	Price See Price List	Std. pack
FAZ/FIP-XVS busbar system [1]					
• Suitable for any residual-current circuit-breaker/auxiliary contact combination • Also suitable for busbar connection between DIL0(A)M contactors, T rotary switches, P1, P3 switch-disconnectors and PKZ motor-protective circuit-breakers. • Two different busbar cross-sections: 50 A 16 mm² Cu and 80 A 25 mm² Cu • Rated voltage/short-circuit rating 400 V/15 kA, 440 V/10 kA					
	Busbar, 50 A 1 m	50	**FAZ/FIP-XVS-VS5** 212112		1 off
	Busbar, 80 A 1 m	80	**FAZ/FIP-XVS-VS8** 212115		1 off
	Connection forks L1, N	80	**FAZ/FIP-XVS-8-1** 212113		36 off
	Connection forks L1, N	80	**FAZ/FIP-XVS-8-1-GVP100** 225412		100 off
	Connection forks L2, L3	80	**FAZ/FIP-XVS-8-2** 212114		36 off
	Connection forks L2, L3	80	**FAZ/FIP-XVS-8-2-GVP100** 225413		100 off
	Cover 1 m		**FAZ/FIP-XVS-ADP** 212107		1 off
	End cap		**FAZ/FIP-XVS-EK** 212108		10 off
	Feeder block At centre feed: max. 125 A Cable cross-section: 1 × 25 mm² 1 × 50 mm²		**FAZ/FIP-XVS-KL** 212109		12 off

Notes [1] Suitable for any modular FAZ

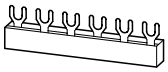
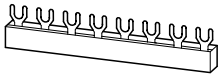
Mounting Accessories

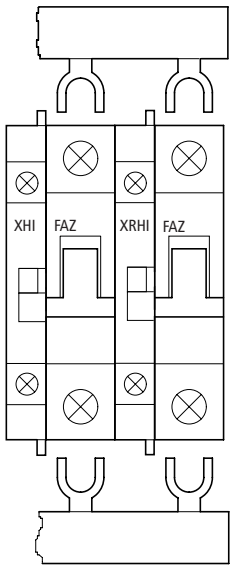
Incoming Terminals, Protection Against Direct Contact

	Type Article no.	Price See Price List	Std. pack
Incoming terminals			
Up to 25 mm² Touch-proof busbar connection to miniature circuit-breaker 	**FAZ-XK25** 212116		50 off
Up to 35 mm² Touch-proof connection to FAZ-XIS... busbar 	**FAZ-XK35** 212119		10 off
Protective covers			
For shrouding unused terminals on the busbar 	**FAZ-XBS** 212120		10 sets 5 per set
Bracket for securing the covers 2 off required per group of MCBs 	**REG-BB** 212106		20 off



Mounting Accessories
Commoning Busbars

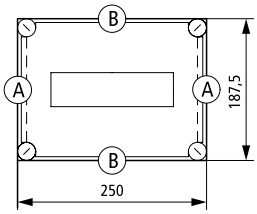
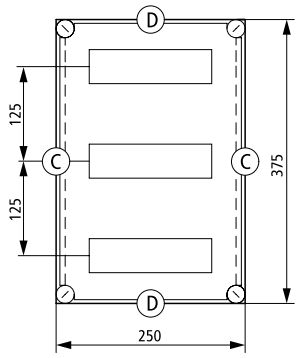
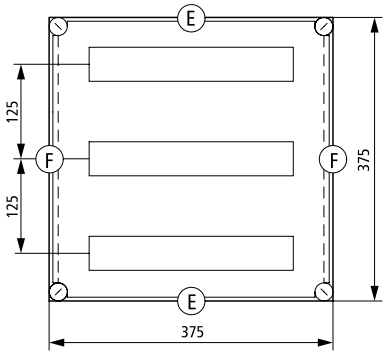
	Number of poles	Number of MCBs	Rated operational current I_e A	Type Article no.	Price See Price List	Std. pack	
Commoning busbars							
For miniature circuit-breakers **without** auxiliary contacts							
Fork connectors for combination box terminals 	1	2	85	**FAZ-XIS1/2** 212121		20 off	I_e = 85 A, terminal capacity 25 mm² at ambient temperature 50 °C I_e = 100 A, terminal capacity 35 mm² at ambient temperature 50 °C I_e = 120 A, terminal capacity 35 mm² at ambient temperature 40 °C
	1	6	85	**FAZ-XIS1/6** 212122			
	1	12	85	**FAZ-XIS1/12** 212123			
	2[1]	2	120	**FAZ-XIS2/4** 212124		10 off	
	2[1]	3	120	**FAZ-XIS2/6** 212125			
	2[1]	6	120	**FAZ-XIS2/12** 212126			
	3	2	120	**FAZ-XIS3/6** 212127			
	3	4	120	**FAZ-XIS3/12** 212128			
	4[1]	2	120	**FAZ-XIS4/8** 212129		5 off	
	4[1]	3	120	**FAZ-XIS4/12** 212130		5 off	
For miniature circuit-breakers **with** auxiliary contacts							
	1	2	85	**FAZ-XIS1/2-HI** 212131		1 off	
	1	6	85	**FAZ-XIS1/6-HI** 212132			
	1	9	85	**FAZ-XIS1/9-HI** 212133			
	2	2	120	**FAZ-XIS2/4-HI** 212134			
	2	3	120	**FAZ-XIS2/6-HI** 212135			
	2	5	120	**FAZ-XIS2/10-HI** 212136			
	3	2	120	**FAZ-XIS3/6-HI** 212137			
	3	4	120	**FAZ-XIS3/12-HI** 212138			
	3[2]	2	120	**FAZ-XIS31/6-HI** 212139			
	3[2]	3	120	**FAZ-XIS31/8-HI** 212140			
	3[2]	3	120	**FAZ-XIS31/9-HI** 212141			



Notes

[1] 2-pole and 4-pole versions can also be used for residual-current circuit-breakers
[2] 1 auxiliary contact per pole

CI Miniature Circuit-Breaker Enclosures

Dimensions mm	Number of 1-pole MCBs	PE and N terminals: Number of connections ×	PE and N terminals: cross-section mm²	Fitted with	Type / Article no.	Price / See Price List	Std. pack
CI miniature circuit-breaker enclosures							
• Metric cable entry knockouts in all sides • Degree of protection IP65 • For devices of frame size 1 to DIN 43 880 • Transparent cover with quick-release fasteners, transparent door for operator access to devices fitted • Mounting rails for snap fitting of devices • Blanking strips for unused locations, protective cover with inscription label • PE/N bars • Fixing straps for wall mounting, sealable cover fasteners • Enclosure depth 150 mm							
	9	On each: 2 × (6 – 16) On each: 7 × (1 – 4)		Transparent cover	**AE/I23E** 029766		1 off
				Transparent door	**AE/I23E/T** 032139		
	27	On each: 4 × (6 – 35) On each: 20 × (1 – 4)		Transparent cover	**AE/I43E** 000239		
				Transparent door	**AE/I43E/T** 002612		
	45	On each: 4 × (6 – 35) On each: 20 × (1 – 4)		Transparent cover	**AE/I44 E** 004985		
				Transparent door	**AE/I44 E/T** 061937		

Notes

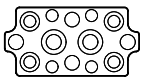
– – – PE/N bars

Metric cable entry knockouts in all sides

A

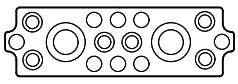
1 × M32/20
6 × M20
2 × M16

B



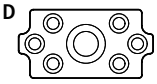
2 × M32/20
4 × M25/16
4 × M20
4 × M16

C



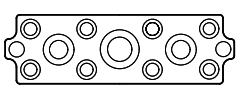
2 × M50/32
6 × M25/16
8 × M20

D



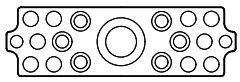
1 × M50/32
6 × M25/16

E



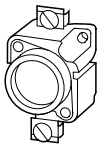
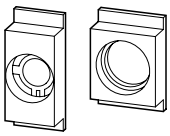
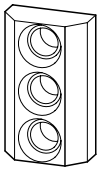
1 × M50/32
2 × M40/25
8 × M25/16
2 × M20

F



1 × M63/40
6 × M25/16
10 × M20
2 × M16

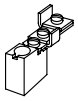
Fuse bases
Fuse bases

	Rated operational Current I_e A	Voltage U_e VAC	Max. fuse size	Type[1] Article no.	Price See Price List	Std. pack
Fuse bases, 1-pole						
For gauge ring (gauge screw: /FORMP)						
Screw fixing (holes for M4 screws)	25	500	E27, DII	**S27-1** 045865		10 off
	25	500	E27, DII	**S27-1/FORMP** 020327		10 off
	63	660, 690	E33, DIII	**S33-1** 069595		2 off
	63	660, 690	E33, DIII	**S33-1/FORMP** 022700		2 off
For snap-fitting to EN 50 022 top-hat rails (35 mm)	16	380, 400	E14, D01	**S14-1/C** 081457		10 off
	25	500	E27, DII	**S27-1/C** 048238		20 off
	25	500	E27, DII	**S27-1/C/FORMP** 025073		20 off
	63	380, 400	E18, D02	**S18-1/C** 088576		10 off
	63	660, 690	E33, DIII	**S33-1/C** 071968		2 off
	63	660, 690	E33, DIII	**S33-1/C/FORMP** 027446		2 off
Caps for 1-pole fuse bases						
Standard dimension 45 mm						
				**P-E14** 086182		20 off
				P-E18 088555		
				P-E27 090928		10 off
				P-E33 093301		
Transparent shroud						
With cable entry knockouts top and bottom				**H-S27-1** 029118		10 off
Fuse bases, 3-pole						
For gauge rings (gauge screws: /FORMP)						
Screw fixing (holes for M4 screws)	25	500	E27, DII	**S27** 043492		4 off
	25	500	E27, DII	**S27/FORMP** 034565		4 off
	63	660, 690	E33, DIII	**S33** 067222		2 off
	63	660, 690	E33, DIII	**S33/FORMP** 036938		2 off
For snap-fitting to EN 50 022 top-hat rails (35 mm)	25	500	E27, DII	**S27/C** 050611		4 off
	25	500	E27, DII	**S27/C/FORMP** 032192		4 off
	63	660, 690	E33, DIII	**S33/C** 081460		2 off
	63	660, 690	E33, DIII	**S33/C/FORMP** 029819		2 off

Notes

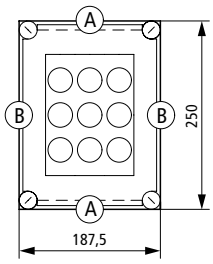
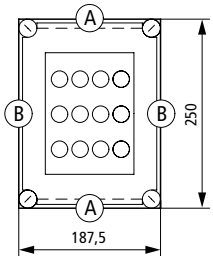
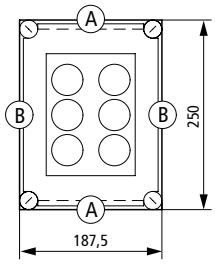
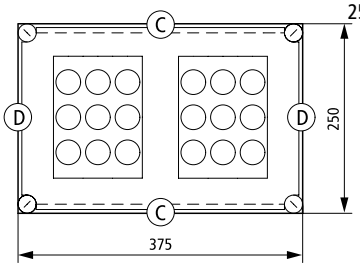
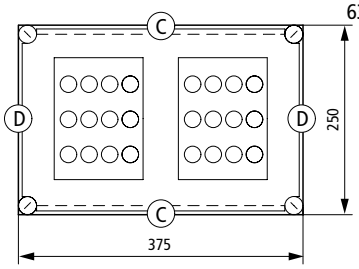
[1] Gauge rings/gauge screws, fuse links and fuse caps **not** included as standard.

Fuse Bases
Accessories

	For use with	Terminal capacity Round conductor ○ Solid ⊙ Stranded ⊛ Flexible with ferrule mm²	Cu factor	**Type** Article no.	**Price** See Price List	Std. pack
Notched phase busbars, can be cut to length						
990 mm long, for up to 36 fuse bases Rated current 100 A	S14-1/C	–	–	**KS14** 050502		5 off
990 mm long, for up to 36 fuse bases Rated current 160 A	S18-1/C	–	–	**KS18** 052875		
980 mm long, for up to 22 fuse bases Rated current 100 A	S27-1/C	–	–	**KS27** 055248		
960 mm long, for up to 18 fuse bases Rated current 160 A	S33-1/C	–	–	**KS33** 059994		
Terminals						
For round conductors up to 35 mm² or flat conductors 6 × 9 × 0.8 	KS14 – KS33	–	–	**K35-AB** 064339		20 off
For retrofitting as PE/N terminal 	S27/I	○ 1.5 – 6	–	**K6/1** 002270		100 off
	S33/I	○ 4 – 16 ⊙ 4 – 16 ⊛ 4 – 10	–	**K16/1** 002272		25 off

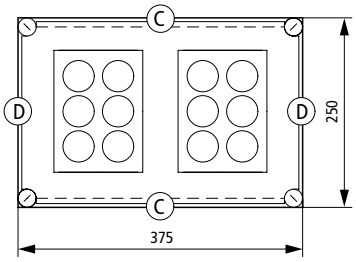
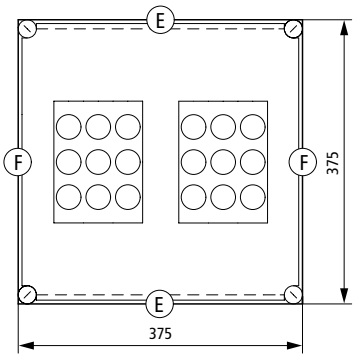
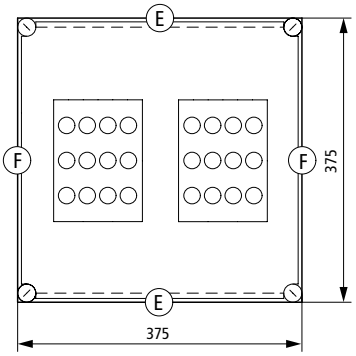
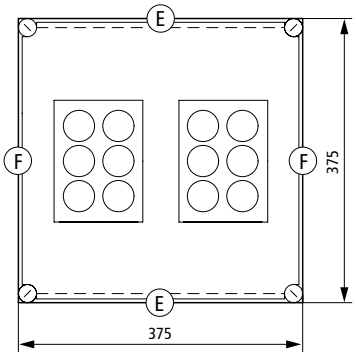
	Dimensions mm	Rated operational current I_e A	Cu factor	**Type** Article no.	Std. pack
Busbars					
Flat copper busbars, tinned	12 × 5 mm Supplied in lengths of 1500 mm	160	0.81	**CU12X5** 034121	10 off
	20 × 5 mm Supplied in lengths of 1500 mm	250	1.34	**CU20X5** 044092	10 off
	20 × 10 mm Supplied in lengths of 1500 mm	400	2.68	**CU20X10** 041719	5 off

CI Fuse Enclosures

Dimensions	Rated operational Current I_e	Voltage U_e	Fuse size	Number of fused poles	PE and N terminals Number of connections × cross-section	**Type** Article no.	**Price** See Price List	Std. pack
mm	A	VAC			mm²			
CI fuse enclosures								
• Metric cable entry knockouts in all sides → Page 12/026 • Degree of protection IP65 • Fitted with 3-pole busbar mounting fuse bases on busbars • Transparent cover with quick-release fasteners • PE/N bars, protective cover with inscription label • Fixing straps for wall mounting • Busbar mounting fuse bases can be exchanged from the front • Sealable cover fasteners, enclosure depth 150 mm								
	25	500	25 A DII/E27	9 × 1-pole 3 × 3-pole	On each: 2 × (6 – 35) On each: 9 × (1 – 6)	**RS27/I23E** 013156		1 off
	63	400	35 A D02/E18	6 × 1-pole 4 × 3-pole	On each: 2 × (6 – 35) On each: 6 × (4 – 25)	**RS18/I23E** 020275		
	63	690	35 A DIII/E33	2 × 3-pole	On each: 2 × (6 – 35) On each: 2 × (4 – 25)	**RS33/I23E** 022648		
	25	500	25 A DII/E27	18× 1-pole 6 × 3-pole	On each: 2 × (6 – 35) On each: 18 × (1 – 6)	**RS27/I43E** 029767		
	63	400	35 A D02/E18	12 × 1-pole 8 × 3-pole	On each: 2 × (6 – 35) On each: 12 × (4 – 25)	**RS18/I43E** 032140		
Accessories								
Connecting links to connect the busbars for RS.../I23E, RS.../I43E, RS.../I44 E	250 A for L1, L2, L3 One set comprises 3 connecting links.					**VBS-RS** 002307		5 off

