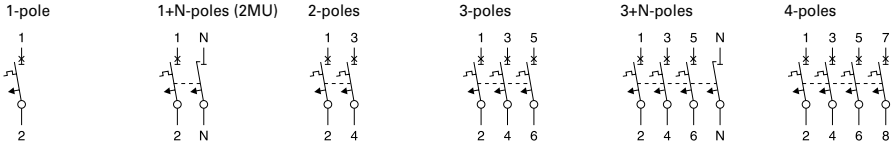
Technical Data

Electrical	B Characteristic		C Characteristic		D Characteristic
Approvals	UR (UL 1077), CSA (CSA 22.2 No. 235), CE, VDE				
Standards	IEC/EN 60947-2				
Classified according to Current test marks as printed onto the device	IEC 61373, EN 45545-2				
Short-circuit trip response	3–5 I_n		5–10 I_n		10–20 I_n
Supplementary Protectors - UL/CSA					
Current range	1–63 A		0.16–63 A		0.5–40 A
Maximum voltage ratings - UL/CSA					
Single-pole, single-pole + neutral	277 V AC		277 V AC		277 V AC
	48 V DC		48 V DC		48 V DC
Two-, three-, four-pole and three-pole + neutral	480Y/277 V AC		480Y/277 V AC		480Y/277 V AC
Two poles in series	96 V DC		96 V DC		96 V DC
Thermal tripping characteristics					
Single-pole	< 1 hour @ 1.35 x In @ 40°C		< 1 hour @ 1.35 x In @ 40°C		< 1 hour @ 1.35 x In @ 40°C
Multi-pole	< 1 hour @ 1.45 x In @ 40°C		< 1 hour @ 1.45 x In @ 40°C		< 1 hour @ 1.45 x In @ 40°C
Short-circuit ratings (at max. voltage)					
Single-pole	10 kA (5 kA for 40–63A device)		10 kA (5 kA for 40–63A device)		5 kA
Two-, three-pole	10 kA (5 kA for 40–63A device)		10 kA (5 kA for 40–63A device)		5 kA
Single-pole	10 kA @ 48 V DC		10 kA @ 48 V DC		10 kA @ 48 V DC
Two poles in series	10 kA @ 96 V DC		10 kA @ 96 V DC		10 kA @ 96 V DC
Miniature Circuit Breaker - IEC					
Current range	1–40 A	50–63 A	0.16–40 A	50–63 A	0.5–63 A
Maximum voltage ratings - IEC 60947-2					
Single-pole, single-pole + neutral	254 V AC	230 V AC	254 V AC	230 V AC	230 V AC
	60 V DC	60 V DC	60 V DC	60 V DC	60 V DC
Two-, three-, four-pole and three-pole + neutral	440 V AC	400 V AC	440 V AC	400 V AC	400 V AC
Maximum voltage ratings - IEC 60898					
Single-pole, single-pole + neutral	240 V AC	240 V AC	240 V AC	240 V AC	240 V AC
Two-, three-, four-pole and three-pole + neutral	415 V AC	415 V AC	415 V AC	415 V AC	415 V AC
Thermal tripping characteristics - IEC 60947-2					
	> 1 hour @ 1.05 x In @ 40°C		> 1 hour @ 1.05 x In @ 40°C		> 1 hour @ 1.05 x In @ 40°C
	< 1 hour @ 1.3 x In @ 40°C		< 1 hour @ 1.3 x In @ 40°C		< 1 hour @ 1.3 x In @ 40°C
Interrupt ratings (at max. voltage)					
IEC 60947-2	10 kA	15 kA	10 kA	15 kA	15 kA (type D50 and D63: 10k A)
IEC 60898	10 kA	10 kA	10 kA	10 kA	10 kA (type D50 and D63: not testet)
Operational switching capacity	7.5 kA	7.5 kA	7.5 kA	7.5 kA	7.5 kA (type D50 and D63: 6 kA)
Max. back-up fuse [gL/gG]	125 A	125 A	125 A	125 A	125 A
Rated impulse withstand voltage - U_{imp}	4000 V AC	4000 V AC	4000 V AC	4000 V AC	4000 V AC
Rated insulation voltage - U_i	440 V AC	440 V AC	440 V AC	440 V AC	440 V AC
Environmental / General					
Selectivity class	3		3		3
Endurance (operations)	>10000 (1 operation = ON/OFF)		>10000 (1 operation = ON/OFF)		>10000 (1 operation = ON/OFF)
Shock (IEC 68-2-22)	10 g / 120 ms		10 g / 120 ms		10 g / 120 ms
Operating temperature range	-40 up to +75°C		-40 up to +75°C		-40 up to +75°C
Mechanical					
Device height	80 mm		80 mm		80 mm
Terminal protection	Finger and back-of-hand proof		Finger and back-of-hand proof		Finger and back-of-hand proof
Mounting width per pole	17.5 mm		17.5 mm		17.5 mm
Mounting	IEC/EN 60715 top-hat rail		IEC/EN 60715 top-hat rail		IEC/EN 60715 top-hat rail
Degree of protection	IP20		IP20		IP20
Terminals top and bottom	Twin-purpose terminals		Twin-purpose terminals		Twin-purpose terminals
Supply connection	Line or load side		Line or load side		Line or load side
Terminal capacity [mm^2]	1 x 25 / 2 x 10		1 x 25 / 2 x 10		1 x 25 / 2 x 10
Torque of terminals	2.4 Nm		2.4 Nm		2.4 Nm
Thickness of busbar material	0.8 - 2 mm		0.8 - 2 mm		0.8 - 2 mm
Mounting position	As required		As required		As required

Technical Data

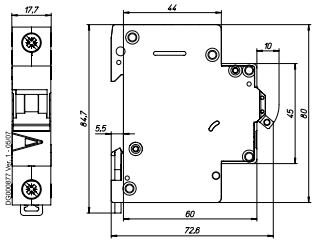
Electrical	K Characteristic	S Characteristic	Z Characteristic
Approvals	UR (UL 1077), CE	UR (UL 1077), CSA (CSA 22.2 No. 235) for 1-16 A, CE	UR (UL 1077), CE
Standards	IEC/EN 60947-2		
Classified according to Current test marks as printed onto the device	IEC 61373, EN 45545-2		
Short-circuit trip response	8–12 I_n	13–17 I_n	2–3 I_n
Supplementary Protectors - UL/CSA			
Current range	1–63 A	1–63 A	0.5–40 A
Maximum voltage ratings - UL/CSA			
Single-pole, single-pole + neutral	277 V AC	277 V AC	277 V AC
	48 V DC	48 V DC	48 V DC
Two-, three-, four-pole and three-pole + neutral	480Y/277 V AC	480Y/277 V AC	480Y/277 V AC
Two poles in series	96 V DC	96 V DC	96 V DC
Thermal tripping characteristics			
Single-pole	< 1 hour @ 1.35 x In @ 40°C	< 1 hour @ 1.35 x In @ 40°C	< 1 hour @ 1.35 x In @ 40°C
Multi-pole	< 1 hour @ 1.45 x In @ 40°C	< 1 hour @ 1.45 x In @ 40°C	< 1 hour @ 1.45 x In @ 40°C
Short-circuit ratings (at max. voltage)			
Single-pole	5 kA @ 277 V AC	5 kA @ 277 V AC	5 kA @ 277 V AC
Single-pole + neutral	5 kA @ 277 V AC	5 kA @ 277 V AC	5 kA @ 277 V AC
Two-, three-, four-pole	5 kA @ 480Y/277 V AC	5 kA @ 480Y/277 V AC	5 kA @ 480Y/277 V AC
Miniature Circuit Breaker - IEC			
Current range	0.5–63 A	0.5–40 A	1–63 A
Maximum voltage ratings - IEC 60947-2			
Single-pole, single-pole + neutral	240 V AC	240 V AC	240 V AC
Single-pole	60 V DC	60 V DC	60 V DC
Two-, three-, four-pole and three-pole + neutral	415 V AC	415 V AC	415 V AC
Thermal tripping characteristics			
	> 1 hour @ 1.05 x In @ 40°C < 1 hour @ 1.3 x In @ 40°C	> 1 hour @ 1.05 x In @ 40°C < 1 hour @ 1.3 x In @ 40°C	> 1 hour @ 1.05 x In @ 40°C < 1 hour @ 1.3 x In @ 40°C
Interrupt ratings (at max. voltage)			
IEC 60947-2	10 kA	10 kA	10 kA
Operational switching capacity	7.5 kA	7.5 kA	7.5 kA
Max. back-up fuse [gL/gG]	125 A	125 A	125 A
Rated impulse withstand voltage - U_{imp}	4000 V AC	4000 V AC	4000 V AC
Rated insulation voltage - U_i	440 V AC	440 V AC	440 V AC
Environmental / General			
Selectivity class	3	3	3
Endurance (operations)	>10000 (1 operation = ON/OFF)	>10000 (1 operation = ON/OFF)	>10000 (1 operation = ON/OFF)
Shock (IEC 68-2-22)	10 g / 120 ms	10 g / 120 ms	10 g / 120 ms
Operating temperature range	-40 up to +75°C	-40 up to +75°C	-40 up to +75°C
Mechanical			
Device height	80 mm	80 mm	80 mm
Terminal protection	Finger and back-of-hand proof	Finger and back-of-hand proof	Finger and back-of-hand proof
Mounting width per pole	17.5 mm	17.5 mm	17.5 mm
Mounting	IEC/EN 60715 top-hat rail	IEC/EN 60715 top-hat rail	IEC/EN 60715 top-hat rail
Degree of protection	IP20	IP20	IP20
Terminals top and bottom	Twin-purpose terminals	Twin-purpose terminals	Twin-purpose terminals
Supply connection	Line or load side	Line or load side	Line or load side
Terminal capacity [mm^2]	1 x 25 / 2 x 10	1 x 25 / 2 x 10	1 x 25 / 2 x 10
Torque of terminals	2.4 Nm	2.4 Nm	2.4 Nm
Thickness of busbar material	0.8 - 2 mm	0.8 - 2 mm	0.8 - 2 mm
Mounting position	As required	As required	As required

