Modular Circuit Protection Devices

- Miniature Circuit Breakers
- RCCBs - without overcurrent protection
- RCBOs - with overcurrent protection
- Switch Disconnectors (Isolators)

Powering Business Worldwide

Powering business worldwide

Eaton delivers the power inside hundreds of products that are answering the demands of today's fast changing world.

We help our customers worldwide manage the power they need for buildings, aircraft, trucks, cars, machinery and entire businesses. And we do it in a way that consumes fewer resources.

Next generation transportation

Eaton is driving the development of new technologies – from hybrid drivetrains and emission control systems to advanced engine components – that reduce fuel consumption and emissions in trucks and cars.

Higher expectations

We continue to expand our aerospace solutions and services to meet the needs of new aviation platforms, including the high-flying light jet and very light jet markets.

Building on our strengths

Our hydraulics business combines localised service and support with an innovative portfolio of fluid power solutions to answer the needs of global infrastructure projects, including locks, canals and dams.

Powering Greener Buildings and Businesses

Eaton's Electrical Group is a leading provider of power quality, distribution and control solutions that increase energy efficiency and improve power quality, safety and reliability. Our solutions offer a growing portfolio of "green" products and services, such as energy audits and real-time energy consumption monitoring. Eaton's Uninterruptible Power Supplies (UPS), variable-speed drives and lighting controls help conserve energy and increase efficiency.

Protective Devices

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Protective Devices / Components

Powering electrical systems worldwide

When it comes to making more efficient use of the world's electrical power Eaton is at the cutting edge. Our industry-leading electrical power control systems help you reduce power consumption – and its attendant greenhouse gas emissions.

Eaton can help you manage your complete electrical power system, whether it is contained within a manufacturing facility, university campus, healthcare centre, data centre, geographically dispersed set of office buildings or retail stores, residential or any other entity where electricity must function with high quality and without interruption.

The result is an unparalleled integration of PowerChain® solutions that optimise energy usage, reduce energy consumption and enhance the comfort and sustainability of your facility.

Government
Commercial property
Petrochemicals
Data centres
Healthcare
Pharmaceuticals
Education
Water and waste water
Residential
Utilities
Manufacturing
Retail
Pulp and paper
Telecommunications

Residual Current Devices mRCM

- A complete spectrum of compact residual current devices for a wide range of applications
- For fault current/residual current protection and additional protection
- Wide variety of nominal currents
- Comprehensive range of accessories
- Real contact position indicator

Technical data on page 51

Protective Devices

Residual Current Devices mRCM

Conditionally surge current-proof 250 A, type AC

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
2-pole			
16/0.01	mRCM-16/2/001	158049	1/60
16/0.03	mRCM-16/2/003	142748	1/60
25/0.03	mRCM-25/2/003	142750	1/60
25/0.1	mRCM-25/2/01	142752	1/60
25/0.3	mRCM-25/2/03	142754	1/60
40/0.03	mRCM-40/2/003	142756	1/60
40/0.10	mRCM-40/2/01	142758	1/60
40/0.30	mRCM-40/2/03	142760	1/60
63/0.03	mRCM-63/2/003	142762	1/60
63/0.10	mRCM-63/2/01	142764	1/60
63/0.30	mRCM-63/2/03	142766	1/60
80/0.03	mRCM-80/2/003	142768	1/60
80/0.10	mRCM-80/2/01	142770	1/60
80/0.30	mRCM-80/2/03	142772	1/60
100/0.03	mRCM-100/2/003	142774	1/60
100/0.10	mRCM-100/2/01	142776	1/60
100/0.30	mRCM-100/2/03	142778	1/60
4-pole			
25/0.03	mRCM-25/4/003	142781	1/30
25/0.1	mRCM-25/4/01	142783	1/30
25/0.3	mRCM-25/4/03	142785	1/30
40/0.03	mRCM-40/4/003	142787	1/30
40/0.10	mRCM-40/4/01	142789	1/30
40/0.30	mRCM-40/4/03	142791	1/30
63/0.03	mRCM-63/4/003	142793	1/30
63/0.10	mRCM-63/4/01	142795	1/30
63/0.30	mRCM-63/4/03	142797	1/30
80/0.03	mRCM-80/4/003	142799	1/30
80/0.10	mRCM-80/4/01	142801	1/30
80/0.30	mRCM-80/4/03	142803	1/30
100/0.03	mRCM-100/4/003	142805	1/30
100/0.10	mRCM-100/4/01	142807	1/30
100/0.30	mRCM-100/4/03	142809	1/30

Residual Current Devices mRCM

Conditionally surge current-proof 250 A, sensitive to residual pulsating DC, type A

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
2-pole			
16/0.01	mRCM-16/2/001-A	158060	1/60
16/0.03	mRCM-16/2/003-A	142749	1/60
25/0.03	mRCM-25/2/003-A	142751	1/60
25/0.1	mRCM-25/2/01-A	142753	1/60
25/0.3	mRCM-25/2/03-A	142755	1/60
40/0.03	mRCM-40/2/003-A	142757	1/60
40/0.10	mRCM-40/2/01-A	142759	1/60
40/0.30	mRCM-40/2/03-A	142761	1/60
63/0.03	mRCM-63/2/003-A	142763	1/60
63/0.10	mRCM-63/2/01-A	142765	1/60
63/0.30	mRCM-63/2/03-A	142767	1/60
80/0.03	mRCM-80/2/003-A	142769	1/60
80/0.10	mRCM-80/2/01-A	142771	1/60
80/0.30	mRCM-80/2/03-A	142773	1/60
100/0.03	mRCM-100/2/003-A	142775	1/60
100/0.10	mRCM-100/2/01-A	142777	1/60
100/0.30	mRCM-100/2/03-A	142779	1/60

Protective Devices

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
4-pole			
16/0.03	mRCM-16/4/003-A	142780	1/30
25/0.03	mRCM-25/4/003-A	142782	1/30
25/0.1	mRCM-25/4/01-A	142784	1/30
25/0.3	mRCM-25/4/03-A	142786	1/30
40/0.03	mRCM-40/4/003-A	142788	1/30
40/0.10	mRCM-40/4/01-A	142790	1/30
40/0.30	mRCM-40/4/03-A	142792	1/30
63/0.03	mRCM-63/4/003-A	142794	1/30
63/0.10	mRCM-63/4/01-A	142796	1/30
63/0.30	mRCM-63/4/03-A	142798	1/30
80/0.03	mRCM-80/4/003-A	142800	1/30
80/0.10	mRCM-80/4/01-A	142802	1/30
80/0.30	mRCM-80/4/03-A	142804	1/30
100/0.03	mRCM-100/4/003-A	142806	1/30
100/0.10	mRCM-100/4/01-A	142808	1/30
100/0.30	mRCM-100/4/03-A	142810	1/30

Residual Current Devices mRCM

Surge current-proof 3 kA, type G (ÖVE E 8601)

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
2-pole			
25/0.03	mRCM-25/2/003-G	167024	1/60
4-pole			
40/0.03	mRCM-40/4/003-G	167025	1/30
63/0.03	mRCM-63/4/003-G	167026	1/30
80/0.03	mRCM-80/4/003-G	167027	1/30

Add-on Residual Current Protection Unit ASELM

- By combining this device with a top-quality miniature circuit breaker of type mMC a top-quality RCBO unit (combined RCD/MCB device) is formed.
- Draw-out connection bar locked in installation position
- For subsequent mounting onto 2-, 3-, 3+N- and 4-pole miniature circuit breakers mMC
- Rated current 40 and 63 A

Technical data on page 53

Add-on Residual Current Protection Unit ASELM

Conditionaly surge-current-proof, 250 A, sensitive to residual pulsating DC, type A

Max. nominal current of PLS./$I_{\Delta n}$ (A)	Part No.	Units per package
2-pole		
40/0.03	ASELM24030A	1/20
40/0.30	ASELM240300A	1/20
63/0.03	ASELM26330A	1/20
63/0.30	ASELM263300A	1/20
4-pole		
40/0.03	ASELM44030A	1/13
40/0.30	ASELM440300A	1/13
63/0.03	ASELM46330A	1/13
63/0.30	ASELM463300A	1/13

Combined RCD/MCB Devices mRBM, 1+N-pole

- High-quality residual current device / miniature circuit breaker combination, line voltage-independent
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Wide variety of rated tripping currents
- Rated currents up to 40 A
- Tripping characteristics B, C
- Rated breaking capacity 10 kA

Technical data on page 54

Combined RCD/MCB Devices mRBM

10 kA, 1+N-pole

Conditionally surge current-proof 250 A, type AC

$I_n/I_{\Delta n}$ (A)	Part No.	Article No.	Units per package
Characteristic B			
2/0.01	mRBM-2/1N/B/001	147230	1 / 60
4/0.01	mRBM-4/1N/B/001	147231	1 / 60
6/0.01	mRBM-6/1N/B/001	147232	1 / 60
10/0.01	mRBM-10/1N/B/001	147233	1 / 60
13/0.01	mRBM-13/1N/B/001	147234	1 / 60
16/0.01	mRBM-16/1N/B/001	147235	1 / 60
2/0.03	mRBM-2/1N/B/003	147236	1 / 60
4/0.03	mRBM-4/1N/B/003	147237	1 / 60
6/0.03	mRBM-6/1N/B/003	147238	1 / 60
10/0.03	mRBM-10/1N/B/003	147239	1 / 60
13/0.03	mRBM-13/1N/B/003	147240	1 / 60
16/0.03	mRBM-16/1N/B/003	147241	1 / 60
20/0.03	mRBM-20/1N/B/003	147242	1 / 60
25/0.03	mRBM-25/1N/B/003	147243	1 / 60
32/0.03	mRBM-32/1N/B/003	147244	1 / 60
40/0.03	mRBM-40/1N/B/003	147245	1 / 60
2/0.1	mRBM-2/1N/B/01	147246	1 / 60
4/0.1	mRBM-4/1N/B/01	147247	1 / 60
6/0.1	mRBM-6/1N/B/01	147248	1 / 60
10/0.1	mRBM-10/1N/B/01	147249	1 / 60
13/0.1	mRBM-13/1N/B/01	147250	1 / 60
16/0.1	mRBM-16/1N/B/01	147251	1 / 60
20/0.1	mRBM-20/1N/B/01	147252	1 / 60
25/0.1	mRBM-25/1N/B/01	147253	1 / 60
32/0.1	mRBM-32/1N/B/01	147254	1 / 60
40/0.1	mRBM-40/1N/B/01	147255	1 / 60
2/0.3	mRBM-2/1N/B/03	147256	1 / 60
4/0.3	mRBM-4/1N/B/03	147257	1 / 60
6/0.3	mRBM-6/1N/B/03	147258	1 / 60
10/0.3	mRBM-10/1N/B/03	147259	1 / 60
13/0.3	mRBM-13/1N/B/03	147260	1 / 60
16/0.3	mRBM-16/1N/B/03	147261	1 / 60
20/0.3	mRBM-20/1N/B/03	147262	1 / 60
25/0.3	mRBM-25/1N/B/03	147263	1 / 60
32/0.3	mRBM-32/1N/B/03	147264	1 / 60
40/0.3	mRBM-40/1N/B/03	147265	1 / 60

$I_n/I_{\Delta n}$ (A)	Part No.	Article No.	Units per package
Characteristic C			
2/0.01	mRBM-2/1N/C/001	147266	1 / 60
4/0.01	mRBM-4/1N/C/001	147267	1 / 60
6/0.01	mRBM-6/1N/C/001	147268	1 / 60
10/0.01	mRBM-10/1N/C/001	147269	1 / 60
13/0.01	mRBM-13/1N/C/001	147270	1 / 60
16/0.01	mRBM-16/1N/C/001	147271	1 / 60
2/0.03	mRBM-2/1N/C/003	147272	1 / 60
4/0.03	mRBM-4/1N/C/003	147273	1 / 60
6/0.03	mRBM-6/1N/C/003	147274	1 / 60
10/0.03	mRBM-10/1N/C/003	147275	1 / 60
13/0.03	mRBM-13/1N/C/003	147276	1 / 60
16/0.03	mRBM-16/1N/C/003	147277	1 / 60
20/0.03	mRBM-20/1N/C/003	147278	1 / 60
25/0.03	mRBM-25/1N/C/003	147279	1 / 60
32/0.03	mRBM-32/1N/C/003	147280	1 / 60
40/0.03	mRBM-40/1N/C/003	147281	1 / 60
2/0.1	mRBM-2/1N/C/01	147282	1 / 60
4/0.1	mRBM-4/1N/C/01	147283	1 / 60
6/0.1	mRBM-6/1N/C/01	147284	1 / 60
10/0.1	mRBM-10/1N/C/01	147285	1 / 60
13/0.1	mRBM-13/1N/C/01	147286	1 / 60
16/0.1	mRBM-16/1N/C/01	147287	1 / 60
20/0.1	mRBM-20/1N/C/01	147288	1 / 60
25/0.1	mRBM-25/1N/C/01	147289	1 / 60
32/0.1	mRBM-32/1N/C/01	147290	1 / 60
40/0.1	mRBM-40/1N/C/01	147291	1 / 60
2/0.3	mRBM-2/1N/C/03	147292	1 / 60
4/0.3	mRBM-4/1N/C/03	147293	1 / 60
6/0.3	mRBM-6/1N/C/03	147294	1 / 60
10/0.3	mRBM-10/1N/C/03	147295	1 / 60
13/0.3	mRBM-13/1N/C/03	147296	1 / 60
16/0.3	mRBM-16/1N/C/03	147297	1 / 60
20/0.3	mRBM-20/1N/C/03	147298	1 / 60
25/0.3	mRBM-25/1N/C/03	147299	1 / 60
32/0.3	mRBM-32/1N/C/03	147300	1 / 60
40/0.3	mRBM-40/1N/C/03	147301	1 / 60

Combined RCD/MCB Devices mRBM

10 kA, 1+N-pole

Conditionally surge current-proof 250 A, sensitive to residual pulsating DC, type A

$I_n/I_{\Delta n}$ (A)	Part No.	Article No.	Units per package
Characteristic B			
2/0.01	mRBM-2/1N/B/001-A	147302	1 / 60
4/0.01	mRBM-4/1N/B/001-A	147303	1 / 60
6/0.01	mRBM-6/1N/B/001-A	147304	1 / 60
10/0.01	mRBM-10/1N/B/001-A	147305	1 / 60
13/0.01	mRBM-13/1N/B/001-A	147306	1 / 60
16/0.01	mRBM-16/1N/B/001-A	147307	1 / 60
2/0.03	mRBM-2/1N/B/003-A	147308	1 / 60
4/0.03	mRBM-4/1N/B/003-A	147309	1 / 60
6/0.03	mRBM-6/1N/B/003-A	147310	1 / 60
10/0.03	mRBM-10/1N/B/003-A	147311	1 / 60
13/0.03	mRBM-13/1N/B/003-A	147312	1 / 60
16/0.03	mRBM-16/1N/B/003-A	147313	1 / 60
20/0.03	mRBM-20/1N/B/003-A	147314	1 / 60
25/0.03	mRBM-25/1N/B/003-A	147315	1 / 60
32/0.03	mRBM-32/1N/B/003-A	147316	1 / 60
40/0.03	mRBM-40/1N/B/003-A	147317	1 / 60
2/0.1	mRBM-2/1N/B/01-A	147318	1 / 60
4/0.1	mRBM-4/1N/B/01-A	147319	1 / 60
6/0.1	mRBM-6/1N/B/01-A	147320	1 / 60
10/0.1	mRBM-10/1N/B/01-A	147321	1 / 60
13/0.1	mRBM-13/1N/B/01-A	147322	1 / 60
16/0.1	mRBM-16/1N/B/01-A	147323	1 / 60
20/0.1	mRBM-20/1N/B/01-A	147324	1 / 60
25/0.1	mRBM-25/1N/B/01-A	147325	1 / 60
32/0.1	mRBM-32/1N/B/01-A	147326	1 / 60
40/0.1	mRBM-40/1N/B/01-A	147327	1 / 60
2/0.3	mRBM-2/1N/B/03-A	147328	1 / 60
4/0.3	mRBM-4/1N/B/03-A	147329	1 / 60
6/0.3	mRBM-6/1N/B/03-A	147330	1 / 60
10/0.3	mRBM-10/1N/B/03-A	147331	1 / 60
13/0.3	mRBM-13/1N/B/03-A	147332	1 / 60
16/0.3	mRBM-16/1N/B/03-A	147333	1 / 60
20/0.3	mRBM-20/1N/B/03-A	147334	1 / 60
25/0.3	mRBM-25/1N/B/03-A	147335	1 / 60
32/0.3	mRBM-32/1N/B/03-A	147336	1 / 60
40/0.3	mRBM-40/1N/B/03-A	147337	1 / 60

$I_n/I_{\Delta n}$ (A)	Part No.	Article No.	Units per package
Characteristic C			
2/0.01	mRBM-2/1N/C/001-A	147338	1 / 60
4/0.01	mRBM-4/1N/C/001-A	147339	1 / 60
6/0.01	mRBM-6/1N/C/001-A	147340	1 / 60
10/0.01	mRBM-10/1N/C/001-A	147341	1 / 60
13/0.01	mRBM-13/1N/C/001-A	147342	1 / 60
16/0.01	mRBM-16/1N/C/001-A	147343	1 / 60
2/0.03	mRBM-2/1N/C/003-A	147344	1 / 60
4/0.03	mRBM-4/1N/C/003-A	147345	1 / 60
6/0.03	mRBM-6/1N/C/003-A	147346	1 / 60
10/0.03	mRBM-10/1N/C/003-A	147347	1 / 60
13/0.03	mRBM-13/1N/C/003-A	147348	1 / 60
16/0.03	mRBM-16/1N/C/003-A	147349	1 / 60
20/0.03	mRBM-20/1N/C/003-A	147350	1 / 60
25/0.03	mRBM-25/1N/C/003-A	147351	1 / 60
32/0.03	mRBM-32/1N/C/003-A	147352	1 / 60
40/0.03	mRBM-40/1N/C/003-A	147353	1 / 60
2/0.1	mRBM-2/1N/C/01-A	147354	1 / 60
4/0.1	mRBM-4/1N/C/01-A	147355	1 / 60
6/0.1	mRBM-6/1N/C/01-A	147356	1 / 60
10/0.1	mRBM-10/1N/C/01-A	147357	1 / 60
13/0.1	mRBM-13/1N/C/01-A	147358	1 / 60
16/0.1	mRBM-16/1N/C/01-A	147359	1 / 60
20/0.1	mRBM-20/1N/C/01-A	147360	1 / 60
25/0.1	mRBM-25/1N/C/01-A	147361	1 / 60
32/0.1	mRBM-32/1N/C/01-A	147362	1 / 60
40/0.1	mRBM-40/1N/C/01-A	147363	1 / 60
2/0.3	mRBM-2/1N/C/03-A	147364	1 / 60
4/0.3	mRBM-4/1N/C/03-A	147365	1 / 60
6/0.3	mRBM-6/1N/C/03-A	147366	1 / 60
10/0.3	mRBM-10/1N/C/03-A	147367	1 / 60
13/0.3	mRBM-13/1N/C/03-A	147368	1 / 60
16/0.3	mRBM-16/1N/C/03-A	147369	1 / 60
20/0.3	mRBM-20/1N/C/03-A	147370	1 / 60
25/0.3	mRBM-25/1N/C/03-A	147371	1 / 60
32/0.3	mRBM-32/1N/C/03-A	147372	1 / 60
40/0.3	mRBM-40/1N/C/03-A	147373	1 / 60

Combined RCD/MCB Devices mRBM

10 kA, 1+N-pole

Surge current-proof 3 kA, type G (ÖVE E 8601)

$I_n/I_{\Delta n}$ (A)	Type Designation	Article No.	Units per package
Characteristic B			
13/0.03	mRBM-13/1N/B/003-G	147374	1 / 60
16/0.03	mRBM-16/1N/B/003-G	147375	1 / 60
20/0.03	mRBM-20/1N/B/003-G	147376	1 / 60
25/0.03	mRBM-25/1N/B/003-G	147377	1 / 60
32/0.03	mRBM-32/1N/B/003-G	147378	1 / 60
40/0.03	mRBM-40/1N/B/003-G	147379	1 / 60
Characteristic C			
13/0.03	mRBM-13/1N/C/003-G	147380	1 / 60
16/0.03	mRBM-16/1N/C/003-G	147381	1 / 60
20/0.03	mRBM-20/1N/C/003-G	147382	1 / 60
25/0.03	mRBM-25/1N/C/003-G	147383	1 / 60
32/0.03	mRBM-32/1N/C/003-G	147384	1 / 60
40/0.03	mRBM-40/1N/C/003-G	147385	1 / 60

Electronic Combined RCD/MCB Devices eRBM-ME, 1+N-pole, 1 Module Unit

- Innovative, high-quality residual current device / miniature circuit breaker combination, line voltage-dependent
- Design width of one module unit only
- Specific for applications in the BS-distribution systems, permanently connected neutral conductors
- Contact position indicator red - green
- Comprehensive range of accessories suitable for subsequent installation
- Guide fo secure terminal connection
- Wide variety of rated tripping currents
- Rated currents up to 45 A
- Tripping characteristics C
- Rated breaking capacity 10 kA

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Electronic Combined RCD/MCB Devices eRBM, 1 Module Unit

1+N-pole

Conditionally surge current-proof 250 A, type AC

$I_n/I_{\Delta n}$ (A)	Part No.	Article No.	Units per package
Characteristic C			
6/0.01	eRBM-6/1/C/001-ME	153230	1 / 30
8/0.01	eRBM-8/1/C/001-ME	153231	1 / 30
10/0.01	eRBM-10/1/C/001-ME	153232	1 / 30
13/0.01	eRBM-13/1/C/001-ME	153233	1 / 30
16/0.01	eRBM-16/1/C/001-ME	153234	1 / 30
20/0.01	eRBM-20/1/C/001-ME	153235	1 / 30
25/0.01	eRBM-25/1/C/001-ME	153236	1 / 30
32/0.01	eRBM-32/1/C/001-ME	153237	1 / 30
40/0.01	eRBM-40/1/C/001-ME	153238	1 / 30
45/0.01	eRBM-45/1/C/001-ME	153239	1 / 30
6/0.03	eRBM-6/1/C/003-ME	153240	1 / 30
8/0.03	eRBM-8/1/C/003-ME	153241	1 / 30
10/0.03	eRBM-10/1/C/003-ME	153242	1 / 30
13/0.03	eRBM-13/1/C/003-ME	153243	1 / 30
16/0.03	eRBM-16/1/C/003-ME	153244	1 / 30
20/0.03	eRBM-20/1/C/003-ME	153245	1 / 30
25/0.03	eRBM-25/1/C/003-ME	153246	1 / 30
32/0.03	eRBM-32/1/C/003-ME	153247	1 / 30
40/0.03	eRBM-40/1/C/003-ME	153248	1 / 30
45/0.03	eRBM-45/1/C/003-ME	153249	1 / 30
6/0.1	eRBM-6/1/C/01-ME	153250	1 / 30
8/0.1	eRBM-8/1/C/01-ME	153251	1 / 30
10/0.1	eRBM-10/1/C/01-ME	153252	1 / 30
13/0.1	eRBM-13/1/C/01-ME	153253	1 / 30
16/0.1	eRBM-16/1/C/01-ME	153254	1 / 30
20/0.1	eRBM-20/1/C/01-ME	153255	1 / 30
25/0.1	eRBM-25/1/C/01-ME	153256	1 / 30
32/0.1	eRBM-32/1/C/01-ME	153257	1 / 30
40/0.1	eRBM-40/1/C/01-ME	153258	1 / 30
45/0.1	eRBM-45/1/C/01-ME	153259	1 / 30
6/0.3	eRBM-6/1/C/03-ME	153260	1 / 30
8/0.3	eRBM-8/1/C/03-ME	153261	1 / 30
10/0.3	eRBM-10/1/C/03-ME	153262	1 / 30
13/0.3	eRBM-13/1/C/03-ME	153263	1 / 30
16/0.3	eRBM-16/1/C/03-ME	153264	1 / 30
20/0.3	eRBM-20/1/C/03-ME	153265	1 / 30
25/0.3	eRBM-25/1/C/03-ME	153266	1 / 30
32/0.3	eRBM-32/1/C/03-ME	153267	1 / 30
40/0.3	eRBM-40/1/C/03-ME	153268	1 / 30
45/0.3	eRBM-45/1/C/03-ME	153269	1 / 30

Miniature Circuit Breakers mMC

- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 63 A
- Tripping characteristics B, C, D
- Rated breaking capacity according to IEC/EN 60898-1
  mMCM: 10 kA
  mMC6: 6 kA
  mMC4: 4.5 kA