Notes
– – – PE/N bars

CI Fuse Enclosures

Dimensions mm	Rated operational Current I_e A	Voltage U_e VAC	Fuse size	Number of fused poles	PE and N terminals Number of connections × cross-section mm²	**Type** Article no.	**Price** See Price List	Std. pack
CI fuse enclosures								
	63	690	35 A DIII/E33	4 × 3-pole	On each: 2 × (6 – 35) On each: 4 × (4 – 25)	**RS33/I43E** 039259		1 off
	25	500	25 A DII/E27	18 × 1-pole 6 × 3-pole	On each: 2 × (6 – 35) On each: 18 × (1 – 6)	**RS27/I44E** 001884		
	63	400	63 A D02/E18	12 × 1-pole 8 × 3-pole	On each: 2 ×(6 – 35) On each: 12 × (4 – 25)	**RS18/I44E** 001886		
	63	690	63 A DIII/E33	4 × 3-pole	On each: 2 × (6 – 35) On each: 4 × (4 – 25)	**RS33/I44E** 001888		

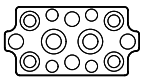
Notes

Metric cable entry knockouts in all sides

A

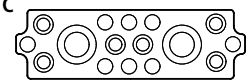
1 × M32/20
6 × M20
2 × M16

B



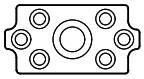
2 × M32/20
4 × M25/16
4 × M20
4 × M16

C



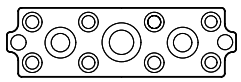
2 × M50/32
6 × M25/16
8 × M20

D



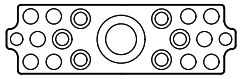
1 × M50/32
6 × M25/16

E



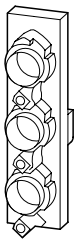
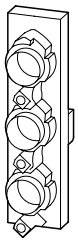
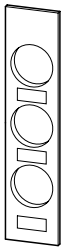
1 × M50/32
2 × M40/25
8 × M25/16
2 × M20

F



1 × M63/40
6 × M25/16
10 × M20
2 × M16

CI Fuse Enclosures
Busbar Mounting Fuse Bases

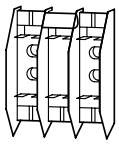
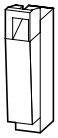
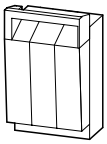
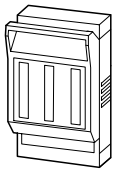
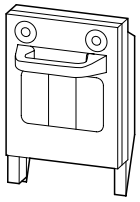
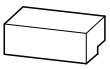
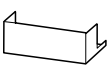
	Rated operational Current I_e A	Voltage U_e VAC	Max. Fuse size	For use with	**Type**[1] Article no.	**Price** See Price List	Std. pack
Busbar mounting fuse bases, 3-pole							
For fitting on busbars 20 × 5, 20 × 10, 20 × 15 mm with 50 mm between busbar centres[2]							
Gauge ring system	25	500	E27, DII	CU20X5 CU20X10 CU20X15	**RS273-50** 093500		5 off
	63	380, 400	E18, D02	CU20X5 CU20X10 CU20X15	**RS183-50** 093501		10 off
	63	660, 690	E33, DIII	CU20X5 CU20X10 CU20X15	**RS333-50** 093557		5 off
Gauge screw system	25	500	E27, DII	CU20X5 CU20X10 CU20X15	**RS273-50FORMP** 095083		5 off
	63	380, 690	E33, DIII	CU20X5 CU20X10 CU20X15	**RS333-50FORMP** 093559		5 off
Covers							
For 3-pole busbar mounting fuse bases, include inscription labels							
				RS273-50 RS273-50/FORMP	**ZSRS273-50** 093682		10 off
				RS183-50	**ZSRS183-50** 093693		20 off
				RS333-50 RS333-50/FORMP	**ZSRS333-50** 094970		10 off
Inscription labels							
For covers on 3-pole busbar mounting fuse bases							
Aluminium-coated labels of insulating material, engraved to order (...) Maximum inscription: Letter height 3.5 mm Number of lines: 1, number of letters: 12				ZSRS273-50 ZSRS183-50 ZSRS333-50	**BSAK25X10(...)** 939284		10 off
							
Aluminium-coated labels of insulating material, blank				ZSRS273-50 ZSRS183-50 ZSRS333-50	**BSAK25X10** 024201		10 off

Notes

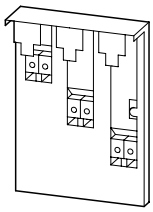
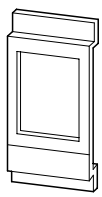
[1] Gauge rings/gauge screws, fuse links and fuse caps **not** included as standard.

[2] Busbar mounting fuse bases, 3-pole for mounting on busbars 20 × 5, 20 × 10, 20 × 30 mm with 60 mm between busbar centres → SASY60, HPL0214-2001, Section 09

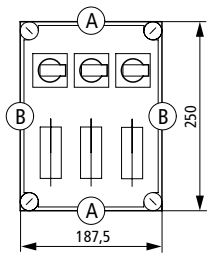
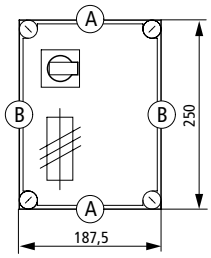
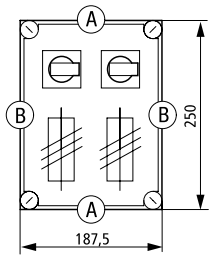
Low-Voltage HBC Fuse Bases, Low-Voltage HBC Fuse Switch-Disconnectors

	Rated operational current	Maximum fuse 500 V	Maximum fuse 690 V		Type Article no.	Price See Price List	Std. pack
	A	A	A	Size			
Low-voltage h.b.c. fuse bases							
3-pole							
	100	100	100	NH00	**GS00** 024368		1 off
	160	160	100	NH00	**GS00-160** 026741		
	250	250	200	NH1	**GS1** 036233		
	400	400	315	NH2	**GS2** 045725		
	630	630	500	NH3	**GS3** 050471		
Low-voltage h.b.c. fuse switch-disconnectors							
1-pole, for fitting to mounting plate, MR25 Can be fitted to GSTA00(-160) to make a 4-pole low-voltage h.b.c. fuse switch-disconnector Two devices can be combined to make a 2-pole low-voltage h.b.c. fuse switch-disconnector							
	100	100	100	NH00	**GSTA00-1P** 224999		1 off
	160	160	100	NH00	**GSTA00-160-1P** 225000		1 off
3-pole, for fitting to mounting plate, MR25							
	100	100	100	NH00	**GSTA00** 093185		1 off
	160	160	100	NH00	**GSTA00-160** 095558		
	250	250	200	NH1	**GSTA1** 017250		
	400	400	315	NH2	**GSTA2** 021996		
	630	630	500	NH3	**GSTA3** 026742		
Low-voltage h.b.c. fuse switch-disconnectors							
3-pole, for fitting to busbars with 40/50/60 mm between busbar centres Busbar size 12 – 30 × 5 – 15							
Connection top or bottom	100	100	100	NH00	**GST00-40-60-AOU** 224549		1 off
	160	160	100	NH00	**GST00-160-40-60-AOU** 224550		1 off
3-pole, rear mounting Degree of protection, max. IP44							
	160	160	100	NH00	**GSTZ00-160** 067083		1 off
	250	250	200	NH1	**GSTZ1** 074202		
	400	400	315	NH2	**GSTZ2** 078948		
	630	630	500	NH3	**GSTZ3** 083694		
Switching handle protection							
For GST00(-160)-40-60-AOU							
	Top				**GOV-GST00-40-60** 224551		1 off
	Bottom				**GUV-GST00-40-60** 224552		1 off
							

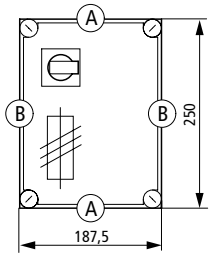
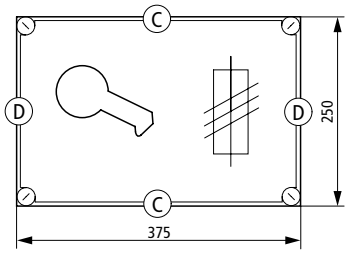
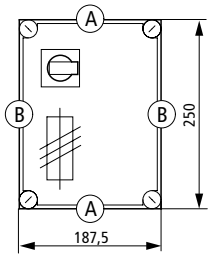
Low-Voltage HBC Fuse Switch-Disconnectors
Accessories

	For use with	Busbars mm	Type Article no.	Price See Price List	Std. pack
Adapter plates for fuse switch-disconnectors					
Outgoers at the top or bottom (adapter plate can be turned through 180°) 50 mm between busbar centres					
	GSTA1	CU20X5, CU20X10	**A-GSTA1/50** 057491		1 off
	GSTA1	CU20X15	**A-GSTA1/50/16** 059864		
	GSTA2	CU20X5, CU20X10	**A-GSTA2/50** 064610		
	GSTA2	CU20X15	**A-GSTA2/50/16** 066983		
Clip set for fuse switch-disconnectors					
Can be retrofitted for latching to two EN 50 022 top-hat rails (35 mm) Adjustable for distances of 100 – 125 mm between busbar centres					
	GSTA00 GSTA00-160		**C-GSTA00** 040922		5 off
Sets of clamp-type terminals					
One set comprises 3 clamp-type terminals					
					
Terminal range 1 × (70 – 150) mm² Cu/Al	GS1, GST...1		**PSK1** 038734		1 off
Terminal range 1 × (120 – 240) mm² Cu/Al	GS2, GST...2		**PSK2** 043480		
Terminal range 1 × (120 – 300) mm² Cu/Al	GS3, GST...3		**PSK3** 048226		
Sets of double clamp-type terminals					
One set comprises 3 double clamp-type terminals.					
					
Terminal range 2 × 70 – 95 mm² Cu/Al	GS1, GST...1		**PSK12** 041107		1 off
Terminal range 2 × 120 – 150 mm² Cu/Al	GS2, GST...2		**PSK22** 045853		
Terminal range 2 × 120 – 240 mm² Cu/Al	GS3, GST...3		**PSK32** 050599		
Hand guard for fuse switch-disconnectors					
Provides additional protection for the operator during actuation of the fuse switch-disconnector					
	GST(A)00		**ZBS-GSTA00** 014411		10 off
Insulating surround for fuse switch-disconnectors					
To compensate between the GA...- protective cover and the device (for use in the CI insulated distribution board system)					
	GST00		**B-GST00-40-60/CI/1** 224553		1 off
					

CI Fuse Enclosures with Switches

Dimensions	Number of fused poles	Rated operational current I_e	Fuse size	Insulated enclosures	**Type** Article no.	**Price** See Price List	Std. pack
mm		A		Type			
CI fuse enclosures with switches							
• Metric cable entry knockouts in all sides • Transparent cover • Terminal for connecting the 4th conductor (PEN) • Fixing straps for wall mounting • Sealable cover fastener • Gauge ring/fuse link and fuse cap not included as standard.							
	3 × 1	25	S27	CI23E-125	**TS31-25/I23 E** 084346		1 off
	1 × 3	25	S27	CI23E-125	**TS13-25/I23E** 086719		
	2 × 3	25	S27	CI23E-125	**T23-25/I23E** 089092		

CI Fuse Enclosures with Switches

Dimensions mm	Number of fused poles	Rated operational current I_e A	Fuse size	Insulated enclosures Type	**Type** Article no.	**Price** See Price List	Std. pack
CI fuse enclosures with switches							
	1 × 3	63	S33	CI23E-125	**TS13-63/I23E** 091465		1 off
	1 × 3	100	NH00	CI43E-125	**NGS100/I43E** 016742		1 off
	1 × 3	63	S33	CI23E-125	**TS13-63/I23E/SVB** 093838		1 off

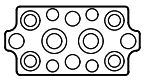
Notes

Metric cable entry knockouts in all sides

A

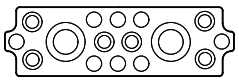
1 × M32/20
6 × M20
2 × M16

B



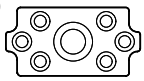
2 × M32/20
4 × M25/16
4 × M20
4 × M16

C



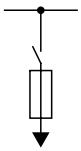
2 × M50/32
6 × M25/16
8 × M20

D

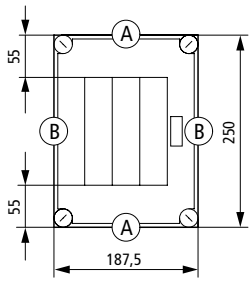
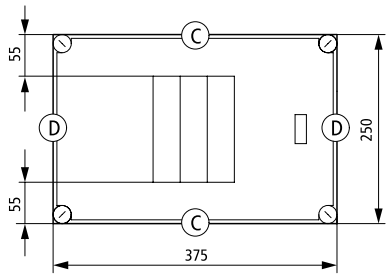
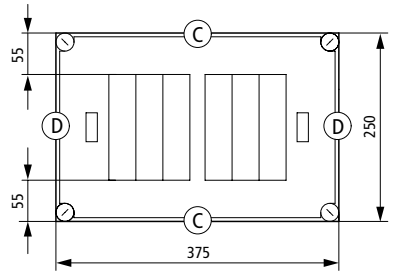
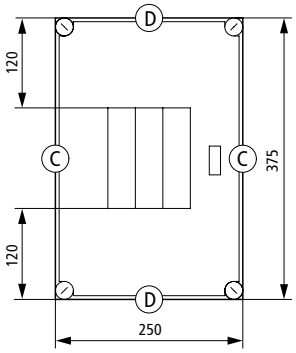


1 × M50/32
6 × M25/16

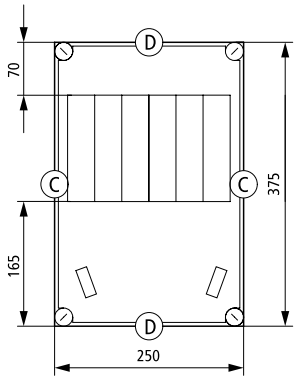
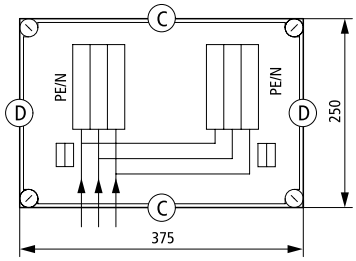
Wiring between switch fuse and supplying busbar



CI Enclosures with Low-Voltage HBC Fuse Bases

Dimensions	Rated operational Current I_e	Rated operational Voltage U_e	Fuse link	5th conductor can be fitted by user	**Type** Article no.	**Price** See Price List	Std. pack
mm	A	VAC	Size	Type			
CI enclosures with low-voltage h.b.c. fuse bases • Metric cable entry knockouts in all sides • Degree of protection IP65 • Transparent cover • Enclosure depth 150 mm • Terminal for connecting the 4th conductor (PEN) • Fuse base fitted to sheet steel mounting plate • Fixing straps for wall mounting • Sealable cover fasteners							
	100	690	NH00	K50/1	**GS00/I23E** 027395		1 off
	100	690	NH00	K50/1	**GS00/I43E** 032141		1 off
	160 100	500 690	NH00	K95/1N/BR	**GS00-160/I43E** 034514		1 off
	2 × 100	690	NH00	K50/1	**2GS00/I43E** 044006		1 off
	100	690	NH00	K50/1	**GS00/I43E-G** 039260		1 off
	160 100	500 690	NH00	K95/1N/BR	**GS00-160/I43E-G** 036887		1 off

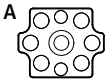
CI Enclosures with Low-Voltage HBC Fuse Bases

Dimensions	Rated operational Current I_e	Rated operational Voltage U_e	Fuse link	5th conductor can be fitted by user	**Type** Article no.	**Price** See Price List	Std. pack
mm	A	VAC	Size	Type			
CI enclosures with low-voltage h.b.c. fuse bases							
	2 × 100	690	NH00	K50/1	**2GS00/I43E-G** 041633		1 off
Two-way fuse box With parallel link between the incoming sides Incoming cable max. 35 mm² Max. fuse: 63 A							
	2 × 100	690	NH00		**2GS00/I43E-V2K** 046379		1 off