Connection diagram

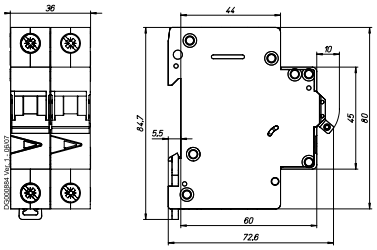


Dimensions (mm) FAZ

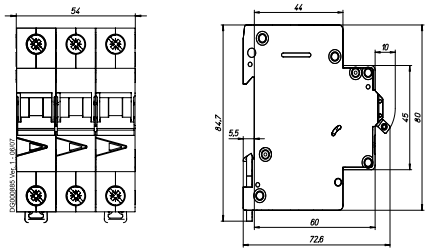
1-pole



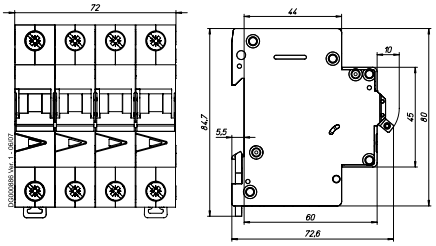
1+N-poles, 2-poles



3-poles

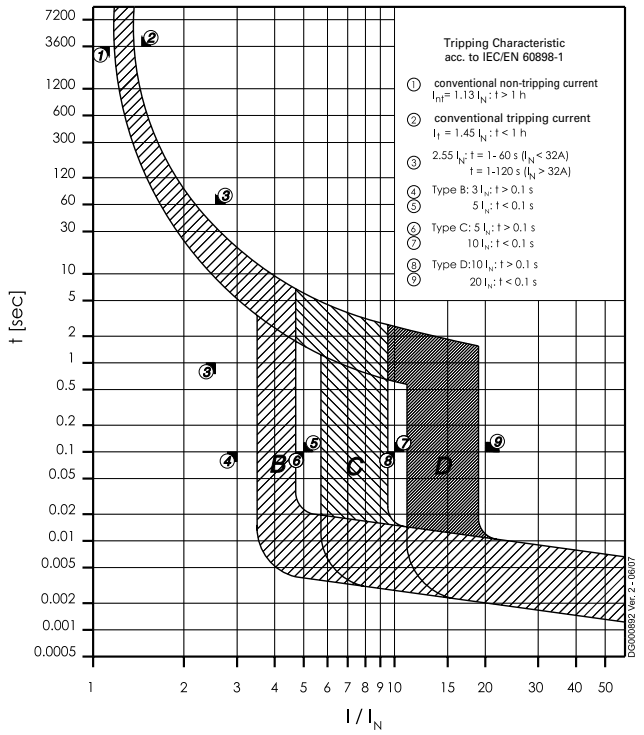


3+N-poles, 4-poles

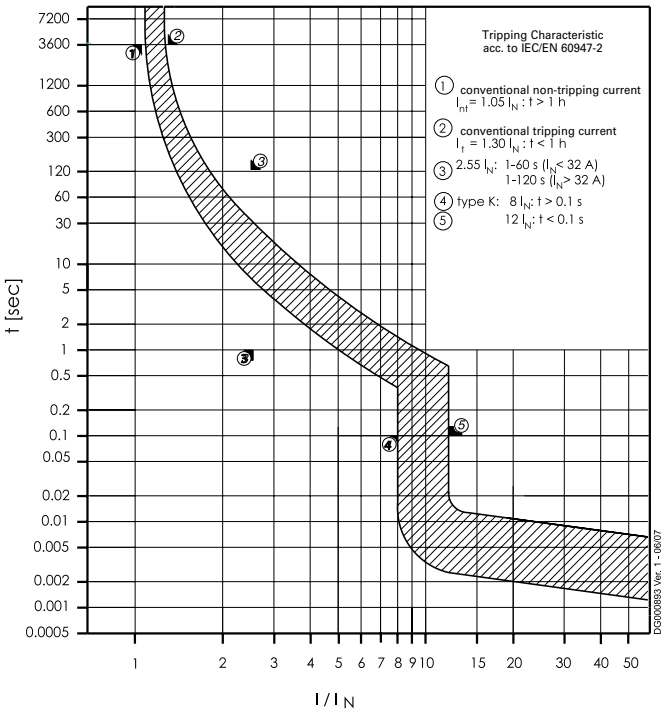


Tripping Characteristics FAZ

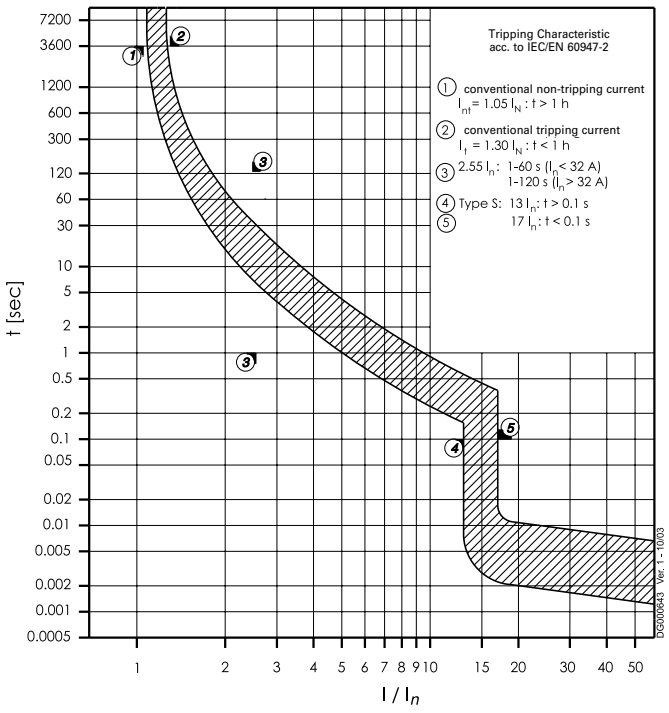
Characteristics B, C and D - IEC/EN60898-1



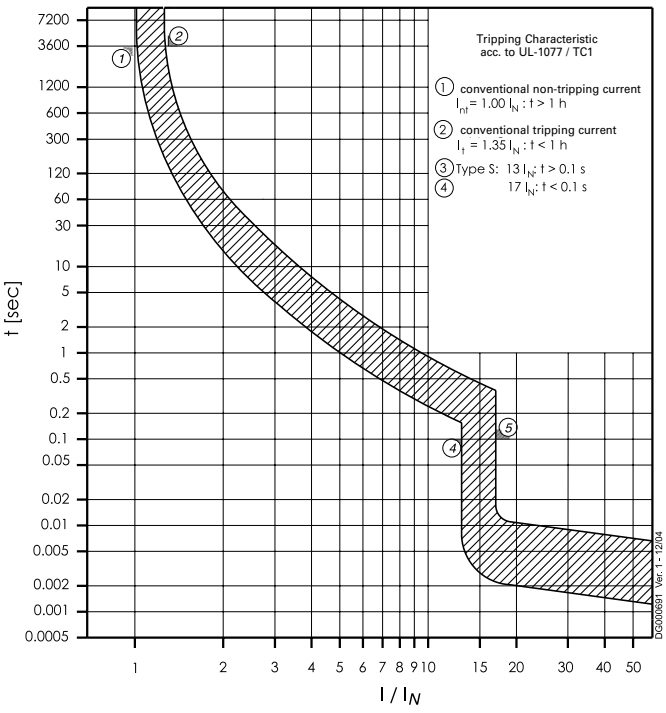
Characteristic K - IEC/EN 60947-2



Characteristic S - IEC/EN 60947-2

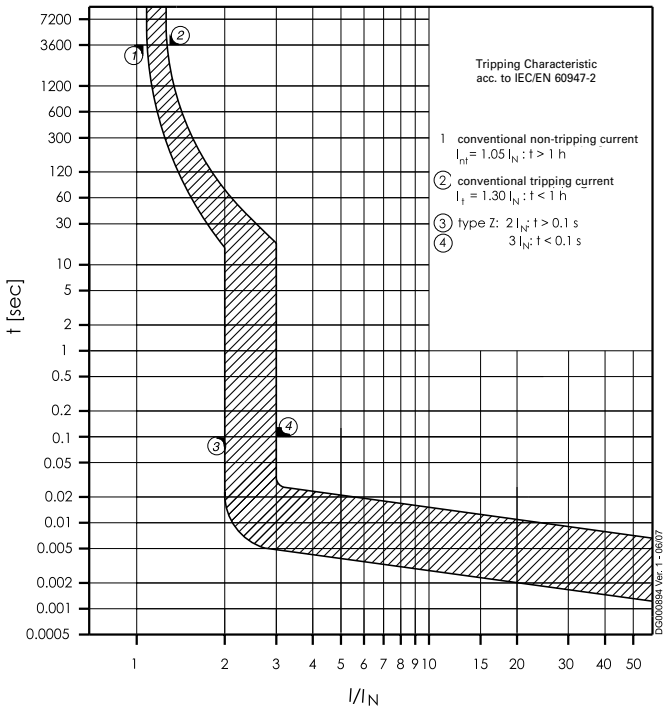


Characteristic S - UL1077

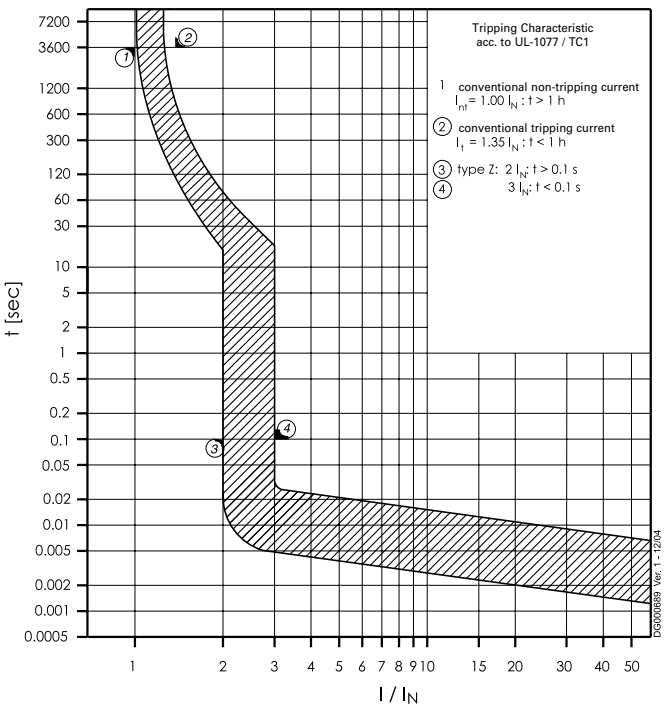


Tripping Characteristics FAZ

Characteristic Z - IEC/EN 60947-2



Characteristic Z - UL1077



Internal Resistance FAZ

Type B

At room temperature (single pole)

I_n [A]	Z* [mΩ]	R* [mΩ]
1	1120	1102
1.5	922	912
1.6	922	912
2	335	333
2.5	234	230
3	211	208
3.5	184	180
4	87.7	87.2
5	73.5	72.8
6	46.8	46.3
8	30.5	30.4
10	17.5	17.4
12	16.9	16.8
13	13.4	13.3
15	8.0	7.9
16	8.0	7.9
20	7.2	7.1
25	5.0	4.9
32	3.7	3.7
40	2.6	2.5
50	2.1	2.1
63	2.0	2.0

* 50 Hz

Type C

At room temperature (single pole)

I_n [A]	Z* [mΩ]	R* [mΩ]
0.16	68500	68300
0.25	27500	27400
0.5	4680	4670
0.75	2280	2250
1	1120	1100
1.5	589	587
1.6	589	587
2	335	333
2.5	234	230
3	131	130
3.5	143	141
4	87.7	87.2
5	73.5	72.8
6	39.3	39.1
8	30.5	30.4
10	14.1	14.0
12	13.5	13.4
13	13.4	13.3
15	8.0	7.9
16	8.0	7.9
20	7.2	7.1
25	5.0	4.9
32	3.7	3.7
40	2.6	2.5
50	2.1	2.1
63	2.0	2.0

* 50 Hz

Type D

At room temperature (single pole)

I_n [A]	Z* [mΩ]	R* [mΩ]
0.5	4680	4670
1	772	770
1.5	512	508
1.6	512	508
2	250	249
2.5	153	153
3	131	130
3.5	143	141
4	87.7	87.2
5	65.4	65.1
6	39.3	39.1
8	19.5	19.5
10	14.1	14.0
12	11.3	11.2
13	10.1	10.1
15	8.0	7.9
16	8.0	7.9
20	4.9	4.9
25	3.9	3.8
32	3.5	3.4
40	2.7	2.6

* 50 Hz

Fault Loop Impedance FAZ

Max. allowed value for the Fault Loop Impedance Z_S
(acc. to DIN VDE 0100. Teil 410)

U_0 = 230 V

	Type B		**Type C**		**Type D**	
Tripping time	0.4s	5s	0.4s	5s	0.4s	5s
I_n [A]	Zs* [mΩ]	R* [mΩ]	Zs* [mΩ]	R* [mΩ]	Zs* [mΩ]	R* [mΩ]
1	40.4	40.4	24.3	40.4	12.4	40.4
1.5	26.9	26.9	16.2	26.9	8.3	26.9
2	20.2	20.2	12.2	20.2	6.2	20.2
2.5	16.1	16.1	9.7	16.1	5.0	16.1
3	13.5	13.5	8.1	13.5	4.1	13.5
3.5	11.5	11.5	7.0	11.5	3.6	11.5
4	10.1	10.1	6.1	10.1	3.1	10.1
5	8.1	8.1	4.9	8.1	2.5	8.1
6	6.7	6.7	4.1	6.7	2.1	6.7
8	5.0	5.0	3.0	5.0	1.6	5.0
10	4.0	4.0	2.4	4.0	1.2	4.0
12	3.4	3.4	2.0	3.4	1.0	3.4
13	3.1	3.1	1.9	3.1	1.0	3.1
15	2.7	2.7	1.6	2.7	0.8	2.7
16	2.5	2.5	1.5	2.5	0.8	2.5
20	2.0	2.0	1.2	2.0	0.6	2.0
25	1.6	1.6	1.0	1.6	0.5	1.6
32	1.3	1.3	0.8	1.3	0.4	1.3
40	1.0	1.0	0.6	1.0	0.3	1.0
50	0.8	0.8	0.5	0.8	0.2	0.8
63	0.6	0.6	0.4	0.6	0.2	0.6

