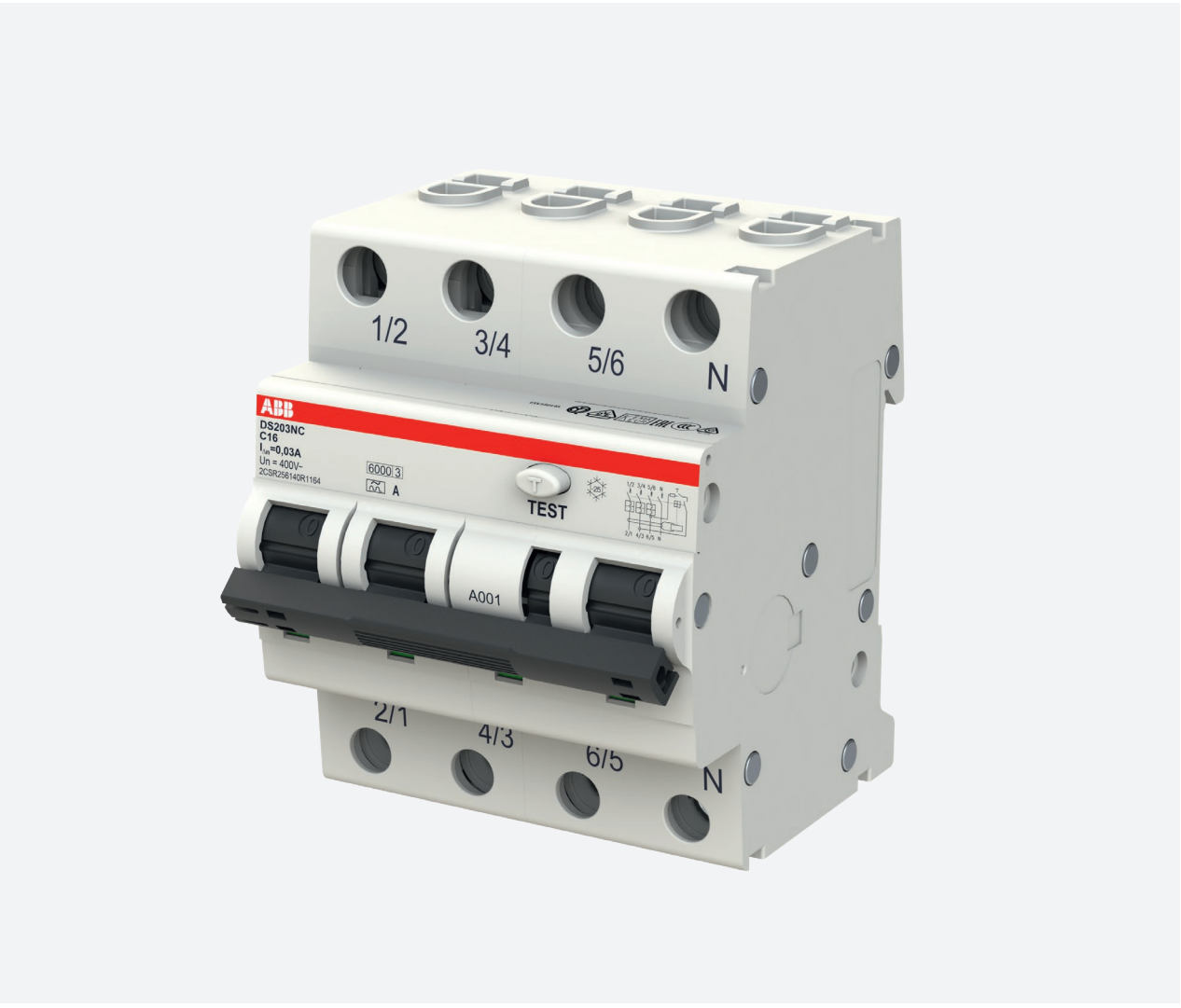
RESIDUAL CURRENT DEVICES

Minimum space, maximum protection

DS203NC: 3P+N RCBOs in 4 modules



- RCBO 3P+N in 4M
- Compact size for easy installation in small spaces
- DTI on window to identify earth fault trips
- 4.5kA and 6kA breaking capacity up to 32A

The DS203NC range of 3P+N compact residual current circuit breakers with overcurrent protection has been designed to meet the requirements of protection devices that suit the different types of circuits of modern three-phase systems, which are increasingly compact and sensitive.

DS203 NC are the ideal solution for installations in limited space, offering many types in just 4 modules width, saving space in switchboards by 50% compared to an RCB + MCB configuration.

This makes them suitable both for new installations and for retrofitting existing ones, by adding earth fault current protection in installations where this was not foreseen, without affecting the overall dimensions and the placement of the whole system.

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The complete evolution
DS203NC and ABB modular range: absolute integration

ABB is present on the market of electric installations with a range of the most complete and integrated modular DIN rail components. Circuit breakers, control and measurement solutions, devices for energy saving and many more are realized in compliance with the standards to anticipate the application needs of the customers, and are developed and constantly improved to ensure cutting-edge performance. A real “team”, in which it is also involved the family of DS203NC residual current circuit breakers with overcurrent protection. Designed to respect the con-cept of compatibility that permeates the entire portfo-lio of ABB modular products, also this line takes ac-count of the growing plant-related constraints and de-manding requirements of protection imposed world-wide by new generation installations.