Notes

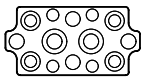
Metric cable entry knockouts in all sides

A



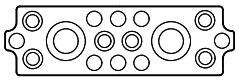
1 × M32/20
6 × M20
2 × M16

B



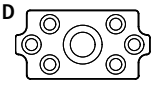
2 × M32/20
4 × M25/16
4 × M20
4 × M16

C



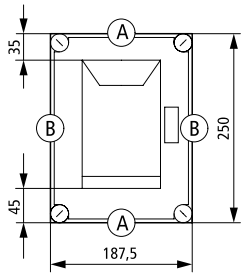
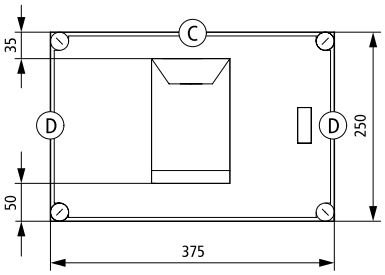
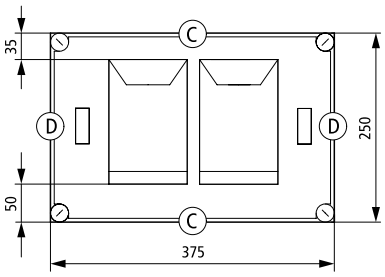
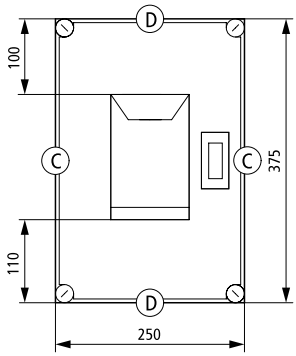
2 × M50/32
6 × M25/16
8 × M20

D

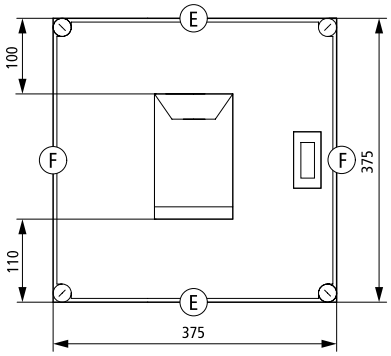
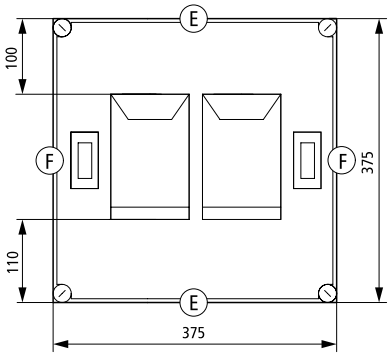


1 × M50/32
6 × M25/16

CI Enclosures with LV HBC Fuse Switch-Disconnectors

Dimensions	Rated operational Current I_e	Voltage U_e	Fuse link	5th conductor can be fitted by user	**Type** Article no.	**Price** See Price List	Std. pack
mm	A	VAC	Size	Type			
CI enclosures with low-voltage h.b.c. fuse switch-disconnectors							
• Metric cable entry knockouts in all sides • Degree of protection IP65 • Transparent cover • Enclosure depth 150 mm • Terminal for connecting the 4th conductor (PEN) • Switch-disconnector fitted to sheet steel mounting plate • Fixing straps for wall mounting • Sealable cover fasteners							
	100	690	NH00	K50/1	**GSTA00/I23E** 048752		1 off
	100	690	NH00	K50/1	**GSTA00/I43E** 051125		
	160 100	500 690	NH00	K95/1N/BR	**GSTA00-160/I43E** 053498		
	2 × 100	690	NH00	K50/1	**2GSTA00/I43E** 070109		
	100	690	NH00	K50/1	**GSTA00/I43E-G** 058244		
	160 100	500 690	NH00	K95/1N/BR	**GSTA00-160/I43E-G** 055871		

CI Enclosures with Low-Voltage HBC Fuse Switch-Disconnectors

Dimensions	Rated operational Current I_e	Rated operational Voltage U_e	Fuse link	5th conductor can be fitted by user	**Type** Article no.	**Price** See Price List	Std. pack
mm	A	VAC	Size	Type			
CI enclosures with low-voltage h.b.c. fuse switch-disconnectors							
	100	690	NH00	K50/1	**GSTA00/I44E** 060617		1 off
	160 100	500 690	NH00	K95/1N/BR	**GSTA00-160/I44E** 062990		
	2 × 100	690	NH00	K50/1	**2GSTA00/I44E** 067736		
	2 × 160 2 × 100	500 690	NH00	K95/1N/BR	**2GSTA00-160/I44E** 065363		

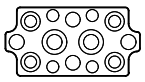
Notes

Metric cable entry knockouts in all sides

A

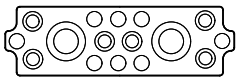
1 × M32/20
6 × M20
2 × M16

B



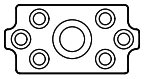
2 × M32/20
4 × M25/16
4 × M20
4 × M16

C



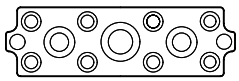
2 × M50/32
6 × M25/16
8 × M20

D



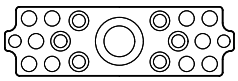
1 × M50/32
6 × M25/16

E



1 × M50/32
2 × M40/25
8 × M25/16
2 × M20

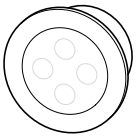
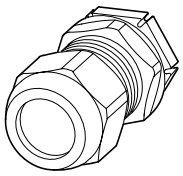
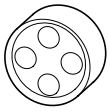
F



1 × M63/40
6 × M25/16
10 × M20
2 × M16

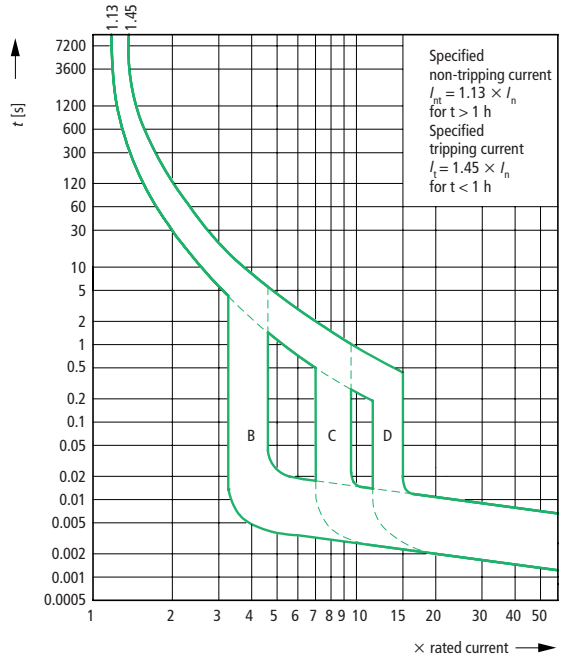
CI System, Accessories

Metric Cable Glands/Cable Grommets

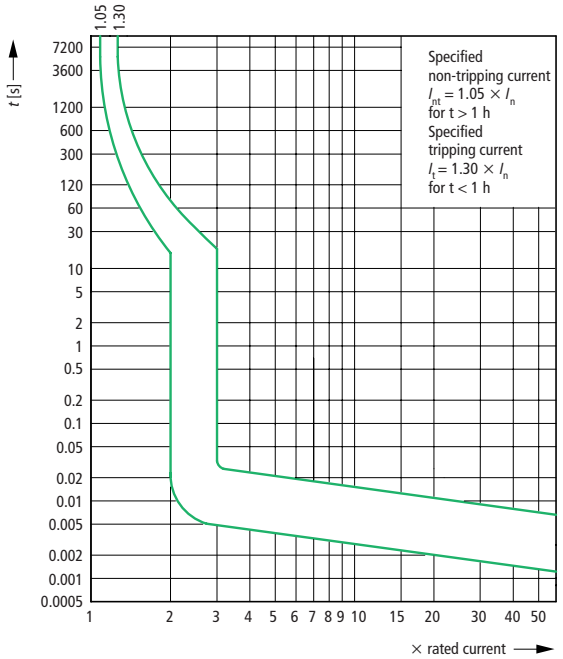
	Cable entry	Diameter of drilled hole	External diameter of cable	For use with 4-core NYM/NYY cable	**Type** Article no.	**Price** See Price List	Std. pack
		mm	mm	mm²			
Metric diaphragm grommets							
• IP65 • with integral push-through diaphragm							
	M16	16.5	1 – 10	H03VV-F 3 × 0.75 mm², NYM 1 × 16/3 × 1.5 mm²	**KT-M16** 216983		100 off
	M20	20.5	1 – 13	H03VV-F 3 × 0.75 mm². NYM 5 × 1.5/5 × 2.5 mm²	**KT-M20** 207602		
	M25	25.5	1 – 18	H03VV-F 3 × 0.75 mm². NYM 4 × 10 mm²	**KT-M25** 207603		
	M32	32.5	1 – 24	H03VV-F 3 × 0.75 mm². NYM 4 × 16/5 × 10 mm²	**KT-M32** 207604		
Metric cable glands to EN 50 262							
• With lock nut and built-in strain relief • IP68 up to 5 bar, halogen free							
	M12	12.5	2 – 7	H03VV-F 3 × 0.75 mm². NYM 1 × 2.5 mm²	**V-M12** 215078		20 off
	M16	16.5	4 – 10	H05VV-F 3 × 1.5 mm². NYM 1 × 16/3 × 1.5 mm²	**V-M16** 215077		
	M20	20.5	6 – 13	H05VV-F 4 × 2.5/3 × 4 mm². NYM 5 × 1.5/5 × 2.5 mm²	**V-M20** 206910		
	M25	25.5	9 – 17	H05VV-F 5 × 2.5/5 × 4 mm². NYM 5 × 2.5/5 × 6 mm²	**V-M25** 206911		
	M32	32.5	13 – 21	NYM 5 × 10 mm²	**V-M32** 206912		10 off
	M32	32.5	18 – 25	NYM 5 × 16 mm²	**V-M32G** 226156		
	M40	40.5	14 – 28	NYM 5 × 16 mm²	**V-M40** 209668		
	M50	50.5	18 – 35	NYM 4 × 35/5 × 25 mm²	**V-M50** 206913		5 off
	M63	63.5	28 – 48	NYM 4 × 35 mm²	**V-M63** 214835		3 off
Metric multi-cable gaskets With entry for four cables							
	M25	–	4 × 6	H03VV-F 2 × 0.75/3 × 0.75 mm²	**MFD25** 215451		50 off
	M32		4 × 7	H03VV-F 4 × 0.75 mm²	**MFD32** 215452		50 off
Plug closures For unused apertures in multi-cable gaskets							
	M25	–	6		**MFV25-6** 215453		50 off
	M32	–	7		**MFV32-7** 215454		50 off
Cable grommets							
For plate thickness: 2 – 3 mm							
	–	58	14 – 54	–	**KT3** 031523		2 off
	–	75	14 – 68	–	**KT4** 036269		3 off

FAZ Miniature Circuit-Breakers, AZ High-Capacity Miniature Circuit-Breakers
Tripping Characteristics

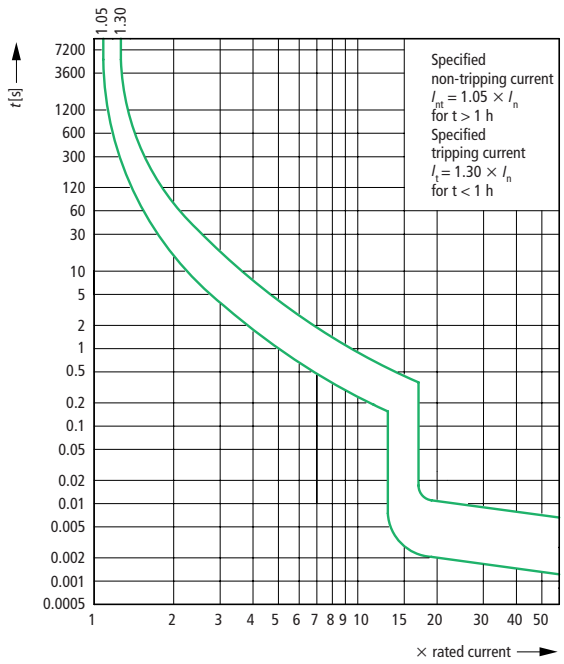
FAZ tripping characteristics at 30 °C: B, C, D to IEC/EN 60 898



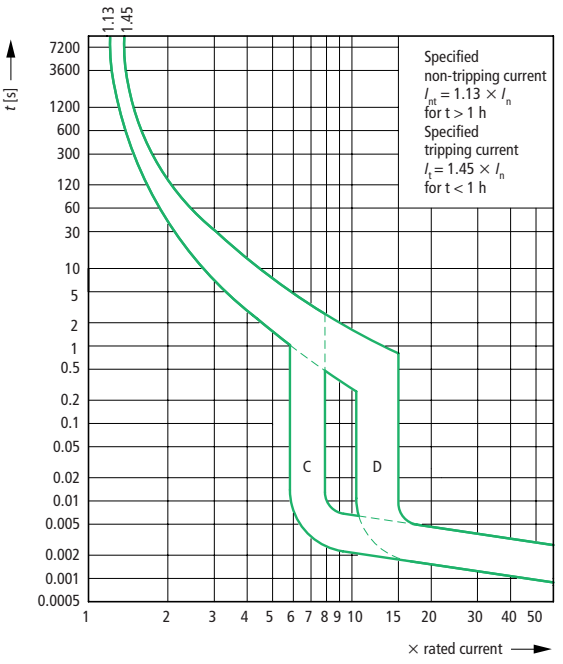
FAZ tripping characteristics at 30 °C: R to IEC/EN 60 947



FAZ tripping characteristic at 30 °C: S to IEC/EN 60 947



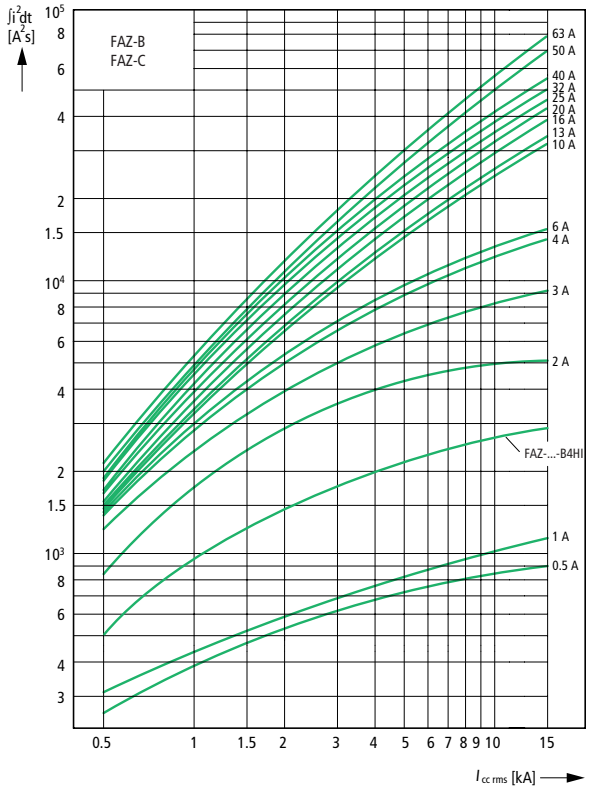
AZ tripping characteristic at 30 °C: C, D to IEC/EN 60 898