$Z_s = R_{M.C.B.} + R_{Loop}$
Data/factors taken from the time-current characteristic FAZ

For other rated voltages U_0:
U_0 = 240 V: Z_s * 1.04
U_0 = 127 V: Z_s * 0.55

Power Loss at I_n FAZ (50/60 Hz)

Type B

I_n [A]	1p P [W]	1pN P [W]	2p P [W]	3p P [W]	3pN* P [W]
1	1.6	1.7	3.1	4.7	4.8
1.5	2.3	2.5	4.6	6.9	7.2
1.6	2.5	2.7	4.9	7.4	7.6
2	1.4	1.5	2.8	4.1	4.3
2.5	1.5	1.7	3.1	4.6	4.7
3	2.5	2.7	5.0	7.6	7.8
3.5	2.5	2.8	5.1	7.8	8.0
4	1.4	1.6	2.9	4.4	4.5
5	1.9	2.1	3.8	5.8	6.0
6	1.8	2.0	3.6	5.5	5.6
8	2.1	2.3	4.1	6.3	6.5
10	1.9	2.1	3.9	5.9	6.1
12	2.8	3.2	5.9	8.7	9.0
13	2.5	2.9	5.3	7.8	8.1
15	2.1	2.4	4.4	6.5	6.7
16	2.2	2.6	4.7	6.9	7.2
20	3.2	3.6	6.6	9.8	10.1
25	3.0	3.5	6.4	9.4	9.7
32	3.7	4.4	8.1	12.1	12.5
40	3.4	4.1	7.5	11.2	11.5
50	4.5	5.4	9.9	14.9	15.3
63	5.2	6.3	11.5	17.2	17.7

* symmetrical load

Type C

I_n [A]	1p P [W]	1pN P [W]	2p P [W]	3p P [W]	3pN* P [W]
0.16	2.2	2.4	4.4	6.7	6.9
0.25	2.0	2.2	4.0	6.1	6.3
0.5	1.2	1.3	2.4	3.5	3.7
0.75	1.3	1.4	2.6	3.9	4.1
1	1.6	1.7	3.1	4.7	4.8
1.5	1.5	1.6	2.9	4.4	4.6
1.6	1.6	1.7	3.1	4.7	4.9
2	1.4	1.5	2.8	4.1	4.3
2.5	1.5	1.7	3.1	4.6	4.7
3	1.2	1.3	2.4	3.6	3.7
3.5	1.3	1.4	2.6	3.9	4.0
4	1.4	1.6	2.9	4.4	4.5
5	1.9	2.1	3.8	5.8	6.0
6	1.5	1.6	2.9	4.4	4.6
8	2.1	2.3	4.1	6.3	6.5
10	1.5	1.7	3.0	4.6	4.7
12	2.1	2.4	4.4	6.5	6.8
13	2.5	2.9	5.3	7.8	8.1
15	2.1	2.4	4.4	6.5	6.7
16	2.2	2.6	4.7	6.9	7.2
20	3.2	3.6	6.6	9.8	10.1
25	3.0	3.5	6.4	9.4	9.7
32	3.7	4.4	8.1	12.1	12.5
40	3.4	4.1	7.5	11.2	11.5
50	4.5	5.4	9.9	14.9	15.3
63	5.2	6.3	11.5	17.2	17.7

* symmetrical load

Type D

I_n [A]	1p P [W]	1pN P [W]	2p P [W]	3p P [W]	3pN* P [W]
0.5	1.2	1.3	2.4	3.5	3.7
1	0.8	0.9	1.6	2.4	2.5
1.5	1.2	1.3	2.3	3.5	3.6
1.6	1.3	1.4	2.5	3.8	3.9
2	1.0	1.1	2.0	3.0	3.1
2.5	1.0	1.1	1.9	2.9	3.0
3	1.2	1.3	2.4	3.6	3.7
3.5	1.3	1.4	2.6	3.9	4.0
4	1.4	1.6	2.9	4.4	4.5
5	1.7	1.8	3.3	5.1	5.3
6	1.5	1.6	2.9	4.4	4.6
8	1.3	1.5	2.6	4.0	4.2
10	1.5	1.7	3.0	4.6	4.7
12	1.7	2.0	3.6	5.3	5.4
13	1.9	2.2	4.0	5.9	6.1
15	2.1	2.4	4.4	6.5	6.7
16	2.2	2.6	4.7	6.9	7.2
20	2.0	2.2	4.1	6.1	6.2
25	2.5	2.9	5.2	7.7	7.9
32	3.4	4.0	7.4	11.1	11.4
40	3.2	3.8	7.0	10.4	10.7

* symmetrical load

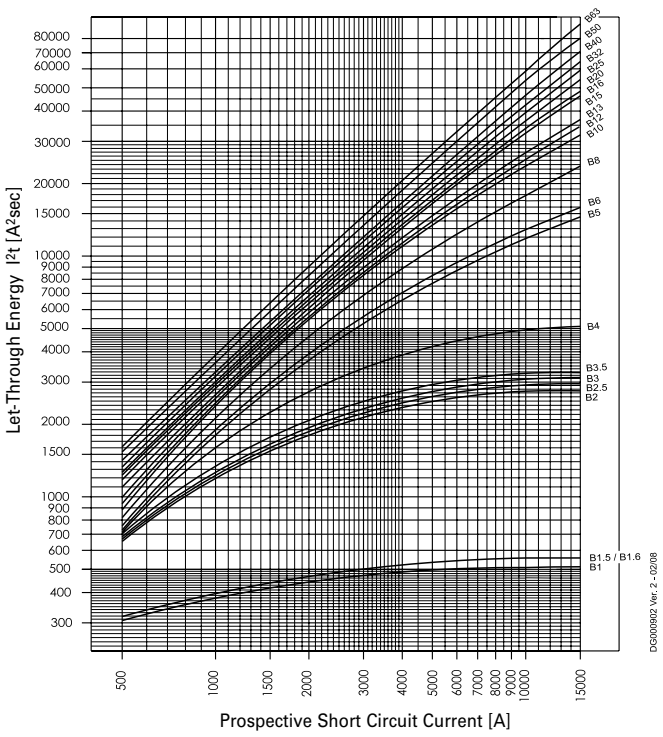
Influence of Ambient Temperature FAZ

On Load Carrying Capacity (temperature derating)

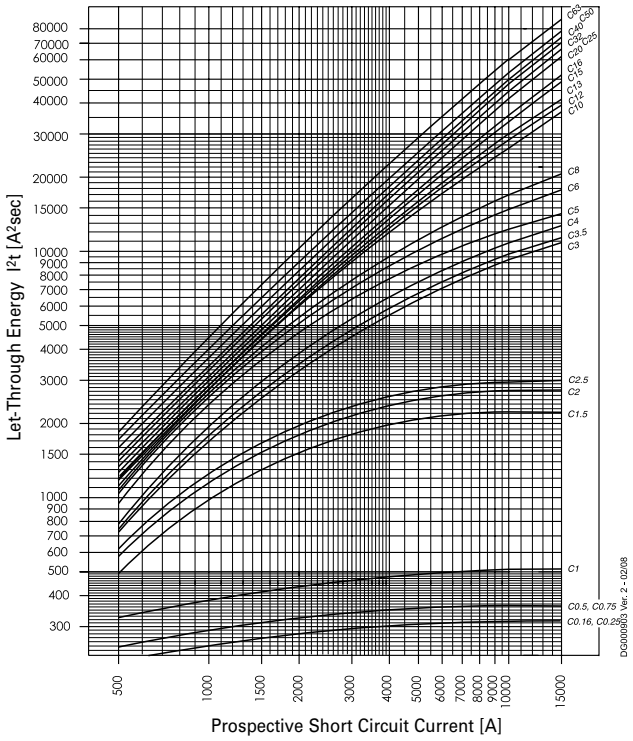
	Ambient temperature T [°C]																
	-40	-30	-20	-10	0	10	20	30	35	40	45	50	55	60	65	70	75
I_n [A]																	
0.16	0.2	0.2	0.19	0.19	0.18	0.17	0.17	0.16	0.16	0.15	0.15	0.15	0.14	0.14	0.14	0.14	0.13
0.25	0.32	0.31	0.3	0.29	0.28	0.27	0.26	0.25	0.25	0.24	0.24	0.23	0.23	0.22	0.22	0.21	0.21
0.5	0.64	0.62	0.6	0.58	0.56	0.54	0.52	0.5	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41
0.75	0.96	0.93	0.9	0.87	0.84	0.81	0.78	0.75	0.74	0.73	0.71	0.69	0.68	0.66	0.65	0.64	0.62
1	1.3	1.2	1.2	1.2	1.1	1.1	1	1	0.99	0.97	0.95	0.93	0.9	0.89	0.87	0.85	0.83
1.5	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.3	1.3	1.3	1.2
1.6	2	2	1.9	1.9	1.8	1.7	1.7	1.6	1.6	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.3
2	2.6	2.5	2.4	2.3	2.2	2.2	2.1	2	2	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
2.5	3.2	3.1	3	2.9	2.8	2.7	2.6	2.5	2.5	2.4	2.4	2.3	2.3	2.2	2.2	2.1	2.1
3	3.8	3.7	3.6	3.5	3.4	3.3	3.1	3	3	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
3.5	4.5	4.4	4.2	4.1	3.9	3.8	3.7	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3	3	2.9
4	5.1	5	4.8	4.7	4.5	4.3	4.2	4	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
5	6.4	6.2	6	5.8	5.6	5.4	5.2	5	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
6	7.7	7.5	7.2	7	6.7	6.5	6.3	6	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5
8	10.2	9.9	9.6	9.3	9	8.7	8.4	8	7.9	7.7	7.6	7.4	7.2	7.1	6.9	6.8	6.6
10	13	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9	8.9	8.7	8.5	8.3
12	15	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
13	17	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
15	19	19	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
16	20	20	19	19	18	17	17	16	16	15	15	15	14	14	14	14	13
20	26	25	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	32	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	41	40	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	51	50	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	64	62	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	81	78	76	73	71	68	66	63	62	61	60	58	57	56	55	53	52

Maximum Let-Through Energy FAZ

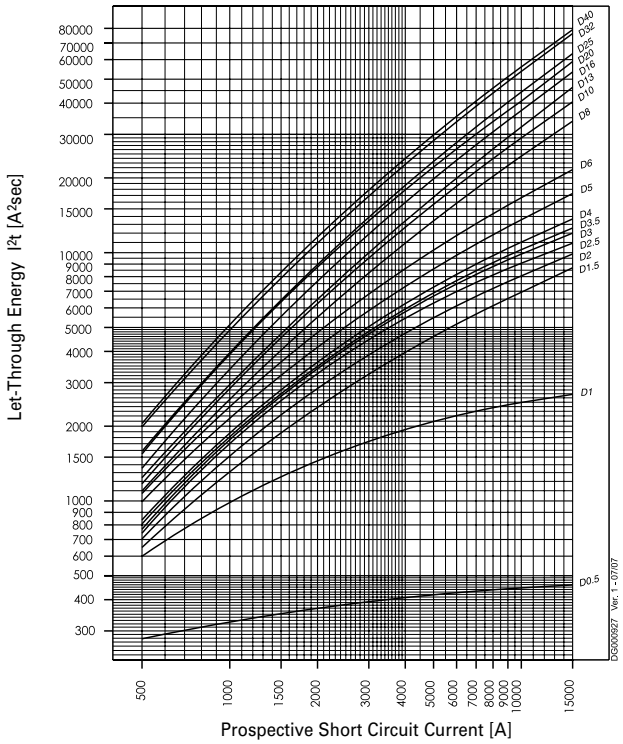
Type B (IEC/EN60947-2)