Technical data on page 59

Miniature Circuit Breakers mMCM

10 kA, Characteristic B

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMCM-B1/1	138858	12/120
2	mMCM-B2/1	138859	12/120
3	mMCM-B3/1	138860	12/120
4	mMCM-B4/1	138861	12/120
6	mMCM-B6/1	138862	12/120
10	mMCM-B10/1	138863	12/120
13	mMCM-B13/1	138864	12/120
16	mMCM-B16/1	138865	12/120
20	mMCM-B20/1	138866	12/120
25	mMCM-B25/1	138867	12/120
32	mMCM-B32/1	138868	12/120
40	mMCM-B40/1	138869	12/120
50	mMCM-B50/1	138870	12/120
63	mMCM-B63/1	138871	12/120
1+N-pole, 2 Module Units (MU)			
1	mMCM-B1/1N	139338	1/60
2	mMCM-B2/1N	139339	1/60
3	mMCM-B3/1N	139340	1/60
4	mMCM-B4/1N	139341	1/60
6	mMCM-B6/1N	139342	1/60
10	mMCM-B10/1N	139343	1/60
13	mMCM-B13/1N	139344	1/60
16	mMCM-B16/1N	139345	1/60
20	mMCM-B20/1N	139346	1/60
25	mMCM-B25/1N	139347	1/60
32	mMCM-B32/1N	139348	1/60
40	mMCM-B40/1N	139349	1/60
50	mMCM-B50/1N	139350	1/60
63	mMCM-B63/1N	139351	1/60
2-pole			
1	mMCM-B1/2	138978	1/60
2	mMCM-B2/2	138979	1/60
3	mMCM-B3/2	138980	1/60
4	mMCM-B4/2	138981	1/60
6	mMCM-B6/2	138982	1/60
10	mMCM-B10/2	138983	1/60
13	mMCM-B13/2	138984	1/60
16	mMCM-B16/2	138985	1/60
20	mMCM-B20/2	138986	1/60
25	mMCM-B25/2	138987	1/60
32	mMCM-B32/2	138988	1/60
40	mMCM-B40/2	138989	1/60
50	mMCM-B50/2	138990	1/60
63	mMCM-B63/2	138991	1/60
3-pole			
1	mMCM-B1/3	139098	1/40
2	mMCM-B2/3	139099	1/40
3	mMCM-B3/3	139100	1/40
4	mMCM-B4/3	139101	1/40
6	mMCM-B6/3	139102	1/40
10	mMCM-B10/3	139103	1/40
13	mMCM-B13/3	139104	1/40
16	mMCM-B16/3	139105	1/40
20	mMCM-B20/3	139106	1/40
25	mMCM-B25/3	139107	1/40
32	mMCM-B32/3	139108	1/40
40	mMCM-B40/3	139109	1/40
50	mMCM-B50/3	139110	1/40
63	mMCM-B63/3	139111	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMCM-B1/3N	139458	1/30
2	mMCM-B2/3N	139459	1/30
3	mMCM-B3/3N	139460	1/30
4	mMCM-B4/3N	139461	1/30
6	mMCM-B6/3N	139462	1/30
10	mMCM-B10/3N	139463	1/30
13	mMCM-B13/3N	139464	1/30
16	mMCM-B16/3N	139465	1/30
20	mMCM-B20/3N	139466	1/30
25	mMCM-B25/3N	139467	1/30
32	mMCM-B32/3N	139468	1/30
40	mMCM-B40/3N	139469	1/30
50	mMCM-B50/3N	139470	1/30
63	mMCM-B63/3N	139471	1/30
4-pole			
1	mMCM-B1/4	139218	1/30
2	mMCM-B2/4	139219	1/30
3	mMCM-B3/4	139220	1/30
4	mMCM-B4/4	139221	1/30
6	mMCM-B6/4	139222	1/30
10	mMCM-B10/4	139223	1/30
13	mMCM-B13/4	139224	1/30
16	mMCM-B16/4	139225	1/30
20	mMCM-B20/4	139226	1/30
25	mMCM-B25/4	139227	1/30
32	mMCM-B32/4	139228	1/30
40	mMCM-B40/4	139229	1/30
50	mMCM-B50/4	139230	1/30
63	mMCM-B63/4	139231	1/30

Miniature Circuit Breakers mMCM

10 kA, Characteristic C

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMCM-C1/1	138872	12/120
2	mMCM-C2/1	138873	12/120
3	mMCM-C3/1	138874	12/120
4	mMCM-C4/1	138875	12/120
6	mMCM-C6/1	138876	12/120
10	mMCM-C10/1	138877	12/120
13	mMCM-C13/1	138878	12/120
16	mMCM-C16/1	138879	12/120
20	mMCM-C20/1	138880	12/120
25	mMCM-C25/1	138881	12/120
32	mMCM-C32/1	138882	12/120
40	mMCM-C40/1	138883	12/120
50	mMCM-C50/1	138884	12/120
63	mMCM-C63/1	138885	12/120
1+N-pole, 2 Module Units (MU)			
1	mMCM-C1/1N	139352	1/60
2	mMCM-C2/1N	139353	1/60
3	mMCM-C3/1N	139354	1/60
4	mMCM-C4/1N	139355	1/60
6	mMCM-C6/1N	139356	1/60
10	mMCM-C10/1N	139357	1/60
13	mMCM-C13/1N	139358	1/60
16	mMCM-C16/1N	139359	1/60
20	mMCM-C20/1N	139360	1/60
25	mMCM-C25/1N	139361	1/60
32	mMCM-C32/1N	139362	1/60
40	mMCM-C40/1N	139363	1/60
50	mMCM-C50/1N	139364	1/60
63	mMCM-C63/1N	139365	1/60
2-pole			
1	mMCM-C1/2	138992	1/60
2	mMCM-C2/2	138993	1/60
3	mMCM-C3/2	138994	1/60
4	mMCM-C4/2	138995	1/60
6	mMCM-C6/2	138996	1/60
10	mMCM-C10/2	138997	1/60
13	mMCM-C13/2	138998	1/60
16	mMCM-C16/2	138999	1/60
20	mMCM-C20/2	139000	1/60
25	mMCM-C25/2	139001	1/60
32	mMCM-C32/2	139002	1/60
40	mMCM-C40/2	139003	1/60
50	mMCM-C50/2	139004	1/60
63	mMCM-C63/2	139005	1/60
3-pole			
1	mMCM-C1/3	139112	1/40
2	mMCM-C2/3	139113	1/40
3	mMCM-C3/3	139114	1/40
4	mMCM-C4/3	139115	1/40
6	mMCM-C6/3	139116	1/40
10	mMCM-C10/3	139117	1/40
13	mMCM-C13/3	139118	1/40
16	mMCM-C16/3	139119	1/40
20	mMCM-C20/3	139120	1/40
25	mMCM-C25/3	139121	1/40
32	mMCM-C32/3	139122	1/40
40	mMCM-C40/3	139123	1/40
50	mMCM-C50/3	139124	1/40
63	mMCM-C63/3	139125	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMCM-C1/3N	139472	1/30
2	mMCM-C2/3N	139473	1/30
3	mMCM-C3/3N	139474	1/30
4	mMCM-C4/3N	139475	1/30
6	mMCM-C6/3N	139476	1/30
10	mMCM-C10/3N	139477	1/30
13	mMCM-C13/3N	139478	1/30
16	mMCM-C16/3N	139479	1/30
20	mMCM-C20/3N	139480	1/30
25	mMCM-C25/3N	139481	1/30
32	mMCM-C32/3N	139482	1/30
40	mMCM-C40/3N	139483	1/30
50	mMCM-C50/3N	139484	1/30
63	mMCM-C63/3N	139485	1/30
4-pole			
1	mMCM-C1/4	139232	1/30
2	mMCM-C2/4	139233	1/30
3	mMCM-C3/4	139234	1/30
4	mMCM-C4/4	139235	1/30
6	mMCM-C6/4	139236	1/30
10	mMCM-C10/4	139237	1/30
13	mMCM-C13/4	139238	1/30
16	mMCM-C16/4	139239	1/30
20	mMCM-C20/4	139240	1/30
25	mMCM-C25/4	139241	1/30
32	mMCM-C32/4	139242	1/30
40	mMCM-C40/4	139243	1/30
50	mMCM-C50/4	139244	1/30
63	mMCM-C63/4	139245	1/30

Miniature Circuit Breakers mMCM

10 kA, Characteristic D

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMCM-D1/1	138886	12/120
2	mMCM-D2/1	138887	12/120
3	mMCM-D3/1	138888	12/120
4	mMCM-D4/1	138889	12/120
6	mMCM-D6/1	138890	12/120
10	mMCM-D10/1	138891	12/120
13	mMCM-D13/1	138892	12/120
16	mMCM-D16/1	138893	12/120
20	mMCM-D20/1	138894	12/120
25	mMCM-D25/1	138895	12/120
32	mMCM-D32/1	138896	12/120
40	mMCM-D40/1	138897	12/120
1+N-pole, 2 Module Units (MU)			
1	mMCM-D1/1N	139366	1/60
2	mMCM-D2/1N	139367	1/60
3	mMCM-D3/1N	139368	1/60
4	mMCM-D4/1N	139369	1/60
6	mMCM-D6/1N	139370	1/60
10	mMCM-D10/1N	139371	1/60
13	mMCM-D13/1N	139372	1/60
16	mMCM-D16/1N	139373	1/60
20	mMCM-D20/1N	139374	1/60
25	mMCM-D25/1N	139375	1/60
32	mMCM-D32/1N	139376	1/60
40	mMCM-D40/1N	139377	1/60
2-pole			
1	mMCM-D1/2	139006	1/60
2	mMCM-D2/2	139007	1/60
3	mMCM-D3/2	139008	1/60
4	mMCM-D4/2	139009	1/60
6	mMCM-D6/2	139010	1/60
10	mMCM-D10/2	139011	1/60
13	mMCM-D13/2	139012	1/60
16	mMCM-D16/2	139013	1/60
20	mMCM-D20/2	139014	1/60
25	mMCM-D25/2	139015	1/60
32	mMCM-D32/2	139016	1/60
40	mMCM-D40/2	139017	1/60
3-pole			
1	mMCM-D1/3	139126	1/40
2	mMCM-D2/3	139127	1/40
3	mMCM-D3/3	139128	1/40
4	mMCM-D4/3	139129	1/40
6	mMCM-D6/3	139130	1/40
10	mMCM-D10/3	139131	1/40
13	mMCM-D13/3	139132	1/40
16	mMCM-D16/3	139133	1/40
20	mMCM-D20/3	139134	1/40
25	mMCM-D25/3	139135	1/40
32	mMCM-D32/3	139136	1/40
40	mMCM-D40/3	139137	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMCM-D1/3N	139486	1/30
2	mMCM-D2/3N	139487	1/30
3	mMCM-D3/3N	139488	1/30
4	mMCM-D4/3N	139489	1/30
6	mMCM-D6/3N	139490	1/30
10	mMCM-D10/3N	139491	1/30
13	mMCM-D13/3N	139492	1/30
16	mMCM-D16/3N	139493	1/30
20	mMCM-D20/3N	139494	1/30
25	mMCM-D25/3N	139495	1/30
32	mMCM-D32/3N	139496	1/30
40	mMCM-D40/3N	139497	1/30
4-pole			
1	mMCM-D1/4	139246	1/30
2	mMCM-D2/4	139247	1/30
3	mMCM-D3/4	139248	1/30
4	mMCM-D4/4	139249	1/30
6	mMCM-D6/4	139250	1/30
10	mMCM-D10/4	139251	1/30
13	mMCM-D13/4	139252	1/30
16	mMCM-D16/4	139253	1/30
20	mMCM-D20/4	139254	1/30
25	mMCM-D25/4	139255	1/30
32	mMCM-D32/4	139256	1/30
40	mMCM-D40/4	139257	1/30

Miniature Circuit Breakers mMC6

6 kA, Characteristic B

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMC6-B1/1	138818	12/120
2	mMC6-B2/1	138819	12/120
3	mMC6-B3/1	138820	12/120
4	mMC6-B4/1	138821	12/120
6	mMC6-B6/1	138822	12/120
10	mMC6-B10/1	138823	12/120
13	mMC6-B13/1	138824	12/120
16	mMC6-B16/1	138825	12/120
20	mMC6-B20/1	138826	12/120
25	mMC6-B25/1	138827	12/120
32	mMC6-B32/1	138828	12/120
40	mMC6-B40/1	138829	12/120
50	mMC6-B50/1	138830	12/120
63	mMC6-B63/1	138831	12/120
1+N-pole, 2 Module Units (MU)			
1	mMC6-B1/1N	139298	1/60
2	mMC6-B2/1N	139299	1/60
3	mMC6-B3/1N	139300	1/60
4	mMC6-B4/1N	139301	1/60
6	mMC6-B6/1N	139302	1/60
10	mMC6-B10/1N	139303	1/60
13	mMC6-B13/1N	139304	1/60
16	mMC6-B16/1N	139305	1/60
20	mMC6-B20/1N	139306	1/60
25	mMC6-B25/1N	139307	1/60
32	mMC6-B32/1N	139308	1/60
40	mMC6-B40/1N	139309	1/60
50	mMC6-B50/1N	139310	1/60
63	mMC6-B63/1N	139311	1/60
2-pole			
1	mMC6-B1/2	138938	1/60
2	mMC6-B2/2	138939	1/60
3	mMC6-B3/2	138940	1/60
4	mMC6-B4/2	138941	1/60
6	mMC6-B6/2	138942	1/60
10	mMC6-B10/2	138943	1/60
13	mMC6-B13/2	138944	1/60
16	mMC6-B16/2	138945	1/60
20	mMC6-B20/2	138946	1/60
25	mMC6-B25/2	138947	1/60
32	mMC6-B32/2	138948	1/60
40	mMC6-B40/2	138949	1/60
50	mMC6-B50/2	138950	1/60
63	mMC6-B63/2	138951	1/60
3-pole			
1	mMC6-B1/3	139058	1/40
2	mMC6-B2/3	139059	1/40
3	mMC6-B3/3	139060	1/40
4	mMC6-B4/3	139061	1/40
6	mMC6-B6/3	139062	1/40
10	mMC6-B10/3	139063	1/40
13	mMC6-B13/3	139064	1/40
16	mMC6-B16/3	139065	1/40
20	mMC6-B20/3	139066	1/40
25	mMC6-B25/3	139067	1/40
32	mMC6-B32/3	139068	1/40
40	mMC6-B40/3	139069	1/40
50	mMC6-B50/3	139070	1/40
63	mMC6-B63/3	139071	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMC6-B1/3N	139418	1/30
2	mMC6-B2/3N	139419	1/30
3	mMC6-B3/3N	139420	1/30
4	mMC6-B4/3N	139421	1/30
6	mMC6-B6/3N	139422	1/30
10	mMC6-B10/3N	139423	1/30
13	mMC6-B13/3N	139424	1/30
16	mMC6-B16/3N	139425	1/30
20	mMC6-B20/3N	139426	1/30
25	mMC6-B25/3N	139427	1/30
32	mMC6-B32/3N	139428	1/30
40	mMC6-B40/3N	139429	1/30
50	mMC6-B50/3N	139430	1/30
63	mMC6-B63/3N	139431	1/30
4-pole			
1	mMC6-B1/4	139178	1/30
2	mMC6-B2/4	139179	1/30
3	mMC6-B3/4	139180	1/30
4	mMC6-B4/4	139181	1/30
6	mMC6-B6/4	139182	1/30
10	mMC6-B10/4	139183	1/30
13	mMC6-B13/4	139184	1/30
16	mMC6-B16/4	139185	1/30
20	mMC6-B20/4	139186	1/30
25	mMC6-B25/4	139187	1/30
32	mMC6-B32/4	139188	1/30
40	mMC6-B40/4	139189	1/30
50	mMC6-B50/4	139190	1/30
63	mMC6-B63/4	139191	1/30

Miniature Circuit Breakers mMC6

6 kA, Characteristic C

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMC6-C1/1	138832	12/120
2	mMC6-C2/1	138833	12/120
3	mMC6-C3/1	138834	12/120
4	mMC6-C4/1	138835	12/120
6	mMC6-C6/1	138836	12/120
10	mMC6-C10/1	138837	12/120
13	mMC6-C13/1	138838	12/120
16	mMC6-C16/1	138839	12/120
20	mMC6-C20/1	138840	12/120
25	mMC6-C25/1	138841	12/120
32	mMC6-C32/1	138842	12/120
40	mMC6-C40/1	138843	12/120
50	mMC6-C50/1	138844	12/120
63	mMC6-C63/1	138845	12/120
1+N-pole, 2 Module Units (MU)			
1	mMC6-C1/1N	139312	1/60
2	mMC6-C2/1N	139313	1/60
3	mMC6-C3/1N	139314	1/60
4	mMC6-C4/1N	139315	1/60
6	mMC6-C6/1N	139316	1/60
10	mMC6-C10/1N	139317	1/60
13	mMC6-C13/1N	139318	1/60
16	mMC6-C16/1N	139319	1/60
20	mMC6-C20/1N	139320	1/60
25	mMC6-C25/1N	139321	1/60
32	mMC6-C32/1N	139322	1/60
40	mMC6-C40/1N	139323	1/60
50	mMC6-C50/1N	139324	1/60
63	mMC6-C63/1N	139325	1/60
2-pole			
1	mMC6-C1/2	138952	1/60
2	mMC6-C2/2	138953	1/60
3	mMC6-C3/2	138954	1/60
4	mMC6-C4/2	138955	1/60
6	mMC6-C6/2	138956	1/60
10	mMC6-C10/2	138957	1/60
13	mMC6-C13/2	138958	1/60
16	mMC6-C16/2	138959	1/60
20	mMC6-C20/2	138960	1/60
25	mMC6-C25/2	138961	1/60
32	mMC6-C32/2	138962	1/60
40	mMC6-C40/2	138963	1/60
50	mMC6-C50/2	138964	1/60
63	mMC6-C63/2	138965	1/60
3-pole			
1	mMC6-C1/3	139072	1/40
2	mMC6-C2/3	139073	1/40
3	mMC6-C3/3	139074	1/40
4	mMC6-C4/3	139075	1/40
6	mMC6-C6/3	139076	1/40
10	mMC6-C10/3	139077	1/40
13	mMC6-C13/3	139078	1/40
16	mMC6-C16/3	139079	1/40
20	mMC6-C20/3	139080	1/40
25	mMC6-C25/3	139081	1/40
32	mMC6-C32/3	139082	1/40
40	mMC6-C40/3	139083	1/40
50	mMC6-C50/3	139084	1/40
63	mMC6-C63/3	139085	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMC6-C1/3N	139432	1/30
2	mMC6-C2/3N	139433	1/30
3	mMC6-C3/3N	139434	1/30
4	mMC6-C4/3N	139435	1/30
6	mMC6-C6/3N	139436	1/30
10	mMC6-C10/3N	139437	1/30
13	mMC6-C13/3N	139438	1/30
16	mMC6-C16/3N	139439	1/30
20	mMC6-C20/3N	139440	1/30
25	mMC6-C25/3N	139441	1/30
32	mMC6-C32/3N	139442	1/30
40	mMC6-C40/3N	139443	1/30
50	mMC6-C50/3N	139444	1/30
63	mMC6-C63/3N	139445	1/30
4-pole			
1	mMC6-C1/4	139192	1/30
2	mMC6-C2/4	139193	1/30
3	mMC6-C3/4	139194	1/30
4	mMC6-C4/4	139195	1/30
6	mMC6-C6/4	139196	1/30
10	mMC6-C10/4	139197	1/30
13	mMC6-C13/4	139198	1/30
16	mMC6-C16/4	139199	1/30
20	mMC6-C20/4	139200	1/30
25	mMC6-C25/4	139201	1/30
32	mMC6-C32/4	139202	1/30
40	mMC6-C40/4	139203	1/30
50	mMC6-C50/4	139204	1/30
63	mMC6-C63/4	139205	1/30

Miniature Circuit Breakers mMC6

6 kA, Characteristic D

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMC6-D1/1	138846	12/120
2	mMC6-D2/1	138847	12/120
3	mMC6-D3/1	138848	12/120
4	mMC6-D4/1	138849	12/120
6	mMC6-D6/1	138850	12/120
10	mMC6-D10/1	138851	12/120
13	mMC6-D13/1	138852	12/120
16	mMC6-D16/1	138853	12/120
20	mMC6-D20/1	138854	12/120
25	mMC6-D25/1	138855	12/120
32	mMC6-D32/1	138856	12/120
40	mMC6-D40/1	138857	12/120
1+N-pole, 2 Module Units (MU)			
1	mMC6-D1/1N	139326	1/60
2	mMC6-D2/1N	139327	1/60
3	mMC6-D3/1N	139328	1/60
4	mMC6-D4/1N	139329	1/60
6	mMC6-D6/1N	139330	1/60
10	mMC6-D10/1N	139331	1/60
13	mMC6-D13/1N	139332	1/60
16	mMC6-D16/1N	139333	1/60
20	mMC6-D20/1N	139334	1/60
25	mMC6-D25/1N	139335	1/60
32	mMC6-D32/1N	139336	1/60
40	mMC6-D40/1N	139337	1/60
2-pole			
1	mMC6-D1/2	138966	1/60
2	mMC6-D2/2	138967	1/60
3	mMC6-D3/2	138968	1/60
4	mMC6-D4/2	138969	1/60
6	mMC6-D6/2	138970	1/60
10	mMC6-D10/2	138971	1/60
13	mMC6-D13/2	138972	1/60
16	mMC6-D16/2	138973	1/60
20	mMC6-D20/2	138974	1/60
25	mMC6-D25/2	138975	1/60
32	mMC6-D32/2	138976	1/60
40	mMC6-D40/2	138977	1/60
3-pole			
1	mMC6-D1/3	139086	1/40
2	mMC6-D2/3	139087	1/40
3	mMC6-D3/3	139088	1/40
4	mMC6-D4/3	139089	1/40
6	mMC6-D6/3	139090	1/40
10	mMC6-D10/3	139091	1/40
13	mMC6-D13/3	139092	1/40
16	mMC6-D16/3	139093	1/40
20	mMC6-D20/3	139094	1/40
25	mMC6-D25/3	139095	1/40
32	mMC6-D32/3	139096	1/40
40	mMC6-D40/3	139097	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMC6-D1/3N	139446	1/30
2	mMC6-D2/3N	139447	1/30
3	mMC6-D3/3N	139448	1/30
4	mMC6-D4/3N	139449	1/30
6	mMC6-D6/3N	139450	1/30
10	mMC6-D10/3N	139451	1/30
13	mMC6-D13/3N	139452	1/30
16	mMC6-D16/3N	139453	1/30
20	mMC6-D20/3N	139454	1/30
25	mMC6-D25/3N	139455	1/30
32	mMC6-D32/3N	139456	1/30
40	mMC6-D40/3N	139457	1/30
4-pole			
1	mMC6-D1/4	139206	1/30
2	mMC6-D2/4	139207	1/30
3	mMC6-D3/4	139208	1/30
4	mMC6-D4/4	139209	1/30
6	mMC6-D6/4	139210	1/30
10	mMC6-D10/4	139211	1/30
13	mMC6-D13/4	139212	1/30
16	mMC6-D16/4	139213	1/30
20	mMC6-D20/4	139214	1/30
25	mMC6-D25/4	139215	1/30
32	mMC6-D32/4	139216	1/30
40	mMC6-D40/4	139217	1/30

Miniature Circuit Breakers mMC4

4.5 kA, Characteristic B

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMC4-B1/1	138778	12/120
2	mMC4-B2/1	138779	12/120
3	mMC4-B3/1	138780	12/120
4	mMC4-B4/1	138781	12/120
6	mMC4-B6/1	138782	12/120
10	mMC4-B10/1	138783	12/120
13	mMC4-B13/1	138784	12/120
16	mMC4-B16/1	138785	12/120
20	mMC4-B20/1	138786	12/120
25	mMC4-B25/1	138787	12/120
32	mMC4-B32/1	138788	12/120
40	mMC4-B40/1	138789	12/120
50	mMC4-B50/1	138790	12/120
63	mMC4-B63/1	138791	12/120
1+N-pole, 2 Module Units (MU)			
1	mMC4-B1/1N	139258	1/60
2	mMC4-B2/1N	139259	1/60
3	mMC4-B3/1N	139260	1/60
4	mMC4-B4/1N	139261	1/60
6	mMC4-B6/1N	139262	1/60
10	mMC4-B10/1N	139263	1/60
13	mMC4-B13/1N	139264	1/60
16	mMC4-B16/1N	139265	1/60
20	mMC4-B20/1N	139266	1/60
25	mMC4-B25/1N	139267	1/60
32	mMC4-B32/1N	139268	1/60
40	mMC4-B40/1N	139269	1/60
50	mMC4-B50/1N	139270	1/60
63	mMC4-B63/1N	139271	1/60
2-pole			
1	mMC4-B1/2	138898	1/60
2	mMC4-B2/2	138899	1/60
3	mMC4-B3/2	138900	1/60
4	mMC4-B4/2	138901	1/60
6	mMC4-B6/2	138902	1/60
10	mMC4-B10/2	138903	1/60
13	mMC4-B13/2	138904	1/60
16	mMC4-B16/2	138905	1/60
20	mMC4-B20/2	138906	1/60
25	mMC4-B25/2	138907	1/60
32	mMC4-B32/2	138908	1/60
40	mMC4-B40/2	138909	1/60
50	mMC4-B50/2	138910	1/60
63	mMC4-B63/2	138911	1/60
3-pole			
1	mMC4-B1/3	139018	1/40
2	mMC4-B2/3	139019	1/40
3	mMC4-B3/3	139020	1/40
4	mMC4-B4/3	139021	1/40
6	mMC4-B6/3	139022	1/40
10	mMC4-B10/3	139023	1/40
13	mMC4-B13/3	139024	1/40
16	mMC4-B16/3	139025	1/40
20	mMC4-B20/3	139026	1/40
25	mMC4-B25/3	139027	1/40
32	mMC4-B32/3	139028	1/40
40	mMC4-B40/3	139029	1/40
50	mMC4-B50/3	139030	1/40
63	mMC4-B63/3	139031	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMC4-B1/3N	139378	1/30
2	mMC4-B2/3N	139379	1/30
3	mMC4-B3/3N	139380	1/30
4	mMC4-B4/3N	139381	1/30
6	mMC4-B6/3N	139382	1/30
10	mMC4-B10/3N	139383	1/30
13	mMC4-B13/3N	139384	1/30
16	mMC4-B16/3N	139385	1/30
20	mMC4-B20/3N	139386	1/30
25	mMC4-B25/3N	139387	1/30
32	mMC4-B32/3N	139388	1/30
40	mMC4-B40/3N	139389	1/30
50	mMC4-B50/3N	139390	1/30
63	mMC4-B63/3N	139391	1/30
4-pole			
1	mMC4-B1/4	139138	1/30
2	mMC4-B2/4	139139	1/30
3	mMC4-B3/4	139140	1/30
4	mMC4-B4/4	139141	1/30
6	mMC4-B6/4	139142	1/30
10	mMC4-B10/4	139143	1/30
13	mMC4-B13/4	139144	1/30
16	mMC4-B16/4	139145	1/30
20	mMC4-B20/4	139146	1/30
25	mMC4-B25/4	139147	1/30
32	mMC4-B32/4	139148	1/30
40	mMC4-B40/4	139149	1/30
50	mMC4-B50/4	139150	1/30
63	mMC4-B63/4	139151	1/30