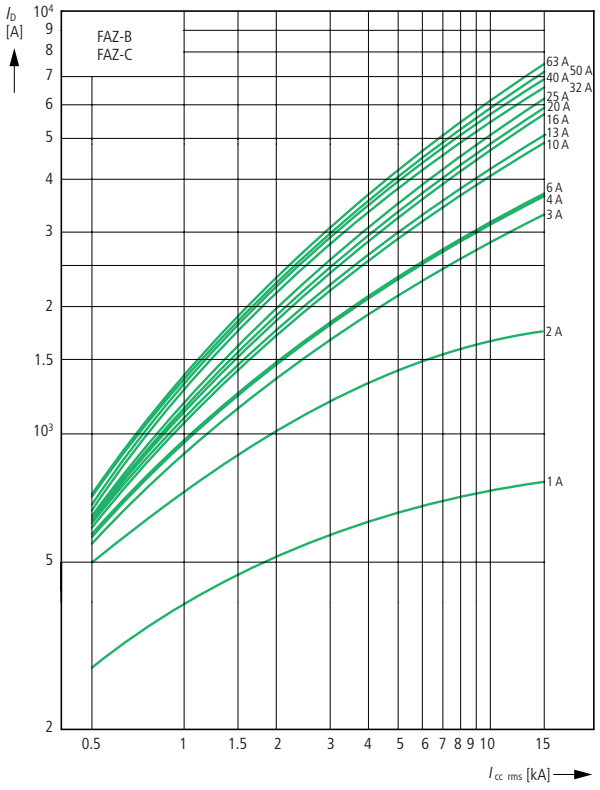
FAZ Miniature Circuit-Breakers
Let-Through Characteristics

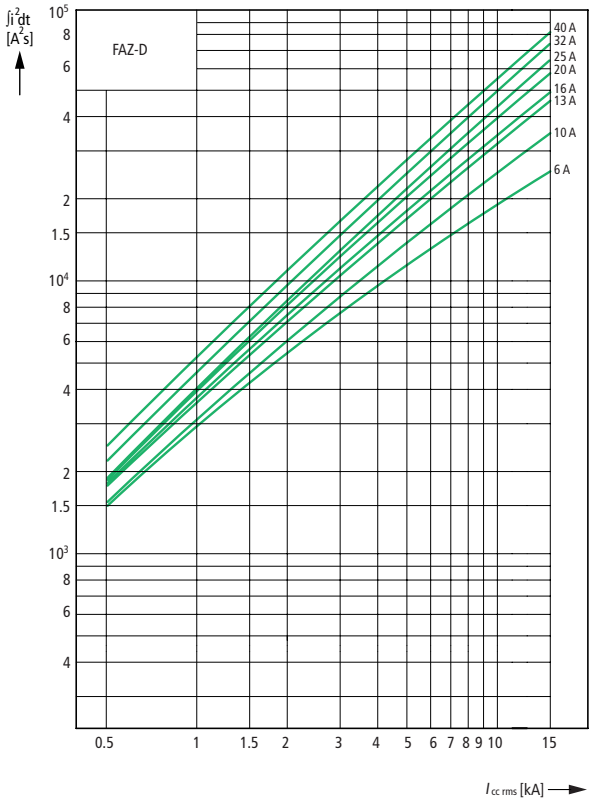
Let-through energy I^2t/let-through current $\hat{I}_D$
Determined in accordance with IEC/EN 60 898

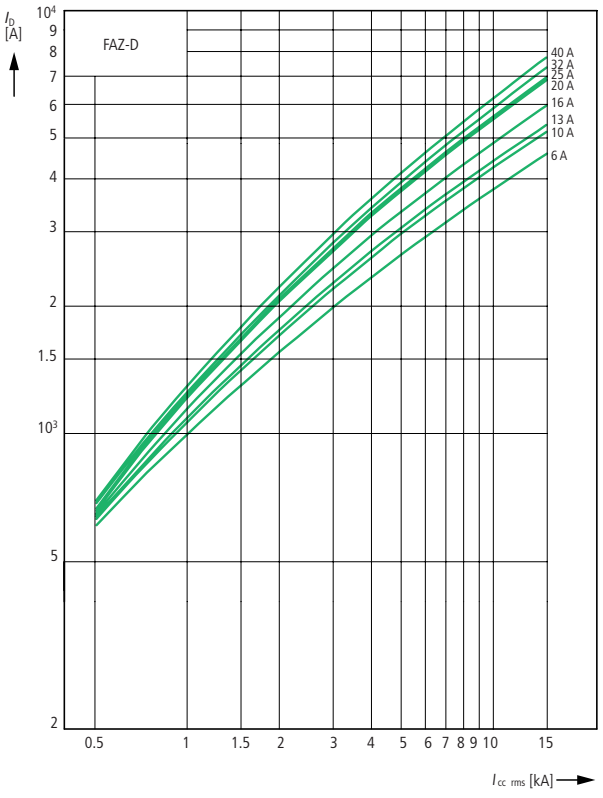
Let-through energy I^2t



Let-through current $\hat{I}_D$



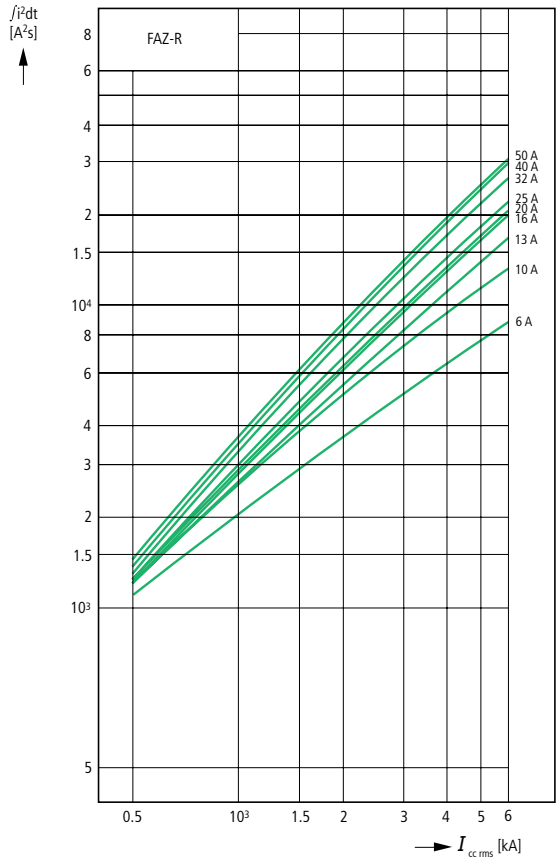




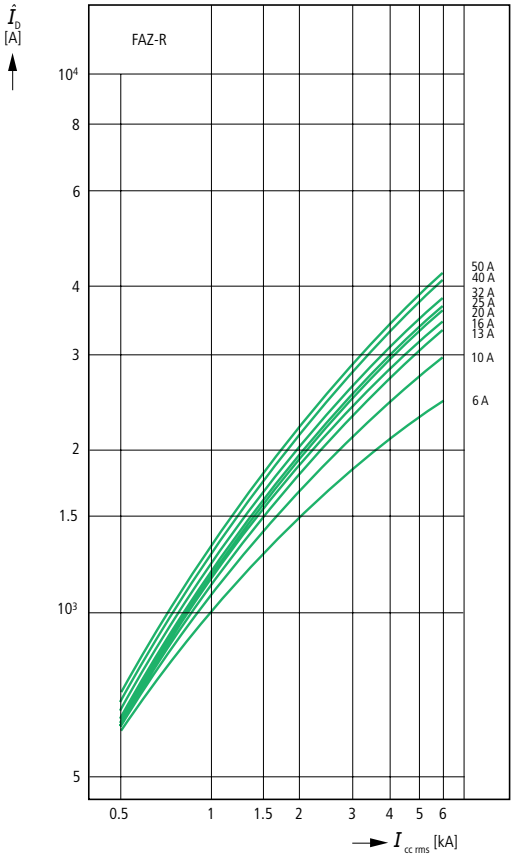
FAZ Miniature Circuit-Breakers
Let-Through Characteristics

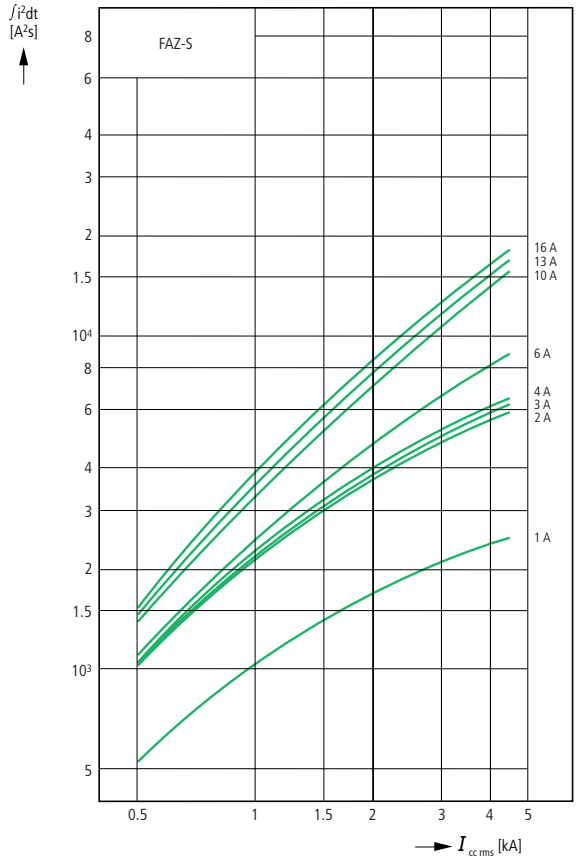
Let-through energy I^2t/let-through current $\hat{I}_D$
Determined in accordance with IEC/EN 60 898

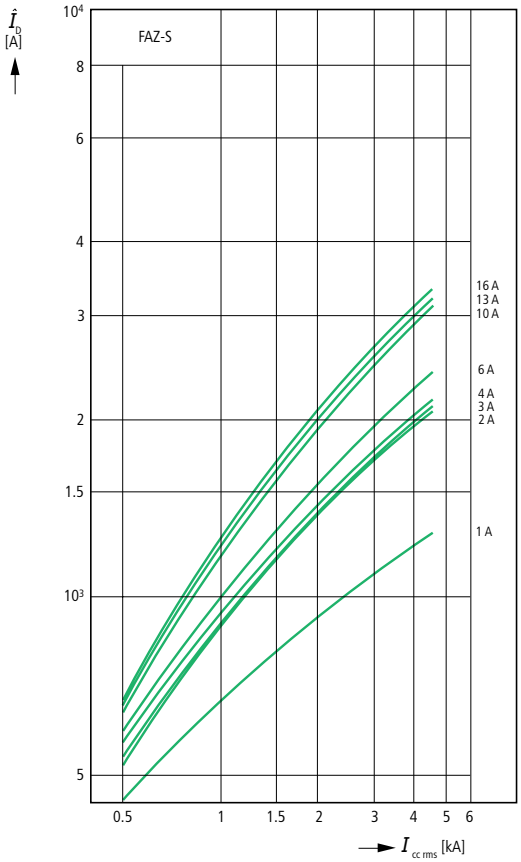
Let-through energy I^2t



Let-through current $\hat{I}_D$





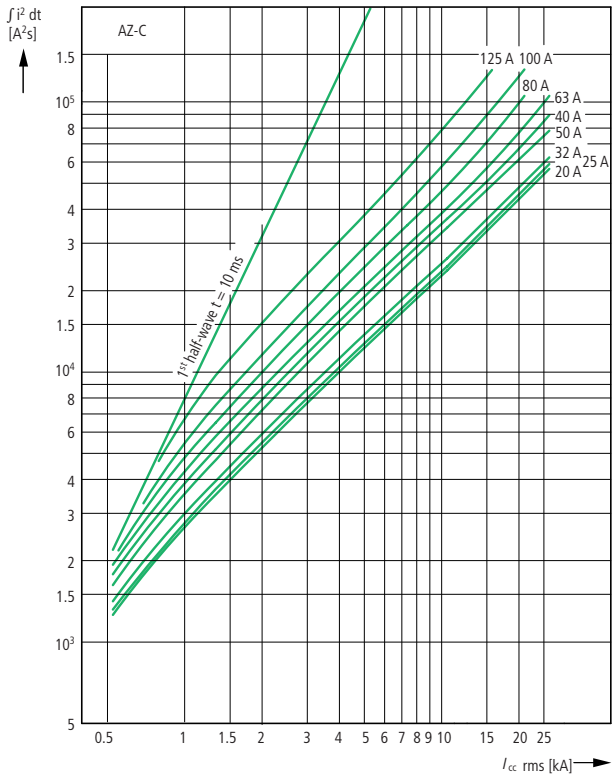


AZ High-Capacity Miniature Circuit-Breakers

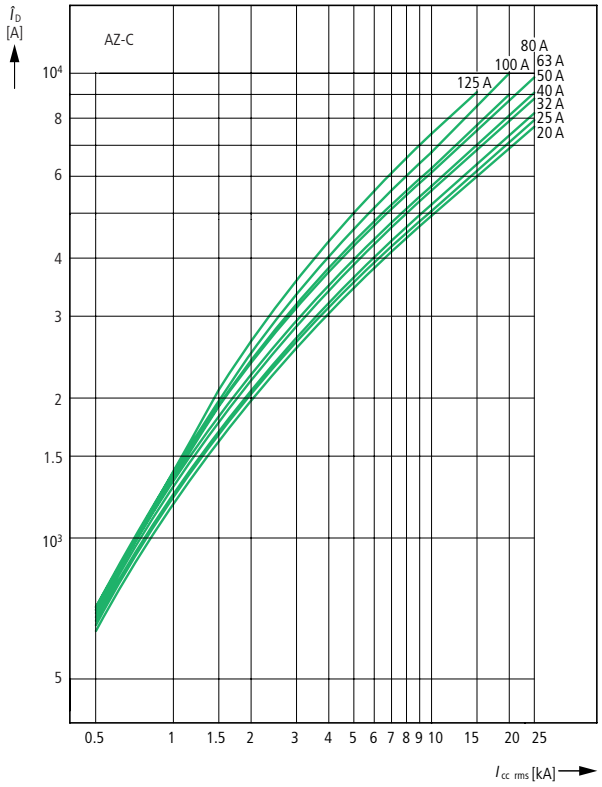
Let-Through Characteristics

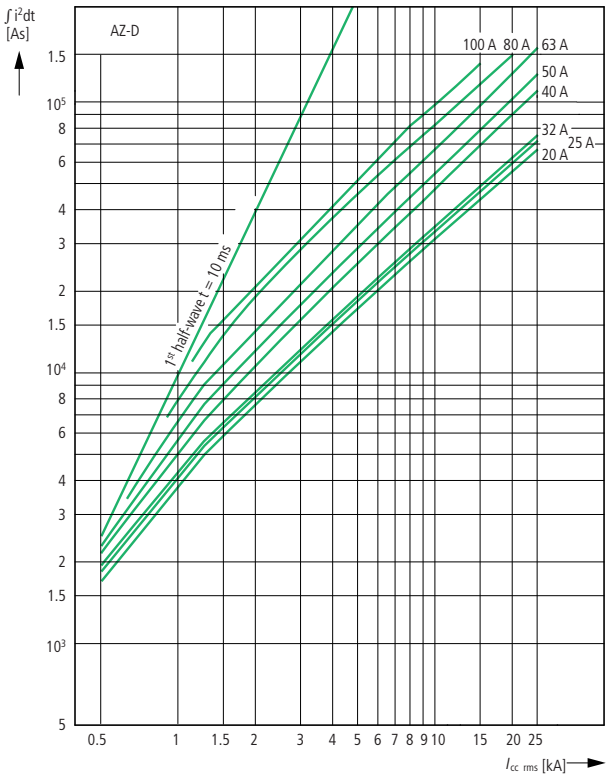
Let-through energy I^2t/let-through current $\hat{I}_D$
Determined in accordance with IEC/EN 60 898