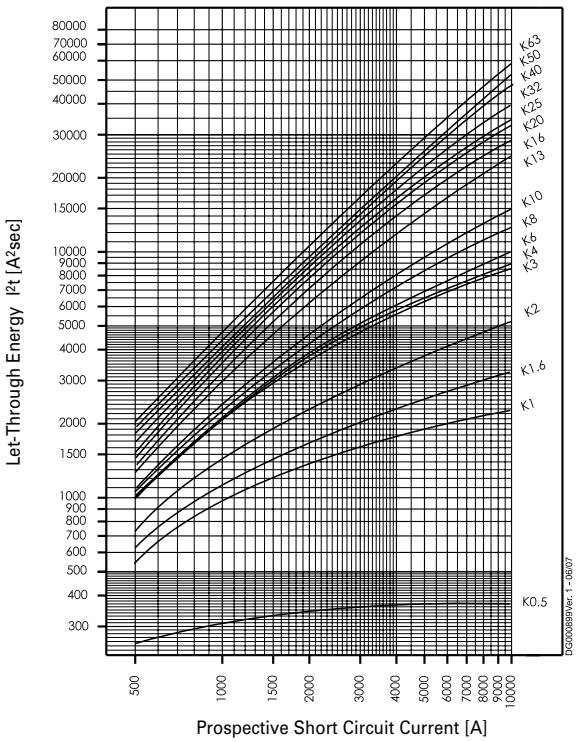
Type C (IEC/EN60947-2)



Type D (IEC/EN60947-2)

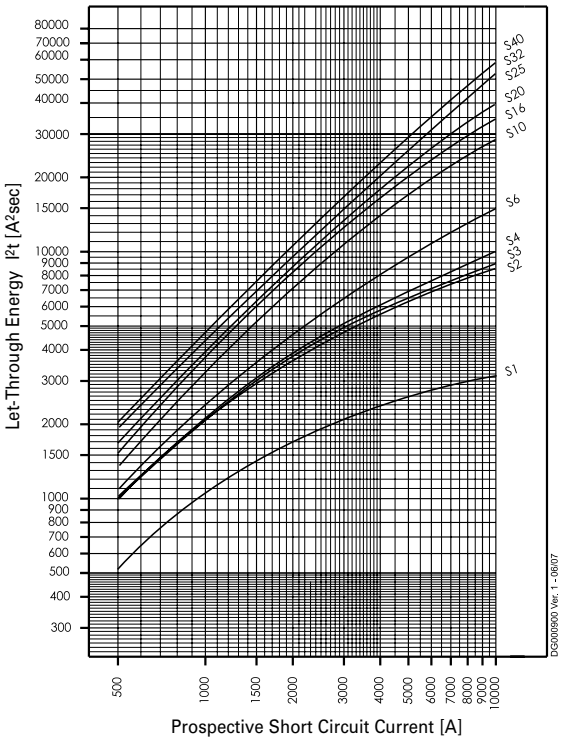


Type K

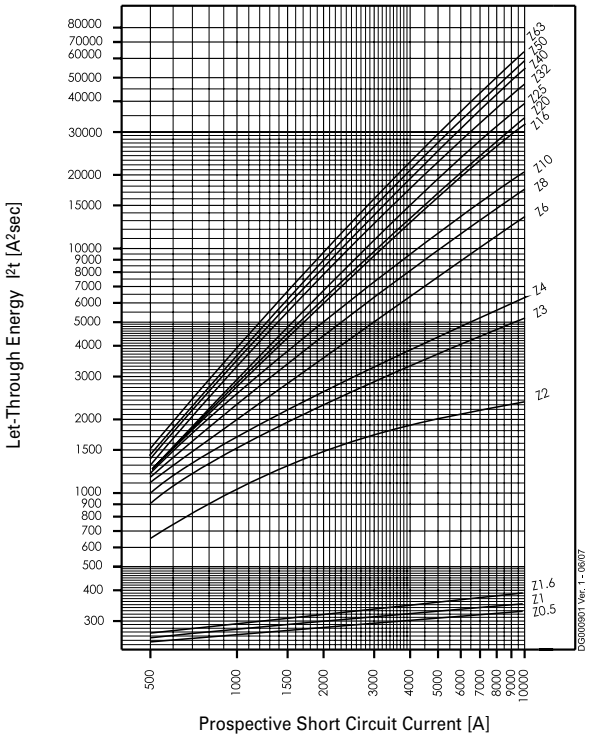


Maximum Let-Through Energy FAZ

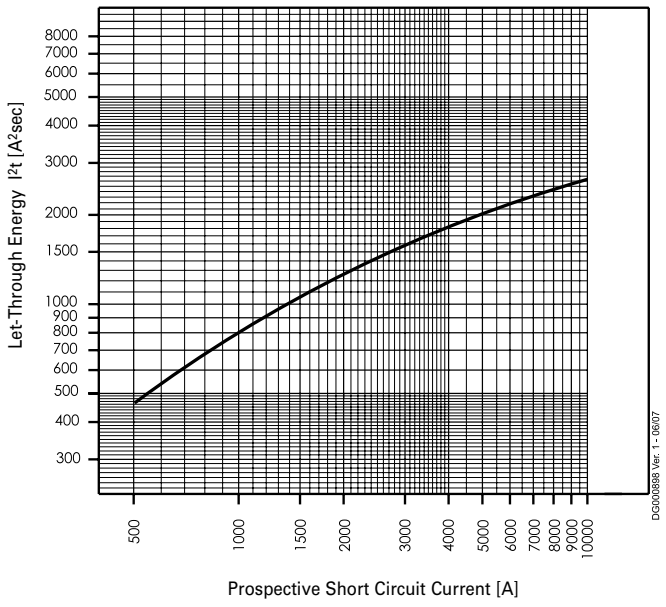
Type S



Type Z

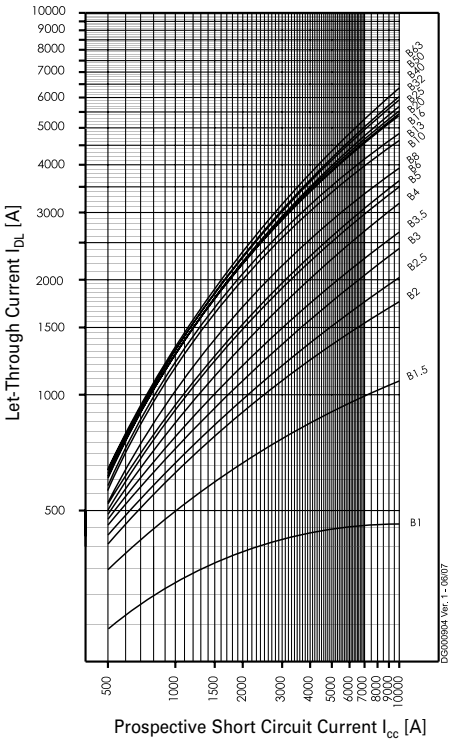


Type FAZ-...-HS

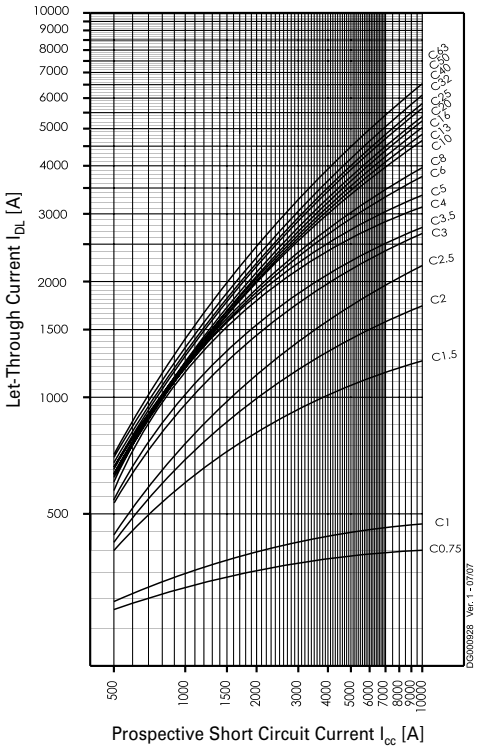


Maximum Let-Through Current FAZ

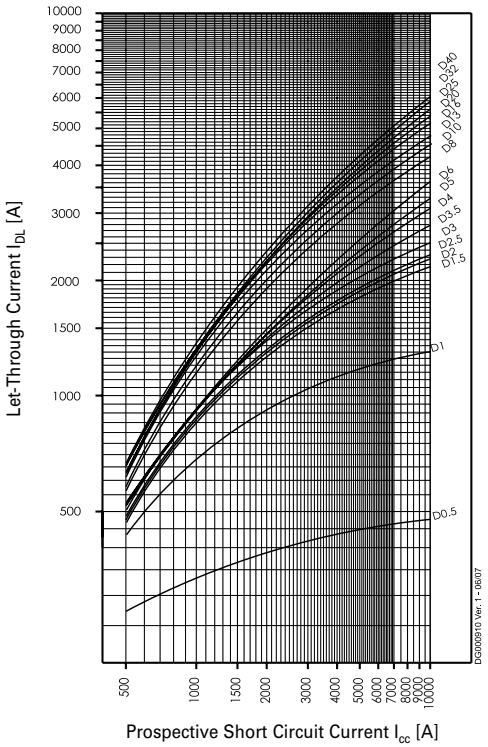
Type B (IEC/EN60898)



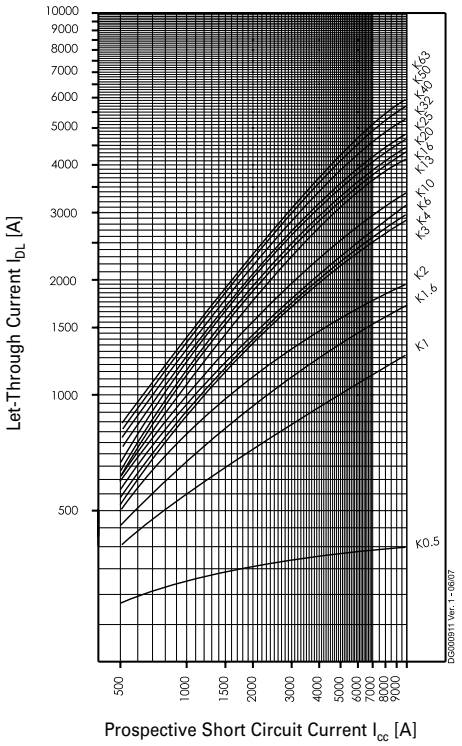
Type C (IEC/EN60898)



Type D (IEC/EN60898)