Miniature Circuit Breakers mMC4

4.5 kA, Characteristic C

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMC4-C1/1	138792	12/120
2	mMC4-C2/1	138793	12/120
3	mMC4-C3/1	138794	12/120
4	mMC4-C4/1	138795	12/120
6	mMC4-C6/1	138796	12/120
10	mMC4-C10/1	138797	12/120
13	mMC4-C13/1	138798	12/120
16	mMC4-C16/1	138799	12/120
20	mMC4-C20/1	138800	12/120
25	mMC4-C25/1	138801	12/120
32	mMC4-C32/1	138802	12/120
40	mMC4-C40/1	138803	12/120
50	mMC4-C50/1	138804	12/120
63	mMC4-C63/1	138805	12/120
1+N-pole, 2 Module Units (MU)			
1	mMC4-C1/1N	139272	1/60
2	mMC4-C2/1N	139273	1/60
3	mMC4-C3/1N	139274	1/60
4	mMC4-C4/1N	139275	1/60
6	mMC4-C6/1N	139276	1/60
10	mMC4-C10/1N	139277	1/60
13	mMC4-C13/1N	139278	1/60
16	mMC4-C16/1N	139279	1/60
20	mMC4-C20/1N	139280	1/60
25	mMC4-C25/1N	139281	1/60
32	mMC4-C32/1N	139282	1/60
40	mMC4-C40/1N	139283	1/60
50	mMC4-C50/1N	139284	1/60
63	mMC4-C63/1N	139285	1/60
2-pole			
1	mMC4-C1/2	138912	1/60
2	mMC4-C2/2	138913	1/60
3	mMC4-C3/2	138914	1/60
4	mMC4-C4/2	138915	1/60
6	mMC4-C6/2	138916	1/60
10	mMC4-C10/2	138917	1/60
13	mMC4-C13/2	138918	1/60
16	mMC4-C16/2	138919	1/60
20	mMC4-C20/2	138920	1/60
25	mMC4-C25/2	138921	1/60
32	mMC4-C32/2	138922	1/60
40	mMC4-C40/2	138923	1/60
50	mMC4-C50/2	138924	1/60
63	mMC4-C63/2	138925	1/60
3-pole			
1	mMC4-C1/3	139032	1/40
2	mMC4-C2/3	139033	1/40
3	mMC4-C3/3	139034	1/40
4	mMC4-C4/3	139035	1/40
6	mMC4-C6/3	139036	1/40
10	mMC4-C10/3	139037	1/40
13	mMC4-C13/3	139038	1/40
16	mMC4-C16/3	139039	1/40
20	mMC4-C20/3	139040	1/40
25	mMC4-C25/3	139041	1/40
32	mMC4-C32/3	139042	1/40
40	mMC4-C40/3	139043	1/40
50	mMC4-C50/3	139044	1/40
63	mMC4-C63/3	139045	1/40

Rated current I_n (A)		Article No.	Units per package
3+N-pole			
1	mMC4-C1/3N	139392	1/30
2	mMC4-C2/3N	139393	1/30
3	mMC4-C3/3N	139394	1/30
4	mMC4-C4/3N	139395	1/30
6	mMC4-C6/3N	139396	1/30
10	mMC4-C10/3N	139397	1/30
13	mMC4-C13/3N	139398	1/30
16	mMC4-C16/3N	139399	1/30
20	mMC4-C20/3N	139400	1/30
25	mMC4-C25/3N	139401	1/30
32	mMC4-C32/3N	139402	1/30
40	mMC4-C40/3N	139403	1/30
50	mMC4-C50/3N	139404	1/30
63	mMC4-C63/3N	139405	1/30
4-pole			
1	mMC4-C1/4	139152	1/30
2	mMC4-C2/4	139153	1/30
3	mMC4-C3/4	139154	1/30
4	mMC4-C4/4	139155	1/30
6	mMC4-C6/4	139156	1/30
10	mMC4-C10/4	139157	1/30
13	mMC4-C13/4	139158	1/30
16	mMC4-C16/4	139159	1/30
20	mMC4-C20/4	139160	1/30
25	mMC4-C25/4	139161	1/30
32	mMC4-C32/4	139162	1/30
40	mMC4-C40/4	139163	1/30
50	mMC4-C50/4	139164	1/30
63	mMC4-C63/4	139165	1/30

Miniature Circuit Breakers mMC4

4.5 kA, Characteristic D

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
1	mMC4-D1/1	138806	12/120
2	mMC4-D2/1	138807	12/120
3	mMC4-D3/1	138808	12/120
4	mMC4-D4/1	138809	12/120
6	mMC4-D6/1	138810	12/120
10	mMC4-D10/1	138811	12/120
13	mMC4-D13/1	138812	12/120
16	mMC4-D16/1	138813	12/120
20	mMC4-D20/1	138814	12/120
25	mMC4-D25/1	138815	12/120
32	mMC4-D32/1	138816	12/120
40	mMC4-D40/1	138817	12/120
1+N-pole, 2 Module Units (MU)			
1	mMC4-D1/1N	139286	1/60
2	mMC4-D2/1N	139287	1/60
3	mMC4-D3/1N	139288	1/60
4	mMC4-D4/1N	139289	1/60
6	mMC4-D6/1N	139290	1/60
10	mMC4-D10/1N	139291	1/60
13	mMC4-D13/1N	139292	1/60
16	mMC4-D16/1N	139293	1/60
20	mMC4-D20/1N	139294	1/60
25	mMC4-D25/1N	139295	1/60
32	mMC4-D32/1N	139296	1/60
40	mMC4-D40/1N	139297	1/60
2-pole			
1	mMC4-D1/2	138926	1/60
2	mMC4-D2/2	138927	1/60
3	mMC4-D3/2	138928	1/60
4	mMC4-D4/2	138929	1/60
6	mMC4-D6/2	138930	1/60
10	mMC4-D10/2	138931	1/60
13	mMC4-D13/2	138932	1/60
16	mMC4-D16/2	138933	1/60
20	mMC4-D20/2	138934	1/60
25	mMC4-D25/2	138935	1/60
32	mMC4-D32/2	138936	1/60
40	mMC4-D40/2	138937	1/60
3-pole			
1	mMC4-D1/3	139046	1/40
2	mMC4-D2/3	139047	1/40
3	mMC4-D3/3	139048	1/40
4	mMC4-D4/3	139049	1/40
6	mMC4-D6/3	139050	1/40
10	mMC4-D10/3	139051	1/40
13	mMC4-D13/3	139052	1/40
16	mMC4-D16/3	139053	1/40
20	mMC4-D20/3	139054	1/40
25	mMC4-D25/3	139055	1/40
32	mMC4-D32/3	139056	1/40
40	mMC4-D40/3	139057	1/40

Rated current I_n (A)	Part No.	Article No.	Units per package
3+N-pole			
1	mMC4-D1/3N	139406	1/30
2	mMC4-D2/3N	139407	1/30
3	mMC4-D3/3N	139408	1/30
4	mMC4-D4/3N	139409	1/30
6	mMC4-D6/3N	139410	1/30
10	mMC4-D10/3N	139411	1/30
13	mMC4-D13/3N	139412	1/30
16	mMC4-D16/3N	139413	1/30
20	mMC4-D20/3N	139414	1/30
25	mMC4-D25/3N	139415	1/30
32	mMC4-D32/3N	139416	1/30
40	mMC4-D40/3N	139417	1/30
4-pole			
1	mMC4-D1/4	139166	1/30
2	mMC4-D2/4	139167	1/30
3	mMC4-D3/4	139168	1/30
4	mMC4-D4/4	139169	1/30
6	mMC4-D6/4	139170	1/30
10	mMC4-D10/4	139171	1/30
13	mMC4-D13/4	139172	1/30
16	mMC4-D16/4	139173	1/30
20	mMC4-D20/4	139174	1/30
25	mMC4-D25/4	139175	1/30
32	mMC4-D32/4	139176	1/30
40	mMC4-D40/4	139177	1/30

Miniature Circuit Breakers mMCMDC for direct current application

- High-quality miniature circuit breakers for commercial and household applications
- Contact position indicator red - green
- Guide for secure terminal connection
- 3-position DIN rail clip, permits removal from existing busbar system
- Comprehensive range of accessories suitable for subsequent installation
- Rated currents up to 50 A
- Tripping characteristic C
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Up to 250 V DC per pole

Technical data on page 73

Miniature Circuit Breaker mMCMDC for direct current application

10 kA, Characteristic C

Rated current I_n (A)	Part No.	Article No.	Units per package
1-pole			
2	mMCMDC-C2/1	129624	12/120
4	mMCMDC-C4/1	129625	12/120
6	mMCMDC-C6/1	129626	12/120
10	mMCMDC-C10/1	129627	12/120
13	mMCMDC-C13/1	129628	12/120
16	mMCMDC-C16/1	129629	12/120
20	mMCMDC-C20/1	129630	12/120
25	mMCMDC-C25/1	129631	12/120
32	mMCMDC-C32/1	129632	12/120
40	mMCMDC-C40/1	129633	12/120
50	mMCMDC-C50/1	129634	12/120
2-pole			
2	mMCMDC-C2/2	129635	1/60
4	mMCMDC-C4/2	129636	1/60
6	mMCMDC-C6/2	129637	1/60
10	mMCMDC-C10/2	129638	1/60
13	mMCMDC-C13/2	129639	1/60
16	mMCMDC-C16/2	129640	1/60
20	mMCMDC-C20/2	129641	1/60
25	mMCMDC-C25/2	129642	1/60
32	mMCMDC-C32/2	129643	1/60
40	mMCMDC-C40/2	129644	1/60
50	mMCMDC-C50/2	129645	1/60

Miniature Circuit Breakers mMCT

- High-quality miniature circuit breakers for commercial and industry applications
- Contact position indicator red - green
- Accessories suitable for subsequent installation
- Rated currents up to 125 A
- Tripping characteristics B, C, D
- Rated breaking capacity up to 25 kA according to EN 60947-2

Technical data on page 75

Miniature Circuit Breakers mMCT-B

Characteristic B

Rated Current I_n (A)	Type Designation	Article No.	Units per package
1-pole			
20	mMCT-B20/1	152562	12
25	mMCT-B25/1	152634	12
32	mMCT-B32/1	152563	12
40	mMCT-B40/1	152564	12
50	mMCT-B50/1	152565	12
63	mMCT-B63/1	152635	12
80	mMCT-B80/1	129646	12
100	mMCT-B100/1	129647	12
125	mMCT-B125/1	129648	12
2-pole			
20	mMCT-B20/2	152704	6
25	mMCT-B25/2	152636	6
32	mMCT-B32/2	152705	6
40	mMCT-B40/2	152706	6
50	mMCT-B50/2	152707	6
63	mMCT-B63/2	152637	6
80	mMCT-B80/2	129654	6
100	mMCT-B100/2	129655	6
125	mMCT-B125/2	129656	6
3-pole			
20	mMCT-B20/3	152716	4
25	mMCT-B25/3	152638	4
32	mMCT-B32/3	152717	4
40	mMCT-B40/3	152718	4
50	mMCT-B50/3	152719	4
63	mMCT-B63/3	152639	4
80	mMCT-B80/3	129662	4
100	mMCT-B100/3	129663	4
125	mMCT-B125/3	129664	4
3+N-pole			
20	mMCT-B20/3N	152740	3
25	mMCT-B25/3N	153012	3
32	mMCT-B32/3N	152741	3
40	mMCT-B40/3N	152742	3
50	mMCT-B50/3N	152743	3
63	mMCT-B63/3N	153013	3
80	mMCT-B80/3N	129678	3
100	mMCT-B100/3N	129679	3
125	mMCT-B125/3N	129680	3
4-pole			
20	mMCT-B20/4	152728	3
25	mMCT-B25/4	153010	3
32	mMCT-B32/4	152729	3
40	mMCT-B40/4	152730	3
50	mMCT-B50/4	152731	3
63	mMCT-B63/4	153011	3
80	mMCT-B80/4	129670	3
100	mMCT-B100/4	129671	3
125	mMCT-B125/4	129672	3

Miniature Circuit Breakers mMCT-C

Characteristic C

Rated Current I_n (A)	Part No.	Article No.	Units per package
1-pole			
20	mMCT-C20/1	152566	12
32	mMCT-C32/1	152567	12
40	mMCT-C40/1	152568	12
50	mMCT-C50/1	152569	12
80	mMCT-C80/1	129649	12
100	mMCT-C100/1	129650	12
125	mMCT-C125/1	129651	12
2-pole			
20	mMCT-C20/2	152708	6
32	mMCT-C32/2	152709	6
40	mMCT-C40/2	152710	6
50	mMCT-C50/2	152711	6
80	mMCT-C80/2	129657	6
100	mMCT-C100/2	129658	6
125	mMCT-C125/2	129659	6
3-pole			
20	mMCT-C20/3	152720	4
32	mMCT-C32/3	152721	4
40	mMCT-C40/3	152722	4
50	mMCT-C50/3	152723	4
80	mMCT-C80/3	129665	4
100	mMCT-C100/3	129666	4
125	mMCT-C125/3	129667	4
3+N-pole			
20	mMCT-C20/3N	152744	3
32	mMCT-C32/3N	152745	3
40	mMCT-C40/3N	152746	3
50	mMCT-C50/3N	152747	3
80	mMCT-C80/3N	129681	3
100	mMCT-C100/3N	129682	3
125	mMCT-C125/3N	129683	3
4-pole			
20	mMCT-C20/4	152732	3
32	mMCT-C32/4	152733	3
40	mMCT-C40/4	152734	3
50	mMCT-C50/4	152735	3
80	mMCT-C80/4	129673	3
100	mMCT-C100/4	129674	3
125	mMCT-C125/4	129675	3

Miniature Circuit Breakers mMCT-D
Characteristic D

Rated Current I_n (A)	Type Designation	Article No.	Units per package
1-pole			
20	mMCT-D20/1	152700	12
32	mMCT-D32/1	152701	12
40	mMCT-D40/1	152702	12
50	mMCT-D50/1	152703	12
63	mMCT-D63/1	158312	12
80	mMCT-D80/1	129652	12
100	mMCT-D100/1	129653	12
2-pole			
20	mMCT-D20/2	152712	6
32	mMCT-D32/2	152713	6
40	mMCT-D40/2	152714	6
50	mMCT-D50/2	152715	6
63	mMCT-D63/2	158316	6
80	mMCT-D80/2	129660	6
100	mMCT-D100/2	129661	6
3-pole			
20	mMCT-D20/3	152724	4
32	mMCT-D32/3	152725	4
40	mMCT-D40/3	152726	4
50	mMCT-D50/3	152727	4
63	mMCT-D63/3	158320	4
80	mMCT-D80/3	129668	4
100	mMCT-D100/3	129669	4
3+N-pole			
20	mMCT-D20/3N	152748	3
32	mMCT-D32/3N	152749	3
40	mMCT-D40/3N	152750	3
50	mMCT-D50/3N	152751	3
63	mMCT-D63/3N	158328	3
80	mMCT-D80/3N	129684	3
100	mMCT-D100/3N	129685	3
4-pole			
20	mMCT-D20/4	152736	3
32	mMCT-D32/4	152737	3
40	mMCT-D40/4	152738	3
50	mMCT-D50/4	152739	3
63	mMCT-D63/4	158324	3
80	mMCT-D80/4	129676	3
100	mMCT-D100/4	129677	3

Controlling & Switching

– Isolators

Technical data on page 79

Controlling & Switching

Main Load Disconnector Switch (Isolator) IL

Rated Current (A)	Part No.	Article No.	Units per package
1-pole			
40	IL401	142816	12/120
63	IL631	142820	12/120
80	IL801	142824	12/120
100	IL1001	142828	12/120
125	IL1251	142832	12/120

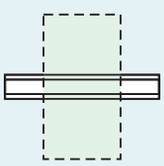
2-pole			
40	IL402	142817	1/60
63	IL632	142821	1/60
80	IL802	142825	1/60
100	IL1002	142829	1/60
125	IL1252	142833	1/60

3-pole			
40	IL403	142818	1/40
63	IL633	142822	1/40
80	IL803	142826	1/40
100	IL1003	142830	1/40
125	IL1253	142834	1/40

4-pole			
40	IL404	142819	1/30
63	IL634	142823	1/30
80	IL804	142827	1/30
100	IL1004	142831	1/30
125	IL1254	142835	1/30

Fuse Devices

Mounting Application



DIN-rail

Design

C Cylindrical Switch-Disconnectors

Technical data on page 80

Fuse-Disconnector (empty) FCFDC10DI-..-SOL

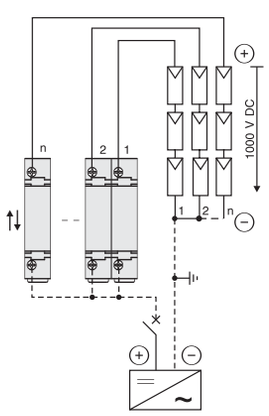
- String protection of PV generator
- The visual tripping indicator indicates the tripped fuse-link
  50-400 V flashing
  400-1000 V permanent light
- Rated operational voltage 1000 VDC
- For cylindrical fuse-links photovoltaic application
- Lead-sealable

Number of Poles / Size		Type Designation	Article No.	Units per package
Size 10x38 FCFDC10DI, Rated operational current 25 A DC				
without Visual Tripping Indicator				
1	10x38	FCFDC10DI-1-SOL	137256	12 / 108
2	10x38	FCFDC10DI-2-SOL	137257	6 / 54
with Visual Tripping Indicator				
1	10x38	FCFDC10DI-1L-SOL	137258	12 / 108
2	10x38	FCFDC10DI-2L-SOL	137259	6 / 54

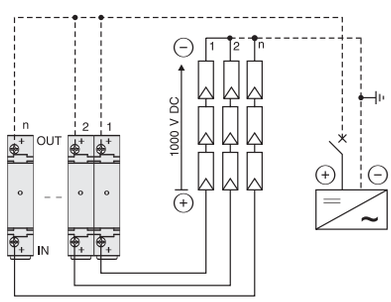
Application Photovoltaic

Earthed System

FCFDC10DI-1-SOL

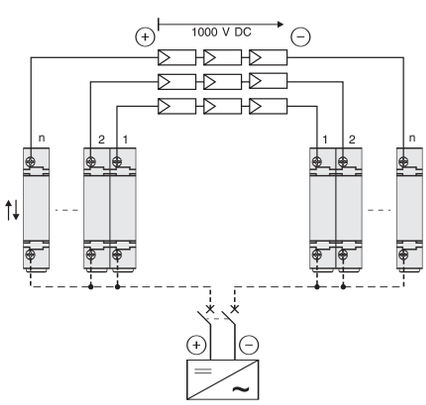


FCFDC10DI-1L-SOL

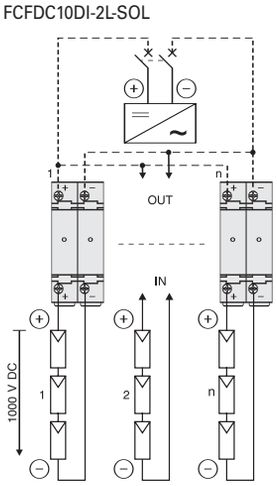


Unearthed System

FCFDC10DI-1-SOL



FCFDC10DI-2L-SOL



SG11008

Size / Rated current / Rated voltage			Type Designation	Article No.	Units per package
Fuse-Links ASFLC10-..A-gPV-SOL Photolvoltaic application					
10x38	2 A	1000 V DC	ASFLC10-2A-gPV-SOL	137279	10 / 500
10x38	4 A	1000 V DC	ASFLC10-4A-gPV-SOL	137280	10 / 500
10x38	6 A	1000 V DC	ASFLC10-6A-gPV-SOL	137281	10 / 500
10x38	8 A	1000 V DC	ASFLC10-8A-gPV-SOL	137282	10 / 500
10x38	10 A	1000 V DC	ASFLC10-10A-gPV-SOL	137283	10 / 500
10x38	12 A	1000 V DC	ASFLC10-12A-gPV-SOL	137284	10 / 500
10x38	16 A	1000 V DC	ASFLC10-16A-gPV-SOL	137285	10 / 500
10x38	20 A	1000 V DC	ASFLC10-20A-gPV-SOL	137286	10 / 500
10x38	25 A	900 V DC	ASFLC10-25A-gPV-SOL	137287	10 / 500

PV-fuse-link selection:

① Maximum DC Operating voltage of the fuse-link must be:
1,2 x V_{oc} of string

② Rated current I_n of the fuse-link must be higher or equal than:
1,5 x I_{sc}

I_{sc} . . . . short circuit current of PV-module

V_{oc} . . . open circuit voltage of string

Surge Protection

Technical data on page 82

AC

SPD-type T2 (Class C)

SPMT2PA-280/3

Plug-in surge arrester SPMT2PA, 1- to 4-pole

Complete (2- and multi-pole surge arresters are supplied with busbar)

Max. Cont. Op. Volt. U_c		I_n (8/20)µs	Type Designation	Article No.	Units per package
1-pole	75VAC	1x15kA	SPMT2PA-75/1	131751	12 / 120
1-pole	130VAC	1x20kA	SPMT2PA-130/1	131752	12 / 120
1-pole	175VAC	1x20kA	SPMT2PA-175/1	131753	12 / 120
2-pole	175VAC	2x20kA	SPMT2PA-175/2	131754	1 / 60
1-pole	280VAC	1x20kA	SPMT2PA-280/1	131755	12 / 120
2-pole	280VAC	2x20kA	SPMT2PA-280/2	131756	1 / 60
3-pole	280VAC	3x20kA	SPMT2PA-280/3	131757	1 / 40
4-pole	280VAC	4x20kA	SPMT2PA-280/4	131758	1 / 30
1-pole	335VAC	1x20kA	SPMT2PA-335/1	131759	12 / 120
2-pole	335VAC	2x20kA	SPMT2PA-335/2	131760	1 / 60
3-pole	335VAC	3x20kA	SPMT2PA-335/3	131761	1 / 40
4-pole	335VAC	4x20kA	SPMT2PA-335/4	131762	1 / 30
1-pole	385VAC	1x20kA	SPMT2PA-385/1	131763	12 / 120
2-pole	385VAC	2x20kA	SPMT2PA-385/2	131764	1 / 60
3-pole	385VAC	3x20kA	SPMT2PA-385/3	131765	1 / 40
4-pole	385VAC	4x20kA	SPMT2PA-385/4	131766	1 / 30
1-pole	460VAC	1x20kA	SPMT2PA-460/1	131767	12 / 120
2-pole	460VAC	2x20kA	SPMT2PA-460/2	131768	1 / 60
3-pole	460VAC	3x20kA	SPMT2PA-460/3	131769	1 / 40
4-pole	460VAC	4x20kA	SPMT2PA-460/4	131770	1 / 30
1-pole	580VAC	1x20kA	SPMT2PA-580/1	131771	12 / 120
3-pole	580VAC	3x20kA	SPMT2PA-580/3	131772	1 / 40
1 + 1p	–	–	SPMT2PA-1 + NPE	131773	1 / 60
3 + 1p	–	–	SPMT2PA-3 + NPE	131774	1 / 30

SPMT2PA-280

Inserts SPMT2PA for replacement

Insert 1-pole

Insert 75VAC	20kA	SPMT2PA-75	131775	4 / 120
Insert 130VAC	20kA	SPMT2PA-130	131776	4 / 120
Insert 175VAC	20kA	SPMT2PA-175	131777	4 / 120
Insert 280VAC	20kA	SPMT2PA-280	131778	4 / 120
Insert 335VAC	20kA	SPMT2PA-335	131779	4 / 120
Insert 385VAC	20kA	SPMT2-PA-385	131780	4 / 120
Insert 460VAC	20kA	SPMT2PA-460	131781	4 / 120
Insert 580VAC	20kA	SPMT2PA-580	131782	4 / 120
Insert N-PE 260VAC	30kA	SPMT2PA-NPE	131783	4 / 120

Auxiliary Switch for SPMT2PA — ASAUXSC-SPM — 131785 — 4 / 120

Lead-through terminal for SPMT2PA

ASLTT-63 — 131784 — 12 / 120

Neutral Conductor Lead-Through Terminal, Feed Terminal ASLTT1001

80 / 100 A	ASLTT1001	1
80 / 100 A	ASLTT1001BL	60

Accessories for RCDs, MCBs, Combined RCD/MCB Devices

– Auxiliary Switch
– RCD-Tripping Module
– Shunt Trip Release
– Undervoltage Release
– Switching Interlocks
– Terminal Covers

Technical data on page 87

Accessories for Protective Devices

Auxiliary Switch ASAUXSC; Tripping Signal Switch ASALMSC

Design: for screwing

For Protective Device / Function		Type Designation	Units per package
RCCB	1NO+1NC	ASAUXSC	4 / 120
RCCB	2CO	ASALMSC	4 / 120

ASAUXSC

Auxiliary Switch ASAUXSN; Tripping Signal Switch ASALMSN

Design: for snapping

For Protective Device / Function		Type Designation	Units per package
MCB	1CO	ASAUXSN	4 / 120
MCB	2CO	ASALMSN	4 / 120

ASAUXSN

ASALMSN

RCD-Tripping Module ASRTUSCRC

For Protective Device	Type Designation	Units per package
RCCB	ASRTUSCRC	1 / 60

Shunt Trip Release ASSNTST, ASSNTSN

Operational voltage range (V~)		Type Designation	Units per package
12-110	glueable	ASSNTST110	1 / 60
110-415	glueable	ASSNTST415	1 / 60
12-110	snapable	ASSNTSN110	1 / 60
110-415	snapable	ASSNTSN415	1 / 60

ASSNTST

ASSNTSN

Undervoltage Release ASUVRSC

Op. voltage range (V~)/Function		Type Designation	Units per package
230	undelayed	ASUVRSC230	1 / 60

Accessories for Protective Devices

Switching interlock ASPDL

Description	Type Designation	Units per package
Switching interlock without lock for Isolators, RCDs, combined RCD/MCBs, MCBs, ...	ASPDL	5 / 30

Terminal covers ASTCVRCCB for RCCB's type mRCM

Description	Type Designation	Units per package
Terminal cover 2MU	ASTCVRCCB2	1
Terminal cover 4MU	ASTCVRCCB4	1

Terminal covers ASTCVMCBLH for MCB's type mMCT

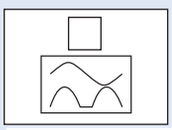
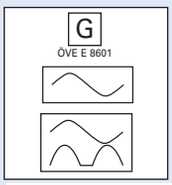
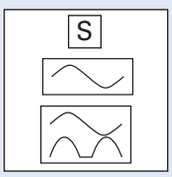
Description	Type Designation	Units per package
Terminal cover	ASTCVMCBLH	10/600
Terminal cover	ASTCVMCBLHBL	2000

Technical Data

Protective Devices

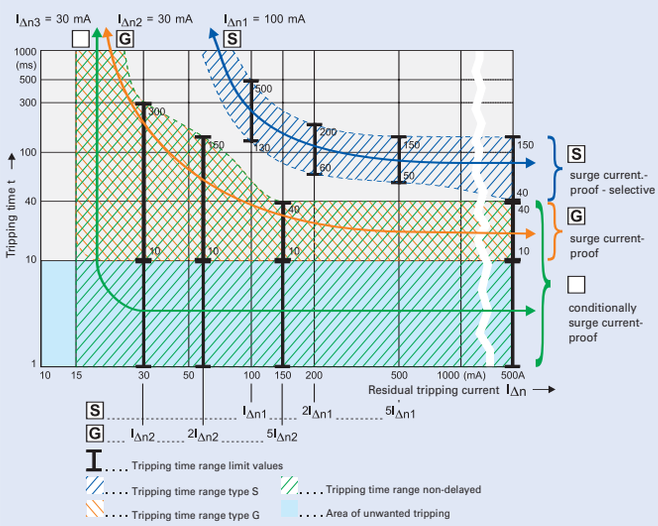
Residual Current Devices - General Data

Short description of the most important RCCB types:

Symbol	Description
	Eaton standard. Suitable for outdoor installation (distribution boxes for outdoor installation and building sites) up to -25° C.
	Conditionally surge-current proof (>250 A, 8/20 µs) for general application.
	RCCB sensitive to pulsating DC for application where residual pulsating DC may occur. Non-selective, instantaneous. Protects only against special forms of residual pulsating DC which have not been smoothed.
	RCCB of type G (min 10 ms time delay) surge current-proof up to 3 kA. For system components where protection against unwanted tripping is compulsory to avoid personal injury and damage to property (§ 12.1.6 of ÖVE/ÖNORM E 8001-1). Also for systems involving long lines and high line capacity. Some 4-pole versions are sensitive to pulsating DC.
	RCCB of type S (selective, min 40 ms time delay) surge current-proof up to 5 kA. Mainly used as main switch according to ÖVE/ÖNORM E 8001-1 § 12.1.5, as well as in combination with surge arresters.This is the only RCCB suitable for series connection with other types if the rated tripping current of the downstream RCCB does not exceed one third of the rated tripping current of the device of type S. Some 4-pole versions are sensitive to pulsating DC.