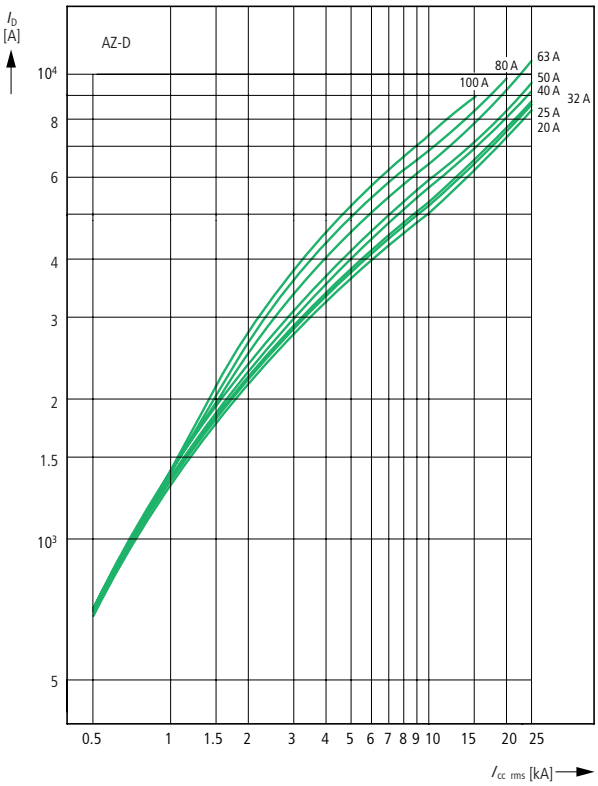
Let-through energy I^2t



Let-through current $\hat{I}_D$







Miniature Circuit-Breakers
Technical Data

Miniature circuit-breakers			FAZ	AZ	FAZ-PN
General technical data					
Standards					
B, C, D characteristics			IEC/EN 60 898, VDE 0641, DIN 43 880		
S, R characteristics			IEC/EN 60 947-2, VDE 0660 Part 1, DIN 43 880		
Ambient temperature	Min./Max.	°C	–5/+40	–5/+40	–5/+40
Influence of ambient temperature on rated current					
(Ref. 30 °C)		%/K	→ Page 12/045	→ Page 12/045	→ Page 12/045
Mechanical shock resistance (shock duration 20 ms)		g	10	20	–
Mounting position/direction of incoming supply			As required	As required	As required
Isolating characteristics			Yes	Yes	Yes
Protection against electric shock to IEC 536			Finger and back-of-hand proof		
Degree of protection (terminals)			IP20 (IP00), IP30 when fitted in distribution board		IP20
Dimensions			→ Page 12/049	→ Page 12/049	→ Page 12/049
Weight per pole		kg	0.12	0.24	0.12
Terminal capacity					
Solid or stranded[1]	Min./Max.	mm^2	1 × (1 – 25)	1 × (2.5 – 50)	1 × (1 – 16)
	Min./Max.	mm^2	2 × (1 – 10)	2 × (2.5 – 25)	2 × (1 – 6)
Flexible, with ferrule[1] (ferrule to DIN 46 228)	Min./Max.	mm^2	1 × (0.75 – 16)	–	1 × (0.75 – 10)
	Min./Max.	mm^2	2 × (4 – 6)	2 × (2.5 – 16)	2 × (1 – 4)
Tightening torque		Nm	2.4	3.0	1.5
Contacts					
Rated current I_n = rated uninterrupted current I_u		A	0.5 – 63	20 – 125	2 – 40
Rated impulse withstand voltage U_{imp}		V	4000	4000	4000
Rated insulation voltage U_i		V AC	440	440	440
Overvoltage category/pollution degree			III/3	III/2	III/3
Rated operational voltage U_e		VAC	230/400; 240/415	230/400; 240/415	230/400; 240/415
DC					
B, C, D and R characteristic, per pole		V DC	48	60	48
FAZ-C-...DC; 1-pole/2-pole		V DC	250/500	–	–
Rated frequency		Hz	50 – 60	50 – 60	50 – 60
Switching capacity					
Rated short-circuit breaking capacity I_{cn}					
IEC/EN 60 898, VDE 0641					
230/400 V AC, 240/415 V AC	B, C, D 0.5 – 50	kA	10/10	–	6
	B, C 63	kA	10/8	–	–
48 V DC (T = 4 ms)	B, C, D 0.5 – 50	kA	10	–	6
	B, C 63	kA	8	–	–
Single-pole for IT system, 400 V	B, C	kA	1	–	–
Rated ultimate short-circuit breaking capacity I_{cu}					
IEC/EN 60 947-2					
230/400 V AC, 240/415 V AC	B, C, D 0.5 – 63	kA/cos φ	15/0.5	25/0.25	–
	C, D 80/100	kA/cos φ	–	20/0.3	–
	C 125	kA/cos φ	–	15/0.5	–
	R 6 – 50	kA/cos φ	6/0.7	–	–
	S 1 – 16	kA/cos φ	4.5/0.8	–	–
Up to 250 V DC	1-pole	kA	6	–	–
Up to 500 V DC	2-pole	kA	6	–	–
Lifespan, mechanical (1 operation = 2 switching movements)	Operations		≧ 7000	≧ 10000	≧ 7000
Selectivity					
Current limiting class to VDE 0641 B, C, D characteristic 0.5 – 32 A			3	–	3
Back-up protection					
With LV h.b.c. fuses, max. gG/gL		A/kA	100 ≧ 10	200 ≧ 15 – 25	100 ≧ 6

Notes

[1] When using 2 conductors, the maximum admissible difference in cross-section is one size.

Miniature Circuit-Breakers
Technical Data

Residual-current protective module			FIM-40	FIM-63	FILS
General technical data					
Standards			IEC/EN 61 009, VDE 0664, DIN 43 880		
Ambient temperature	Min./Max.	°C	–5/+40	–5/+40	–5/+40
Mounting position/direction of incoming supply			As required	As required	As required
Degree of protection (terminals)			IP20 (IP00), IP30 when fitted in distribution board		
Dimensions			→ Page 12/049	→ Page 12/049	→ Page 12/049
Weight of FAZ-...FIM/FILS	2-pole	kg	0.48	0.48	0.22
	4-pole	kg	0.82	0.82	–
Terminal capacity					
Solid or stranded[1)]	Min./Max.	mm^2	1 × (1 – 25)	1 × (1 – 25)	1 × (1 – 25)
	Min./Max.	mm^2	2 × (1 – 10)	2 × (1 – 10)	2 × (1 – 10)
Flexible, with ferrule[1)] (ferrule to DIN 46 228)	Min./Max.	mm^2	1 × (0.75 – 16)	1 × (0.75 – 16)	1 × (0.75 – 16)
	Min./Max.	mm^2	2 × (4 – 6)	2 × (4 – 6)	2 × (4 – 6)
Solid or stranded		mm^2	–	–	–
Tightening torque		Nm	2.4	2.4	2.4
Contacts					
Uninterrupted current		A	Max. 40	Max. 63	–
Rated uninterrupted current I_u		A	–	–	6 – 40
Rated impulse withstand voltage U_{imp}		V	4000	4000	4000
Rated operational voltage U_e		V AC	240/415	240/415	230
Rated frequency		Hz	50 – 60	50 – 60	50 – 60
Rated insulation voltage U_i		V AC	440	440	440
Heat dissipation	2-pole/ 4-pole	VA	10.2/20.4	10.2/20.4	→ Page 12/045, 046
Switching capacity					
Rated short-circuit breaking capacity I_{cn}					
IEC/EN 60 898, VDE 0641	B, C 6 – 40	kA	–	–	10
Releases					
Rated fault current $I_{\Delta n}$		A	0.03/0.3	0.03/0.3	0.03/0.3
Tripping time t_a					
At $I_\Delta = I_{\Delta n}$		ms	≦ 200	≦ 200	≦ 200
At $I_\Delta = 5 \times I_{\Delta n}$		ms	≦ 40	≦ 40	≦ 40
Peak withstand current (lightning current 8/20)		A	250	250	250
Working voltage range of test device (–15%/+10%)		V AC	230 – 415	230 – 415	230
Lifespan, mechanical and electrical			See FAZ	See FAZ	See FAZ/FIP

Notes

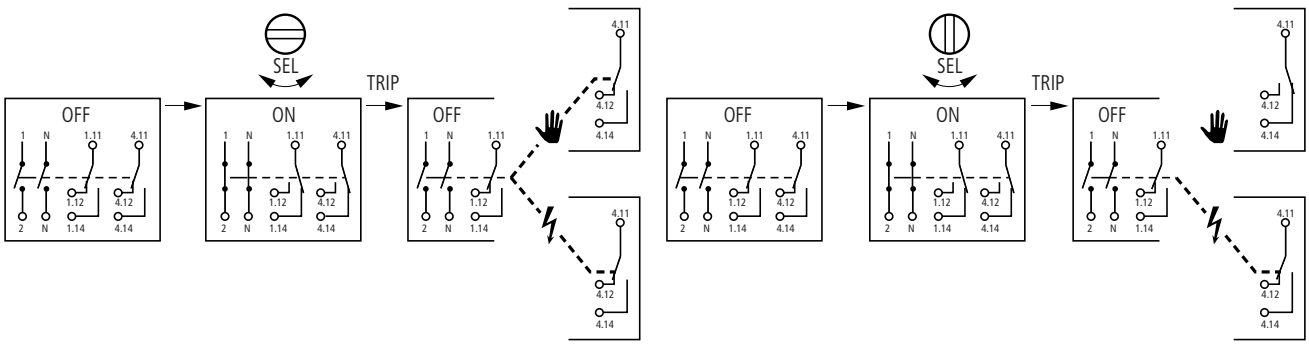
1) When using 2 conductors, the maximum admissible difference in cross-section is one size.

Miniature Circuit-Breakers
Technical Data

Auxiliary contacts, voltage releases			FIP-XHI11	FAZ-XHI001	FAZ/ FIP-XRHI002	FAZ-XUA	FAZ-XAA	AZ-XHI 11	AZ-XAA
General technical data									
Degree of protection (terminals)			IP20 (IP00), IP30 when fitted in distribution board						
Dimensions			→ Page 12/050						
Weight		kg	0.045	0.045	0.045	0.155	0.155	0.045	0.095
Terminal capacity									
Solid	Min./Max.	mm²	1 × 0.5/2.5	1 × 0.5/2.5	1 × 0.5/2.5	1 × 0.5/4	1 × 1/25	1 × 0.5/2.5	1 × 2.5/50
Stranded	Min./Max.	mm²	2 × 0.5/2.5	2 × 0.5/2.5	2 × 0.5/2.5	2 × 0.5/2.5	2 × 1/4	2 × 0.5/2.5	2 × 2.5/25
Tightening torque		Nm	0.8	0.8	0.8	0.8	2.4	0.8	3.0
Auxiliary contacts									
Rated insulation voltage U_i		V AC	440	440	250	440	440	440	440
Rated operational current I_e XHI/XRHI									
AC-12	230 V	A	–	–	2	–	–	–	–
AC-13	230 V	A	–	–	2	–	–	–	–
	250 V	A	6	3	–	–	–	6	–
	440 V	A	2	–	–	–	–	2	–
AC-15	230 V	A	–	2	1	–	–	–	–
DC-12	110 V	A	–	0.5	0.5	–	–	–	–
DC-13	60 V	A	4	–	–	–	–	4	–
	110 V	A	2	–	–	–	–	2	–
	230 V	A	0.5	–	–	–	–	0.5	–
Safe isolation to IEC 536 between auxiliary contacts and main contacts		V AC	440	440	440	–	–	440	–
Minimum operational voltage U_e (AC/DC)		V/mA	24/50	5/10	5/10	–	–	24/50	–
Minimum pulse duration		ms	–	–	–	–	> 15	–	> 15
Minimum command time		ms	–	–	–	–	≦ 100 ms	–	–
Max. short-circuit protective device									
Fuseless	Type		FAZ-B4HI	FAZ-B4HI	FAZ-B4HI	–	–	FAZ-B4HI	–
Fuse	gG/gL	A	6	6	6	Inherently	Inherently	6	Inherently
Lifespan, mechanical	Operations		≧6000	≧6000	≧6000	> 10000	> 4000	≧6000	> 4000
Coil									
Rated operational voltage U_e	(F)AZ-XAA	V AC	–	–	–	–	12 – 110	–	12 – 60
		V DC	–	–	–	–	24 – 60	–	12 – 60
	(F)AZ-XAA	V AC	–	–	–	–	110 – 415	–	110 – 415
		V DC	–	–	–	–	110 – 220	–	110 – 220
	FAZ-XUA	V AC	–	–	–	115/230/400	–	–	–
Undervoltage release									
Drop-out voltage		× U_s	–	–	–	0.7 – 0.35	–	–	
Inrush current (AC/DC)	Pick-up	A	–	–	–	3.6/44	–	–	–
Shunt release									
Operating range		× U_s	–	–	–	–	0.7 – 1.1	–	–
Inrush current	Pick-up	A (AC)	–	–	–	–	25/12 ms	–	38/2.1ms
		A (DC)	–	–	–	–	15/3 ms	–	34/2 ms

Notes

[1] The component is supplied with the groove of the yellow selector button horizontal: this means that the changeover contact 4.11 – 4.12/4.14 switches when actuated by hand as well as electrically. If the yellow selector button is turned through 90°, the contact 4.11 – 4.12/4.14 switches only when actuated electrically, but remains closed when operated by hand.



Miniature Circuit-Breakers
Technical Data

Heat dissipation

Influence of the ambient temperature on the thermal tripping characteristic

The table shows the corrected values of the rated current dependent on the ambient temperature.

Example:
To maintain the specified tripping times at an ambient temperature of 60 °C, with rated current 10 A, a miniature circuit-breaker suitable for 13 A must be used.

FAZ B, C, D, R, S	Rated heat dissipation/pole			Reference temperature	Ambient temperature					
	B, C, D	R	S							
I_n [A]	[W]	[W]	[W]	30 °C	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C
0.5	1.2	–	–	0.5	0.5	0.5	0.5	0.5	0.5	0.4
1	1.3	–	1.6	1	1.0	1.0	0.9	0.9	0.9	0.9
2	1.4	2.6	1.0	2	2.0	1.9	1.9	1.8	1.8	1.8
3	1.2	2.6	1.4	3	2.9	2.9	2.8	2.8	2.7	2.6
4	1.2	2.7	1.6	4	3.9	3.8	3.8	3.7	3.6	3.5
6	1.8	2.8	2.4	6	5.9	5.8	5.6	5.5	5.4	5.3
10	2.1	2.9	1.6	10	9.8	9.6	9.4	9.2	9.0	8.8
13	2.3	3.2	–	13	12.7	12.5	12.2	12.0	11.7	11.4
16	2.0	2.6	2.2	16	15.7	15.4	15.0	14.7	14.4	14.1
20	2.9	3.4	–	20	19.6	19.2	18.8	18.4	18.0	17.6
25	3.1	3.3	–	25	24.5	24.0	23.5	23.0	22.5	22.0
32	3.1	3.6	–	32	31.4	30.7	30.1	29.4	28.8	28.2
40	4.2	4.3	–	40	39.2	38.4	37.6	36.8	36.0	35.2
50	4.6	5.2	–	50	49.0	48.0	47.0	46.0	45.0	44.0
63	5.3	–	–	63	61.7	60.5	59.2	58.0	56.7	55.4

AZ C, D	Rated heat dissipation/pole	Reference temperature	Ambient temperature					
I_n [A]	[W]	30 °C	35 °C	40 °C	45 °C	50 °C	55 °C	60 °C
20	2.7	20	19.4	19.0	18.4	18.0	17.4	16.8
25	2.8	25	24.3	23.8	23.0	22.5	21.8	21.0
32	3.8	32	31.0	30.4	29.4	28.8	27.8	26.9
40	4.4	40	38.8	38.0	36.8	36.0	34.8	33.6
50	5.1	50	48.5	47.5	46.0	45.0	43.5	42.0
63	5.2	63	61.1	59.9	58.0	56.7	54.8	52.9
80	7.1	80	77.6	76.0	73.6	72.0	69.6	67.2
100	9.1	100	97.0	95.0	92.0	90.0	87.0	84.0
125	11.9	125	121.0	119.0	115.0	113.0	109.0	105.0

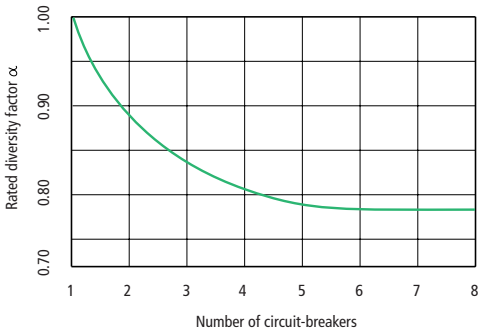
FAZ miniature circuit-breakers in series

Outgoing circuit-breaker	Incoming circuit-breaker
FAZ-(2)(3)(4)(N)-B(C)...	CL-PKZ0
0.5 – 4	65kA
6 – 32	45 kA
63 – 40	25 kA

FAZ-(2)(3)(4)(N)-B(C)...	NZM7-40(...100)N(S)(H)
0.5 – 4	50 kA
6 – 16	35kA
20 – 40	25 kA
50, 63	15kA

Load carrying capacity of adjoining FAZ, AZ miniature circuit-breakers

Rated diversity factor α, where miniature circuit-breakers mounted side by side influence one another thermally at rated load.