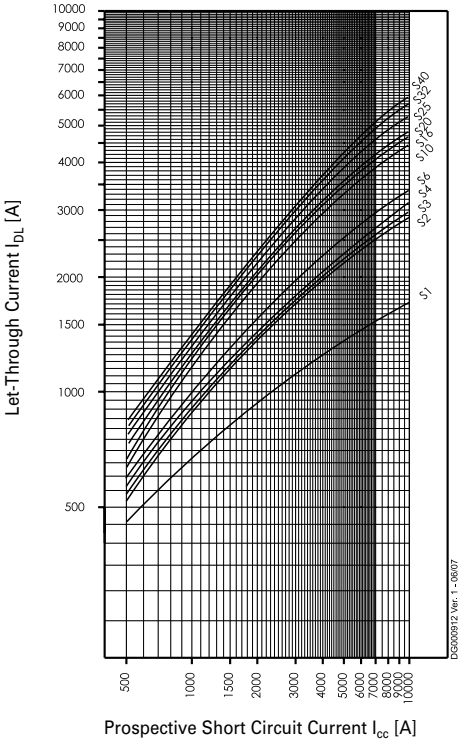


Type K

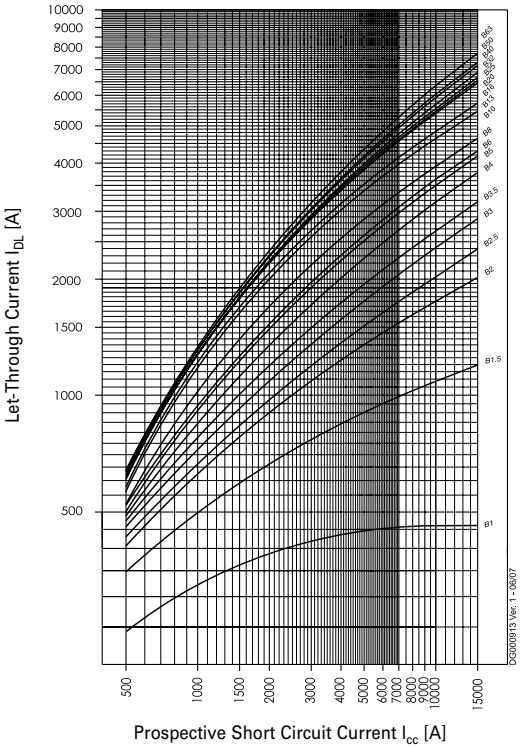


Maximum Let-Through Current FAZ

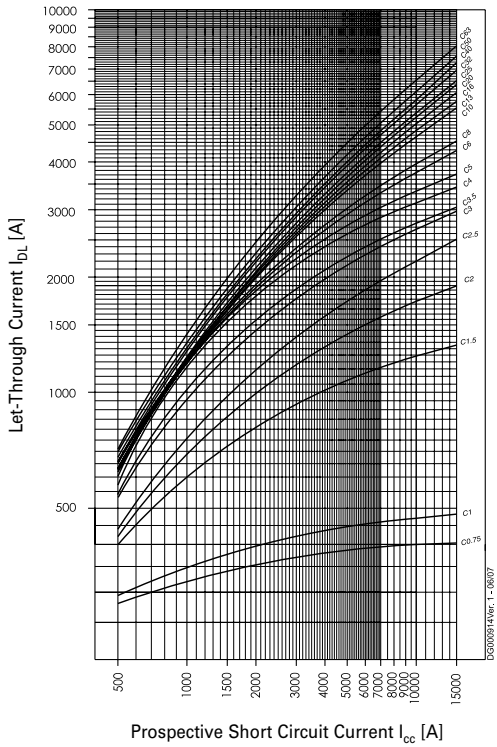
Type S



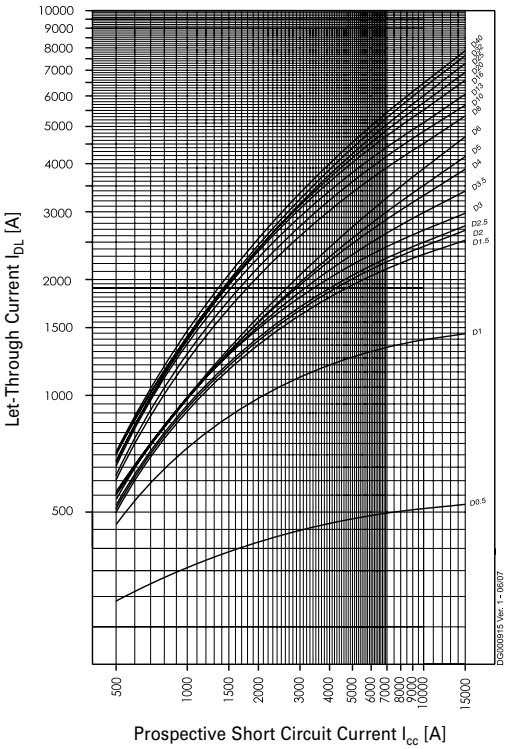
Type B (IEC/EN60947-2)



Type C (IEC/EN60947-2)



Type D (IEC/EN60947-2)



Short Circuit Selectivity FAZ

In case of short circuit, there is selectivity between the miniature circuit breakers FAZ and the upstream protection devices up to the specified values of the selectivity limit current I_s [kA] (i. e. in case of short-circuit currents I_{ks} under I_s, only the MCB will trip, in case of short circuit currents above this value both protective devices will respond).
*) basically in accordance with EN 60898-1 D.5.2.b

FAZ towards NH-00 Fuses

Short circuit selectivity **Characteristic B** towards fuse link **NH-00***)

FAZ	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
1.0	0.9	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
1.5	0.8	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
2.0	<0.5[1]	0.5	1.0	2.5	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
2.5	<0.5[1]	0.5	1.0	2.3	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
3.0	<0.5[1]	0.5	0.9	2.1	8.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
3.5	<0.5[1]	0.5	0.9	1.8	5.5	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	0.8	1.3	2.3	4.3	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
5	<0.5[1]	<0.5[1]	0.7	1.1	1.6	2.2	3.6	4.8	8.9	10.0[2]	10.0[2]	10.0[2]
6	<0.5[1]	<0.5[1]	0.7	1.1	1.5	2.0	3.3	4.3	7.6	10.0[2]	10.0[2]	10.0[2]
8	<0.5[1]	<0.5[1]	0.6	1.0	1.3	1.7	2.6	3.3	5.2	10.0[2]	10.0[2]	10.0[2]
10		<0.5[1]	0.6	0.9	1.2	1.5	2.2	2.7	4.0	9.0	10.0[2]	10.0[2]
13		<0.5[1]	0.6	0.8	1.1	1.4	2.1	2.6	3.8	7.9	10.0[2]	10.0[2]
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	6.4	9.3	10.0[2]
20				0.7	1.0	1.3	1.9	2.4	3.3	6.0	8.7	10.0[2]
25				0.7	1.0	1.3	1.8	2.3	3.2	5.7	8.0	10.0[2]
32					0.9	1.2	1.7	2.2	3.1	5.4	7.6	10.0[2]
40								2.1	3.0	5.1	7.2	10.0[2]
50								1.9	2.8	4.7	6.6	9.5
63										4.4	6.3	8.6

Short circuit selectivity **Characteristic C** towards fuse link **NH-00***)

FAZ	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
0.75	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
1.0	0.9	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
1.5	<0.5[1]	0.6	1.3	4.2	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
2.0	<0.5[1]	0.6	1.0	2.5	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
2.5	<0.5[1]	0.5	1.0	2.1	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
3.0	<0.5[1]	<0.5[1]	0.7	1.2	1.8	2.6	4.7	6.6	10.0[2]	10.0[2]	10.0[2]	10.0[2]
3.5	<0.5[1]	<0.5[1]	0.7	1.1	1.7	2.4	4.2	6.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	0.7	1.0	1.5	2.1	3.6	5.0	10.0	10.0[2]	10.0[2]	10.0[2]
5	<0.5[1]	<0.5[1]	0.6	0.8	1.2	1.7	2.8	3.8	8.7	10.0[2]	10.0[2]	10.0[2]
6	<0.5[1]	<0.5[1]	0.5	0.8	1.2	1.5	2.5	3.3	5.7	10.0[2]	10.0[2]	10.0[2]
8	<0.5[1]	<0.5[1]	0.5	0.8	1.1	1.5	2.3	2.9	4.9	10.0[2]	10.0[2]	10.0[2]
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	8.0	10.0[2]	10.0[2]
13					1.0	1.3	1.9	2.4	3.6	7.0	10.0[2]	10.0[2]
16					1.0	1.3	1.8	2.3	3.3	6.0	8.8	10.0[2]
20					1.0	1.2	1.7	2.2	3.2	5.5	7.7	10.0[2]
25							1.6	2.1	3.0	5.2	7.3	10.0[2]
32								2.1	2.9	5.0	7.0	10.0[2]
40									2.8	4.8	6.7	10.0
50										4.5	6.3	9.5
63											5.9	8.4

Short circuit selectivity **Characteristic D** towards fuse link **NH-00***)

FAZ	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
0.5	2.1	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
1.0	<0.5[1]	0,6	1.4	4.3	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
1.5	<0.5[1]	<0.5[1]	0.9	1.6	2.7	4.0	8.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
2.0	<0.5[1]	<0.5[1]	0.8	1.3	2.1	3.1	6.0	8.6	10.0[2]	10.0[2]	10.0[2]	10.0[2]
2.5	<0.5[1]	<0.5[1]	0.7	1.2	1.8	2.6	4.8	6.9	10.0[2]	10.0[2]	10.0[2]	10.0[2]
3.0	<0.5[1]	<0.5[1]	0.7	1.1	1.7	2.4	4.3	6.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]
3.5	<0.5[1]	<0.5[1]	0.7	1.1	1.7	2.4	4.2	5.6	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	0.7	1.0	1.6	2.2	3.8	5.2	10.0	10.0[2]	10.0[2]	10.0[2]
5		<0.5[1]	0.6	0.9	1.4	1.9	3.2	4.1	7.1	10.0[2]	10.0[2]	10.0[2]
6		<0.5[1]	0.5	0.8	1.2	1.6	2.6	3.3	5.5	10.0[2]	10.0[2]	10.0[2]
8			0.5	0.8	1.1	1.5	2.2	2.7	4.1	8.7	10.0[2]	10.0[2]
10			0.5	0.7	1.0	1.3	1.9	2.5	3.6	7.2	10.0[2]	10.0[2]
13					1.0	1.3	1.9	2.3	3.4	6.5	9.5	10.0[2]
16						1.1	1.6	2.0	3.0	5.5	8.0	10.0[2]
20							1.4	1.8	2.8	5.0	7.5	10.0[2]
25								1.8	2.7	4.8	7.0	10.0[2]
32									2.4	4.1	6.2	9.3
40										4.0	6.0	9.0

[1] Selectivity limiting current I_s under 0.5 kA
[2] Selectivity limiting current I_s = rated breaking capacity I_{cn} of the MCB
Shaded fields: no selectivity

FAZ towards D01-D03 Fuses

Short circuit selectivity **Characteristic B** towards fuse link **D01-D03***)

FAZ	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5[1)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.5	<0.5[1)]	4.1	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.0	<0.5[1)]	<0.5[1)]	0.6	1.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.5	<0.5[1)]	<0.5[1)]	0.6	1.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.0	<0.5[1)]	<0.5[1)]	0.5	1.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.5	<0.5[1)]	<0.5[1)]	0.5	0.9	7.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
4	<0.5[1)]	<0.5[1)]	0.5	0.9	2.5	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
5		<0.5[1)]	0.5	0.8	1.7	4.0	7.0	10.0[2)]	10.0[2)]
6		<0.5[1)]	0.5	0.8	1.6	3.6	6.0	10.0[2)]	10.0[2)]
8			0.5	0.8	1.4	2.8	4.3	8.2	10.0[2)]
10			0.5	0.7	1.3	2.4	3.4	6.0	10.0[2)]
13			<0.5[1)]	0.7	1.2	2.3	3.2	5.3	10.0[2)]
16				0.6	1.1	2.2	2.9	4.6	10.0
20					1.1	2.1	2.8	4.4	9.3
25					1.1	2.0	2.7	4.2	8.7
32						2.0	2.6	4.0	8.0
40							2.5	3.8	7.5
50							2.3	3.4	6.7
63									6.2

Short circuit selectivity **Characteristic C** towards fuse link **D01-D03***)

FAZ	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.75	<0.5[1)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.0	<0.5[1)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.5	<0.5[1)]	0.5	0.6	0.9	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.0	<0.5[1)]	<0.5[1)]	0.5	0.7	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.5	<0.5[1)]	<0.5[1)]	0.5	0.7	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.0	<0.5[1)]	<0.5[1)]	<0.5[1)]	0.6	1.9	5.2	10.0[2)]	10.0[2)]	10.0[2)]
3.5	<0.5[1)]	<0.5[1)]	<0.5[1)]	0.6	1.8	4.7	9.5	10.0[2)]	10.0[2)]
4	<0.5[1)]	<0.5[1)]	<0.5[1)]	0.6	1.6	4.0	7.6	10.0[2)]	10.0[2)]
5		<0.5[1)]	<0.5[1)]	0.5	1.3	3.1	5.7	10.0[2)]	10.0[2)]
6		<0.5[1)]	<0.5[1)]	<0.5[1)]	1.2	2.7	4.5	10.0[2)]	10.0[2)]
8		<0.5[1)]	<0.5[1)]	<0.5[1)]	1.2	2.5	4.0	8.6	10.0[2)]
10			<0.5[1)]	<0.5[1)]	1.2	2.3	3.1	5.4	10.0[2)]
13					1.1	2.2	3.0	4.9	10.0[2)]
16					1.1	2.1	2.8	4.4	9.5
20					1.0	2.0	2.6	4.0	8.3
25						1.9	2.5	3.8	7.8
32							2.5	3.7	7.3
40								3.5	7.0
50									6.5
63									

Short circuit selectivity **Characteristic D** towards fuse link **D01-D03***)