Tripping Characteristics (IEC/EN 61008)

Tripping characteristics, tripping time range and selectivity of instantaneous, surge current-proof "G" and surge current-proof - selective "S" residual current devices.



§ 6.1.1 of ÖVE/ÖNORM E 8001-1/A1 deals with **additional protection** and provides essentially the following:
In circuits with **sockets up to 16 A** with fault current/residual current protection by protective earthing, protective multiple earthing or residual current devices (RCCBs), additional residual current protection devices with a rated tripping current of **0.03 A** must be installed. **This means when using RCCBs for fault current/residual current protection two RCCBs must be connected in series.**

Testing:
RCCBs with tripping time delay (Types -G and -S) may be function tested with conventional testing equipment which must be set according to the instructions for operation of the testing device. Due to reasons inherent in the measuring process, the tripping time determined in this way may be longer than expected in accordance with the specifications of the manufacturer of the measuring instrument. However, the device is ok if the result of measurement is within the time range specified by the manufacturer of the measuring instrument.

Residual Current Devices mRCM

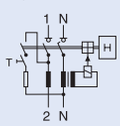
- Residual current devices (RCCB)
- Shape compatible with and suitable for standard busbar connection to other devices
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Free terminal space despite installed busbar
- Universal tripping signal switch, also suitable for MCB, RCBO, ... can be mounted subsequently
- Auxiliary switch can be mounted subsequently
- Contact position indicator red - green
- Delayed types suitable for being used with standard fluorescent tubes with or without electronical ballast (30mA-RCCB: 30 units per phase conductor, 100mA-RCCB: 90 units per phase conductor)
  Notes: Depending of the fluorescent lamp ballast manufacturer partly more possible. Symmetrical allocation of the fluorescent lamp ballasts on all phases favourably. Shifting references of the fluorescent lamp ballast manufacturer consider.
- The device functions irrespective of the position of installation
- Tripping is line voltage-independent. Consequently, the RCCB is suitable for "fault current/residual current protection" and "additional protection" within the the meaning of the applicable installation rules
- Mains connection at either side
- The 4-pole device can also be used for 3-pole connection.
  For this purpose use terminals 1-2, 3-4, and 5-6 (+ cable link).
- The 4-pole device can also be used for 2-pole connection.
  For this purpose use terminals 5-6 and N-N.
- The test key "T" must be pressed every month. The system operator must be be informed of this obligation and his responsibility in a way that can be proven (self-adhesive RCCB-label enclosed)
- Pressing the test key "T" serves the only purpose of function testing the residual current device (RCCB). This test does not make earthing resistance measurement (R_E), or proper checking of the earth conductor condition redundant, which must be performed separately.
- Protects against special forms of residual pulsating DC which have have not been smoothed
- Additionally protects against special forms of residual pulsating DC which have not been smoothed.
- Additionally protects against special forms of residual pulsating pulsating DC which have not been smoothed.

Accessories:

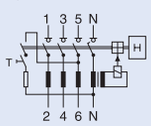
Auxiliary switch for subsequent installation to the left	ASAUXSC
Tripping signal contact for subsequent installation to the right	ASALMSC
Sealing cover set	ASTCVRCCB2 ASTCVRCCB4
Switching interlock	ASPDL

Connection diagrams

2-pole



4-pole



Technical Data

Electrical

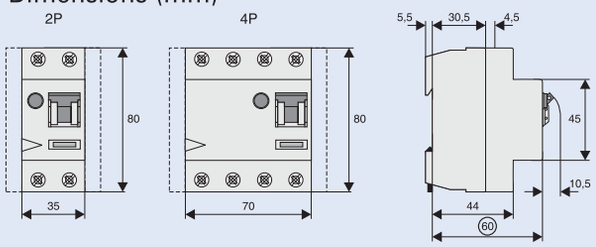
Design according to		IEC/EN 61008
Current test marks as printed onto the device		
Tripping		instantaneous
Rated voltage U_n		240/415 V, 50 Hz
Rated tripping current $I_{\Delta n}$		10, 30, 100, 300, 500 mA
Sensitivity		AC and pulsating DC
Rated insulation voltage U_i		440 V
Rated impulse withstand voltage U_{imp}		4 kV
Rated short circuit strength I_{nc}		10 kA
Maximum back-up fuse		Short circuit
I_n = 16-63A		63 A gG/gL
I_n = 80A		80 A gG/gL
I_n = 100A		100 A gG/gL
Rated breaking capacity I_m or Rated fault breaking capacity $I_{\Delta m}$		
I_n = 16-40A		500 A
I_n = 63A		630 A
I_n = 80A		800 A
I_n = 100A		1,000 A
Voltage range of test button	2-pole	184 - 250 V~
	4-pole	184 - 440 V~
Endurance		
electrical comp.		≥ 4,000 operating cycles
mechanical comp.		≥ 20,000 operating cycles

Mechanical

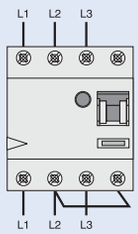
Frame size	45 mm
Device height	80 mm
Device width (4MU)	35 mm (2MU), 70 mm
Mounting	quick fastening with 2 lock-in positions on DIN rail IEC/EN 60715
Degree of protection, built-in	IP40
Deg. of prot. in moisture-proof encl.	IP54
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1.5 - 35 mm^2 single wire 2 x 16 mm^2 multi wire
Busbar thickness	0.8 - 2 mm
Tripping temperature	-25°C to +40°C
Resistance to climatic conditions	acc. to IEC/EN 61008

Protective Devices

Dimensions (mm)



RCD mRCM in a Three Ac Network without Neutral Conductor



The N-terminal must be connected by a cable link with the phase L2 (or L1), so that the test loop is supplied with current and the RCD is tested correctly.

Influence of the ambient temperature to the maximum continuous current (A)

	16A		*25A*		*40A*		*63A*		*80A*		*100A*	
Ambient temperature	***2p***	***4p***	***2p***	***4p***	***2p***	***4p***	***2p***	***4p***	***2p***	***4p***	***2p***	***4p***
40°	16	16	25	25	40	40	63	63	80	80	100	100
45°	14	14	21	22	37	37	59	59	76	76	95	95
50°	11	11	18	19	33	34	55	55	72	72	90	90
55°	9	9	14	16	30	31	50	50	68	68	85	85
60°	– *)	–	–	–	26	27	45	45	64	64	80	80

Annotation: It has to be ensured that the values in the table are not exceeded and the back-up fuse/thermal protection works properly

*) not applicable

Protective Devices

Add-on Residual Current Protection Unit ASELM

- Add-on residual current unit
- Line voltage-independent tripping
- By combining this device with a top-quality miniature circuit breaker a top-quality RCBO unit (combined RCD/MCB device) is formed.
- Rated current 40 and 63 A
- Permits combinations with a variety of characteristics thanks to the different rated currents and characteristics of the miniature circuit breakers which can be connected
- Comrehensive range of accessories suitable for subsequent installation onto MCB
- Protect against special forms of residual pulsating DC which have not been smoothed.

Accessories :

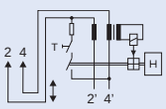
Cover cap for draw-out connection bar	included
Slotted one-way cheese head screw	included

Accessories (on MCB):

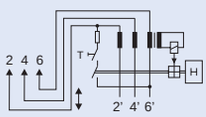
Auxiliary switch for subsequent installation	ASAUXSN
Tripping signal contact for subsequent installation	ASALMSN
Shunt trip release	ASSNTSN
Undervoltage release	ASUVRSC230
Switching interlock	ASPDL

Connection diagramms

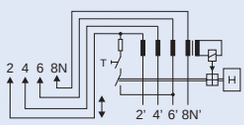
2-pole



3-pole



4-pole

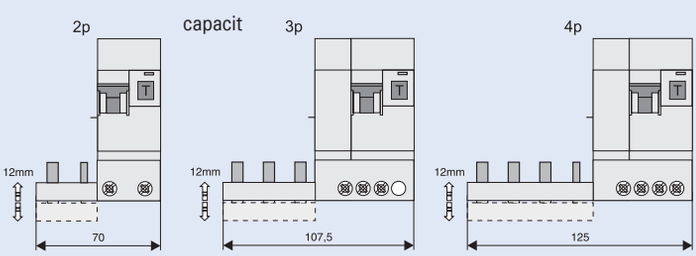


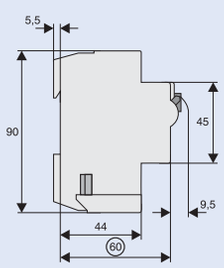
Technical Data

Electrical	
Design according to	IEC/EN 61009
Current test marks as printed onto the device	
Tripping	instantaneous 250A (8/20µs), surge current-proof
Rated voltage U_n	240/415V AC
Operational voltage range	196 - 440 V
Rated frequency	50 Hz
Use at 16⅔ Hz	Recesses time between the single switchings increases to 88 s, I_n max. 63 A
Use at 400 Hz	I_n max. 40 A
Rated current I_n	□ 40 A, □ 63 A
Rated tripping current $I_{\Delta n}$	30, 100, 300, 500, 1000 mA
Rated non-tripping current $I_{\Delta no}$	0.5 $I_{\Delta n}$
Sensitivity	AC and pulsating DC
Service short circuit breaking y I_{cs}	same as connected MCB (7.5 kA)
Rated breaking capacity I_{cn}	same as connected MCB (10 kA)
Rated fault breaking capacity $I_{\Delta m}$	6 kA (U_n = 230V) 3 kA (U_n = 400V)

Mechanical	
Frame-size	45 mm
Device height	90 mm
Device width	70 mm (2p), 107.5 mm (3p), 125 mm (4p)
Mounting	fix mounted onto PLS.
Degree of protection installed device	IP40
Fastening screw	M 2.5 (slotted one-way cheese head screw;
Screw head breaking torque	> 0.6 Nm
Upper and lower terminals	lift terminals
Terminal screws	M 5 (combined Philips/standard head screws according to DIN7962-Z2, Pozidrive)
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	
Rigid conductors	1 x (1 - 25) mm^2
Flexible conductors (with wire end sleeve)	1 x (0.75 - 16) mm^2
Busbar thickness	0.8 - 2 mm
Permitted ambient temperature range	-25°C to +40°C
Resistance to climatic conditions	acc. to IEC/EN 60068-2 (25..55°C/90..95% relative humidity)

Dimensions (mm)





Protective Devices

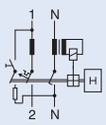
Combined RCD/MCB Devices mRBM, 1+N-pole

- Combined RCD/MCB device
- Line voltage-independent tripping
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Free terminal space despite installed busbar
- Guide for secure terminal connection
- Switching toggle (MCB component) in colour designating the rated current
- Contact position indicator red - green
- Comprehensive range of accessories suitable for subsequent installation
- Type -A : Protects against special forms of residual pulsating DC which have have not been smoothed
- Typ -G: 10 ms time delay in order to avoid unwanted tripping (e.g. during thunderstorms).
  Compulsory in Austria for any circuit where personal injury or damage to property may occur in case of unwanted tripping (§12.1.6 ÖVE/ÖNORM E 8001-1).

Accessories:	
Auxiliary switch for subsequent installation	ASAUXSN
Tripping signal contact for subsequent installation	ASALMSN
Shunt trip release	ASSNTSN
Undervoltage release	ASUVRSC230
Switching interlock	ASPDL

Connection diagram

1 + N-pole

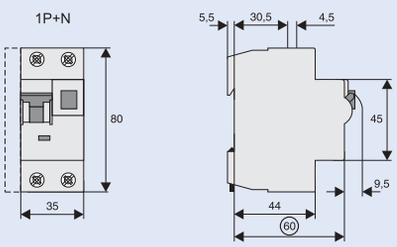


Technical Data

Electrical	
Design according to	IEC/EN 61009
Current test marks as printed onto the device	
Tripping	
line voltage-independent	instantaneous 250A (8/20µs) surge current-proof;
Type G	10 ms delay 3kA (8/20µs) surge current-proof
Rated voltage U_e	240 V; 50 Hz
Operational voltage range	196-253 V
Rated tripping current $I_{\Delta n}$	10, 30, 100, 300 mA
Rated non-tripping current $I_{\Delta no}$	0.5 $I_{\Delta n}$
Sensitivity	AC and pulsating DC
Selectivity class	3
Rated breaking capacity	10 kA
Rated current	2 - 40 A
Rated peak withstand voltage U_{imp}	4 kV (1.2/50µs)
Characteristic	B, C
Maximum back-up fuse (short circuit)	100 A gL (>10 kA)
Endurance electrical comp.	▯ 4,000 operating cycles
mechanical comp.	▯ 20,000 operating cycles

Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	35 mm (2MU)
Mounting	3-position DIN rail clip, permits removal from existing busbar system
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1 - 25 mm^2
Busbar thickness	0.8 - 2 mm
Degree of protection switch	IP20
Degree of protection, built-in	IP40
Tripping temperature	-25°C to +40°C
Resistance to climatic conditions	acc. to IEC/EN 61009

Dimensions (mm)



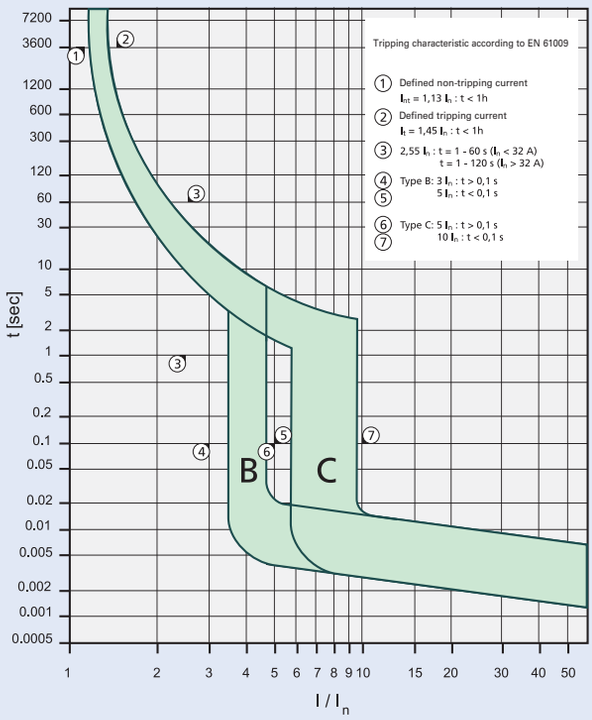
Protective Devices

Load Capacity mRBM-../1N/

Effect of ambient temperature (MCB component)

	Ambient temperature **T [°C]**								
I_n [A]	**-25**	**-20**	**-10**	**0**	**10**	**20**	**30**	**35**	**40**
2	2.5	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9
5	6.2	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8
6	7.4	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8
8	9.9	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7
10	12	12	12	11	11	10	10	9.9	9.7
12	15	14	14	13	13	13	12	12	12
13	16	16	15	15	14	14	13	13	13
15	19	18	17	17	16	16	15	15	15
16	20	19	19	18	17	17	16	16	15
20	25	24	23	22	22	21	20	20	19
25	31	30	29	28	27	26	25	25	24
32	40	38	37	36	35	33	32	32	31
40	49	48	47	45	43	42	40	39	39

Tripping Characteristic mRBM-../1N/, Characteristics B a. C



Short Circuit Selectivity mRBM-../1N/ towards DII-DIV fuse link

In case of short circuit, there is selectivity between the combined RCD/MCB devices mRBM../1N/ and the upstream fuses 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

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

mRBM	**DII-DIV gL/gG**								
I_n [A]	**10**	**16**	**20**	**25**	**35**	**50**	**63**	**80**	**100**
2	<0.5[1]	<0.5[1]	2.2	8.5	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	0.7	1.2	3.7	10.0	10.0[2]	10.0[2]	10.0[2]
6		<0.5[1]	0.7	1.0	2.9	6.9	10.0[2]	10.0[2]	10.0[2]
8		<0.5[1]	0.6	1.0	2.4	5.1	10.0[2]	10.0[2]	10.0[2]
10			0.6	0.9	1.9	3.3	7.0	10.0[2]	10.0[2]
13			0.5	0.7	1.6	2.8	5.7	9.0	10.0[2]
16				0.7	1.4	2.4	4.4	7.0	10.0[2]
20					1.3	2.2	4.0	6.3	10.0[2]
25					1.3	2.1	3.8	5.8	10.0[2]
32						2.0	3.5	5.2	9.5
40							3.1	4.5	8.1

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

mRBM	**DII-DIV gL/gG**								
I_n [A]	**10**	**16**	**20**	**25**	**35**	**50**	**63**	**80**	**100**
2	<0.5[1]	<0.5[1]	1.7	6.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	0.7	1.3	4.2	8.5	10.0[2]	10.0[2]	10.0[2]
5	<0.5[1]	<0.5[1]	0.6	1.1	3.6	7.0	10.0[2]	10.0[2]	10.0[2]
6		<0.5[1]	0.6	1.0	2.9	5.8	10.0[2]	10.0[2]	10.0[2]
8		<0.5[1]	<0.5	0.9	2.5	4.8	10.0[2]	10.0[2]	10.0[2]
10			<0.5	0.7	1.5	2.6	5.3	9.0	10.0[2]
13					1.4	2.3	4.6	7.6	10.0[2]
16					1.2	1.8	3.4	5.5	10.0[2]
20					1.2	1.7	3.1	5.0	10.0[2]
25						1.6	2.9	4.6	10.0[2]
32							2.3	3.4	7.7
40								2.9	6.2

[1] Selectivity limit current I_s under 0.5 kA

[2] Selectivity limit current I_s = rated breaking capacity I_{cn} of the RCD/MCB device

Darker areas: no selectivity

Protective Devices

Short Circuit Selectivity mRBM-../1N/ towards D01-D03 fuse link

In case of short circuit, there is selectivity between the combined RCD/MCB devices mRBM../1N/ and the upstream fuses 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

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

mRBM	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
2	<0.5[1]	0.7	1.6	3.3	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	0.6	0.9	2.9	10.0	10.0[2]	10.0[2]	10.0[2]
6		<0.5[1]	0.5	0.8	2.4	8.2	10.0[2]	10.0[2]	10.0[2]
8			0.6	0.8	2.0	6.0	10.0[2]	10.0[2]	10.0[2]
10			0.5	0.8	1.6	3.7	6.0	10.0[2]	10.0[2]
13			0.6	0.7	1.4	3.0	4.7	9.0	10.0[2]
16				0.6	1.2	2.6	3.9	7.0	10.0[2]
20					1.2	2.5	3.6	6.2	10.0[2]
25					1.2	2.3	3.3	5.7	10.0[2]
32						2.3	3.1	5.1	10.0[2]
40							2.8	4.5	9.5

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

mRBM	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
2	<0.5[1]	0.5	0.5	2.4	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
4	<0.5[1]	<0.5[1]	<0.5[1]	0.9	3.4	9.5	10.0[2]	10.0[2]	10.0[2]
5	<0.5[1]	<0.5[1]	<0.5[1]	0.9	2.9	8.0	10.0[2]	10.0[2]	10.0[2]
6		<0.5[1]	<0.5[1]	0.8	2.3	6.5	10.0[2]	10.0[2]	10.0[2]
8			<0.5	0.7	2.1	5.5	9.5	10.0[2]	10.0[2]
10			<0.5	0.6	1.3	2.9	4.5	8.9	10.0[2]
13					1.2	2.5	3.9	7.6	10.0[2]
16					1.0	2.1	3.0	5.5	10.0[2]
20					1.0	2.0	2.7	5.0	10.0[2]
25						1.9	2.6	4.5	10.0[2]
32							2.1	3.4	10.0[2]
40								3.0	8.7

Short Circuit Selectivity mRBM-../1N/ towards NH-00 fuse link

In case of short circuit, there is selectivity between the combined RCD/MCB devices mRBM../1N/ and the upstream fuses 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

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

mRBM	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
2	<0.5[1]	1.1	3.6	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]
4	<0.5[1]	0.5	0.9	1.6	2.8	4.4	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
6	<0.5[1]	0.5	0.8	1.4	2.2	3.3	7.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
8	<0.5[1]	<0.5[1]	0.7	1.0	1.9	2.8	5.3	7.8	10.0[2]	10.0[2]	10.0[2]	10.0[2]
10		<0.5[1]	0.7	0.9	1.5	2.1	3.4	4.3	7.3	10.0[2]	10.0[2]	10.0[2]
13		<0.5[1]	0.6	0.8	1.4	1.8	2.8	3.6	5.7	10.0[2]	10.0[2]	10.0[2]
16			0.6	0.7	1.2	1.5	2.4	3.0	4.5	10.0[2]	10.0[2]	10.0[2]
20				0.7	1.1	1.5	2.2	2.8	4.2	9.2	10.0[2]	10.0[2]
25				0.7	1.1	1.4	2.1	2.6	4.0	8.2	10.0[2]	10.0[2]
32					1.0	1.4	2.0	2.5	3.7	7.1	10.0[2]	10.0[2]
40								2.3	3.4	6.2	8.8	10.0[2]

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

mRBM	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
2	<0.5[1]	0.6	2.6	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]
4	<0.5[1]	<0.5[1]	0.9	1.8	3.2	4.8	8.7	10.0[2]	10.0[2]	10.0[2]	10.0[2]	10.0[2]
5	<0.5[1]	<0.5[1]	0.8	1.6	2.7	4.1	7.2	9.7	10.0[2]	10.0[2]	10.0[2]	10.0[2]
6	<0.5[1]	<0.5[1]	0.7	1.3	2.2	3.3	5.9	8.0	10.0[2]	10.0[2]	10.0[2]	10.0[2]
8	<0.5[1]	<0.5[1]	0.6	1.1	1.9	2.8	5.0	6.7	10.0[2]	10.0[2]	10.0[2]	10.0[2]
10		0.5	0.8	1.2	1.7	2.7	3.4	5.5	10.0[2]	10.0[2]	10.0[2]	10.0[2]
13				1.1	1.5	2.3	2.9	4.7	10.0[2]	10.0[2]	10.0[2]	10.0[2]
16				1.0	1.3	1.8	2.3	3.7	8.7	10.0[2]	10.0[2]	10.0[2]
20				0.9	1.1	1.7	2.2	3.4	8.0	10.0[2]	10.0[2]	10.0[2]
25						1.6	2.1	3.2	7.2	10.0[2]	10.0[2]	10.0[2]
32							1.7	2.6	5.3	9.0	10.0[2]	10.0[2]
40								2.4	4.5	7.5	10.0	

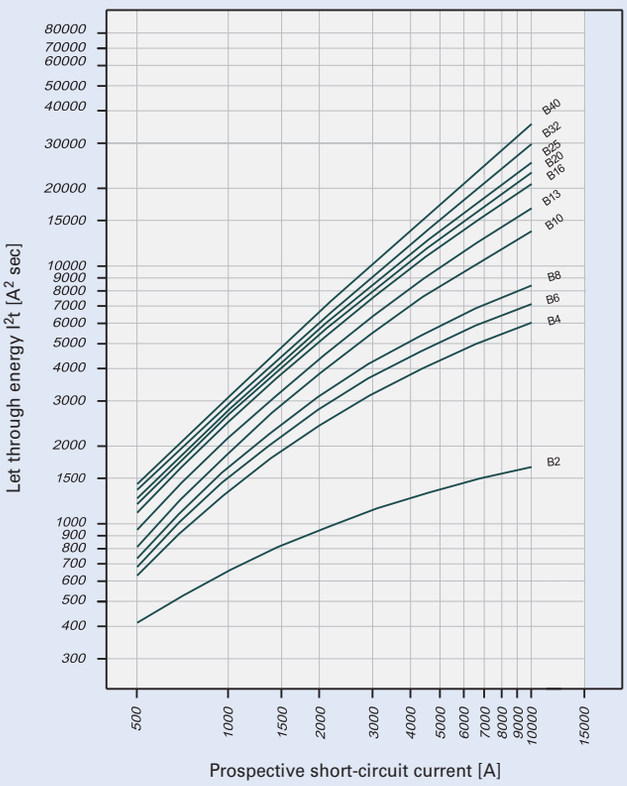
[1] Selectivity limit current I_s under 0.5 kA

[2] Selectivity limit current I_s = rated breaking capacity I_{cn} of the RCD/MCB device

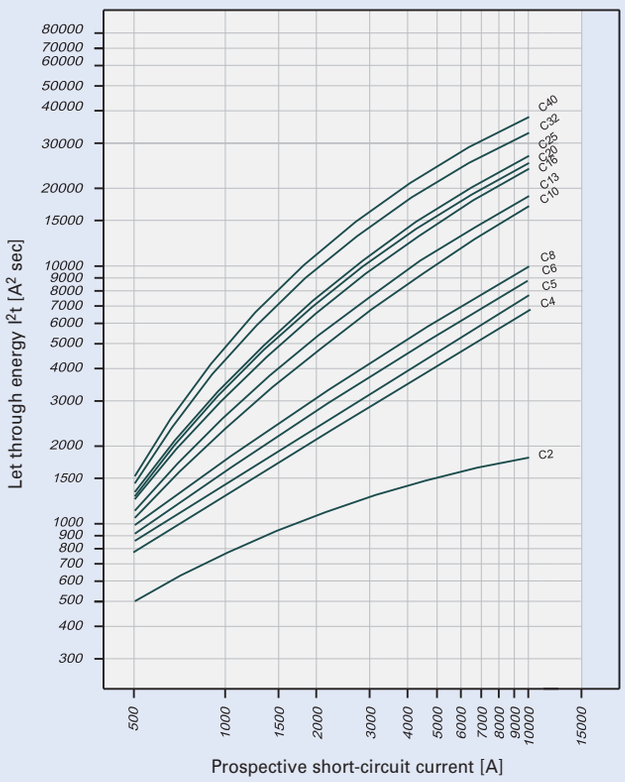
Darker areas: no selectivity

Let-through Energy mRBM-../1N/

Let-through energy mRBM, characteristic B, 1+N-pole



Let-through energy mRBM, characteristic C, 1+N-pole



Electronic Combined RCD/MCB Devices eRBM-ME, 1+N-pole, 1 Module Unit

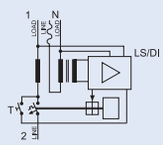
- Electronic residual current device / miniature circuit breaker combination in only 1MU
- Tripping line voltage dependent
- Contact position indicator red - green
- Can be sealed with leads in the on and off position
- Colour coded switching toggle (designating the rated current)
- Permanently connected neutral conductor (950 mm long, black)
- Special application in British-Standard-Distibution Boxes
- Can be connected to standard busbar (at the lower side)
- Comprehensive range of accessories suitable for subsequent installation