FI(P)(S) Residual-Current Circuit-Breakers
Technical Data

Residual-current circuit-breakers				4-pole FIP(S), FI(S)				FIP		2-pole FIP, FI				
Rated operational current			A	25	40	63	80	100	125	16	25	40	63	80
General technical data														
Standards				IEC/EN 61 008, VDE 0664 Part 1 (FI switches)										
Ambient temperature		Min./Max.	°C	–25/+40				–25/+40		–25/+40				
Mechanical shock resistance	(shock duration 20 ms)		g	20				20		20				
Mounting position/direction of incoming supply				As required				As required		As required				
Degree of protection (terminals)				IP40 (IP00), IP40 when fitted in distribution board						IP40 (IP00)				
Dimensions				→ Page 12/049						→ Page 12/049				
Weight			kg	0.32				0.975		0.22				
Terminal capacity														
Solid, stranded		Min./Max.	mm²	1/25				2.5/35		1/25				
Tightening torque			Nm	2.4	2.4	3	3	4		3				
Contacts														
Rated uninterrupted current I_u			A	25	40	63	80	100	125	16	25	40	63	80
Rated operational voltage U_e			V AC	230/400						230				
Max. operational voltage			V AC	253/440						253				
Rated frequency			Hz	50 – 60										
Max. short-circuit protective device		gG/gL	A	63	63	63	80	125	125	63	63	63	63	80
Short-circuit rating			kA	10	10	10	10	10	10	10	10	10	10	10
Current heat losses, all contacts														
At I_n and $I_{\Delta n}$ = 0.3 A			W	6	9	20	12	17	27	2	4	10	8	8
At I_n and $I_{\Delta n}$ = 0.1 A			W	4	6	13	–	–	–	–	4	7	8	8
At I_n and $I_{\Delta n}$ = 0.03 A and 0.5 A			W	2	5	11	12	17	27	–	2	5	10	10
Releases														
Rated fault current $I_{\Delta n}$			A	0.03/ 0.1/ 0.3/ 0.5						0.03/ 0.1/ 0.3				
Tripping time t_a														
At $I_\Delta = I_{\Delta n}$			ms	200						200				
At $I_\Delta = 5 \times I_{\Delta n}$			ms	≦ 40						≦ 40				
Peak withstand current (lightning current 8/20)		FIP	A	250						250				
		FIPS	A	5000						–				
Working voltage range of test device [1]			V AC	184 – 440				100 – 250		184 – 253				
Lifespan, mechanical		Operations		≧ 10000				≧ 5000		≧ 10000				
Lifespan, electrical	At I_n, U_n and cos φ = 0.9	Operations		≧ 2000				≧ 5000		≧ 2000				

Combination options of miniature circuit-breaker and residual-current protective switch with accessories

FAZ-XHI001	FAZ/FIP-XRHI002	FAZ-XAA	FAZ-XUA	FIP-XPM	Left AZ-XAA	FAZ	FAZ-PN	FAZ-2(4)-...FIM	FILS	AZ	Right FAZ/FIP-XFSM	AZ-XHI11
●		●				●					●	
	●	●				●					●	
			●			●					●	
●		●					●				●	
	●	●					●				●	
●		●						●	●			
	●	●						●	●			
			●					●				
				●				●	●			
					●					●		●

	Left	FI; FIS; FIP; FIPS; ≦ 80 A	FIP ≧ 100A	Right		
FIP-XHI11	FIP-XPM			FAZ/FIP-XRHI002	FAZ/FIP-XFSM	FIP100/125-XHI11
●		●		●	●	
	●	●		●	●	
			●			●

Notes [1] With FIP-4-25(40)(63)(80), fit test device between 2 phases, otherwise between phase and neutral conductor

REG-SS Impulse Relay
Technical Data

Impulse relays			REG-SS10	REG-SS20
General technical data				
Standards			IEC/EN 60 669-1	IEC/EN 60 669-1
Degree of protection (terminals)			IP20 (IP00), IP30 when fitted in distribution board	
Ambient temperature	Min./Max.	°C	–10/+50	–10/+50
Mechanical shock resistance (shock duration 20 ms)		g	20	20
Mounting position			As required	As required
Dimensions			→ Page 12/051	→ Page 12/051
Weight		kg	0.14	0.16
Terminal capacity				
Coil connection				
Solid	Min./Max.	mm²	1/6	1/6
Flexible with ferrule to DIN 46 228	Min./Max.	mm²	0.5/4	0.5/4
Contacts				
Solid	Min./Max.	mm²	1.5/10	1.5/10
Flexible with ferrule to DIN 46 228	Min./Max.	mm²	1/6	1/6
Tightening torque				
Coil $A_1 - A_2$		Nm	1	1
Contacts		Nm	1.5	1.5
Load circuit				
Rated operational voltage U_e (switching contact)		V AC	250	250
Rated insulation voltage U_i		V AC	500	500
Rated operational current I_e (switching contact)		A	16	16
Total heat dissipation per contact at I_e = 16 A		W	1.3	1.3
Control circuit				
Rated operational voltage U_e		V AC/DC	24/12, 230/110	24/12, 230/110
Operating range			(0.85 – 1.1) × U_e	(0.85 – 1.1) × U_e
Rated frequency		Hz	50 – 60	50 – 60
Power consumption, pull-in		VA	16	16
Pulse duration	Min./Max.	s	0.1/3600	0.1/3600
Lifespan, mechanical	Operations		500 000	500 000
Lifespan, electrical 16 A/AC-1	Operations		100 000	100 000

Lamp load per contact at 230 V AC

Designation	Rating W	Qty. of lamps	C[1] µF	Designation	Rating W	Qty. of lamps	C[1] µF	Designation	Rating W	Qty. of lamps	C[1] µF
230 V filament and halogen lamps, lamps with and without halogen	40	45	–	Duo circuit with electronic devices upstream	18	30	–	High-pressure mercury-vapour lamps, compensated	50	8	63
	60	30	–		36	26	–		80	8	56
	75	24	–		58	15	–		125	6	60
	100	18	–	Duo circuit	2 × 20	40	2.7		250	3	54
	150	12	–		2 × 40	22	3.4		400	2	50
	200	9	–		2 × 65	12	5.3	Mixed lamp load	100	9	–
	300	5	–	Fluorescent lamps duo circuit with electronic devices upstream, low-consumption lamps, non-compensated	2 × 18	13	–		160	6	–
	500	3	–		2 × 36	8	–		250	3	–
	1000	2	–		2 × 58	22	–		400	2	–
Low-voltage halogen lamps (12 or 24 V) with electronic transformer	20	70	–		7	50	–	High-pressure sodium-vapour lamps, non-compensated	70	9	–
	50	28	–		10	45	–		150	5	–
	75	19	–		18	40	–		250	3	–
	100	14	–		26	25	–		400	2	–
	150	9	–	Low-consumption/ economy lamps with electronic devices upstream	11	80	–	High-pressure sodium-vapour lamps, compensated	70	5	60
	300	3	–		15	60	–		150	3	54
Fluorescent lamps, non-compensated	15	29	–		20	50	–		250	2	64
	30	25	–		23	40	–		400	1	50
	36	24	–	Discharge lamps High-pressure mercury-vapour lamps, non-compensated	50	11	–				
	58	14	–		80	9	–				
Parallel-compensated	18	27	121		125	7	–				
	36	25	112		250	3	–				
	58	16	72		400	2	–				

Notes [1] The specified capacitor load must not be exceeded.

Screw Fuse Bases
Technical Data

Screw fuse bases			S14	S18	RS 183-50	S27	RS273-50	S33	RS333-50
General technical data									
Standards									
(R)S27(1), R(S)33(1) fuse bases			VDE 0636, CEE 16						
RS27-3, RS33-3 fuse bases			VDE 0636						
Protective covers			VDE 0636						
Gauge ring system			DIN 49 326, DIN 49 327, DIN 49 524						
Gauge screw system RS27(33)-3/FORMP			DIN 49 510						
Ambient temperature	Min./Max.	°C	–5/+25 (+40, at annual and 24 hour mean ≦ 35)						
Mounting position			As						
Max. rated uninterrupted current I_u		A	16	63	63	25	25	63	63
Contacts									
Rated operational voltage U_e		V AC	400	400	400	500	500	690	690
Clearances and creepage distances			VDE 0636 Part 41			VDE 0636 Part 31			
Current heat loss per contact at rated uninterrupted current I_u including gL fuse		W	2.2	5.5	5.5	3.9	3.9	7.5	7.5
Terminal capacity: Cu, 1 conductor									
Solid	Min./Max.	mm^2	0.75 – 4	0.75 – 16	2.5 – 1 6	1 – 10	1.5 – 6	2.5 – 16	2.5 – 16
Stranded, Flexible with ferrule	Min./Max.	mm^2	0.5 – 2.5	0.5 – 25	2.5 – 16	0.75 – 10	1.5 – 6	1.5 – 25	1.5 – 25

Notes The load-carrying capacity of fuse enclosures is based on derating factors to IEC/EN 60 439 and the size of incoming supply cables

Low-Voltage HBC Fuse Bases, Low-Voltage HBC Fuse Switch-Disconnectors
Technical Data

Low-voltage h.b.c. fuse bases, low-voltage h.b.c. fuse switch-disconnectors			GS(T...)00	GS(T...)00-160	GS(T...)1	GS(T...)2	GS(T...)3
General technical data							
Standards			IEC/EN 60 947-3				
Climatic proofing			Damp heat, constant, to IEC 60 068-2-3 Damp heat, cyclical, to IEC 60 068-2-30				
Ambient temperature	Min./Max.	°C	–25 to +55 (with reduced operational current[1])				
Altitude		m	Up to 2000				
Mounting position			Vertical, horizontal				
Overvoltage category			III	III	III	III	III
Pollution degree			3	3	3	3	3
Degree of protection, from the front							
Operational state			IP20	IP20	IP20	IP20	IP20
Front cover open			IP10	IP10	IP10	IP10	IP10
Direction of incoming supply			As required	As required	As required	As required	As required
Lifespan, mechanical Operations			1700	1700	1700	1700	1700
Weight		kg	0.72	0.72	2.5	3.1	4.8
Contacts							
Rated operational voltage U_e		V AC	500 690	500 690	500 690	500 690	500 690
		V DC	230 440	230 440	230 440	230 440	230 440
Rated operational current I_e		A	100 100	160 100	250 200	400 315	630 500
Rated frequency		Hz	60 – 40	60 – 40	60 – 40	60 – 40	60 – 40
Rated conditional short-circuit current AC		kA_{rms}	50	50	50	50	50
Rated conditional short-circuit current DC		kA_{rms}	25	25	25	25	25
Utilization category AC-22B							
Rated making capacity		A	480 300	480 300	750 600	1200 945	1890 1500
Rated breaking capacity		A	480 300	480 300	750 600	1200 945	1890 1500
Utilization category DC-21B							
Rated making capacity		A	240 150	240 150	375 300	600 475	945 750
Rated breaking capacity		A	240 150	240 150	375 300	600 475	945 750
Lifespan, electrical Operations AC/DC			300	300	200	200	200
Heat dissipation at I_{th} AC; without fuse link		W	2.7 2.7	6.9 2.7	12.9 5	27 16.8	52 32.8
Heat dissipation at I_{th} DC; without fuse link		W	4.6 1.8	4.6 1.8	8.6 3.6	18 11.2	34.7 21.9
Rated insulation voltage U_i		V AC	750	750	750	750	750
Fuse links[2]							
Size			00 00	00 00	1 1	2 2	3 3
Max. rated current (gG/gL)		A	100 100	160 100	250 200	400 315	630 500
Max. admissible heat dissipation (NH-SE fuse)		W	12 10	12 10	23 23	34 34	48 48
Terminal capacity							
Box terminal							
Cu, stranded	Min./Max.	mm^2	1.5 – 70	1.5 – 70	25 – 150	25 – 240	25 – 300
Cu strip		mm^2	6 × 9 × 0.8	6 × 9 × 0.8	6 × 16 × 0.8	10 × 16 × 0.8	11 × 21 × 1
Tightening torque		Nm	4.5	4.5	9.5	23	23
Clamp-type terminal (→ Page 12/029)							
Al/Cu, stranded	Min./Max.	mm^2	–	–	70 – 150	120 – 240	120 – 300
Tightening torque		Nm	–	–	9.5	11	9.5
Double clamp-type terminal (→ Page 12/029)							
Al/Cu, stranded	Min./Max.	mm^2	–	–	2 × (70 – 95)	2 × (120 – 150)	2 × (120 – 240)
Tightening torque		Nm	–	–	11	11	11

Notes

GS... and GSTA: resistant to mechanical shock in accordance with regulation classes RK 1.6/16 of the German Ministry of Buildings.

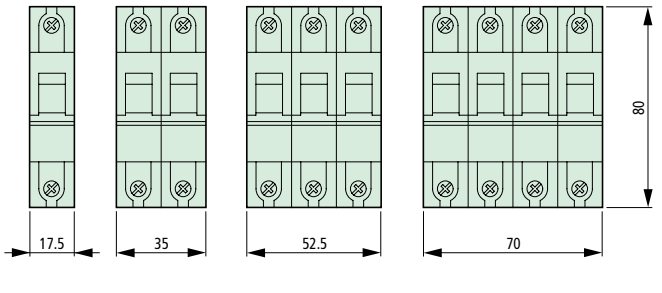
[1] At +55 °C, the influence of the ambient temperature on the load carrying capacity of low-voltage h.b.c. fuse links is $I/I_n \approx 0.9$.

[2] Low-voltage h.b.c. fuse link sizes 00-160 A are outside the scope of VDE 0636 Part 21, May 84, and therefore do not carry the VDE approval mark.

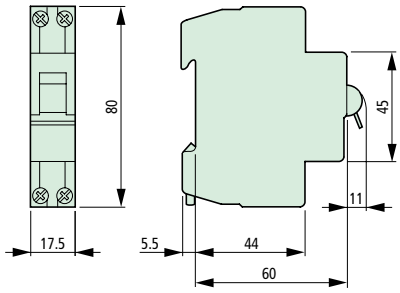
Miniature Circuit-Breakers
Dimensions

Miniature circuit-breakers

FAZ

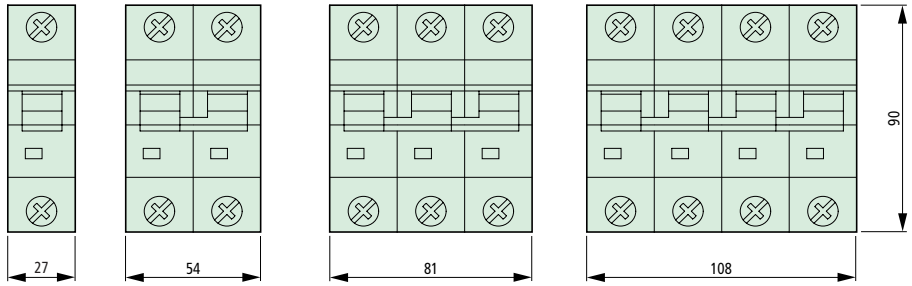


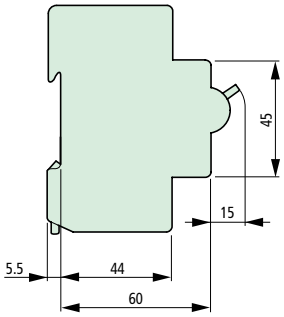
FAZ-PN-...