FAZ	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.5	<0.5[1)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.0	<0.5[1)]	<0.5[1)]	0.7	1.3	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.5	<0.5[1)]	<0.5[1)]	0.6	0.9	2.8	9.0	10.0[2)]	10.0[2)]	10.0[2)]
2.0	<0.5[1)]	<0.5[1)]	0.6	0.8	2.2	6.7	10.0[2)]	10.0[2)]	10.0[2)]
2.5	<0.5[1)]	<0.5[1)]	0.5	0.7	1.9	5.4	10.0[2)]	10.0[2)]	10.0[2)]
3.0	<0.5[1)]	<0.5[1)]	0.5	0.7	1.8	4.8	9.3	10.0[2)]	10.0[2)]
3.5	<0.5[1)]	<0.5[1)]	0.5	0.7	1.7	4.7	8.6	10.0[2)]	10.0[2)]
4		<0.5[1)]	0.5	0.7	1.7	4.6	7.7	10.0[2)]	10.0[2)]
5		<0.5[1)]	<0.5[1)]	0.6	1.5	3.5	5.8	10.0[2)]	10.0[2)]
6			<0.5[1)]	0.5	1.3	2.9	4.5	9.0	10.0[2)]
8			<0.5[1)]	0.5	1.2	2.4	3.5	6.0	10.0[2)]
10				0.5	1.1	2.2	3.0	5.0	10.0[2)]
13					1.1	2.1	2.9	4.6	10.0[2)]
16						1.9	2.6	3.9	9.0
20						1.7	2.3	3.5	8.0
25							2.2	3.4	7.5
32								2.9	6.0
40									5.7

[1)] Selectivity limiting current I_s under 0.5 kA

[2)] Selectivity limiting current I_s = rated breaking capacity I_{cn} of the MCB

Shaded fields: no selectivity

FAZ towards DII-DIV Fuses

Short circuit selectivity **Characteristic B** towards fuse link **DII-DIV***)

FAZ	DII-DIV gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5[1)]	1.2	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.5	<0.5[1)]	1.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.0	<0.5[1)]	<0.5[1)]	0.8	1.6	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.5	<0.5[1)]	<0.5[1)]	0.8	1.5	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.0	<0.5[1)]	<0.5[1)]	0.8	1.4	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.5	<0.5[1)]	<0.5[1)]	0.7	1.3	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
4	<0.5[1)]	<0.5[1)]	0.6	1.0	3.6	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
5	<0.5[1)]	<0.5[1)]	0.6	0.9	2.0	3.5	8.5	10.0[2)]	10.0[2)]
6		<0.5[1)]	0.6	0.9	1.8	3.2	7.4	10.0[2)]	10.0[2)]
8		<0.5[1)]	0.5	0.8	1.6	2.6	5.2	8.3	10.0[2)]
10			0.5	0.8	1.4	2.2	3.9	6.0	10.0[2)]
13			0.5	0.7	1.3	2.0	3.6	5.4	10.0[2)]
16				0.6	1.2	1.9	3.2	4.6	8.4
20					1.2	1.8	3.1	4.4	7.8
25					1.2	1.8	3.0	4.2	7.3
32						1.7	2.8	3.9	6.8
40							2.7	3.8	6.5
50							2.5	3.5	5.7
63									5.3

Short circuit selectivity **Characteristic C** towards fuse link **DII-DIV***)

FAZ	DII-DIV gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.75	1.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.0	<0.5[1)]	1.2	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.5	<0.5[1)]	<0.5[1)]	1.0	2.2	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.0	<0.5[1)]	<0.5[1)]	0.8	1.6	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
2.5	<0.5[1)]	<0.5[1)]	0.8	1.4	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.0	<0.5[1)]	<0.5[1)]	0.8	0.9	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
3.5	<0.5[1)]	<0.5[1)]	0.6	0.9	2.2	4.5	10.0[2)]	10.0[2)]	10.0[2)]
4	<0.5[1)]	<0.5[1)]	0.6	0.8	1.8	3.6	9.7	10.0[2)]	10.0[2)]
5	<0.5[1)]	<0.5[1)]	0.6	0.7	1.5	2.7	7.3	10.0[2)]	10.0[2)]
6		<0.5[1)]	0.5	0.6	1.4	2.4	5.5	10.0[2)]	10.0[2)]
8		<0.5[1)]	<0.5[1)]	0.6	1.3	2.2	4.7	8.7	10.0[2)]
10			<0.5[1)]	0.6	1.3	2.0	3.6	5.4	10.0[2)]
13					1.3	1.9	3.3	5.0	9.4
16					1.2	1.8	3.2	4.4	8.0
20					1.2	1.8	3.1	4.1	7.0
25						1.7	2.8	3.8	6.5
32							2.7	3.7	6.2
40								3.5	5.9
50									5.5
63									

Short circuit selectivity **Characteristic D** towards fuse link **DII-DIV***)

FAZ	DII-DIV gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.5	0.5	3.0	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.0	<0.5[1)]	<0.5[1)]	1.0	2.4	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]	10.0[2)]
1.5	<0.5[1)]	<0.5[1)]	0.7	1.2	3.5	7.7	10.0[2)]	10.0[2)]	10.0[2)]
2.0	<0.5[1)]	<0.5[1)]	0.6	1.0	2.8	5.8	10.02)	10.02)	10.02)
2.5	<0.5[1)]	<0.5[1)]	0.6	1.4	2.3	4.6	10.0[2)]	10.0[2)]	10.0[2)]
3.0	<0.5[1)]	<0.5[1)]	0.6	0.9	2.3	4.3	10.0[2)]	10.0[2)]	10.0[2)]
3.5	<0.5[1)]	<0.5[1)]	0.6	0.9	2.1	4.0	10.0[2)]	10.0[2)]	10.0[2)]
4		<0.5[1)]	0.6	0.9	2.0	3.8	9.5	10.0[2)]	10.0[2)]
5		<0.5[1)]	0.5	0.7	1.7	3.1	7.0	10.0[2)]	10.0[2)]
6			0.5	0.7	1.5	2.6	5.3	9.1	10.0[2)]
8			<0.5[1)]	0.7	1.4	2.2	3.9	6.0	10.0[2)]
10				0.7	1.2	1.9	3.4	5.0	9.5
13					1.2	1.8	3.2	4.6	8.6
16						1.6	2.7	4.0	7.4
20						1.5	2.5	3.5	6.7
25							2.4	3.4	6.2
32								2.8	5.0
40									4.8

[1)] Selectivity limiting current I_s under 0.5 kA
[2)] Selectivity limiting current I_s = rated breaking capacity I_{cn} of the MCB
Shaded fields: no selectivity

FAZ-B and NZM 1/2

Selectivity limiting current I_s [kA] for selectivity between FAZ-B and NZM (overload and short-circuit release unit NZM at max. value).

FAZ-B	NZM...1-A... I_{cu} = 25 (50) kA					
	40	50	63	80	100	125
1	15	15	15	15	15	15
2	2	15	15	15	15	15
3	1.2	2	3	3	10	15
4	1.2	2	3	3	8	15
6	1.2	2	2.5	3	5	10
10	1.2	1.5	2	2	4	10
13	1	1.5	2	2	4	10
16	1	1.2	1.5	2	3	8
20	0.8	1.2	1.5	1.5	3	8
25	0.7	1.2	1.5	1.5	3	7
32	-	1.2	1	1.5	2	6
40	-	-	1	1.5	2	5
50	-	-	-	1.2	1.5	4
63	-	-	-	-	1.5	3

FAZ-B	NZM...2-A... I_{cu} = 25 (50)(100)(150) kA								
	40	50	63	80	100	125	160	200	250
1	15	15	15	15	15	15	15	15	15
2	3	15	15	15	15	15	15	15	15
3	1.5	1.5	3	5	15	15	15	15	15
4	1.2	1.5	3	4	15	15	15	15	15
6	1.2	1.5	2.5	3	15	15	15	15	15
10	1	1.5	2.5	3	10	10	10	10	10
13	1	1.2	2	3	10	10	10	10	10
16	1	1.2	1.5	2.5	10	10	10	10	10
20	1	1.2	1.5	1.5	10	10	10	10	10
25	0.8	1	1.5	2	10	10	10	10	10
32	-	1	1.5	2	8	8	8	8	10
40	-	-	1.2	1.5	7	7	7	7	10
50	-	-	-	1.5	6	6	6	6	10
63	-	-	-	-	6	6	6	6	10

FAZ-C and NZM 1/2

Selectivity limiting current I_s [kA] for selectivity between FAZ-C and NZM (overload and short-circuit release unit NZM at max. value).

FAZ-C	NZM...1-A... I_{cu} = 25 (50) kA					
	40	50	63	80	100	125
0.5	15	15	15	15	15	15
1	15	15	15	15	15	15
2	2	15	15	15	15	15
3	1.2	2	3	3	10	15
4	1.2	2	3	3	8	15
6	1.2	2	2.5	3	5	10
10	1.2	1.5	2	2	4	10
13	1	1.5	2	2	4	10
16	1	1.2	1.5	2	3	8
20	0.8	1.2	1.5	1.5	3	8
25	0.7	1.2	1.5	1.5	3	7
32	-	1.2	1	1.5	2	6
40	-	-	1	1.5	2	5
50	-	-	-	1.2	1.5	4
63	-	-	-	-	1.5	3

FAZ-C	NZM...2-A... I_{cu} = 25 (50)(100)(150) kA								
	40	50	63	80	100	125	160	200	250
0.5	15	15	15	15	15	15	15	15	15
1	15	15	15	15	15	15	15	15	15
2	3	15	15	15	15	15	15	15	15
3	1.5	1.5	3	5	15	15	15	15	15
4	1.2	1.5	3	4	15	15	15	15	15
6	1.2	1.5	2.5	3	15	15	15	15	15
10	1	1.5	2.5	3	10	10	10	10	10
13	1	1.2	2	3	10	10	10	10	10
16	1	1.2	1.5	2.5	10	10	10	10	10
20	1	1.2	1.5	1.5	10	10	10	10	10
25	0.8	1	1.5	2	10	10	10	10	10
32	-	1	1.5	2	8	8	8	8	10
40	-	-	1.2	1.5	7	7	7	7	10
50	-	-	-	1.5	6	6	6	6	10
63	-	-	-	-	6	6	6	6	10

FAZ-D and NZM 1/2

Selectivity limiting current I_s [kA] for selectivity between FAZ-D and NZM (overload and short-circuit release unit NZM at max. value).

FAZ-D	NZM...1-A... I_{cu} = 25 (50) kA					
	40	50	63	80	100	125
0.5	9	15	15	15	15	15
1	0.5	0.7	1.1	1.9	4.2	15
1.5	0.3	0.6	0.8	1.1	1.6	2.6
2	0.3	0.5	0.75	0.95	1.4	2.4
2.5	0.3	0.5	0.75	0.95	1.3	2.3
3	0.3	0.5	0.7	0.9	1.3	2.1
3.5	0.3	0.5	0.7	0.9	1.3	2
4	0.3	0.5	0.7	0.9	1.3	1.9
5	0.3	0.5	0.7	0.9	1.3	1.9
6	0.3	0.5	0.6	0.9	1.3	1.8
8	0.3	0.3	0.6	0.75	1	1.3
10	0.3	0.3	0.6	0.75	0.95	1.2
13	0.3	0.3	0.5	0.7	0.9	1.1
16	-	0.3	0.5	0.65	0.8	1.1
20	-	-	0.5	0.65	0.8	1.1
25	-	-	0.5	0.65	0.8	1.1
32	-	-	-	-	0.8	1.1
40	-	-	-	-	-	1

FAZ-D	NZM...2-A... I_{cu} = 25 (50)(100)(150) kA								
	40	50	63	80	100	125	160	200	250
0.5	9	15	15	15	15	15	15	15	15
1	0.5	0.7	1.1	1.9	4.2	15	15	15	15
1.5	0.3	0.6	0.8	1.1	1.6	2.6	5	15	15
2	0.3	0.5	0.75	0.95	1.4	2.4	4.5	10	15
2.5	0.3	0.5	0.75	0.95	1.3	2.3	4.2	9	15
3	0.3	0.5	0.7	0.9	1.3	2.1	3.6	7	15
3.5	0.3	0.5	0.7	0.9	1.3	2	3.3	5.6	10
4	0.3	0.5	0.7	0.9	1.3	1.9	3	4.7	8
5	0.3	0.5	0.7	0.9	1.3	1.9	3	4.4	7
6	0.3	0.5	0.6	0.9	1.3	1.8	2.8	4	6
8	0.3	0.3	0.6	0.75	1	1.3	1.8	2.7	4
10	0.3	0.3	0.6	0.75	0.95	1.2	1.7	2.4	3.6
13	0.3	0.3	0.5	0.7	0.9	1.1	1.6	2.2	3.2
16	-	0.3	0.5	0.65	0.8	1.1	1.5	2.1	3
20	-	-	0.5	0.65	0.8	1.1	1.4	2.1	3
25	-	-	0.5	0.65	0.8	1.1	1.4	1.9	2.7
32	-	-	-	-	0.8	1.1	1.4	1.9	2.7
40	-	-	-	-	-	1	1.4	1.8	2.6

Back-up Protection FAZ

The up-stream protective devices will protect the down-stream FAZ up to the short-circuit current specified.