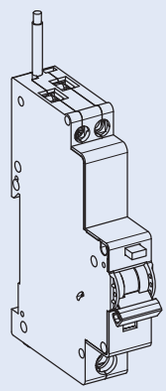
Accessories:

Auxiliary switch for subsequent installation	ASAUXSC
Tripping signal switch for subsequent installation	ASALMSC
Shunt trip release	ASSNTST

Connection diagram

1+N-pole



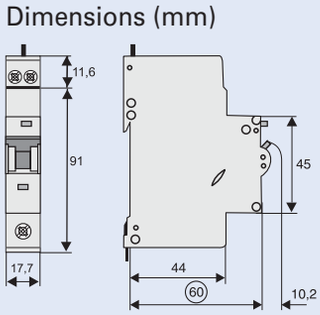


Technical Data

Electrical		
Design according to		IEC 61009
Current test marks as printed onto the device		
Number of poles		1+N-pole Pole switched, N led through (solid neutral)
Rated voltage U_n		240 VAC
Rated frequency		50/60 Hz
Rated current I_n		6 - 45 A
Rated tripping current $I_{\Delta n}$		10, 30, 100, 300 mA
Sensitivity		AC
Tripping Characteristic RCD component:		
Tripping line voltage-dependent		instantaneous
Peak withstand current		250A (8/20µs)
Rated non-tripping current $I_{\Delta no}$		0.5 $I_{\Delta n}$
Voltage range for protective function		184 - 264 V~
Tripping Characteristic MCB component		
Conventional non-tripping current		1.13 I_n
Conventional tripping current		1.45 I_n
Reference temperature		30°C
Characteristic		C
Rated breaking capacity		10 kA
Selectivity class		3
Maximum back-up fuse > 6 kA		100 A gL
Endurance	electrical comp.	≥ 4,000 operating cycles
	mechanical comp.	≥ 20,000 operating cycles

Mechanical	
Frame size	45 mm
Device height	102.6 mm
Device width	17.7 mm (1MU)
Mounting	quick fastening with 2 lock-in positions on DIN rail IEC/EN 60715
Upper terminals	lift terminals
Lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1 - 25 mm^2
Busbar thickness below	0.8 - 2 mm
Degree of protection, built-in	IP40
Perm. ambient temperature range	-25°C to +40°C
Resistance to climatic conditions	25-55°C/90-95% relative humidity acc. to IEC 60068-2

Dimensions (mm)



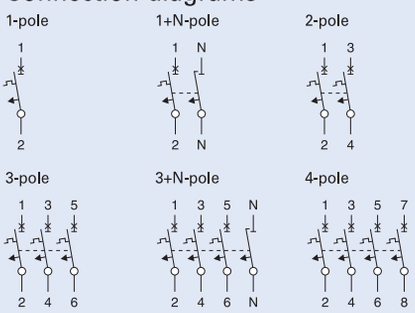
Protective Devices

Miniature Circuit Breakers mMC

- High selectivity between MCB and back-up fuse due to low let-through energy
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts ≥ 4 mm, for secure isolation
- Suitable for applications up to 48 V DC (use mMCMDC for higher DC voltages)

Accessories:	
Auxiliary switch for subsequent installation	ASAUXSN
Tripping signal contact for subsequent installation	ASALMSN
Shunt trip release	ASSNTSN
Undervoltage release	ASUVRSC230
Switching interlock	ASPDL

Connection diagrams

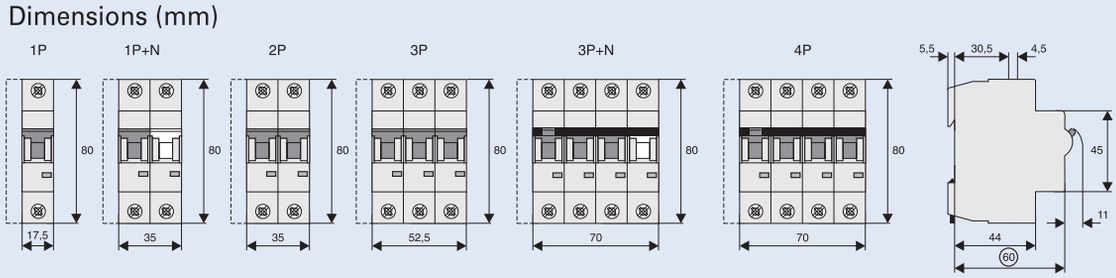


Technical Data

Electrical	
Design according to	IEC/EN 60898-1
Current test marks as printed onto the device	
Rated voltage	AC: 240/415V DC: 48V (per pole) max. 2 poles in series
Rated frequency	50/60 Hz
Rated breaking capacity according to IEC/EN 60898-1	
mMCM	10 kA
mMC6	6 kA
mMC4	4.5 kA
Rated breaking capacity according to IEC/EN 60947-2	
mMCM	15 kA
mMC6	10 kA
mMC4	6 kA
Rated voltage	AC:230/400V
Characteristic	B, C, D
Back-up fuse	
mMCM	max. 125 A gL
mMC6	max. 100 A gL
mMC4	max. 80 A gL
Selectivity class	3
Rated peak withstand voltage U_{imp}	4 kV (1.2/50µs)
Endurance electrical comp.	≥ 4,000 operating cycles
mechanical comp.	≥ 20,000 operating cycles
Line voltage connection	optional (above/below)

Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU) 26.3 mm: device 1P+N (1.5MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm^2
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

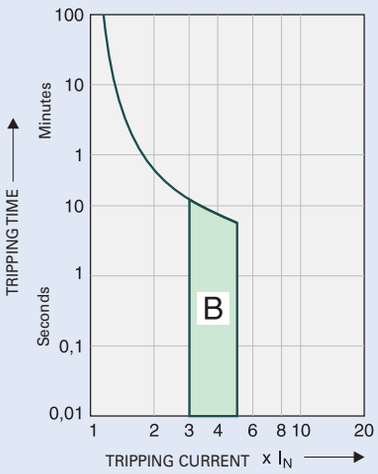
Dimensions (mm)



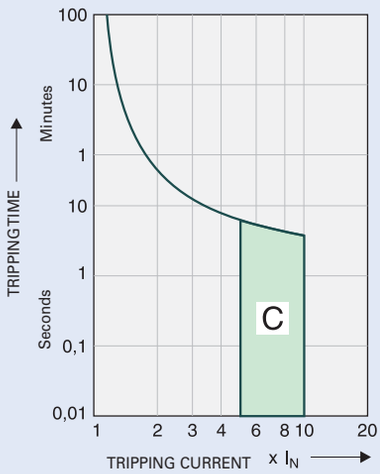
Protective Devices

Tripping Characteristics (IEC/EN 60898-1)

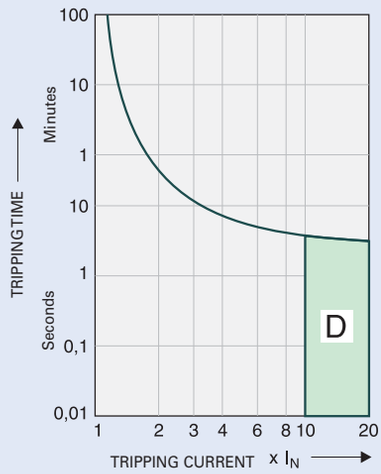
Tripping characteristic B



Tripping characteristic C



Tripping characteristic D



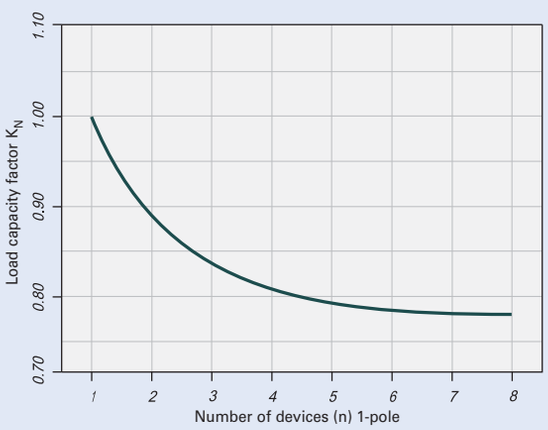
Quick-acting (B), slow (C), very slow (D)

Effect of the Ambient Temperature on Thermal Tripping Behaviour

Adjusted rated current values according to the ambient temperature

	Ambient temperature T [°C]																
I_n [A]	**-25**	**-20**	**-10**	**0**	**10**	**20**	**30**	**35**	**40**	**45**	**50**	**55**	**60**	**65**	**70**	**75**
0.16	0.20	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	0.31	0.30	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	0.61	0.60	0.58	0.56	0.54	0.52	0.50	0.49	0.48	0.47	0.46	0.45	0.44	0.43	0.42	0.41
0.75	0.92	0.90	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	1.2	1.2	1.2	1.1	1.1	1.0	1.0	0.99	0.97	0.95	0.93	0.90	0.89	0.87	0.85	0.83
1.5	1.8	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	2.0	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	2.4	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9	1.9	1.9	1.8	1.8	1.7	1.7	1.7
2.5	3.1	3.0	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	3.7	3.6	3.5	3.4	3.3	3.1	3.0	3.0	2.9	2.8	2.8	2.7	2.7	2.6	2.5	2.5
3.5	4.3	4.2	4.1	3.9	3.8	3.7	3.5	3.4	3.4	3.3	3.2	3.2	3.1	3.0	3.0	2,9
4	4.9	4.8	4.7	4.5	4.3	4.2	4.0	3.9	3.9	3.8	3.7	3.6	3.5	3.5	3.4	3.3
5	6.1	6.0	5.8	5.6	5.4	5.2	5.0	4.9	4.8	4.7	4.6	4.5	4.4	4.3	4.2	4.1
6	7.3	7.2	7.0	6.7	6.5	6.3	6.0	5.9	5.8	5.7	5.6	5.4	5.3	5.2	5.1	5.0
8	9.8	9.6	9.3	9.0	8.7	8.4	8.0	7.9	7.7	7.6	7.4	7.2	7.1	6,9	6,8	6,6
10	12	12	12	11	11	10	10	9.9	9.7	9.5	9.3	9.0	8.9	8.7	8.5	8.3
12	15	14	14	13	13	13	12	12	12	11	11	11	11	10	10	10
13	16	16	15	15	14	14	13	13	13	12	12	12	12	11	11	11
15	18	18	17	17	16	16	15	15	15	14	14	14	13	13	13	12
16	20	19	19	18	17	17	16	16	15	15	15	14	14	14	14	13
20	24	24	23	22	22	21	20	20	19	19	19	18	18	17	17	17
25	31	30	29	28	27	26	25	25	24	24	23	23	22	22	21	21
32	39	38	37	36	35	33	32	32	31	30	30	29	28	28	27	26
40	49	48	47	45	43	42	40	39	39	38	37	36	35	35	34	33
50	61	60	58	56	54	52	50	49	48	47	46	45	44	43	42	41
63	77	76	73	71	68	66	63	62	61	60	58	57	56	55	53	52

Load Capacity of Series Connected Miniature Circuit Breakers



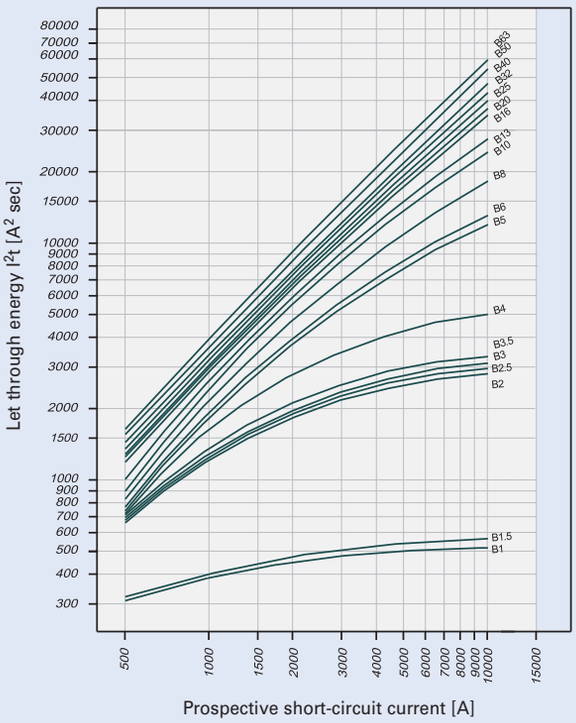
Effect of Power Frequency

Effect of power frequency on the tripping behaviour I_{MA} of the quick release

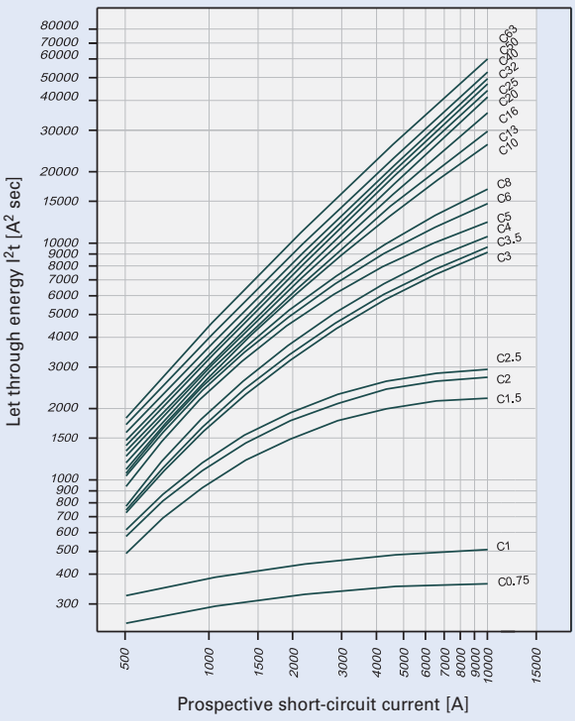
	Power frequency f [Hz]						
	$16^2/_3$	50	60	100	200	300	400
$I_{MA}(f)/I_{MA}(50Hz)$ [%]	91	100	101	106	115	134	141

Let-through Energy mMCM

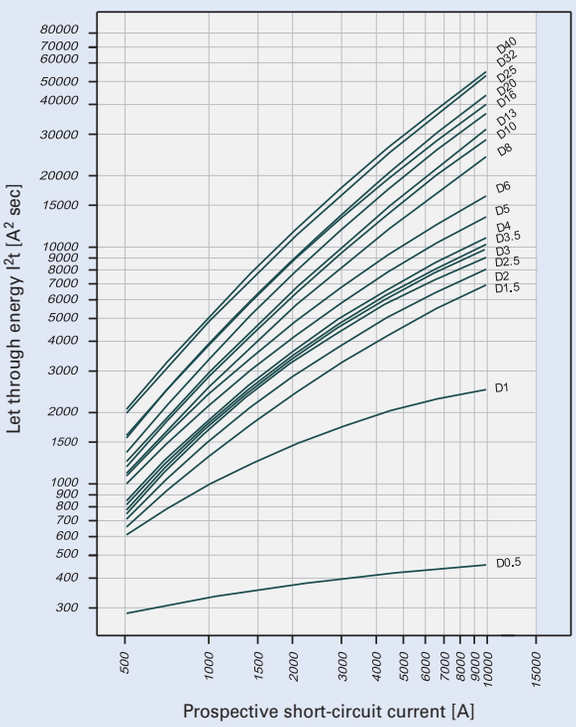
Let-through energy mMCM, characteristic B, 1-pole



Let-through energy mMCM, characteristic C, 1-pole



Let-through energy mMCM, characteristic D, 1-pole

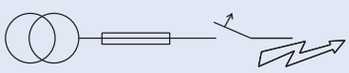


Protective Devices

Short Circuit Selectivity mMCM towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers mMCM and the upstream fuses 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



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

MCB	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***)*

MCB	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***)*

MCB	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	10.0[2]	10.0[2]	10.0[2]
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 limit current I_s under 0.5 kA

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

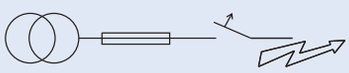
no selectivity

Protective Devices

Short Circuit Selectivity mMCM towards D01-D03 fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers mMCM and the upstream fuses 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



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

MCB	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***)*

MCB	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***)*

MCB	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 limit current I_s under 0.5 kA

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

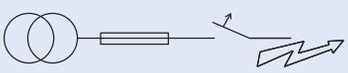
no selectivity

Protective Devices

Short Circuit Selectivity mMCM towards NH-00 Fuses

In case of short circuit, there is selectivity between the miniature circuit breakers mMCM and the upstream fuses 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



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

MCB	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***)*

MCB	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***)*

MCB	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 limit current I_s under 0.5 kA

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

no selectivity

Protective Devices

Short Circuit Selectivity mMCM towards cylindrical fuse links

In case of short circuit, there is selectivity between the miniature circuit breakers mMCM and the upstream fuses 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

*Short circuit selectivity **characteristic B** towards fuse links **CH10x38 gG, CH14x51 gG, CH22x58 gG***)*

MCB	CH10x38 gG				CH15x51 gG					CH22x58 gG								
I_n [A]	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
1	0.5	>10	>10	>10	>10	>10	>10	>10	>10	1.2	>10	>10	>10	>10	>10	>10	>10	>10
2	<0.5	0.6	1.2	3.6	0.5	1.0	5.2	>10	>10	<0.5	0.5	1.1	>10	>10	>10	>10	>10	>10
3	<0.5	0.5	0.8	1.4	0.5	0.9	3.7	>10	>10	<0.5	0.5	1.0	8.0	>10	>10	>10	>10	>10
4	<0.5	<0.5	0.7	1.2	<0.5	0.7	1.7	4.0	>10	<0.5	<0.5	0.8	2.3	5.1	>10	>10	>10	>10
6	<0.5	<0.5	0.6	0.9	<0.5	0.7	1.3	2.0	2.7	<0.5	<0.5	0.7	1.5	2.2	2.6	5.6	10	>10
10	<0.5	<0.5	0.6	0.9	<0.5	0.6	1.1	1.5	2.0	<0.5	<0.5	0.6	1.2	1.6	1.9	3.2	4.8	9.0
13	<0.5	<0.5	0.6	0.8	<0.5	0.6	1.0	1.4	1.9	<0.5	<0.5	0.6	1.2	1.5	1.7	3.0	4.3	7.7
16		<0.5	0.5	0.8	<0.5	0.5	1.0	1.4	1.8		<0.5	0.5	1.1	1.4	1.6	2.7	3.8	6.3
20			0.5	0.8		<0.5	0.9	1.3	1.6			0.5	1.1	1.4	1.6	2.6	3.7	6.0
25				0.7			0.9	1.3	1.6				1.0	1.3	1.5	2.5	3.5	5.6
32								1.2	1.5					1.3	1.5	2.4	3.3	5.2
40									1.5						1.4	2.3	3.2	5.0
50																2.1	2.9	4.5
63																	2.8	4.2

no selectivity

*Short circuit selectivity **characteristic C** towards fuse links **CH10x38 gG, CH14x51 gG, CH22x58 gG***)*

MCB	CH10x38 gG				CH15x51 gG					CH22x58 gG								
I_n [A]	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
0.5	1.9	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
1	<0.5	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
2	<0.5	0.6	1.2	3.6	0.5	1.0	4.5	>10	>10	<0.5	0.6	1.1	>10	>10	>10	>10	>10	>10
3	<0.5	0.5	0.8	1.4	<0.5	0.7	1.4	2.4	3.7	<0.5	<0.5	0.8	1.8	2.7	3.5	9.3	>10	>10
4	<0.5	<0.5	0.7	1.2	<0.5	0.7	1.2	2.0	2.9	<0.5	<0.5	0.7	1.5	2.2	2.7	6.7	>10	>10
6	<0.5	<0.5	0.6	0.9	<0.5	<0.5	1.0	1.4	2.0	<0.5	<0.5	0.6	1.1	1.6	1.9	4.2	7.0	>10
10	<0.5	<0.5	0.5	0.8	<0.5	<0.5	0.9	1.3	1.7	<0.5	<0.5	0.6	1.1.	1.5	1.8	2.9	4.1	7.5
13	<0.5	<0.5	0.5	0.8	<0.5	<0.5	0.9	1.3	1.7	<0.5	<0.5	0.5	1.0	1.4	1.7	2.7	3.8	6.5
16		<0.5	0.5	0.8	<0.5	<0.5	0.8	1.2	1.6		<0.5	<0.5	1.0	1.3	1.5	2.6	3.5	5.8
20			<0.5	0.7		<0.5	0.8	1.2	1.5			<0.5	0.9	1.2	1.4	2.5	3.3	5.4
25				0.7			0.8	1.1	1.4				0.9	1.2	1.4	2.3	3.2	5.0
32								1.1	1.4					1.1	1.3	2.2	3.0	4.8
40									1.3						1.2	2.0	2.8	4.6
50																1.9	2.6	4.2
63																	2.3	3.7

no selectivity

Protective Devices

*Short circuit selectivity **characteristic D** towards fuse links **CH10x38 gG, CH14x51 gG, CH22x58 gG***)*

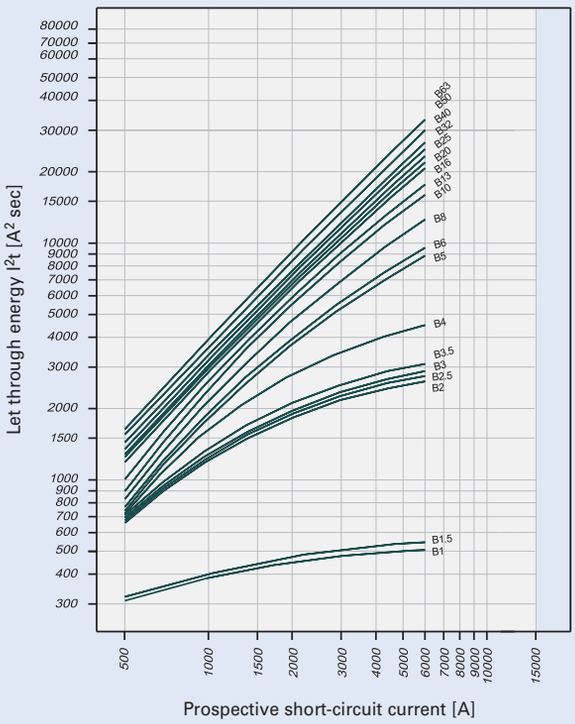
MCB	CH10x38 gG				CH15x51 gG					CH22x58 gG								
I_n [A]	16	20	25	32	20	25	32	40	50	16	20	25	32	40	50	63	80	100
0.5	0.9	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10	>10
1	<0.5	>10	>10	>10	>10	>10	>10	>10	>10	<0.5	0.6	1.5	>10	>10	>10	>10	>10	>10
2	<0.5	0.5	0.6	1.6	<0.5	1.0	1.7	>10	>10	<0.5	0.5	0.8	2.1	3.3	4.3	>10	>10	>10
3	<0.5	<0.5	0.8	1.3	<0.5	0.7	1.4	2.4	3.4	<0.5	<0.5	0.7	1.7	2.5	3.2	8.2	>10	>10
4	<0.5	<0.5	0.7	1.2	<0.5	0.7	1.3	2.0	3.1	<0.5	<0.5	0.7	1.6	2.3	3.0	7.0	>10	>10
6	<0.5	<0.5	0.6	1.0	<0.5	<0.5	1.0	1.6	2.0	<0.5	<0.5	0.6	1.3	1.7	2.1	4.2	7.0	>10
10	<0.5	<0.5	0.6	0.8	<0.5	<0.5	0.9	1.3	1.7	<0.5	<0.5	0.5	1.1	1.4	1.6	2.8	4.1	7.1
13	<0.5	<0.5	0.5	0.8	<0.5	<0.5	0.9	1.3	1.6	<0.5	<0.5	0.5	1.0	1.4	1.6	2.7	3.8	6.5
16		<0.5	0.5	0.7	<0.5	<0.5	0.8	1.1	1.4		<0.5	<0.5	1.0	1.2	1.4	2.3	3.2	5.5
20			<0.5	0.7		<0.5	0.7	1.0	1.3			<0.5	0.8	1.1	1.3	2.1	2.9	4.6
25				0.7			0.7	1.0	1.2				0.8	1.0	1.2	2.0	2.8	4.0
32														0.9	1.0	1.7	2.3	3.8
40															1.0	2.0	2.2	3.6

no selectivity

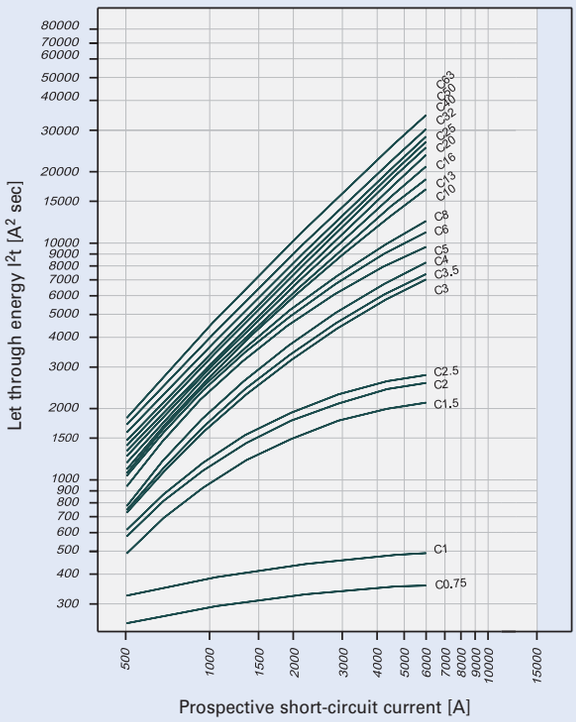
Protective Devices

Let-through Energy mMC6

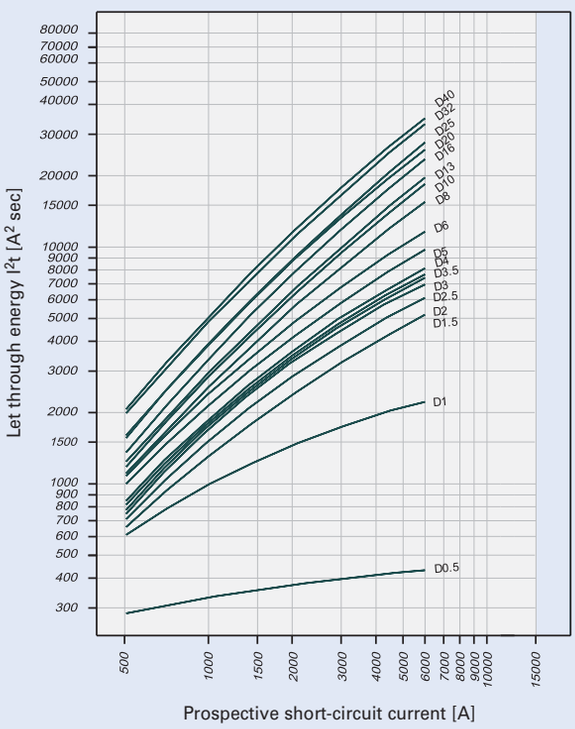
Let-through energy mMC6, characteristic B, 1-pole