High-capacity miniature circuit-breakers

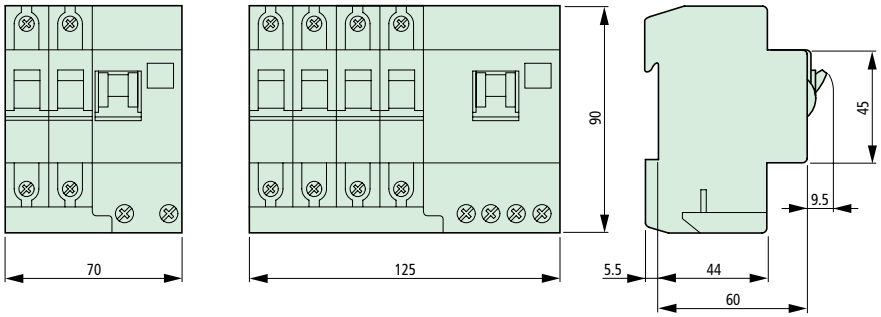
AZ





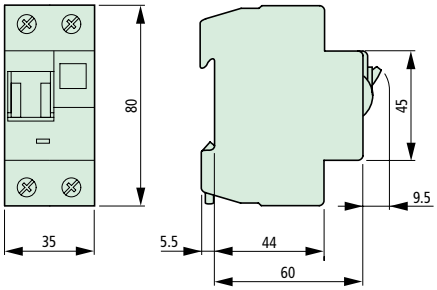
Miniature circuit-breakers with residual-current protection module

FAZ-...-FIM...



Combined RCD/MCB device

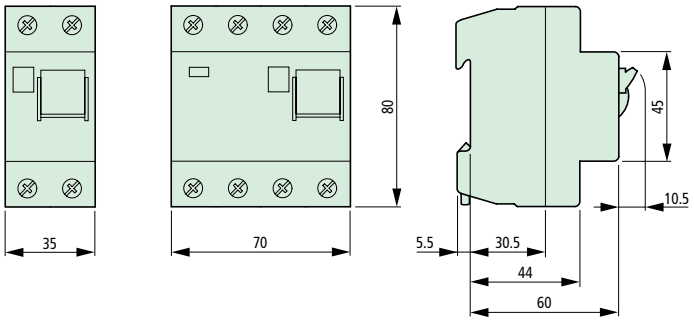
FILS



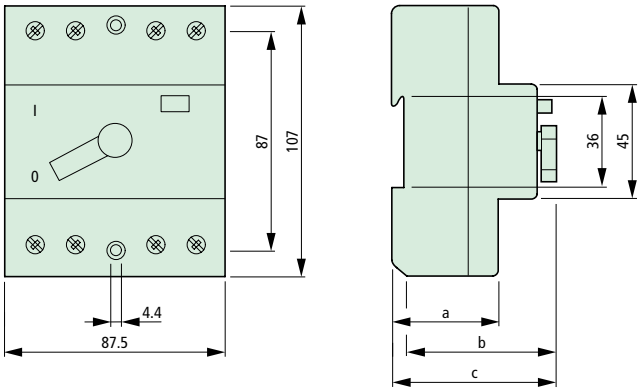
Residual-current circuit-breakers

FIP, FI

FIP, FIPS ≦ 80 A
FI, FIS ≦ 80 A



FIP ≧ 100 A

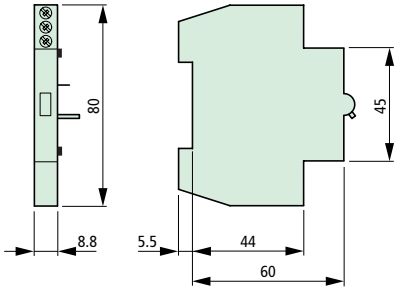


Type	a	b	c
FIP-4-100-0,3 (0,5)	49	68	73
FIP-4-125-... and FIP-4-100-0,03	60	80	85

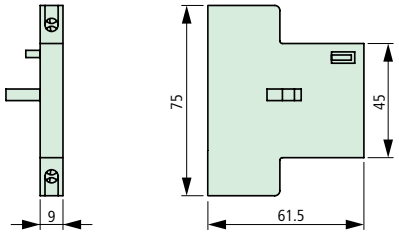
Miniature Circuit-Breakers
Dimensions

Standard auxiliary contacts

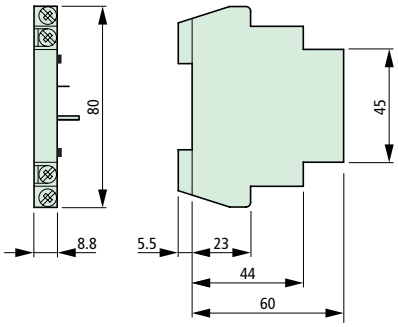
FAZ-XHI001



FIP100/125-XHI 11

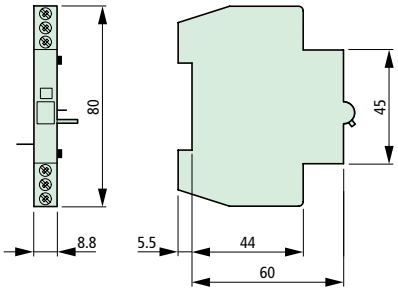


FIP-XHI11



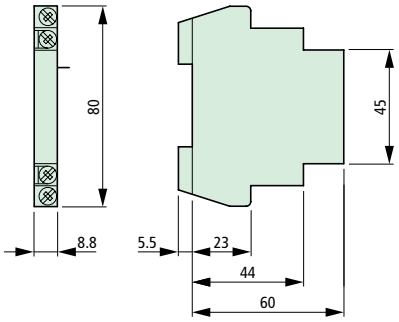
Trip-indicating auxiliary contacts

FAZ/FIP-XRHI002



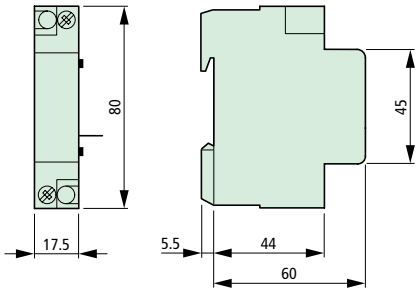
Test module

FIP-XPM



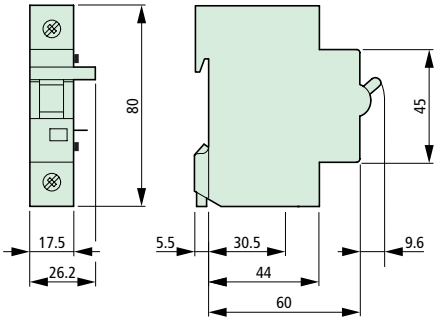
Undervoltage release

FAZ-XUA



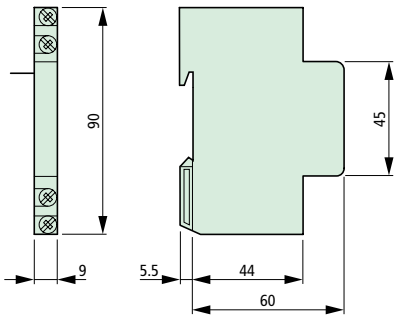
Shunt release

FAZ-XAA



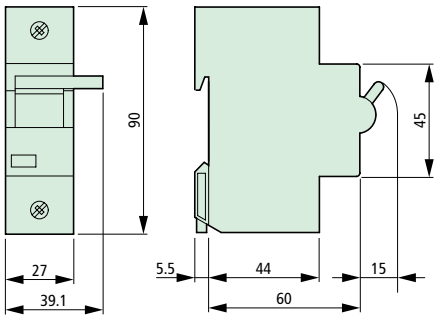
Standard auxiliary contacts

AZ-XHI 11



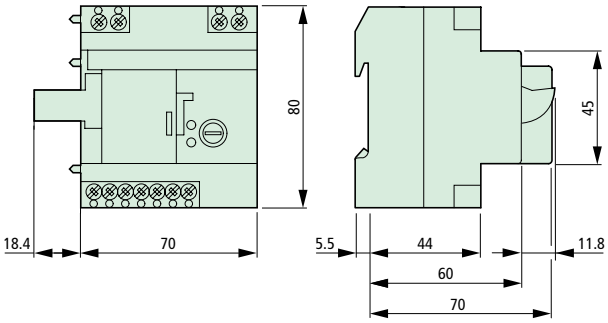
Shunt release

AZ-XAA

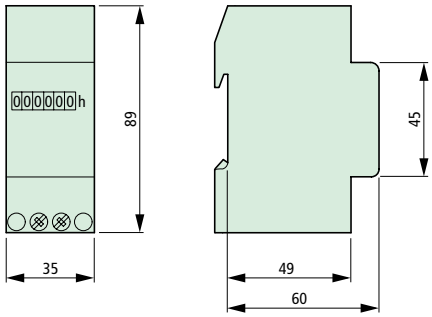


Miniature Circuit-Breakers
Dimensions

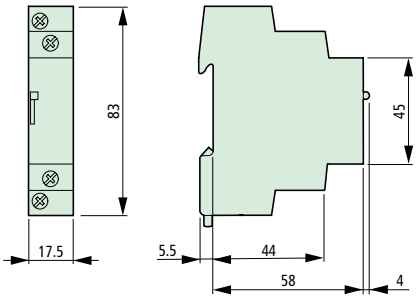
Remote switching module
FAZ/FIP-XFSM



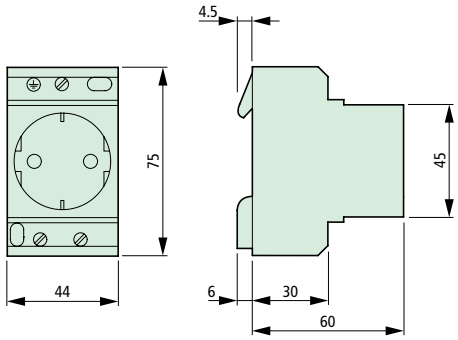
Hours-run meter/pulse counter
REG-BSZ(IZ)



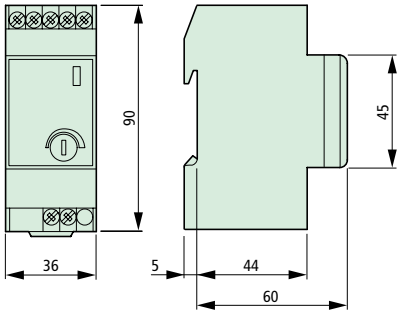
Impulse relay
REG-SS...



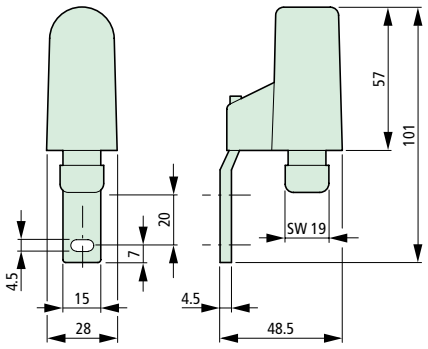
Schuko socket
REG-SD...



Light intensity switch
REG-DS-ST

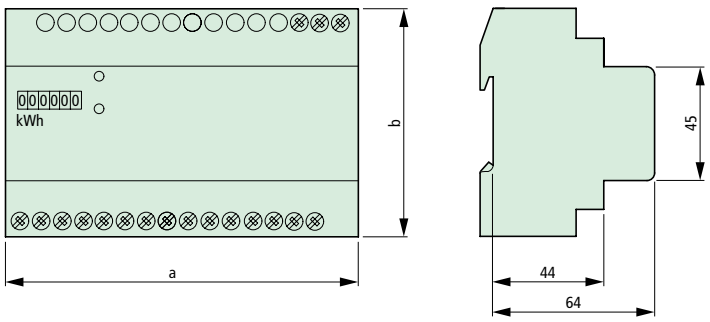


Sensor



Power meter
REG-...

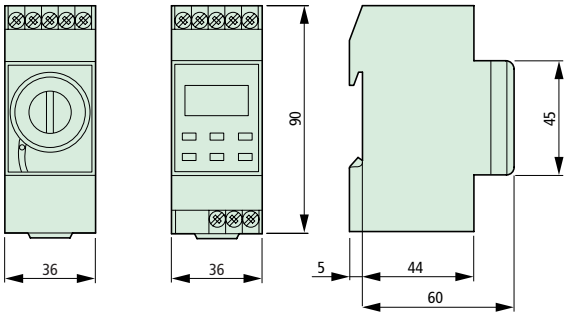
Type	a	b
REG-KWH230	70	89
REG-KWH400...	140	89



Miniature Circuit-Breakers
Dimensions

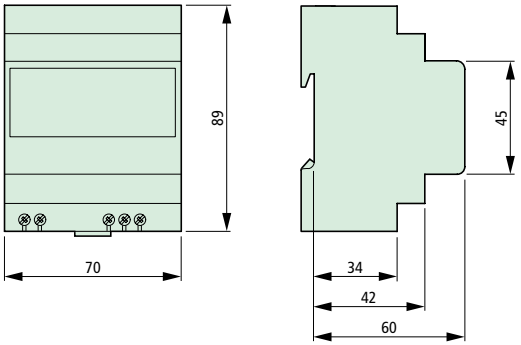
Analog/digital timers

REG-SUA...(SUD)



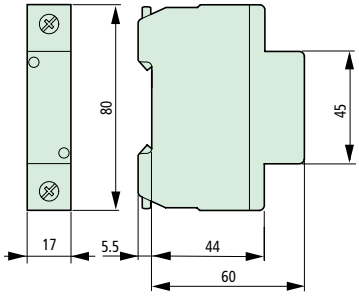
Analog/digital measuring instruments

REG-AMA(VMA, AMD, VMD)



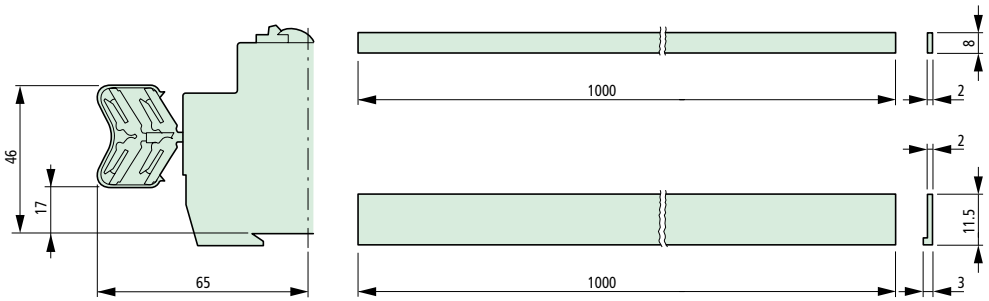
Feeder block for FAZ/FIP-XVS busbar system

FAZ/FIP-XVS-KL



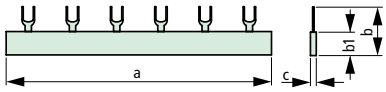
Busbar system

FAZ/FIP-XVS



Commoning busbar for miniature circuit-breakers

FAZ-XIS



Commoning busbar for miniature circuit-breakers without auxiliary contacts

Type	a	b	b1	c
FAZ-XIS1/2	30	29	14	3.5
FAZ-XIS1/6	104	29	14	3.5
FAZ-XIS1/12	207	29	14	3.5
FAZ-XIS2/4	65	29	14	6.3
FAZ-XIS2/6	104	29	14	6.3
FAZ-XIS2/12	207	29	14	6.3
FAZ-XIS3/6	104	29	14	9
FAZ-XIS3/12	206	29	14	9
FAZ-XIS4/8	141	29	14	11.8
FAZ-XIS4/12	207	29	14	11.8

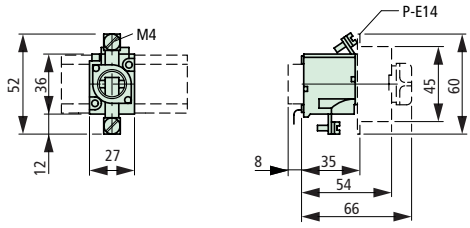
Commoning busbar for miniature circuit-breakers with auxiliary contacts

Type	a	b	b1	c
FAZ-XIS1/2-HI	53	29	14	3.5
FAZ-XIS1/6-HI	155	29	14	3.5
FAZ-XIS1/9-HI	228	29	14	3.5
FAZ-XIS2/4-HI	73	29	14	6.3
FAZ-XIS2/6-HI	120	29	14	6.3
FAZ-XIS2/10-HI	207	29	14	6.3
FAZ-XIS3/6-HI	120	29	14	10.7
FAZ-XIS3/12-HI	236	29	14	10.7
FAZ-XIS31/6-HI	155	29	14	10.7
FAZ-XIS31/8-HI	207	29	14	10.7
FAZ-XIS31/9-HI	236	29	14	10.7