FAZ/C and AZ/C

FAZ/C	AZ/C								
I_n [A]	20	25	32	40	50	63	80	100	125
1	25	25	25	25	25	25	20	20	15 kA
2	25	25	25	25	25	25	20	20	15 kA
4	25	25	25	25	25	25	20	20	15 kA
6	25	25	25	25	25	25	20	20	15 kA
10	25	25	25	25	25	25	20	20	15 kA
13	25	25	25	25	25	25	20	20	15 kA
16	25	25	25	25	25	25	20	20	15 kA
20	1)	25	25	25	25	25	20	20	15 kA
25	1)	1)	25	25	25	25	20	20	15 kA
32	1)	1)	1)	25	25	25	20	20	-
40	1)	1)	1)	1)	25	25	20	20	-
50	1)	1)	1)	1)	1)	25	20	20	-
63	1)	1)	1)	1)	1)	1)	-	-	-

1) I_n (AZ) ≤ I_n (FAZ)

FAZ and CL-PKZ0

Back-up tests acc. to EN/IEC 60947-2, App. A: U = 1.05 U_e, (O - t - CO)

FAZ B, C	CL-PKZ0
I_n [A]	U_e = 230/400 V
0.16	65 kA
0.25	65 kA
0.5	65 kA
0.75	65 kA
1	65 kA
1.5	65 kA
2	65 kA
2.5	65 kA
3	65 kA
3.5	65 kA
4	65 kA
5	45 kA
6	45 kA
8	45 kA
10	45 kA
12	45 kA
13	45 kA
15	45 kA
16	45 kA
20	45 kA
25	45 kA
32	45 kA
40	45 kA
50	45 kA
63	45 kA

FAZ and NZM7

FAZ B, C	NZM7-40(...100)
I_n [A]	U_e = 230/400 V
0.16	25 kA
0.25	25 kA
0.5	25 kA
0.75	25 kA
1	25 kA
1.5	25 kA
2	25 kA
2.5	25 kA
3	25 kA
3.5	25 kA
4	25 kA
5	20 kA
6	20 kA
8	20 kA
10	20 kA
12	20 kA
13	20 kA
15	20 kA
16	20 kA
20	18 kA
25	18 kA
32	18 kA
40	18 kA
50	15 kA
63	15 kA

FAZ and NZMB1

U_e = 230/400 V: I_{cu} (FAZ) = 15 kA
U_e = 230/400 V: I_{cu} (NZMB1) = 25 kA
Back-up test acc. to EN/IEC 60947-2, app. A: U = 1.05U_e, (O - t - W)
(Settings NZMB1: I_r, I_{rm} at max. volumes)

FAZ B, C	NZMB1
I_n [A]	U_e = 230/400 V
0.16	25 kA
0.25	25 kA
0.5	25 kA
0.75	25 kA
1	25 kA
1.5	25 kA
2	25 kA
2.5	25 kA
3	25 kA
3.5	25 kA
4	25 kA
5	25 kA
6	25 kA
8	25 kA
10	25 kA
12	25 kA
13	25 kA
15	25 kA
16	25 kA
20	20 kA
25	20 kA
32	20 kA
40	20 kA
50	15 kA
63	15 kA

FAZ and NZMN1

U_e = 230/400 V: I_{cu} (FAZ) = 15 kA
U_e = 230/400 V: I_{cu} (NZMN1) = 25 kA
Back-up test acc. to EN/IEC 60947-2, app. A: U = 1.05U_e, (O - t - W)
(Settings NZM at max. volumes)

FAZ B, C	NZMN1
I_n [A]	U_e = 230/400 V
0.16	25 kA
0.25	25 kA
0.5	25 kA
0.75	25 kA
1	25 kA
1.5	25 kA
2	25 kA
2.5	25 kA
3	25 kA
3.5	25 kA
4	25 kA
5	25 kA
6	25 kA
8	25 kA
10	25 kA
12	25 kA
13	25 kA
15	25 kA
16	25 kA
20	20 kA
25	20 kA
32	20 kA
40	20 kA
50	15 kA
63	15 kA

FAZ and NZMB2

U_e = 230/400 V: I_{cu} (FAZ) = 15 kA
U_e = 230/400 V: I_{cu} (NZMB2) = 25 kA
U_e = 133/230 V: I_{cu} (FAZ) = 20 kA
U_e = 133/230 V: I_{cu} (NZMB2) = 30 kA
Back-up test acc. to EN/IEC 60947-2, app. A: U = 1.05U_e, (O - t - W)
(Settings NZM at max. volumes)

FAZ B, C	NZMB2	
I_n [A]	U_e = 230/400 V	U_e = 133/230 V
0.16	25 kA	30 kA
0.25	25 kA	30 kA
0.5	25 kA	30 kA
0.75	25 kA	30 kA
1	25 kA	30 kA
1.5	25 kA	30 kA
2	25 kA	30 kA
2.5	25 kA	30 kA
3	25 kA	30 kA
3.5	25 kA	30 kA
4	25 kA	30 kA
5	25 kA	25 kA
6	25 kA	25 kA
8	25 kA	25 kA
10	25 kA	25 kA
12	20 kA	25 kA
13	20 kA	25 kA
15	20 kA	25 kA
16	20 kA	25 kA
20	20 kA	25 kA
25	20 kA	25 kA
32	20 kA	25 kA
40	15 kA	20 kA
50	15 kA	20 kA
63	15 kA	20 kA

FAZ and NZMN2

U_e = 230/400 V: I_{cu} (FAZ) = 15 kA
U_e = 230/400 V: I_{cu} (NZMN2) = 50 kA
U_e = 133/230 V: I_{cu} (FAZ) = 20 kA
U_e = 133/230 V: I_{cu} (NZMN2) = 85 kA
Back-up test acc. to EN/IEC 60947-2, app. A: U = 1.05U_e, (O - t - W)
(Settings NZM at max. volumes)

FAZ B, C	NZMN2	
I_n [A]	U_e = 230/400 V	U_e = 133/230 V
0.16	50 kA	85 kA
0.25	50 kA	85 kA
0.5	50 kA	85 kA
0.75	50 kA	85 kA
1	50 kA	85 kA
1.5	50 kA	85 kA
2	50 kA	85 kA
2.5	50 kA	85 kA
3	50 kA	85 kA
3.5	50 kA	85 kA
4	50 kA	85 kA
5	50 kA	80 kA
6	50 kA	80 kA
8	50 kA	80 kA
10	50 kA	80 kA
12	30 kA	60 kA
13	30 kA	60 kA
15	30 kA	60 kA
16	30 kA	60 kA
20	30 kA	60 kA
25	30 kA	60 kA
32	30 kA	60 kA
40	20 kA	40 kA
50	20 kA	40 kA
63	20 kA	40 kA

FAZ and NZMH2

U_e = 230/400 V: I_{cu} (FAZ) = 15 kA
U_e = 230/400 V: I_{cu} (NZMH2) = 150 kA
U_e = 133/230 V: I_{cu} (FAZ) = 20 kA
U_e = 133/230 V: I_{cu} (NZMH2) = 150 kA
Back-up test acc. to EN/IEC 60947-2, app. A: U = 1.05U_e, (O - t - W)
(Settings NZM at max. volumes)

FAZ B, C	NZMH2	
I_n [A]	U_e = 230/400 V	U_e = 133/230 V
0.16	50 kA	85 kA
0.25	50 kA	85 kA
0.5	50 kA	85 kA
0.75	50 kA	85 kA
1	50 kA	85 kA
1.5	50 kA	85 kA
2	50 kA	85 kA
2.5	50 kA	85 kA
3	50 kA	85 kA
3.5	50 kA	85 kA
4	50 kA	85 kA
5	50 kA	80 kA
6	50 kA	80 kA
8	50 kA	80 kA
10	50 kA	80 kA
12	30 kA	60 kA
13	30 kA	60 kA
15	30 kA	60 kA
16	30 kA	60 kA
20	30 kA	60 kA
25	30 kA	60 kA
32	30 kA	60 kA
40	20 kA	40 kA
50	20 kA	40 kA
63	20 kA	40 kA

FAZ and NZML2

U_e = 230/400 V: I_{cu} (FAZ) = 15 kA
U_e = 230/400 V: I_{cu} (NZML2) = 150 kA
U_e = 133/230 V: I_{cu} (FAZ) = 20 kA
U_e = 133/230 V: I_{cu} (NZML2) = 150 kA
Back-up test acc. to EN/IEC 60947-2, app. A: U = 1.05U_e, (O - t - W)
(Settings NZM at max. volumes)

FAZ B, C	NZML2	
I_n [A]	U_e = 230/400 V	U_e = 133/230 V
0.16	50 kA	85 kA
0.25	50 kA	85 kA
0.5	50 kA	85 kA
0.75	50 kA	85 kA
1	50 kA	85 kA
1.5	50 kA	85 kA
2	50 kA	85 kA
2.5	50 kA	85 kA
3	50 kA	85 kA
3.5	50 kA	85 kA
4	50 kA	85 kA
5	50 kA	80 kA
6	50 kA	80 kA
8	50 kA	80 kA
10	50 kA	80 kA
12	30 kA	60 kA
13	30 kA	60 kA
15	30 kA	60 kA
16	30 kA	60 kA
20	30 kA	60 kA
25	30 kA	60 kA
32	30 kA	60 kA
40	20 kA	40 kA
50	20 kA	40 kA
63	20 kA	40 kA

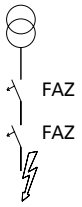
FAZ and NH

U_e = 230 V: I_{cu} (FAZ) = 15 (10) kA (acc. to IEC/EN 60947)
U_e = 500 V: I_{cu} (NH00 125 A gL / gG) = 120kA

FAZ B, C, D	**NH00 125 A gL/gG**
I_n [A]	IT-system U = 230 V
0.5	50 kA
1	50 kA
2	50 kA
3	50 kA
4	50 kA
6	50 kA
10	50 kA
13	50 kA
16	50 kA
20	50 kA
25	50 kA
32	50 kA
40	50 kA
50	50 kA
63	50 kA

Overload Selectivity FAZ

FAZ-B(C)(D) to FAZ-B



Upstream side FAZ, Characteristic B
Downstream side FAZ, Characteristic B, C, D

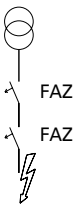
x ... Selectivity range (i.e. only the downstream switch drops in case I< I_s)

		Upstream side ——> FAZ Characteristic B												
Type B Rated current I_n [A]		2	3	4	6	10	13	16	20	25	32	40	50	63
Selectivity limiting current I_s [A]		7	10.5	14	21	35	45.5	56	70	87.5	112	140	175	220.5
<—— Downstream side FAZ Characteristic B	2		x	x	x	x	x	x	x	x	x	x	x	x
	3			x	x	x	x	x	x	x	x	x	x	x
	4				x	x	x	x	x	x	x	x	x	x
	6					x	x	x	x	x	x	x	x	x
	10						x	x	x	x	x	x	x	x
	13							x	x	x	x	x	x	x
	16								x	x	x	x	x	x
	20									x	x	x	x	x
	25										x	x	x	x
	32											x	x	x
	40												x	x
	50													x
	63													