Let-through energy mMC6, characteristic C, 1-pole



Let-through energy mMC6, characteristic D, 1-pole



Protective Devices

Short Circuit Selectivity mMC6 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers mMC6 and the upstream fuses 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

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

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

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

MCB	DII-DIV gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.75	1.0	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
1.0	<0.5[1]	1.2	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
1.5	<0.5[1]	<0.5[1]	1.0	2.2	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
2.0	<0.5[1]	<0.5[1]	0.8	1.6	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
2.5	<0.5[1]	<0.5[1]	0.8	1.4	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
3.0	<0.5[1]	<0.5[1]	0.8	0.9	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
3.5	<0.5[1]	<0.5[1]	0.6	0.9	2.2	4.5	6.0[2]	6.0[2]	6.0[2]
4	<0.5[1]	<0.5[1]	0.6	0.8	1.8	3.6	6.0[2]	6.0[2]	6.0[2]
5	<0.5[1]	<0.5[1]	0.6	0.7	1.5	2.7	6.0[2]	6.0[2]	6.0[2]
6		<0.5[1]	0.5	0.6	1.4	2.4	5.5	6.0[2]	6.0[2]
8		<0.5[1]	<0.5[1]	0.6	1.3	2.2	4.7	6.0[2]	6.0[2]
10			<0.5[1]	0.6	1.3	2.0	3.6	6.0[2]	6.0[2]
13					1.3	1.9	3.3	5.0	6.0[2]
16					1.2	1.8	3.2	4.4	6.0[2]
20					1.2	1.8	3.1	4.1	6.0[2]
25						1.7	2.8	3.8	6.0[2]
32							2.7	3.7	6.0[2]
40								3.5	5.9
50									5.5
63									

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

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

[1] Selectivity limit current I_s under 0.5 kA

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

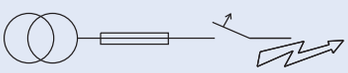
no selectivity

Protective Devices

Short Circuit Selectivity mMC6 towards D01-D03 fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers mMC6 and the upstream fuses 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



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

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

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

MCB	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.75	<0.5[1]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
1.0	<0.5[1]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
1.5	<0.5[1]	0.5	0.6	0.9	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
2.0	<0.5[1]	<0.5[1]	0.5	0.7	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
2.5	<0.5[1]	<0.5[1]	0.5	0.7	6.0[2]	6.0[2]	6.0[2]	6.0[2]	6.0[2]
3.0	<0.5[1]	<0.5[1]	<0.5[1]	0.6	1.9	5.2	6.0[2]	6.0[2]	6.0[2]
3.5	<0.5[1]	<0.5[1]	<0.5[1]	0.6	1.8	4.7	6.0[2]	6.0[2]	6.0[2]
4	<0.5[1]	<0.5[1]	<0.5[1]	0.6	1.6	4.0	6.0[2]	6.0[2]	6.0[2]
5		<0.5[1]	<0.5[1]	0.5	1.3	3.1	5.7	6.0[2]	6.0[2]
6		<0.5[1]	<0.5[1]	<0.5[1]	1.2	2.7	4.5	6.0[2]	6.0[2]
8		<0.5[1]	<0.5[1]	<0.5[1]	1.2	2.5	4.0	6.0[2]	6.0[2]
10			<0.5[1]	<0.5[1]	1.2	2.3	3.1	5.4	6.0[2]
13					1.1	2.2	3.0	4.9	6.0[2]
16					1.1	2.1	2.8	4.4	6.0[2]
20					1.0	2.0	2.6	4.0	6.0[2]
25						1.9	2.5	3.8	6.0[2]
32							2.5	3.7	6.0[2]
40								3.5	6.0[2]
50									6.0[2]
63									

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

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

[1] Selectivity limit current I_s under 0.5 kA

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

no selectivity

Protective Devices

Short Circuit Selectivity mMC6 towards NH-00 Fuses

In case of short circuit, there is selectivity between the miniature circuit breakers mMC6 and the upstream fuses 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

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

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

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

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

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

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

[1] Selectivity limit current I_s under 0.5 kA

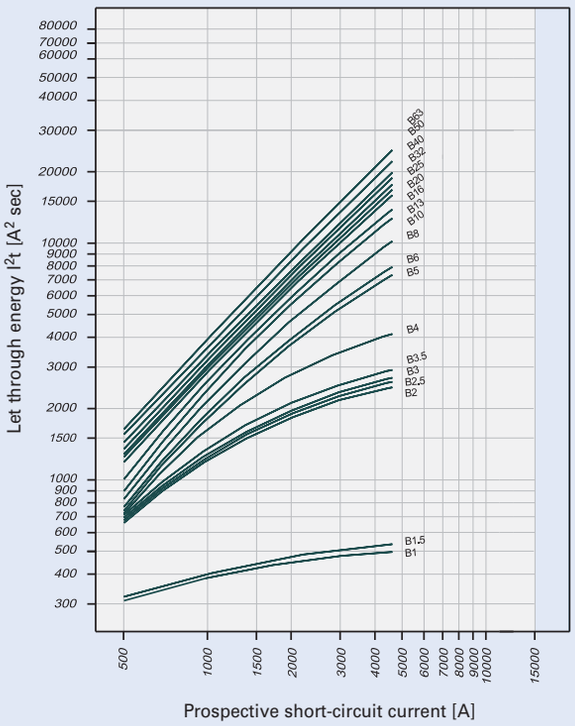
[2] Selectivity limit current I_s = rated breaking capacity I_{cn} of the MCB

no selectivity

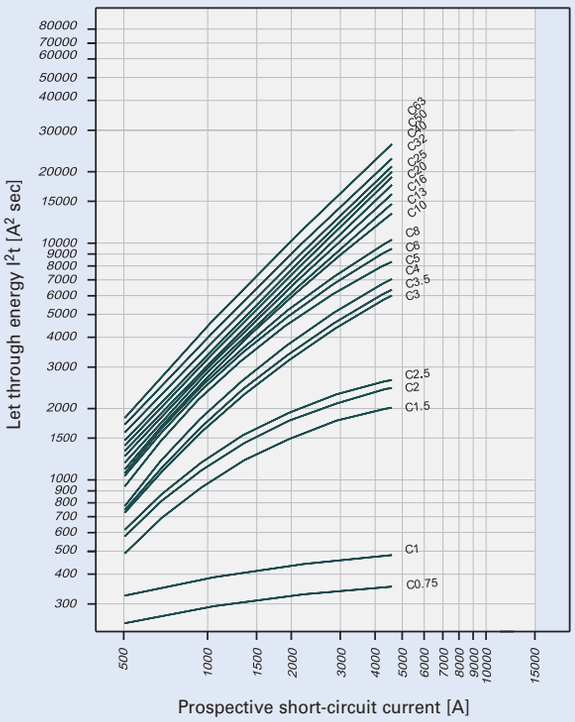
Protective Devices

Let-through Energy mMC4

Let-through energy mMC4, characteristic B, 1-pole



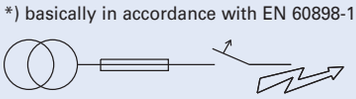
Let-through energy mMC4, characteristic C, 1-pole



Short Circuit Selectivity mMC4 towards DII-DIV fuse link

In case of short circuit, there is selectivity between the miniature circuit breakers mMC4 and the upstream fuses 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



[1] Selectivity limit current I_s under 0.5 kA

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

no selectivity

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

MCB	DII-DIV gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5[1]	1.2	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.5	<0.5[1]	1.0	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.0	<0.5[1]	<0.5[1]	0.8	1.6	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.5	<0.5[1]	<0.5[1]	0.8	1.5	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.0	<0.5[1]	<0.5[1]	0.8	1.4	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.5	<0.5[1]	<0.5[1]	0.7	1.3	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
4	<0.5[1]	<0.5[1]	0.6	1.0	3.6	4.5[2]	4.5[2]	4.5[2]	4.5[2]
5	<0.5[1]	<0.5[1]	0.6	0.9	2.0	3.5	4.5[2]	4.5[2]	4.5[2]
6		<0.5[1]	0.6	0.9	1.8	3.2	4.5[2]	4.5[2]	4.5[2]
8		<0.5[1]	0.5	0.8	1.6	2.6	4.5[2]	4.5[2]	4.5[2]
10			0.5	0.8	1.4	2.2	3.9	4.5[2]	4.5[2]
13			0.5	0.7	1.3	2.0	3.6	4.5[2]	4.5[2]
16				0.6	1.2	1.9	3.2	4.5[2]	4.5[2]
20					1.2	1.8	3.1	4.4	4.5[2]
25					1.2	1.8	3.0	4.2	4.5[2]
32						1.7	2.8	3.9	4.5[2]
40							2.7	3.8	4.5[2]
50							2.5	3.5	4.5[2]
63									4.5[2]

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

MCB	DII-DIV gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.75	1.0	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.0	<0.5[1]	1.2	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.5	<0.5[1]	<0.5[1]	1.0	2.2	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.0	<0.5[1]	<0.5[1]	0.8	1.6	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.5	<0.5[1]	<0.5[1]	0.8	1.4	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.0	<0.5[1]	<0.5[1]	0.8	0.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.5	<0.5[1]	<0.5[1]	0.6	0.9	2.2	4.5[2]	4.5[2]	4.5[2]	4.5[2]
4	<0.5[1]	<0.5[1]	0.6	0.8	1.8	3.6	4.5[2]	4.5[2]	4.5[2]
5	<0.5[1]	<0.5[1]	0.6	0.7	1.5	2.7	4.5[2]	4.5[2]	4.5[2]
6		<0.5[1]	0.5	0.6	1.4	2.4	4.5[2]	4.5[2]	4.5[2]
8		<0.5[1]	<0.5[1]	0.6	1.3	2.2	4.5[2]	4.5[2]	4.5[2]
10			<0.5[1]	0.6	1.3	2.0	3.6	4.5[2]	4.5[2]
13					1.3	1.9	3.3	4.5[2]	4.5[2]
16					1.2	1.8	3.2	4.4	4.5[2]
20					1.2	1.8	3.1	4.1	4.5[2]
25						1.7	2.8	3.8	4.5[2]
32							2.7	3.7	4.5[2]
40								3.5	4.5[2]
50									4.5[2]
63									

Protective Devices

In case of short circuit, there is selectivity between the miniature circuit breakers mMC4 and the upstream fuses 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

[1] Selectivity limit current I_s under 0.5 kA

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

no selectivity

Short Circuit Selectivity mMC4 towards D01-D03 fuse link

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

MCB	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
1.0	<0.5[1]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.5	<0.5[1]	4.1	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.0	<0.5[1]	<0.5[1]	0.6	1.0	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.5	<0.5[1]	<0.5[1]	0.6	1.0	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.0	<0.5[1]	<0.5[1]	0.5	1.0	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.5	<0.5[1]	<0.5[1]	0.5	0.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
4	<0.5[1]	<0.5[1]	0.5	0.9	2.5	4.5[2]	4.5[2]	4.5[2]	4.5[2]
5		<0.5[1]	0.5	0.8	1.7	4.0	4.5[2]	4.5[2]	4.5[2]
6		<0.5[1]	0.5	0.8	1.6	3.6	4.5[2]	4.5[2]	4.5[2]
8			0.5	0.8	1.4	2.8	4.3	4.5[2]	4.5[2]
10			0.5	0.7	1.3	2.4	3.4	4.5[2]	4.5[2]
13			<0.5[1]	0.7	1.2	2.3	3.2	4.5[2]	4.5[2]
16				0.6	1.1	2.2	2.9	4.5[2]	4.5[2]
20					1.1	2.1	2.8	4.4	4.5[2]
25					1.1	2.0	2.7	4.2	4.5[2]
32						2.0	2.6	4.0	4.5[2]
40							2.5	3.8	4.5[2]
50							2.3	3.4	4.5[2]
63									4.5[2]

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

MCB	D01-D03 gL/gG								
I_n [A]	10	16	20	25	35	50	63	80	100
0.75	<0.5[1]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.0	<0.5[1]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.5	<0.5[1]	0.5	0.6	0.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.0	<0.5[1]	<0.5[1]	0.5	0.7	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.5	<0.5[1]	<0.5[1]	0.5	0.7	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.0	<0.5[1]	<0.5[1]	<0.5[1]	0.6	1.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.5	<0.5[1]	<0.5[1]	<0.5[1]	0.6	1.8	4.5[2]	4.5[2]	4.5[2]	4.5[2]
4	<0.5[1]	<0.5[1]	<0.5[1]	0.6	1.6	4.0	4.5[2]	4.5[2]	4.5[2]
5		<0.5[1]	<0.5[1]	0.5	1.3	3.1	4.5[2]	4.5[2]	4.5[2]
6		<0.5[1]	<0.5[1]	<0.5[1]	1.2	2.7	4.5[2]	4.5[2]	4.5[2]
8		<0.5[1]	<0.5[1]	<0.5[1]	1.2	2.5	4.0	4.5[2]	4.5[2]
10			<0.5[1]	<0.5[1]	1.2	2.3	3.1	4.5[2]	4.5[2]
13					1.1	2.2	3.0	4.5[2]	4.5[2]
16					1.1	2.1	2.8	4.4	4.5[2]
20					1.0	2.0	2.6	4.0	4.5[2]
25						1.9	2.5	3.8	4.5[2]
32							2.5	3.7	4.5[2]
40								3.5	4.5[2]
50									4.5[2]
63									

Short Circuit Selectivity mMC4 towards NH-00 fuse link

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

MCB	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
1.0	0.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.5	0.8	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.0	<0.5[1]	0.5	1.0	2.5	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.5	<0.5[1]	0.5	1.0	2.3	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.0	<0.5[1]	0.5	0.9	2.1	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.5	<0.5[1]	0.5	0.9	1.8	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
4	<0.5[1]	<0.5[1]	0.8	1.3	2.3	4.3	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
5	<0.5[1]	<0.5[1]	0.7	1.1	1.6	2.2	3.6	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
6	<0.5[1]	<0.5[1]	0.7	1.1	1.5	2.0	3.3	4.3	4.5[2]	4.5[2]	4.5[2]	4.5[2]
8	<0.5[1]	<0.5[1]	0.6	1.0	1.3	1.7	2.6	3.3	4.5[2]	4.5[2]	4.5[2]	4.5[2]
10		<0.5[1]	0.6	0.9	1.2	1.5	2.2	2.7	4.0	4.5[2]	4.5[2]	4.5[2]
13		<0.5[1]	0.6	0.8	1.1	1.4	2.1	2.6	3.8	4.5[2]	4.5[2]	4.5[2]
16			0.5	0.7	1.0	1.3	1.9	2.4	3.4	4.5[2]	4.5[2]	4.5[2]
20				0.7	1.0	1.3	1.9	2.4	3.3	4.5[2]	4.5[2]	4.5[2]
25				0.7	1.0	1.3	1.8	2.3	3.2	4.5[2]	4.5[2]	4.5[2]
32					0.9	1.2	1.7	2.2	3.1	4.5[2]	4.5[2]	4.5[2]
40								2.1	3.0	4.5[2]	4.5[2]	4.5[2]
50								1.9	2.8	4.5[2]	4.5[2]	4.5[2]
63									4.4	4.5[2]	4.5[2]	

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

MCB	NH-00 gL/gG											
I_n [A]	16	20	25	32	35	40	50	63	80	100	125	160
0.75	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.0	0.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
1.5	<0.5[1]	0.6	1.3	4.2	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.0	<0.5[1]	0.6	1.0	2.5	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
2.5	<0.5[1]	0.5	1.0	2.1	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.0	<0.5[1]	<0.5[1]	0.7	1.2	1.8	2.6	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
3.5	<0.5[1]	<0.5[1]	0.7	1.1	1.7	2.4	4.2	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
4	<0.5[1]	<0.5[1]	0.7	1.0	1.5	2.1	3.6	4.5[2]	4.5[2]	4.5[2]	4.5[2]	4.5[2]
5	<0.5[1]	<0.5[1]	0.6	0.8	1.2	1.7	2.8	3.8	4.5[2]	4.5[2]	4.5[2]	4.5[2]
6	<0.5[1]	<0.5[1]	0.5	0.8	1.2	1.5	2.5	3.3	4.5[2]	4.5[2]	4.5[2]	4.5[2]
8	<0.5[1]	<0.5[1]	0.5	0.8	1.1	1.5	2.3	2.9	4.5[2]	4.5[2]	4.5[2]	4.5[2]
10			0.5	0.7	1.0	1.4	2.0	2.5	3.8	4.5[2]	4.5[2]	4.5[2]
13					1.0	1.3	1.9	2.4	3.6	4.5[2]	4.5[2]	4.5[2]
16					1.0	1.3	1.8	2.3	3.3	4.5[2]	4.5[2]	4.5[2]
20					1.0	1.2	1.7	2.2	3.2	4.5[2]	4.5[2]	4.5[2]
25							1.6	2.1	3.0	4.5[2]	4.5[2]	4.5[2]
32								2.1	2.9	4.5[2]	4.5[2]	4.5[2]
40									2.8	4.5[2]	4.5[2]	4.5[2]
50										4.5[2]	4.5[2]	4.5[2]
63											4.5[2]	4.5[2]

Miniature Circuit Breakers mMCMDC for direct current application

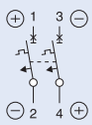
- High selectivity between MCB and back-up fuse due to low let-through energy
- Compatible with standard busbar
- Twin-purpose terminal (lift/open-mouthed) above and below
- Busbar positioning optionally above or below
- Meets the requirements of insulation co-ordination, distance between contacts ≥ 4 mm, for secure isolation
- Rated breaking capacity 10 kA according to IEC/EN 60947-2
- Rated voltage 250 V (per pole), τ = 4 ms
- Take into account polarity!

Accessories:	
Auxiliary switch for subsequent installation	ASAUXSN
Tripping signal contact for subsequent installation	ASALMSN
Shunt trip release	ASSNTSN
Undervoltage release	ASUVRSC230
Switching interlock	ASPDL

Connection diagrams

1-pole

2-pole

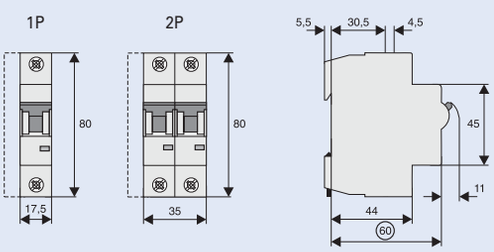


Technical Data

Electrical	
Design according to	IEC/EN 60947-2
Current test marks as printed onto the device	
Rated voltage	
DC	2 A: 220 V (per pole) 4-50 A: 250 V (per pole)
Rated frequency	50/60 Hz
Rated breaking capacity according to IEC/EN 60947-2	10 kA
Characteristic	C
Back-up fuse	max. 100 A gL
Selectivity class	3
Rated peak withstand voltage U_{imp}	4 kV (1.2/50µs)
Endurance electrical comp.	≥ 4,000 operating cycles
mechanical comp.	≥ 20,000 operating cycles
Line voltage connection	optional (above/below)

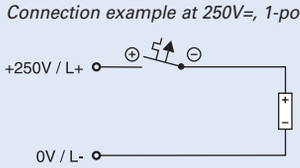
Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	17.5 mm per pole (1MU)
Mounting	quick fastening with 3 lock-in positions on DIN rail IEC/EN 60715
Degree of protection	IP20
Upper and lower terminals	open mouthed/lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	1-25 mm^2
Terminal fastening torque	2-2.4 Nm
Busbar thickness	0.8 - 2 mm
Mounting	independent of position

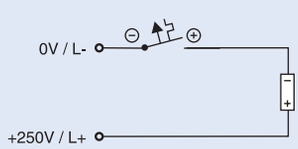
Dimensions (mm)



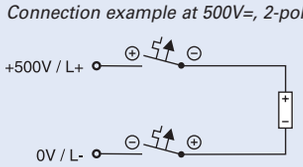
Connection examples

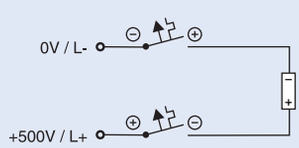
Connection example at 250V=, 1-pole





Connection example at 500V=, 2-pole

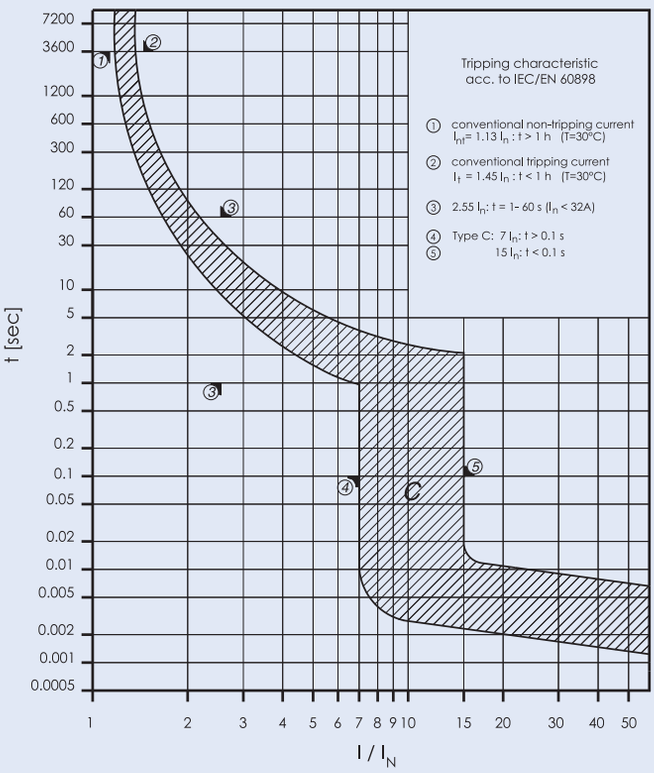




Protective Devices

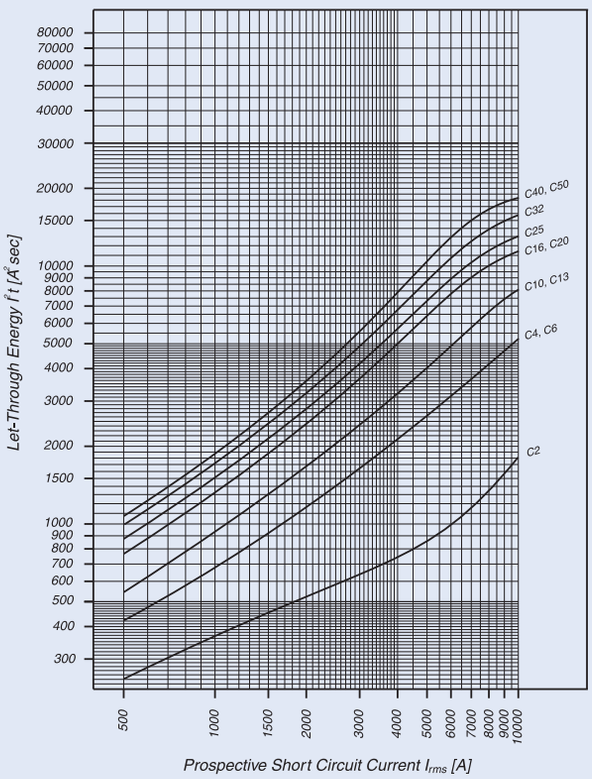
Tripping characteristic mMCMDC

Type C



Let-through Energy mMCMDC

Type C, 250 V d.c., τ = 5 ms (acc. to IEC/EN 60947-2)

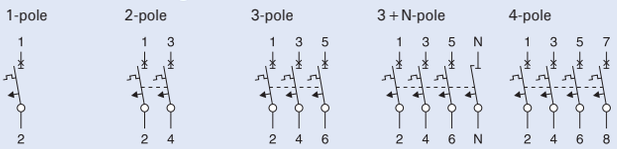


Protective Devices

Miniature Circuit Breakers mMCT

- Independent switching contacts
- With isolator function, meets the requirements of insulation co-ordination, distance between contacts ≥ 4 mm, for secure isolation

Connection diagrams

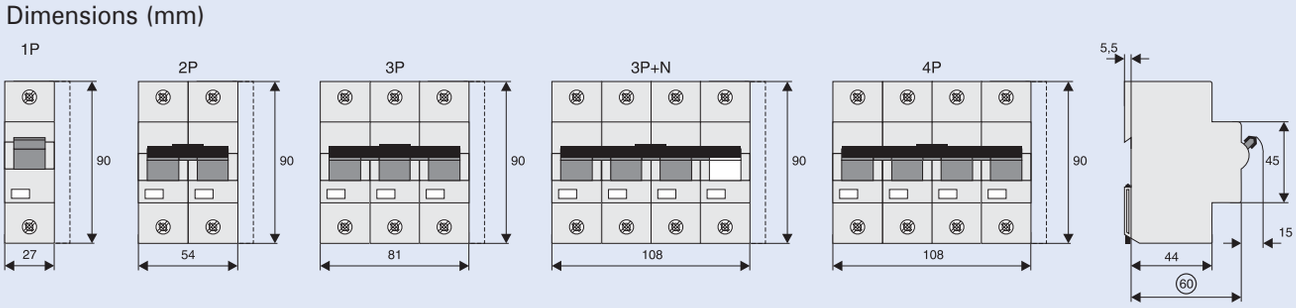


Technical Data

Electrical	
Design according to	EN 60947-2
Current test marks as printed onto the device	
Rated voltage	
AC	230/400V
DC	60V (per pole) max. 2 poles in series
Ultimate short circuit breaking capacity acc. to IEC/EN 60947-2	
Characteristics B,C	I_n = 20-63 A 25 kA
	I_n = 80-100 A 20 kA
	I_n = 125 A 15 kA
Characteristic D	I_n = 20-63 A 25 kA
	I_n = 80 A 20 kA
	I_n = 100 A 15 kA
Characteristic	in accordance with characteristics B, C, D
Back-up fuse	max. 200 A gL
Rated insulation voltage	440 V
Peak withstand voltage U_{imp}	4 kV
Selectivity class	in acc. with class 3
Endurance	≥ 20,000 operations