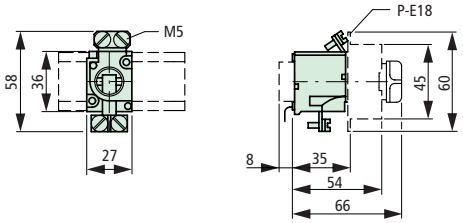
Fuse Bases
Dimensions

Screw fuse bases

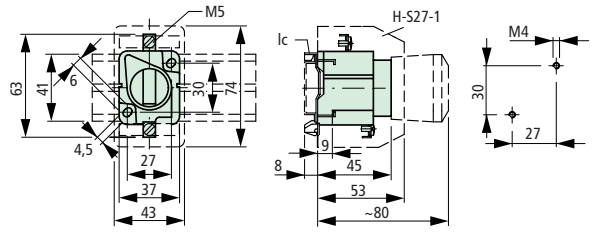
S14-1/C



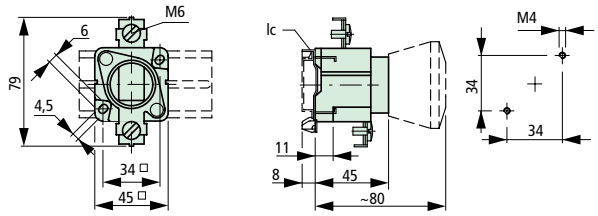
S18-1/C



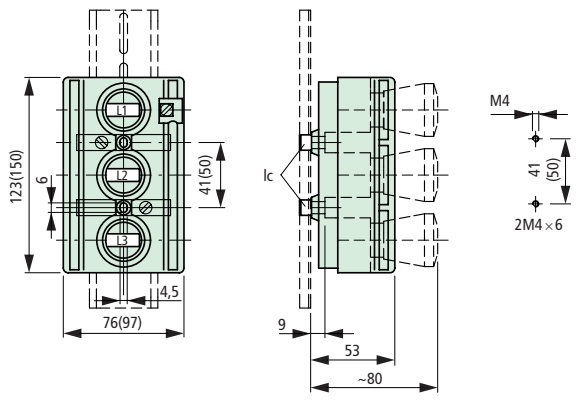
S27-1(/C)



S33-1(/C)

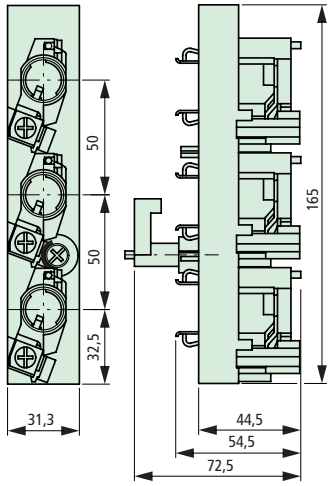


S27(/C)
S33(/C)
(...) = S33

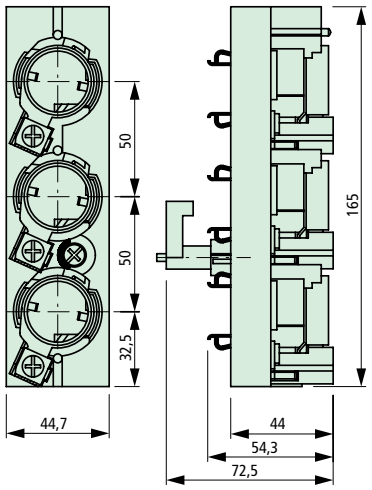


Busbar mounting fuse bases

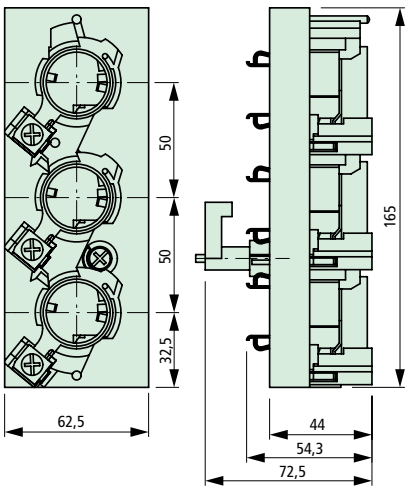
RS183-50



RS273-50

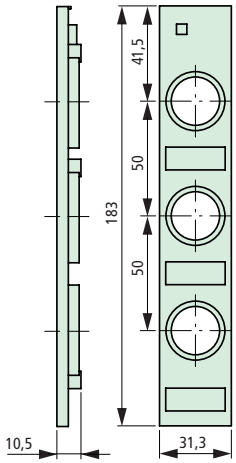


RS333-50



Covers

ZSRS183-50



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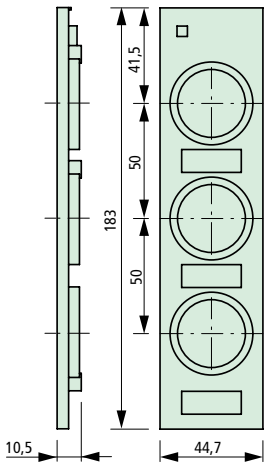
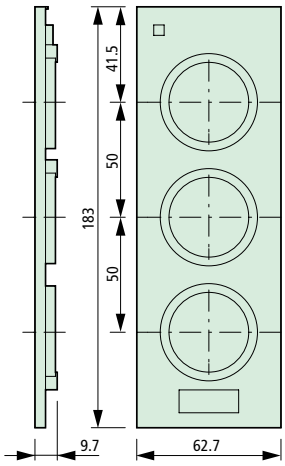


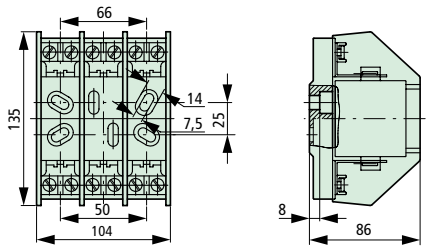
ZSRS333-50



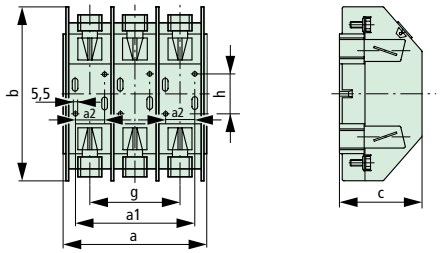
Fuse Bases, Fuse Switch-Disconnectors
Dimensions

Low-voltage h.b.c. fuse bases

GS00
GS00-160



GS1
GS2
GS3

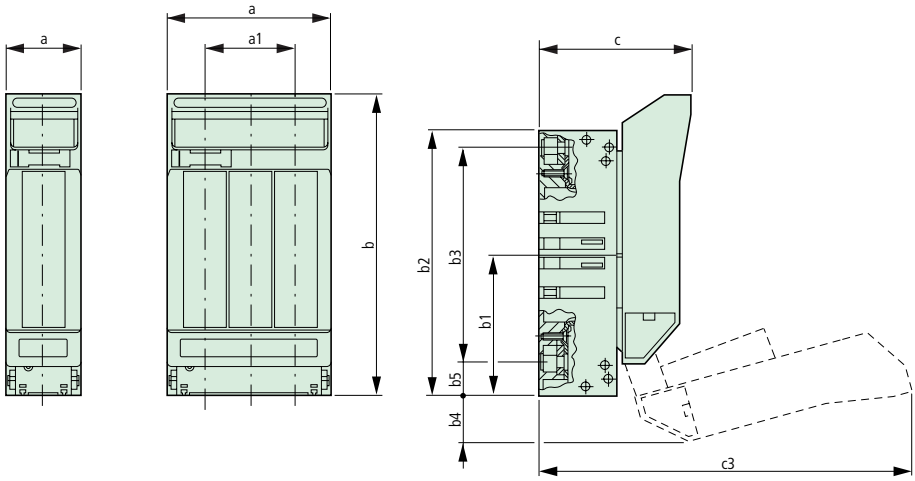


Type	a	a1	a2	b	c	g	h
GS1	180	150	–	218	103.5	116	25
GS2	202	175	25	248	116.5	130	50
GS3	248	200	50	256	117	160	50

Low-voltage h.b.c. fuse switch-disconnectors

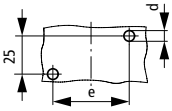
1-pole:
GSTA00-1P
GSTA00-160-1P

3-pole:
GSTA00, GSTA1
GSTA00-160, GSTA2
GSTA3

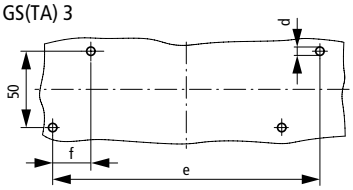


Drilling dimensions

GS(TA)00
GS(TA)1



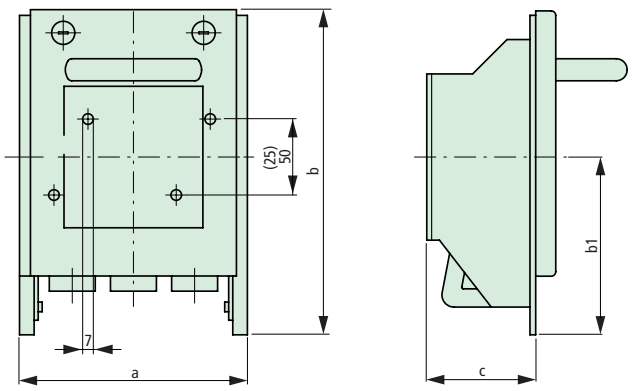
GS(TA) 2
GS(TA) 3



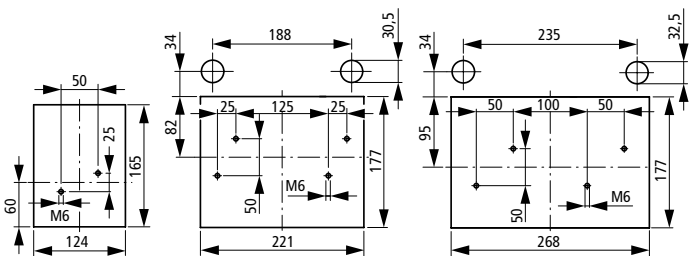
Type	a	a1	b	b1	b2	b3	b4	b5	c	c3	d	e	f
GSTA00-...-1P	49	–	169	79	149	120	25	–	86.5	197	7	–	–
GSTA00	106	66	169	79	149	120	25	26	86.5	197	7	50	–
GSTA1	182	116	250	115	230	184	30	23	111	294	5.5	150	–
GSTA2	208	132	275	128	256	217	30	19.5	125	330.5	5.5	175	25
GSTA3	254	164	283	135	270	238	30	16	142	348	5.5	200	50

Low-voltage h.b.c. fuse switch-disconnectors

GSTZ00, GSTZ1
GSTZ00-160, GSTZ2
GSTZ3



Drilling dimensions
Cover cutout
GSTZ00 GSTZ1/2 GSTZ3

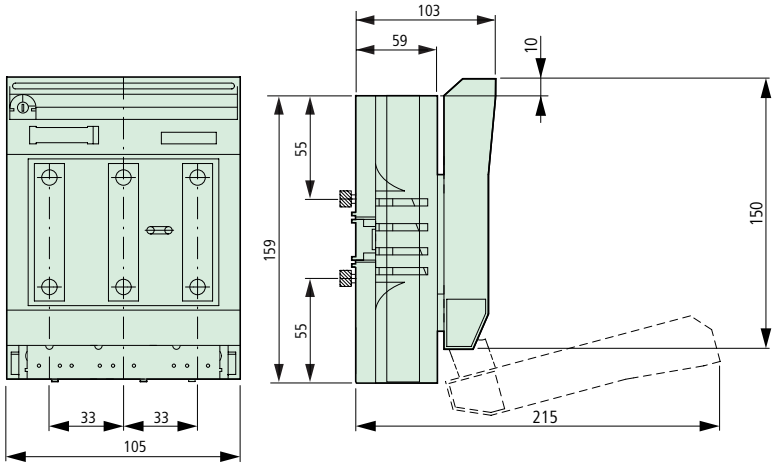


Type	a	b	b1	c
GSTZ00	150	214	117	85
GSTZ1	248	297	150	115
GSTZ2	248	297	150	131
GSTZ3	294	297	150	131

Fuse Switch-Disconnectors, Adapter Plates
Dimensions

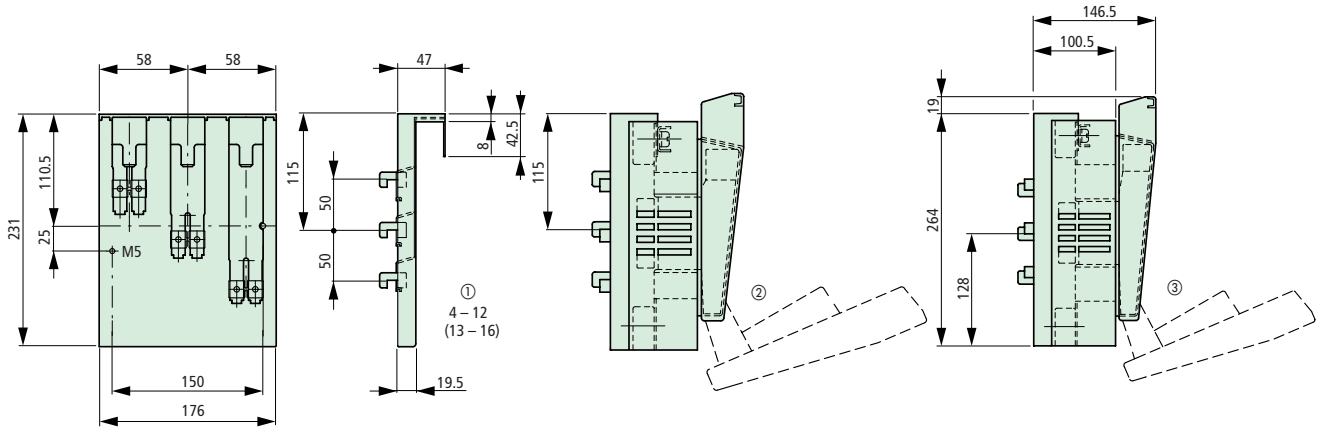
Low-voltage h.b.c. fuse switch-disconnectors for mounting on busbars

GST00(-160)-40-60-AOU

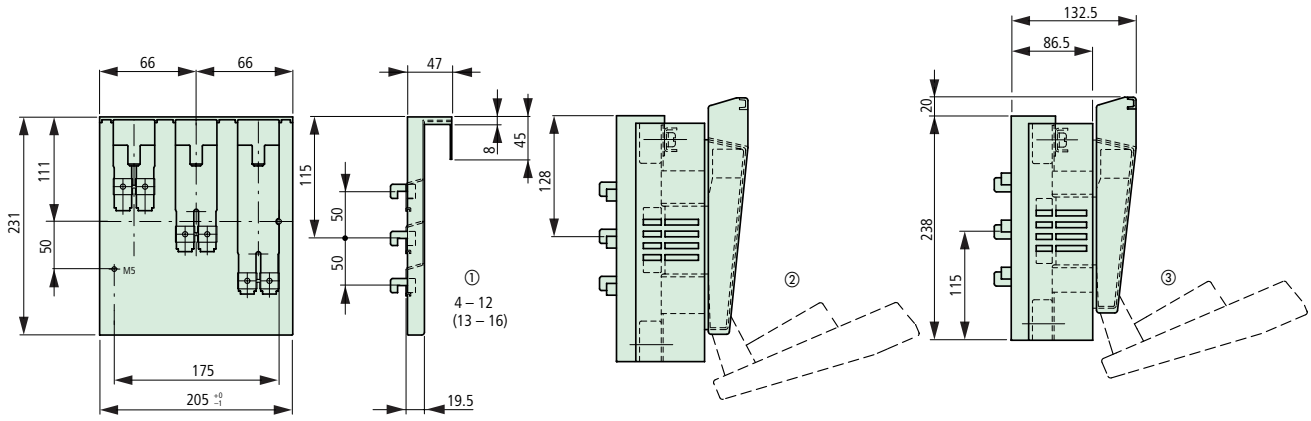


Adapter plates

A-GSTA-1/50(16)



A-GSTA-2/50(16)



① Busbar thickness
② Outgoer at the bottom
③ Outgoer at the top