		Upstream side ——> FAZ Characteristic B												
Type B Rated current I_n [A]		2	3	4	6	10	13	16	20	25	32	40	50	63
Selectivity limiting current I_s [A]		7	10.5	14	21	35	45.5	56	70	87.5	112	140	175	220.5
<—— Downstream side FAZ Characteristic C	0.5	x	x	x	x	x	x	x	x	x	x	x	x	x
	1	x	x	x	x	x	x	x	x	x	x	x	x	x
	2			x	x	x	x	x	x	x	x	x	x	x
	3				x	x	x	x	x	x	x	x	x	x
	4					x	x	x	x	x	x	x	x	x
	6						x	x	x	x	x	x	x	x
	8							x	x	x	x	x	x	x
	10								x	x	x	x	x	x
	13									x	x	x	x	x
	16										x	x	x	x
	20											x	x	x
	25												x	x
	32													x
	40													
	50													
	63													

		Upstream side ——> FAZ Characteristic B												
Type B Rated current I_n [A]		2	3	4	6	10	13	16	20	25	32	40	50	63
Selectivity limiting current I_s [A]		7	10.5	14	21	35	45.5	56	70	87.5	112	140	175	220.5
<—— Downstream side FAZ Characteristic D	2					x	x	x	x	x	x	x	x	x
	4							x	x	x	x	x	x	x
	6								x	x	x	x	x	x
	10										x	x	x	x
	13											x	x	x
	16												x	x
	20													x
	25													
	32													
	40													

FAZ-B(C)(D) to FAZ-C



Upstream side FAZ, Characteristic C
Downstream side FAZ, Characteristic B, C, D

x ... Selectivity range (i.e. only the downstream switch drops in case I< I_s)

Upstream side ——> FAZ Characteristic C

Type B Rated current I_n [A]	0.5	1	2	3	4	6	8	10	13	16	20	25	32	40	50	63
Selectivity limiting current I_s [A]	2.85	5.7	11.4	17.1	22.8	34.2	45.6	57	74.1	91.2	114	142.5	182.4	228	285	359.1
<—— Downstream side FAZ Characteristic B																
2				x	x	x	x	x	x	x	x	x	x	x	x	x
3					x	x	x	x	x	x	x	x	x	x	x	x
4						x	x	x	x	x	x	x	x	x	x	x
6							x	x	x	x	x	x	x	x	x	x
10									x	x	x	x	x	x	x	x
13										x	x	x	x	x	x	x
16											x	x	x	x	x	x
20												x	x	x	x	x
25													x	x	x	x
32														x	x	x
40															x	x
50																x
63																

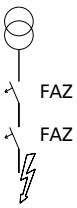
Upstream side ——> FAZ Characteristic C

Type B Rated current I_n [A]	0.5	1	2	3	4	6	8	10	13	16	20	25	32	40	50	63
Selectivity limiting current I_s [A]	2.85	5.7	11.4	17.1	22.8	34.2	45.6	57	74.1	91.2	114	142.5	182.4	228	285	359.1
<—— Downstream side FAZ Characteristic C																
0.5		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
1			x	x	x	x	x	x	x	x	x	x	x	x	x	x
2				x	x	x	x	x	x	x	x	x	x	x	x	x
3					x	x	x	x	x	x	x	x	x	x	x	x
4						x	x	x	x	x	x	x	x	x	x	x
6							x	x	x	x	x	x	x	x	x	x
8								x	x	x	x	x	x	x	x	x
10									x	x	x	x	x	x	x	x
13										x	x	x	x	x	x	x
16											x	x	x	x	x	x
20												x	x	x	x	x
25													x	x	x	x
32														x	x	x
40															x	x
50																x
63																

Upstream side ——> FAZ Characteristic C

Type B Rated current I_n [A]	0.5	1	2	3	4	6	8	10	13	16	20	25	32	40	50	63
Selectivity limiting current I_s [A]	2.85	5.7	11.4	17.1	22.8	34.2	45.6	57	74.1	91.2	114	142.5	182.4	228	285	359.1
<—— Downstream side FAZ Characteristic D																
2						x	x	x	x	x	x	x	x	x	x	x
4							x	x	x	x	x	x	x	x	x	x
6									x	x	x	x	x	x	x	x
10											x	x	x	x	x	x
13												x	x	x	x	x
16													x	x	x	x
20														x	x	x
25															x	x
32																
40																

FAZ-B(C)(D) to FAZ-D



Upstream side FAZ, Characteristic D
Downstream side FAZ, Characteristic B, C, D

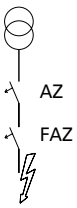
x ...Selectivity range (i.e. only the downstream switch drops in case I< I_s)

		Upstream side ——> FAZ Characteristic D									
Type B Rated current I_n [A]		2	4	6	10	13	16	20	25	32	40
Selectivity limiting current I_s [A]		21	42	63	105	136.5	168	210	262.5	336	420
<—— Downstream side FAZ Characteristic B	2		x	x	x	x	x	x	x	x	x
	3		x	x	x	x	x	x	x	x	x
	4			x	x	x	x	x	x	x	x
	6				x	x	x	x	x	x	x
	10					x	x	x	x	x	x
	13						x	x	x	x	x
	16							x	x	x	x
	20								x	x	x
	25									x	x
	32										x
	40										
	50										
	63										

		Upstream side ——> FAZ Characteristic D									
Type B Rated current I_n [A]		2	4	6	10	13	16	20	25	32	40
Selectivity limiting current I_s [A]		21	42	63	105	136.5	168	210	262.5	336	420
<—— Downstream side FAZ Characteristic C	0.5	x	x	x	x	x	x	x	x	x	x
	1	x	x	x	x	x	x	x	x	x	x
	2		x	x	x	x	x	x	x	x	x
	3		x	x	x	x	x	x	x	x	x
	4			x	x	x	x	x	x	x	x
	6				x	x	x	x	x	x	x
	8				x	x	x	x	x	x	x
	10					x	x	x	x	x	x
	13						x	x	x	x	x
	16							x	x	x	x
	20								x	x	x
	25									x	x
	32										x
	40										
	50										
	63										

		Upstream side ——> FAZ Characteristic D									
Type B Rated current I_n [A]		2	4	6	10	13	16	20	25	32	40
Selectivity limiting current I_s [A]		21	42	63	105	136.5	168	210	262.5	336	420
<—— Downstream side FAZ Characteristic D	2		x	x	x	x	x	x	x	x	x
	4			x	x	x	x	x	x	x	x
	6				x	x	x	x	x	x	x
	10					x	x	x	x	x	x
	13						x	x	x	x	x
	16							x	x	x	x
	20								x	x	x
	25									x	x
	32										x
	40										

FAZ-B(C)(D) to AZ-C



Upstream side AZ, Characteristic C
Downstream side FAZ, Characteristic B, C, D

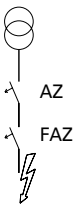
x ... Selectivity range (i.e. only the downstream switch drops in case I< I_s)

		Upstream side ——> AZ Characteristic C								
Type B Rated current I_n [A]		20	25	32	40	50	63	80	100	125
Selectivity limiting current I_s [A]		130	163	208	260	325	410	520	650	813
<—— Downstream side FAZ Characteristic B	2	x	x	x	x	x	x	x	x	x
	3	x	x	x	x	x	x	x	x	x
	4	x	x	x	x	x	x	x	x	x
	6	x	x	x	x	x	x	x	x	x
	10	x	x	x	x	x	x	x	x	x
	13	x	x	x	x	x	x	x	x	x
	16	x	x	x	x	x	x	x	x	x
	20		x	x	x	x	x	x	x	x
	25			x	x	x	x	x	x	x
	32				x	x	x	x	x	x
	40					x	x	x	x	x
	50						x	x	x	x
	63							x	x	x

		Upstream side ——> AZ Characteristic C								
Type B Rated current I_n [A]		20	25	32	40	50	63	80	100	125
Selectivity limiting current I_s [A]		130	163	208	260	325	410	520	650	813
<—— Downstream side FAZ Characteristic C	0.5	x	x	x	x	x	x	x	x	x
	1	x	x	x	x	x	x	x	x	x
	2	x	x	x	x	x	x	x	x	x
	3	x	x	x	x	x	x	x	x	x
	4	x	x	x	x	x	x	x	x	x
	6	x	x	x	x	x	x	x	x	x
	8	x	x	x	x	x	x	x	x	x
	10	x	x	x	x	x	x	x	x	x
	13	x	x	x	x	x	x	x	x	x
	16	x	x	x	x	x	x	x	x	x
	20		x	x	x	x	x	x	x	x
	25			x	x	x	x	x	x	x
	32				x	x	x	x	x	x
	40					x	x	x	x	x
	50						x	x	x	x
	63							x	x	x

		Upstream side ——> AZ Characteristic C								
Type B Rated current I_n [A]		20	25	32	40	50	63	80	100	125
Selectivity limiting current I_s [A]		130	163	208	260	325	410	520	650	813
<—— Downstream side FAZ Characteristic D	2	x	x	x	x	x	x	x	x	x
	4	x	x	x	x	x	x	x	x	x
	6	x	x	x	x	x	x	x	x	x
	10	x	x	x	x	x	x	x	x	x
	13		x	x	x	x	x	x	x	x
	16			x	x	x	x	x	x	x
	20				x	x	x	x	x	x
	25					x	x	x	x	x
	32						x	x	x	x
	40							x	x	x

FAZ-B(C)(D) to AZ-D



Upstream side AZ, Characteristic D
Downstream side FAZ, Characteristic B, C, D

x ... Selectivity range (i.e. only the downstream switch drops in case I< I_s)

		Upstream side ——> AZ Characteristic D							
Type B Rated current I_n [A]		20	25	32	40	50	63	80	100
Selectivity limiting current I_s [A]		230	285	365	450	550	680	850	1020
<—— **Downstream side FAZ Characteristic B**	2	x	x	x	x	x	x	x	x
	3	x	x	x	x	x	x	x	x
	4	x	x	x	x	x	x	x	x
	6	x	x	x	x	x	x	x	x
	10	x	x	x	x	x	x	x	x
	13	x	x	x	x	x	x	x	x
	16	x	x	x	x	x	x	x	x
	20		x	x	x	x	x	x	x
	25			x	x	x	x	x	x
	32				x	x	x	x	x
	40					x	x	x	x
	50						x	x	x
	63							x	x

		Upstream side ——> AZ Characteristic D							
Type B Rated current I_n [A]		20	25	32	40	50	63	80	100
Selectivity limiting current I_s [A]		230	285	365	450	550	680	850	1020
<—— **Downstream side FAZ Characteristic C**	0.5	x	x	x	x	x	x	x	x
	1	x	x	x	x	x	x	x	x
	2	x	x	x	x	x	x	x	x
	3	x	x	x	x	x	x	x	x
	4	x	x	x	x	x	x	x	x
	6	x	x	x	x	x	x	x	x
	8	x	x	x	x	x	x	x	x
	10	x	x	x	x	x	x	x	x
	13	x	x	x	x	x	x	x	x
	16	x	x	x	x	x	x	x	x
	20		x	x	x	x	x	x	x
	25			x	x	x	x	x	x
	32				x	x	x	x	x
	40					x	x	x	x
	50						x	x	x
	63							x	x

		Upstream side ——> AZ Characteristic D							
Type B Rated current I_n [A]		20	25	32	40	50	63	80	100
Selectivity limiting current I_s [A]		230	285	365	450	550	680	850	1020
<—— **Downstream side FAZ Characteristic D**	2	x	x	x	x	x	x	x	x
	4	x	x	x	x	x	x	x	x
	6	x	x	x	x	x	x	x	x
	10	x	x	x	x	x	x	x	x
	13	x	x	x	x	x	x	x	x
	16	x	x	x	x	x	x	x	x
	20		x	x	x	x	x	x	x
	25			x	x	x	x	x	x
	32				x	x	x	x	x
	40					x	x	x	x

Influence of the Line Frequency FAZ

On the Instantaneous Tripping Current I_{MA}

	Line Frequency f [Hz]						
	$16^2/_3$	**50**	**60**	**100**	**200**	**300**	**400**
$I_{MA}(f)/I_{MA}(50\ Hz)$ [%]	91	100	101	106	115	134	141