Mechanical	
Frame size	45 mm
Device height	90 mm
Device width	27 mm (1.5MU) per pole
Mounting	quick fastening with 2 lock-in positions on DIN rail IEC/EN 60715
Degree of protection, built-in	IP40
Upper and lower terminals	lift terminals
Terminal protection	finger and hand touch safe, BGV A3, ÖVE-EN 6
Terminal capacity	2.5-50 mm^2

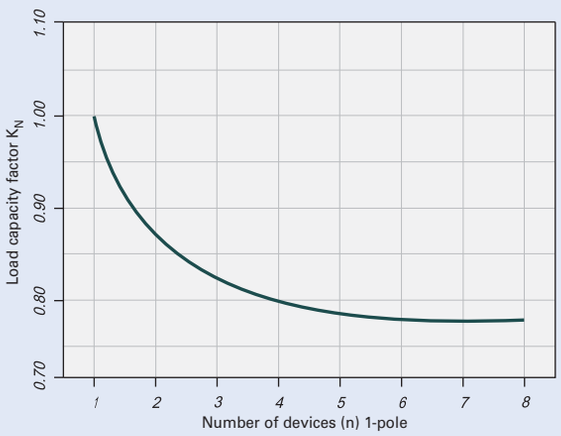
Dimensions (mm)



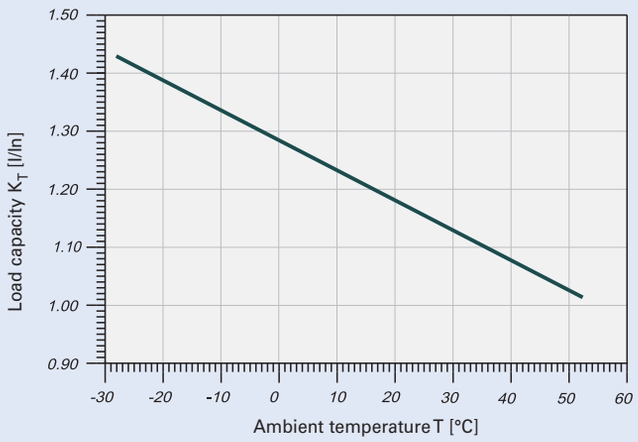
Protective Devices

Load Capacity

Load capacity in case of block installation



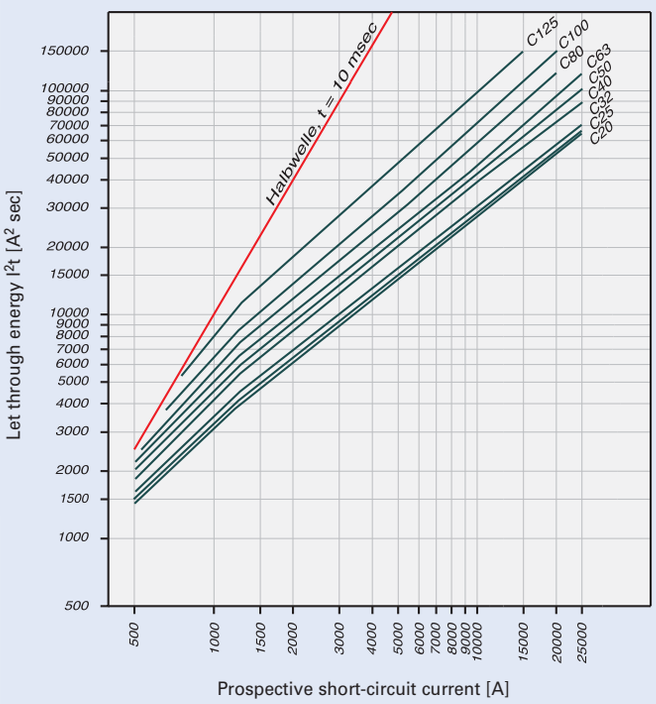
Effect of ambient temperature



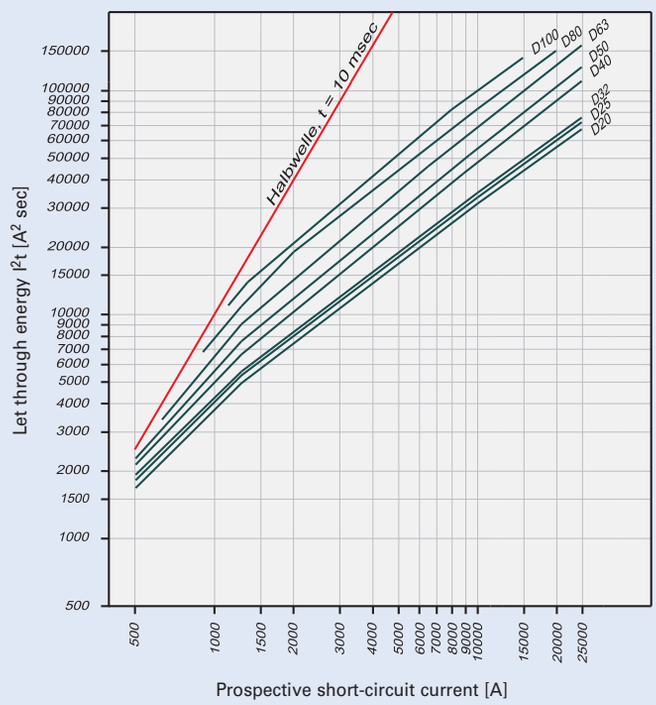
Permitted permanent load at ambient temperature T [°C] with n devices: $I_{DL} = I_n K_T(T) K_N(N)$.

Let-through Energy

Maximum let-through energy mMCT, characteristic C, 1-pole



Maximum let-through energy mMCT, characteristic D, 1-pole



Determined according to EN 60898-1.

Protective Devices

Short Circuit Selectivity

- Short circuit selectivity (in kA) between mMCT and upstream fuse D0 or NH, operating class gL/gG
- 1,4 . . selectivity up to 1.4 kA; . . . no selectivity

Selectivity towards back-up fuses D01, D02, D03

Rated current I_n **mMCT** in A		Rated current of the back-up fuse in A					
		25	**35**	**50**	**63**	**80**	**100**
C-Characteristic	**20**	0,5	1,0	2,0	2,9	3,9	7,6
	25		1,0	1,9	2,8	3,8	7,3
	32		1,0	1,8	2,7	3,6	7,0
	40			1,6	2,2	3,0	5,6
	50				2,1	2,8	5,2
	63					2,7	4,8
	80						4,3
	100						
	125						
D-Characteristic	**20**	0,5	0,9	1,7	2,5	3,4	6,7
	25		0,9	1,6	2,3	3,2	6,2
	32		0,9	1,5	2,3	3,0	6,0
	40			1,4	2,0	2,6	4,7
	50				1,8	2,3	4,3
	63					2,1	3,7
	80						3,1
	100						

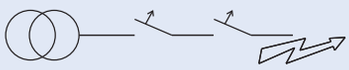
Selectivity towards back-up fuses NH Gr. 00

Rated current I_n **mMCT** in A		Rated current of the back-up fuse in A								
		25	**35**	**40**	**50**	**63**	**80**	**100**	**125**	**160**	**200**
C-Characteristic	**20**	0,5	1,0	1,3	1,9	2,7	3,7	6,7	17,0	25,0	25,0
	25		0,9	1,3	1,8	2,6	3,5	6,5	17,0	25,0	25,0
	32		0,9	1,2	1,7	2,4	3,3	6,0	15,0	23,0	25,0
	40				1,4	2,1	2,9	4,8	12,0	18,0	25,0
	50					1,9	2,7	4,5	11,0	17,0	25,0
	63							4,2	10,0	15,0	25,0
	80							3,8	8,5	12,0	25,0
	100								7,0	10,0	25,0
	125									7,5	25,0
D-Characteristic	**20**	<0,5	0,8	1,1	1,5	2,3	3,1	5,6	16,0	25,0	25,0
	25		0,7	1,0	1,4	2,1	3,0	5,3	14,0	23,0	25,0
	32		0,7	1,0	1,3	2,1	2,9	5,0	13,0	22,0	25,0
	40				1,1	1,8	2,5	4,2	10,0	15,0	25,0
	50					1,6	2,3	3,8	8,5	13,0	22,0
	63						2,1	3,2	7,0	10,5	18,0
	80							2,8	5,5	8,4	15,0
	100								4,8	7,5	12,5

Protective Devices

Short Circuit Selectivity mMCT towards NZM 1

In case of short circuit, there is selectivity between the miniature circuit breakers mMCT and the upstream NZM 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). Overload and short-circuit release unit NZM at max. value.
*) basically in accordance with EN 60898-1 D.5.2.b



*Short circuit selectivity **characteristic C** towards **NZM***)*

mMCT	NZM...1-A gL/gG					
I_n [A]	40	50	63	80	100	125
20	0.3	0.4	0.5	0.75	0.9	1.25
25	0.3	0.4	0.5	0.7	0.9	1.2
32		0.4	0.5	0.7	0.85	1.2
40			0.5	0.6	0.85	1.1
50				0.6	0.85	1.1
63					0.8	1
80						1
100						
125						

*Short circuit selectivity **characteristic D** towards **NZM***)*

mMCT	NZM...1-A gL/gG					
I_n [A]	40	50	63	80	100	125
50						
63						
80						
100						

no selectivity

Short Circuit Selectivity mMCT towards NZM 2

In case of short circuit, there is selectivity between the miniature circuit breakers mMCT and the upstream NZM 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). Overload and short-circuit release unit NZM at max. value.
*) basically in accordance with EN 60898-1 D.5.2.b

*Short circuit selectivity **characteristic C** towards **NZM***)*

mMCT	NZM...2-A gL/gG								
I_n [A]	40	50	63	80	100	125	160	200	250
20	0.3	0.4	0.5	0.75	0.9	1.25	1.8	2.5	3.5
25	0.3	0.4	0.5	0.7	0.9	1.2	1.7	2.4	3.3
32		0.4	0.5	0.7	0.85	1.2	1.65	2.3	3.2
40			0.5	0.6	0.85	1.1	1.5	2.1	2.9
50				0.6	0.85	1.1	1.5	2	2.8
63					0.8	1	1.4	1.8	2.5
80						1	1.4	1.8	2.4
100							1.3	1.7	2.3
125								1.6	2.1

*Short circuit selectivity **characteristic D** towards **NZM***)*

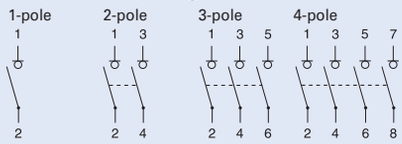
mMCT	NZM...2-A gL/gG								
I_n [A]	40	50	63	80	100	125	160	200	250
50							1	1.4	2.6
63							1	1.3	2.3
80									2.1
100									

no selectivity

Main Load Disconnector Switch (Isolator) IL

- Load circuit breaker with isolating function
- Design according to IEC/EN 60947-3
- Highly wear resistant contacts
- Quick make, black toggle
- Terminal capacity 50 mm²
- Compatible busbars with switchgear series by use of the mouth terminal in combination with standard fork busbar

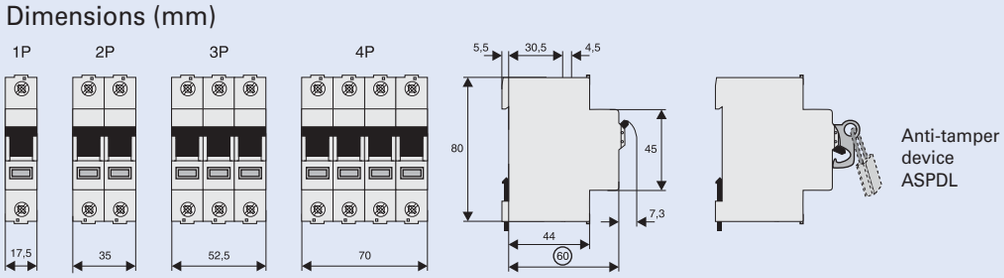
Connection diagram



Technical Data

	IL40.	IL63.	IL80.	IL100.	IL125.
Electrical					
Design according to	IEC/EN 60947-3				
Rated voltage	240/415V				
Frequency	50/60 Hz				
Rated insulation voltage U_i	690 V~				
Rated peak withstand voltage U_{imp}	6 kV				
Pollution degree	3				
Rated short-time withstand current I_{cw}	2 kA				
Rated short-circuit making capacity I_{cm}	2.8 kA				
Rated current					
240/415V, AC23A	40 A	63 A	80 A	100 A	125 A
Number of poles	1-, 2-, 3-, 4-pole				
Maximum back-up fuse	125 A gG				
Short circuit strength - with back-up fuse acc. to the applicable rules					
IEC/EN 60947-3	12.5 kA	12.5 kA	12.5 kA	10 kA	10 kA
Endurance					
electrical comp. op. cycles	≥ 3,000	≥ 3,000	≥ 3,000	≥ 3,000	≥ 2,000
mechanical comp. op. cycles	≥ 16,000	≥ 16,000	≥ 16,000	≥ 16,000	≥ 14,000
Mechanical					
Frame size	45 mm				
Device height	80 mm				
Device width	17.5mm/pole				
Mounting	quick fastening with 2 lock-in positions on DIN rail IEC/EN 60715				
Degree of protection, built-in	IP40				
Terminal protection	finger and hand touch safe according to BGV A3				
Terminals	Twin-purpose terminals				
Terminal capacity	2.5 - 50 mm²				
Busbar thickness	0.8-1.0 mm				
Fastening torque of terminal screws	2.5 - 5 Nm				
Function	irrespective of the position of installation				

Dimensions (mm)



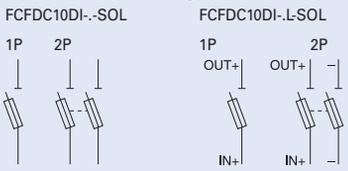
Switching interlock ASPDL

- Without lock
- Also suitable for RCCB, RCBO, MCB, ...

Fuse-Disconnector FCFDC10DI-..-SOL

- Design according to
  IEC 60947-1 Ed. 4.0, EN 60947-1:1999+A1:2000+A2:2001
  IEC 60947-3 Ed. 2.1, EN 60947-3:1999+A1:2001
- Types L with visual tripping indicator
- Suitable for cylindrical fuse-links photovoltaic application 10x38 according to IEC 60269, UL284-4
- Can be sealed with leads
- Supplied without fuse-links

Connection diagram

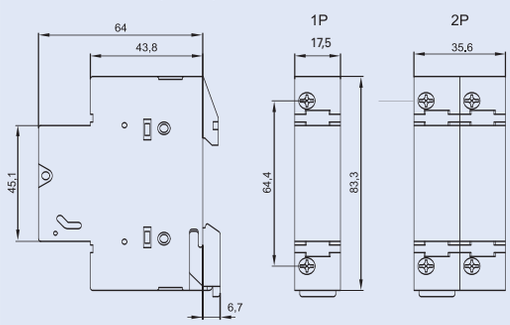


Technical Data

Electrical	
Number of poles	1P, 2P
Rated voltage U_e	1000 V DC
Rated current I_e	25 A
Rated conditional short-circuit current	10 kA
Utilization category	DC 20 B
Rated insulation voltage U_i	1000 V DC
Overvoltage category	III
Rated impulse withstand voltage U_{imp}	6 kV
Power loss per current path without fuse-link	0.9 W
Maximum permissible power loss of fuse-links	3 W

Mechanical	
Frame size	45 mm
Device height	83.3 mm
Device width	17.5 mm per pole
Weight	
1P	58 g
2P	70 g
Mounting	Quick fastening on DIN rail IEC/EN 60715
Degree of protection	IP20
Terminals above and below	lift terminals
Terminal capacity	0.5 - 10 mm^2 AWG 20-8
Tightening torque of terminal screws	1.2 Nm
Ambient temperature range	-25 to +40°C
Flame class	glow wire tested 960°C
Pollution degree	2
Comparative tracking index	CTI 450

Dimensions (mm)



Fuse-Links ASFLC10-..A-gPV-SOL Photovoltaic application

- According to IEC 60269-1 and IEC 60269-4
- For fuse-switch-disconnectors FCFDC10DI

Connection diagram

Technical Data

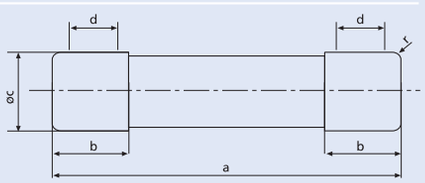
Electrical	**ASFLC10-..A-gPV-SOL 10x38**
Rated voltage U_n	6 - 20 A / 1000 V DC 25 A / 900 V DC
Rated frequency	–
Rated short-circuit breaking capacity	30 kA
τ = L/R	2 ms

Max.Power dissipation

Rated current I_n	Pre-arcing Joule integral L/R = 2 ms	Operating Joule integral L/R = 2 ms	Power dissipation at 0.7 x I_n	Power dissipation at I_n P_d	Weight P_d
[A]	[A^2s]	[A^2s]	[W]	[W]	[g]
2	1.3	3.5	1.47	1.00	10
4	3.3	28	0.52	1.25	10
6	5.5	45	0.73	1.65	10
8	8	62	0.93	1.9	10
10	11	88	1.06	2.3	10
12	23	180	1.03	1.9	10
16	35	270	1.00	2.5	10
20	50	430	1.18	3.25	10
25	75	620	1.25	3.45	10

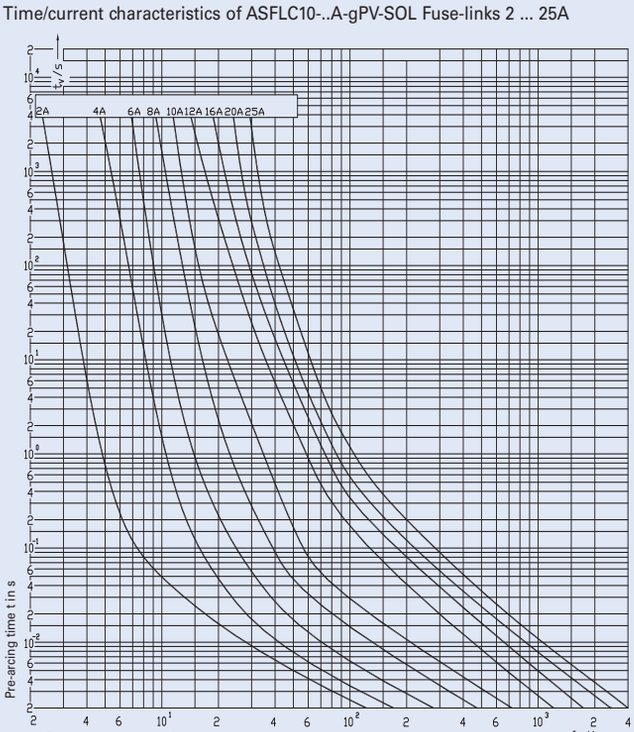
Dimensions (mm)

Type	Size	a	$b_{max.}$	c	$d_{min.}$	r
ASFLC10	10x38	38.0±0.6	10.5	10.3±0.1	6	1.5±0.5



Characteristics ASFLC10-..A-gPV-SOL, Photolvoltaic application

Time/current characteristics of ASFLC10-..A-gPV-SOL Fuse-links 2 ... 25A



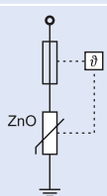
AC

SPD-type T2 (Class C), Plug-in Surge Arresters SPMT2PA

- Field of application:
  For the protection of low voltage distribution systems against transient overvoltage caused by indirect lightning stroke and switching operations.
- Test class II according to IEC 61643-1
- SPD-type T2 according to EN 61643-11
- Auxiliary switch ASAUXSC-SPM for remote message transmission can be mounted onto the device
- Suitable for busbar connection to EATON switchgear

Symbol

Technical Data

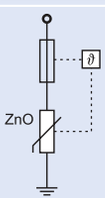
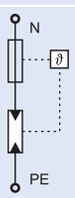
Inserts	SPMT2PA -75	-130	-175	-280	-335	-385	-460
Electrical							
SPD-type	T2	T2	T2	T2 T3	T2 T3	T2	T2
Mechanical coding	x	x	x	x	x	x	x
Responding time	< 25 ns	< 25 ns	< 25 ns	< 25 ns	< 25 ns	< 25 ns	< 25 ns
Voltage protection level at nominal discharge current / U_{oc}	< 550 V	< 800 V	< 1.0 kV	< 1.4 kV	< 1.6 kV	< 1.8 kV	< 2.2 kV
Voltage protection level at 5 kA (8/20) µs	400 V	550 V	700 V	1000 V	1200 V	1350 V	1700 V
Maximum continuous operating voltage U_c	75 VAC	130 VAC	175 VAC	280 VAC	335 VAC	385 VAC	460 VAC
Temporary overvoltage test value U_T (5 s)	= U_C	= U_C	= U_C	350 VAC	415 VAC	415 VAC	580 VAC
Rated frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Open circuit voltage U_{oc}	–	–	–	10 kV	10 kV	–	–
Nominal discharge current (8/20) µs I_n	15 kA	20 kA	20 kA	20 kA	20 kA	20 kA	20 kA
Charge Q at I_n	0.43 As	0.57 As	0.57 As	0.57 As	0.57 As	0.57 As	0.57 As
Specific energy at I_n	3.2 kJ/Ω	5.7 kJ/Ω	5.7 kJ/Ω	5.7 kJ/Ω	5.7 kJ/Ω	5.7 kJ/Ω	5.7 kJ/Ω
Maximum discharge current I_{max}	30 kA	40 kA	40 kA	40 kA	40 kA	40 kA	40 kA
Follow current interrupt rating I_{fi}	–	–	–	–	–	–	–
Permissible back-up fuse Maximum short-circuit current	≤ 160 AgL 50 $kA_{r.m.s.}$		mMCT-C100 20 $kA_{r.m.s.}$				
Connection diagram							

Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	
1-pole	17.5 mm (1MU)
1+1-pole	35 mm (2MU)
2-pole	35 mm (2MU)
3-pole	52.5 mm (3MU)
3+1-pole	70 mm (4MU)
4-pole	70 mm (4MU)
Mechanical coding	
1-pole	x
1+1-pole	yx
2-pole	xx
3-pole	xxx
3+1-pole	yxxx
4-pole	xxxx
Weight Base 1P, 1+1P, 2P, 3P, 3+1P, 4P	53/120/120/180/240/240 g
Weight Complete Devices 1P, 1+1P, 2P, 3P, 3+1P, 4P	110/201/220/330/412/440 g
Permitted ambient temperature	-40°C to +70°C
Degree of protection (built-in)	IP40
Upper and lower lift terminal capacity	4 - 25 mm^2
Upper and lower open mouthed terminals for busbar thickness up to	1.5 mm
Tightening torque of terminal screws	2.4 - 3 Nm
Quick fastening on DIN rail according to	IEC/EN 60715

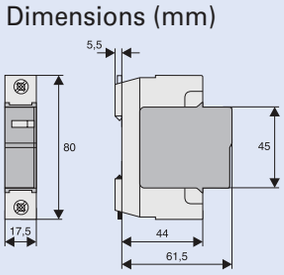
Surge Protection

AC

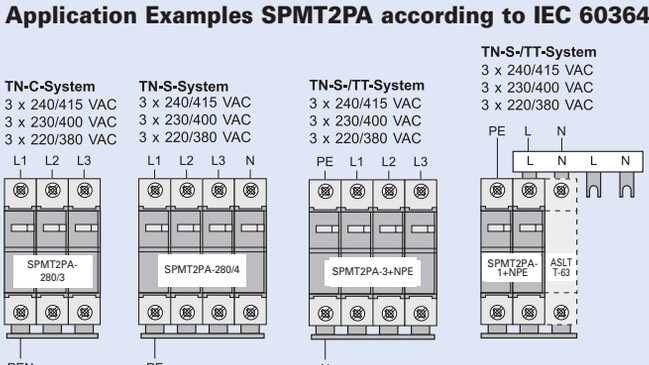
Technical Data

Inserts	**SPMT2PA-580**	**-NPE**
Electrical		
SDP-type	T2	T2 T3
Mechanical coding	x	y
Responding time	< 25 ns	< 100 ns
Voltage protection level at nominal discharge current / U_{oc}	< 2.6 kV	≤ 1.5 kV
Voltage protection level at 5 kA (8/20) µs	2000 V	–
Maximum continuous operating voltage U_c	580 VAC	260 VAC
Temporary overvoltage test value U_T	= U_C (5 s)	1200 VAC (200 ms)
Rated frequency	50/60 Hz	50/60 Hz
Open circuit voltage U_{oc}	-	5 kV
Nominal discharge current (8/20) µs I_n	20 kA	40 kA
Charge Q at I_n	0.57 As	1.14 As
Specific energy at I_n	5.7 kJ/Ω	22.8 kJ/Ω
Maximum discharge current I_{max}	40 kA	60 kA
Follow current interrupt rating I_{fi}	–	100 $A_{r.m.s}$
Permissible back-up fuse	≤ 160 AgL	mMCT-C100	–
Maximum short-circuit current	50 $kA_{r.m.s.}$	20 $kA_{r.m.s.}$	–
Connection diagram			
Mechanical		
Frame size	45 mm	
Device height	80 mm	
Device width		
1-pole	17.5 mm (1MU)	
1+1-pole	35 mm (2MU)	
2-pole	35 mm (2MU)	
3-pole	52.5 mm (3MU)	
3+1-pole	70 mm (4MU)	
4-pole	70 mm (4MU)	
Mechanical coding		
1-pole	x	
1+1-pole	yx	
2-pole	xx	
3-pole	xxx	
3+1-pole	yxxx	
4-pole	xxxx	
Weight Base 1P, 1+1P, 2P, 3P, 3+1P, 4P	53/120/120/180/240/240 g	
Weight Complete Devices 1P, 1+1P, 2P, 3P, 3+1P, 4P	110/201/220/330/412/440 g	
Permitted ambient temperature	-40°C to +70°C	
Degree of protection (built-in)	IP40	
Upper and lower lift terminal capacity	4 - 25 mm^2	
Upper and lower open mouthed terminals for busbar thickness up to	1.5 mm	
Tightening torque of terminal screws	2.4 - 3 Nm	
Quick fastening on DIN rail according to	IEC/EN 60715	

Dimensions (mm)



Application Examples SPMT2PA according to IEC 60364-5-53 Clause 534

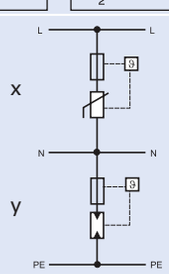
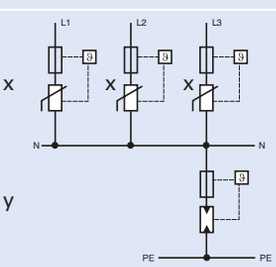


AC

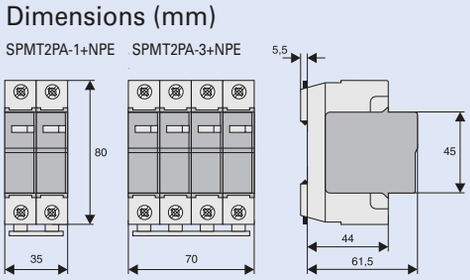
SPD-type 2 (Class C), Surge Arresters SPMT2PA-1+NPE, SPMT2PA-3+NPE

- Field of application:
  For the protection of low voltage distribution systems against transient overvoltage caused by indirect lightning stroke and switching operations.
- Test class II according to IEC 61643-1
- SPD-type T2 according to EN 61643-11
- Auxiliary switch ASAUXSC-SPM for remote message transmission can be mounted onto the device
- Suitable for busbar connection to EATON switchgear
- Type **SPMT2PA-3+NPE**:
  consists of 1 base,
  1 insert SPMT2PA-NPE and 3 inserts SPMT2PA-335
- Type **SPMT2PA-1+NPE**:
  consists of 1 base,
  1 insert SPMT2PA-NPE and 1 insert SPMT2PA-335

Technical Data

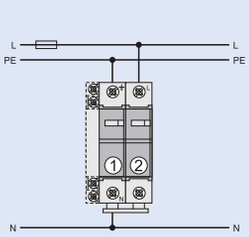
		SPMT2PA-1+NPE	SPMT2PA-3+NPE
Electrical			
SPD-type		T2 T3	T2 T3
Mechanical coding		yx	yxxx
Responding time	L-N/N-PE/L-PE	< 25ns/< 100ns/< 100ns	< 25ns/< 100ns/< 100ns
Maximum continuous operating voltage U_C	L-N/N-PE	335VAC/260VAC	335VAC/260VAC
Temporary overvoltage test value U_T (5 s)	L-N	415 VAC	415 VAC
(200 ms)	N-PE	1200 VAC	1200 VAC
Rated frequency		50/60 Hz	50/60 Hz
Nominal discharge current I_n	L-N/N-PE/L-PE	20 kA (8/20)µs	20 kA (8/20)µs
Voltage protection level U_p at I_n	L-N/N-PE/L-PE	≤1600V/≤1500V/≤2050V	≤1600V/≤1500V/≤1900V
Maximum discharge current I_{max}	L-N/N-PE/L-PE	40 kA (8/20)µs	40 kA (8/20)µs
Follow current interrupt rating I_{fi}	N-PE	100 $A_{r.m.s.}$	100 $A_{r.m.s.}$
Permissible back-up fuse Maximum short-circuit current		≤ 160 AgL 50 $kA_{r.m.s.}$	mMCT-C100 20 $kA_{r.m.s.}$
Connection diagram			
Mechanical			
Mechanical coding of base		yx	yxxx
Frame size		45 mm	45 mm
Device height		80 mm	80 mm
Device width		35 mm	70 mm
Weight		201 g	412 g
Upper and lower lift terminal capacity		1 - 25 mm^2	1 - 25 mm^2
Open-mouthed terminals at both sides for busbar thickness up to		1.5 mm	1.5 mm
Tightening torque of terminal screws		2.4 - 3 Nm	2.4 - 3 Nm
Permitted ambient temperature		-40°C to +70°C	-40°C to +70°C
Mounting		quick fastening on DIN rail IEC/EN 60715	
Degree of protection (built-in)		IP40	IP40

Dimensions (mm)



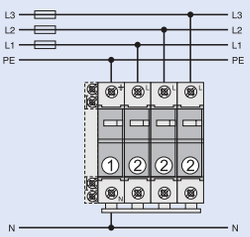
Application Examples

SPMT2PA-1+NPE
TN-, TT-System
3 x 230/400 VAC
3 x 240/415 VAC



① ... SPMT2PA-NPE
② ... SPMT2PA-335

SPMT2PA-3+NPE
TN-S-, TT-System
3 x 230/400 VAC
3 x 240/415 VAC



① ... SPMT2PA-NPE
② ... SPMT2PA-335

AC

Auxiliary Switch for Surge Arresters ASAUXSC-SPM

- Field of application:
  For mounting onto surge protective devices for external defect message transmission
- Design basically in accordance with IEC 60947-5-1
- Can be mounted subsequently
- Suitable for SPMT2PA

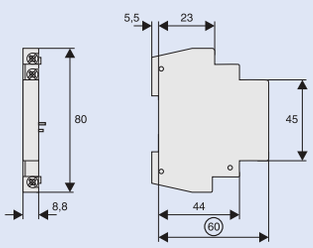
Connection diagram

Technical Data

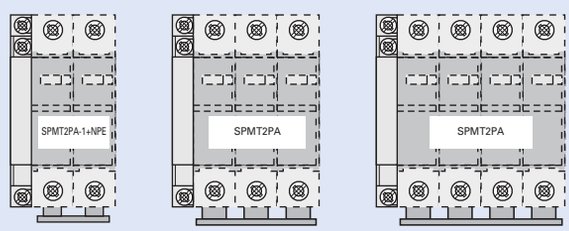
Electrical	
Rated insulation voltage	250 V
Rated frequency	50/60 Hz
Switching contact	1 CO
Minimum voltage per contact	24 VAC
Rated operational current AC12	2A/250VAC
Maximum back-up fuse	2 A gL
Overvoltage category	IV
Pollution degree	2

Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	8.8 mm
Weight	41 g
Mounting	screw-mounting onto SPMT2PA
Degree of protection, built-in	IP40
Finger and hand touch safe acc. to	BGV A3, ÖVE-EN 6
Upper and lower terminals	lift terminals
Terminal capacity	2 x 2.5 mm^2
Tightening torque of terminal screws	0.8 - 1 Nm

Dimensions (mm)



Application Examples



AC

Lead-Through Terminal for Surge Protective Devices, SPD-type 2 (Class C), ASLTT-63

- The lead-through terminal permits orderly wiring of SPDs types 2 (class C). It serves as lead-through terminal in circuits requiring vertical connections from the upper to the lower SPD connection level.
- 1-pole
- Suitable for standard busbar connection to EATON switchgear

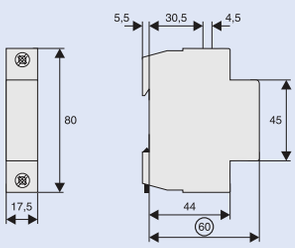
Connection diagram

Technical Data

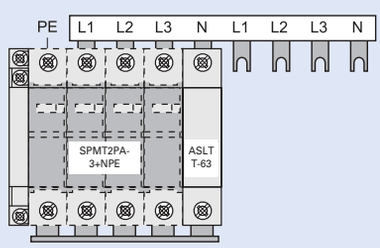
Electrical	
Rated voltage	690V AC/DC
Rated current	63 A
Rated frequency	50/60 Hz

Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	17.5 mm
Mounting	quick fastening on DIN rail IEC/EN 60715
Degree of protection, built-in	IP40
Finger and hand touch safe acc. to	BGV A3, ÖVE-EN 6
Upper and lower terminals	lift and open-mouthed terminals
Terminal capacity	1 - 25 mm^2
Busbar thickness	0.8 - 2 mm
Tightening torque of terminal screws	2.4 - 3 Nm

Dimensions (mm)



Application Example / Connection type 2 acc. to IEC 60364-5-53 Clause 534

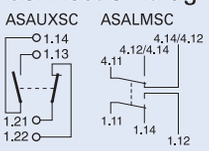


Accessories for Protective Devices

Auxiliary Switch ASAUXSC; Tripping Signal Switch ASALMSC

- Design according to IEC/EN 60947-5-1, IEC/EN 62019
- Can be mounted subsequently (screws)
- The specified minimum voltages are per contact
  Take into account particularly in case of series connection!
- **ASAUXSC, ASALMSC:** Contact function with relative movement (self-cleaning contacts)
- Contact material and design particularly suitable for extra low voltage
- **ASALMSC:** The function of one of the two change-over contacts can be switched from "auxiliary switch" to "tripping signal switch"
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off
- Test key for contact function "electrical tripping"

Connection diagrams

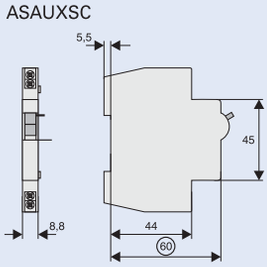


Technical Data

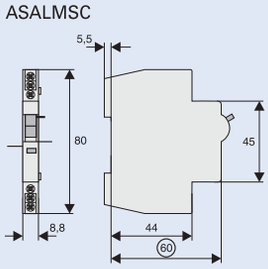
	ASAUXSC	ASALMSC
Electrical		
Can be mounted from the left onto	MCB, RCBO (2MU)	MCB, RCBO (2MU)
Can be mounted from the right onto	–	RCCB
Contact function	1NO + 1NC	2CO
Rated voltage	250 V	250 V
Frequency	50/60 Hz	50/60 Hz
Rated current	4 A	4 A
Rated thermal current I_{th}	4 A	4 A
Utilisation category AC13		
Rated operational current I_e	3A/250V AC	3A/250V AC
	–	–
Utilisation category AC15		
Rated operational current I_e	2A/250V AC	2A/250V AC
Utilisation category DC12		
Rated operational current I_e	0.5A/110V DC	0.5A/110V DC
Utilisation category DC13		
Rated operational current I_e	–	–
	–	–
	–	–
Rated insulation voltage U_I	250 V AC	250 V AC
Minimum operational voltage per contact U_{min}	5 V DC	5 V DC
Minimum operational current I_{min}	10 mA DC	10 mA DC
Rated peak withstand voltage U_{imp} (1.2/50µ)	2.5 kV	2.5 kV
Conditional short circuit current I_k		
with back-up fuse 6A	1 kA	1 kA
Max. back-up fuse, overload and short circuit	6 A gL	6 A gL
Mechanical		
Tripping indicator "electrical tripping"	–	blue/white
Frame size	45 mm	45 mm
Device height	80 mm	80 mm
Device width	8.8 mm (0.5MU)	8.8 mm (0.5MU)
Mounting	onto switching device	onto switching device
Degree of protection, built-in	IP40	IP40
Terminal protection	finger and hand touch safe according to BGV A3, ÖVE-EN 6	
Terminals	lift terminals	lift terminals
Terminal capacity	0.5-2.5 mm^2	0.5-2.5 mm^2
Terminal screws	M3 (Pozidrive Z0)	M3 (Pozidrive Z0)
Fastening torque of terminal screws	max. 0.8-1.0 Nm	max. 0.8-1.0 Nm

Dimensions (mm)

ASAUXSC

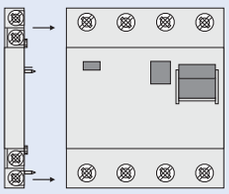


ASALMSC



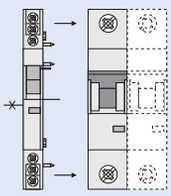
Accessories for Protective Devices

Example: ASAUXSC + RCCB



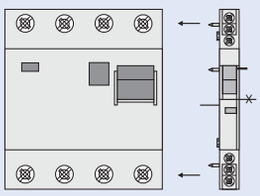
1NO+1NC 24V 50mA min.

Example: ASALMSC + MCB



2CO 5V 10mA min.

RCCB + ASALMSC

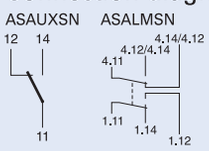


Accessories for Protective Devices

Auxiliary Switch ASAUXSN; Tripping Signal Switch ASALMSN

- Design according to IEC/EN 62019
- No screws required. Can be **snapped onto** PLS and PKNM subsequently
- **ASAUXSN:** can be snapped on additionally 1 time onto itself
- The specified minimum voltages are per contact. Take into account particularly in case of series connection!
- Contact material and design particularly suitable for extra low voltage. Contact function with relative movement (self-cleaning contacts)e)
- **ASALMSN:** The function of one of the two change-over contacts can be switched from “auxiliary switch” to "tripping signal switch"
- Tripping signal contact transmits message of electric tripping, not mechanical switch-off
- Test key for contact function “electrical tripping”

Connection diagrams



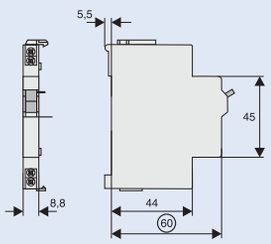
- **ASALMSN:** The “Service button” is used to check whether or not the auxiliary switch is correctly wired in the tripping-signal-switch position. Activating the “service button” will mechanically simulate an electrical switch-off, so the mechanism for the electrical switch-off will disengage and can be checked. The main switchgear (MCB, combined MCB/RCCB or RCCB ...) connected to the ASALMSN auxiliary switch does not need to trip as well during an inspection through the service button.

Technical Data

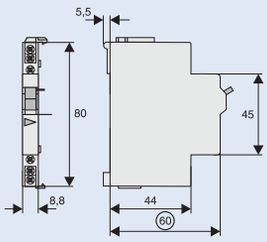
	ASAUXSN	**ASALMSN**
Electrical		
Can be mounted from the left onto	MCB RCBO (2MU)	MCB RCBO (2MU)
Accessories:	ASSNTSN	ASSNTSN
Contact function	1CO	2CO
Rated voltage	250 V	250 V
Frequency	50/60 Hz	50/60 Hz
Rated current	6 A	4 A
Rated thermal current I_{th}	6 A	4 A
Utilisation category AC13		
Rated operational current I_e	3A/250V AC	3A/250V AC
Utilisation category AC15		
Rated operational current I_e	2A/250V AC	2A/250V AC
Utilisation category DC12		
Rated operational current I_e	0.5A/110V DC	0.5A/110V DC
Rated insulation voltage U_i	250 V AC	250 V AC
Minimum operational voltage per contact U_{min}	5 V DC	5 V DC
Minimum operational current I_{min}	10 mA DC	10 mA DC
Rated peak withstand voltage U_{imp} (1.2/50µ)	2.5 kV	2.5 kV
Conditional short circuit current I_k		
with back-up fuse 6A	1 kA	1 kA
Max. back-up fuse, overload and short circuit	6 A gL	6 A gL
Mechanical		
Tripping indicator “electrical tripping”	–	blue/white
Frame size	45 mm	45 mm
Device height	80 mm	80 mm
Device width	8.8 mm (0.5MU)	8.8 mm (0.5MU)
Degree of protection, built-in	IP40	IP40
Terminal protection	finger and hand touch safe according to BGV A3, ÖVE-EN 6	
Terminals	lift terminals	lift terminals
Terminal capacity	0.5-2.5 mm²	0.5-2.5 mm²
Terminal screws	M4 (Pozidrive Z2)	M3 (Pozidrive Z0)
Fastening torque of terminal screws	max. 1.2 Nm	max. 0.8-1.0 Nm

Dimensions (mm)

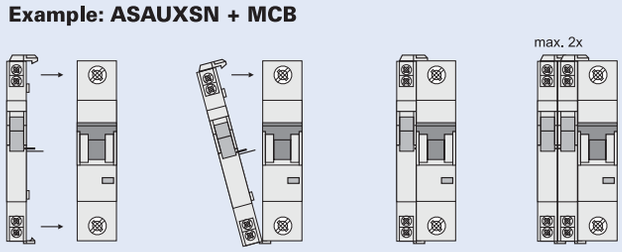
ASAUXSN



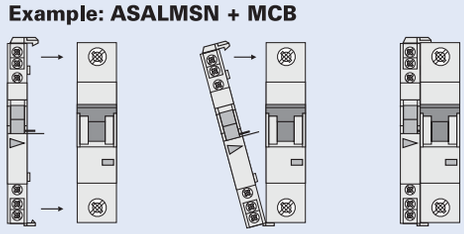
ASALMSN



Example: ASAUXSN + MCB



Example: ASALMSN + MCB

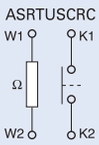


Accessories for Protective Devices

RCCB Tripping Module ASRTUSCRC

- For remote switch-off of RCCBs, standard and electronic combined RCD/MCB devices
- Remote switch-off by one or several parallel potential-free contacts, e.g. pushbutton max. rated current 3 A at 250 V, take into account maximum pushbutton voltage
- Remote tripping test by means of remote testing module Z-FW
- Can be mounted subsequently, to be wired according to connection diagram with the respective terminals of the RCCB
- Tripping module for RCCB 0.5A upon enquiry
- No undesired voltage rise in the consumer system during remote switch-off thanks to integrated breaker contact K1-K2

Connection diagram

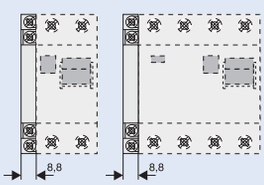


Technical Data

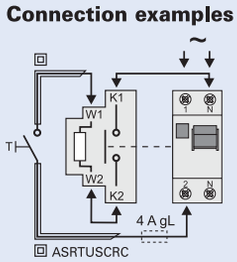
	ASRTUSCRC
Electrical	
Tripping module for	RCCB (EAM...)
Rated voltage	230(400) V AC
Frequency	50-60 Hz
Rated tripping current $I_{\Delta n}$	0.01 - 0.3 A
Function	1NO
Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	8.8 mm (0.5MU)
Degree of protection, built-in	IP40
Terminal capacity	1 - 2x2.5 mm^2
Terminal protection	finger and hand touch safe, according to BGV A3, ÖVE-EN 6

Dimensions (mm)

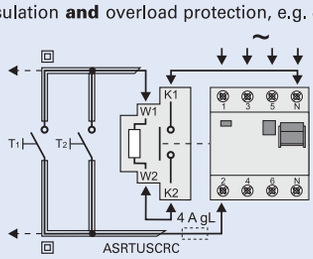
ASRTUSCRC



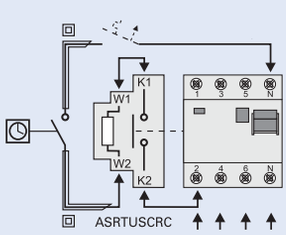
Connection examples Lay lines to the switching devices with double insulation **and** overload protection, e.g. 4A gL



Connection diagram:
RCCB-2p, RCCB feed above



Connection diagram:
RCCB-4p, RCCB feed above



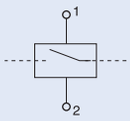
Connection diagram:
RCCB4p, RCCB feed below

Accessories for Protective Devices

Shunt Trip Release ASSNTST, ASSNTSN

- Remote release for subsequent mounting onto MCB, RCBO (2MU)
- Module width 1MU
- Additional installation of standard auxiliary switch is possible
- Position indicator red - green
- Type ASSNTSN for snap-on mounting

Connection diagram

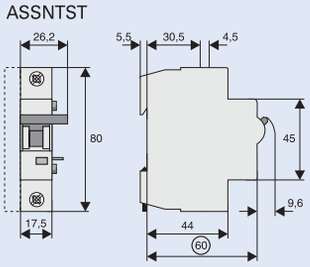


Technical Data

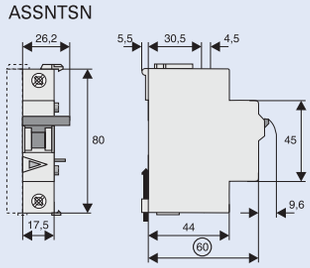
	ASSNTST110	ASSNTST415	ASSNTSN110	ASSNTSN415
Electrical				
Can be mounted onto	RCBO (2MU)	RCBO (2MU)	MCB	MCB
Operational voltage range	12-110V AC 12-60V DC	110-415V AC 110-220V DC	12-110V AC 12-60V DC	110-415V AC 110-220V DC
Frequency	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
Possible standard auxiliary switch	ASALMSC	ASALMSC	ASALMSN	ASALMSN
Mechanical				
Frame size	45 mm	45 mm	45 mm	45 mm
Device height	80 mm	80 mm	80 mm	80 mm
Device width	17.5 mm (1MU)	17.5 mm (1MU)	17.5 mm (1MU)	17.5 mm (1MU)
Mounting	quick fastening with 2 lock-in positions on DIN rail IEC/EN 60715			
Degree of protection, built-in	IP40	IP40	IP40	IP40
Terminal protection	finger and hand touch safe according to BGV A3, ÖVE-EN 6			
Terminals	open mouthed/lift	open mouthed/lift	open mouthed/lift + guide	open mouthed/lift + guide
Terminal capacity	1-25 mm^2	1-25 mm^2	1-25 mm^2	1-25 mm^2

Dimensions (mm)

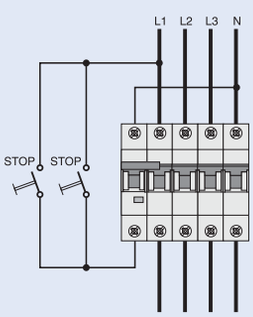
ASSNTST



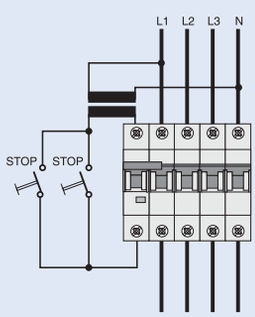
ASSNTSN



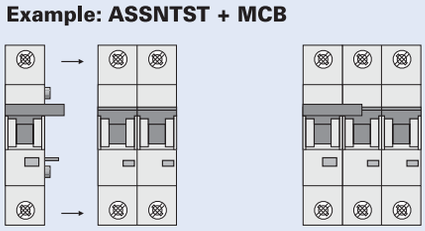
Connection Example 230 V



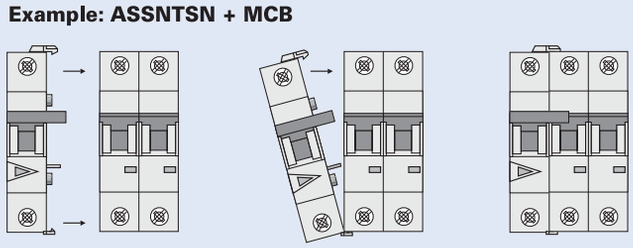
Connection Example 24 V



Example: ASSNTST + MCB



Example: ASSNTSN + MCB

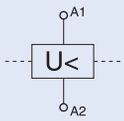


Accessories for Protective Devices

Undervoltage Release ASUVRSC230

- Voltage control indicator blue/white
- Service key for zero voltage switch-on for testing purposes
- Can be used with MCB

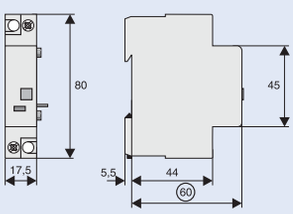
Connection diagram



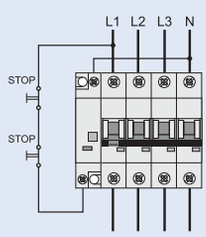
Technical Data

	ASUVRSC230
Electrical	
Rated voltage U_n	230 V AC
Frequency	50-60 Hz
Making threshold	80% of U_n
Tripping threshold	50% of U_n
Mechanical	
Frame size	45 mm
Device height	80 mm
Device width	17.5 mm (1MU)
Mounting	quick fastening on DIN rail IEC/EN 60715
Degree of protection, built-in	IP40
Terminals	open mouthed/lift
Terminal capacity	1 - 2x2.5 mm^2
Terminal protection	finger and hand touch safe, according to BGV A3, ÖVE-EN 6

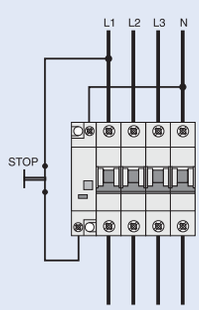
Dimensions (mm)



Connection Example Release



Connection Example



Connection example
ASUVRSC230 + MCB

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Dubai, United Arab Emirates
Tel: +9714 331 3938
Fax:+9714 332 9239

Eaton Electric Manufacturing
Middle East LLC
Mussafah Offshore Base
P.O. Box 42278, Abu Dhabi
United Arab Emirates
Tel: +9712 554 9544
Fax:+9712 554 9599

Eaton Dubai Distribution Centre (DDC)
BB03-BB04 South Zone 5,
Jebel Ali Free Zone
P.O. Box 261768, Dubai
United Arab Emirates
Tel: +971 4 8809455
Fax:+971 4 8809655

Qatar

Eaton Electric
Regus Doha Airport
D Ring Road
P.O. Box 32522
Doha, Qatar
Tel: +974 423 1274
Fax: +974 423 1275

Kuwait

Eaton Electric
Shayma Tower
Mezzanine Floor
Omar Bin Al Khattab Street
Sharq
Kuwait
Tel: +965 22253606/7
Fax: +965 22253608

Saudi Arabia

Eaton Corporation
Saad Trading & Commercial Center, 1st Floor,
Office # 9
Olaya Main Street
P.O. Box 19651, Riyadh 11445
Saudi Arabia
Tel: +966 1 4602275 / 4602066
Fax:+966 1 4602291

Eaton Corporation
PO Box 620,
Kanoo Airline Center, 3rd Floor,
Dammam-Khobar Highway
Al Khobar 31952
Saudi Arabia
Tel: +966 3 882 5424
Fax:+966 3 882 5732

Eaton Corporation
Al Nassar Trading & Housing Centre
Office No. 305 – P.O. Box 6870
King Fahed Road (Al Seteen Road)
Aziziah Area, Jeddah 21452,
Saudi Arabia
Tel: +966 2 667 9750
Fax:+966 2 661 2607

Lebanon

Eaton
Beirut Regus Solidere 614
Azarieh Building
Azarieh Street, Block 03, 5th Floor
P.O. Box 11 - 503, Beirut, Lebanon
Tel: +961 1 964 559
Fax: +961 1 964 501

Jordan

Eaton Electric
Khalda Main Street
Esbesuti Complex 2nd Floor
P.O. Box 211382
Amman 11121 Jordan
Tel: +9626 537 1429
Fax: +9626 551 5749

Iraq

Eaton Electric
62 Fazil Mirany Street, Shorsh Road
Kharizad (Dollarawa), Erbil, Kurdistan, Iraq
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