In any application where the dimensions represent a potential barrier, the products of the family of DS203NC residual current circuit breakers with overcurrent protection from ABB guarantee a reliable and complete protection against overcurrent and earth fault currents. Characterised by a compact size, equal to a normal 4-pole MCB, the 3P+N RCBO of the line DS203NC are suitable to three-phase circuits installed in environments where space is a precious resource, such as zones for marinas and camping, switchboards for temporary environments such as yards or exhibitions, industrial sockets and power generators.
The line focuses on the efficiency of installation, sharing all the functional and mounting characteristics that distinguish the modular devices of the System pro M compact® family. Thanks to this legacy, the DS203NC RCBOs offer a solution of international standing, with a wide set of certifications and the level of quality that only a global and recognized manufacturer as ABB can ensure.

The essential protection
New solutions and retrofit: the importance of versatility

In all electrical installations it is crucial to ensure, at any time and under any condition, the safety of people, facilities and related equipment. Even in applications where space is a limited resource, the quality of protection must be given and guaranteed through features effective and respectful of the standards, without penalizing aspects such as size, ease of installation and flexibility of use.

The DS203NC family of 3P+N residual current circuit breakers with overcurrent protection by ABB has been developed with the aim of meeting requirements such as the protection and safety of people, equipment or facilities, offering a compact solution in 4 modules that is at the top of its category from every point of view.

Ideal for the protection of three-phase distribution circuits in commercial facilities, but also of equipment and industrial sockets, the products of the RCBO 3P+N DS203NC family of ABB have all the necessary specifications to ensure reliable and durable performance, offering space savings of 30% compared to a standard configuration. DS203NC RCBOs are the ideal solution for new installations, ensuring space saving in switchboards, as well as in retrofitting of existing plants, by adding earth fault current protection in installations where it wasn't foreseen, without any impact on the overall dimensions of the system and on the placing of the existing devices.

The compact reliability
DS203NC: increase safety, reduce space

Totally integrated into the modular range System pro M compact®, the DS203NC residual current circuit breakers with overcurrent protection respond to the request for protective equipment that meet the different types of circuits of the modern three phases systems, increasingly compact and sensitive.
Thanks to the many types and to a width of 4 modules only, the series DS203NC ("C" stands for "Compact") allows to reduce the used space to a third compared to a traditional 3P+N solution.

Series		DS203NC L	DS203NC
Standard		IEC/EN 61009-1, IEC/EN 61009-2-1	
Type		AC - A - APR	AC - A - APR - S
Number of poles		3P+N	
Rated current In [A]		6 - 8 - 10 - 13 - 16 - 20 - 25 - 32	6 - 8 - 10 - 13 - 16 - 20 - 25 - 32
Rated sensitivity IΔn [mA]		30 - 300	30 - 100 - 300
Rated breaking capacity Ultimate Icn [A] according to IEC/EN 61009		4500	6000
Rated breaking capacity Ultimate Icu [kA] according to IEC/EN 60947-2		6	10
Thermomagnetic release - characteristic	B: 3 In ≤ Im ≤ 5 In		■
	C: 5 In ≤ Im ≤ 10 In	■	■
	K: 10 In ≤ Im ≤ 14 In		■

DS203NC range combines in a single device of only four modules width the protection against overcurrents (overload and short circuit) and earth fault currents. The range, developed in accordance to product standards IEC/EN 61009-1 and IEC/EN 61009-2-1, is available in two rated breaking capacities: DS203NC L (4500 A) and DS203NC (6000 A).
The extreme breaking capacity Icu according to IEC/EN 60947-2 is 6 kA for DS203NC L and10 kA for DS203NC, making these devices performing and suitable especially in industrial applications.
The range includes AC, A, APR or S versions, with sensitivity levels of 30, 100 or 300 mA and intervention curves B, C or K.

The APR versions ensure high immunity to unwanted trippings due to transient overvoltage generated, or by capacitive filters of electronic devices like computers, printers, faxes etc. For these versions, the surge current withstand rises to 3000 A (8/20 wave), compared to 250 A of the standard models.
The compatibility with ABB CMS (Circuit Monitoring Systems) enables a consistent management of the network and a permanent monitoring of the circuit, anticipating the occurrence of faults. DS203NC has been tested in accordance to IEC 61373 standard "Railway applications - Rolling stock equipment - Shock and vibration tests" meeting the requirement of Category 1-Class B thus making DS230NC suitable for all the installations subjected to high shocks and vibrations.

In addition to its compact size, further elements that distinguish the products of the range of DS203NC residual current circuit breakers with overcurrent protection are the ease of use and management. These features, combined with the quality parameters typical of the ABB brand, make these solutions ideal for applications of international scope, where they can rely on the numerous certificates of conformity issued by leading worldwide regulatory bodies.

The RCBO DS203NC can be used in three phase systems with or without neutral, with no need to add any external resistance: this gives the opportunity to enjoy a unique product code to cover different applications, simplifying logistics and management of parts in stock.
The logistical aspect is further optimized thanks to the radio frequency identification (RFid) tag that equips each unit and allows ABB both to trace the product information, as to track and verify the authenticity of the individual devices through the unique code assigned by ABB in accordance with the standards ISO/ IEC FCD 15693-3.
In terms of simplification, these products also consider the needs of the installer.
The devices use the same profile as the family System pro M compact®, with which they can share the accessories via the interface module.
Suitable for mounting on DIN rail thanks to the simple fixing device, the RCBOs DS203NC have terminals with two slots that allow to use different types of conductors: one housing is designed for cables up to 25 mm^2, the other for busbars or cables up to 10 mm^2. The devices can be supplied both from bottom and top terminals.
In addition to ensuring maximum flexibility, this set of features allows to meet the different installation habits in different countries. This is further supported by the reliability and warranty of the ABB brand and a quality and compliance to standards that are tested and approved by many global bodies, including IMQ, VDE, EAC and KEMA.
The framework of the features is complemented by numerous measures designed to optimize the operation, to facilitate troubleshooting and to reduce inefficiencies and downtime.
Notable among them are the tripping indicator, the contact position indicator to ease the identification of causes of fault.

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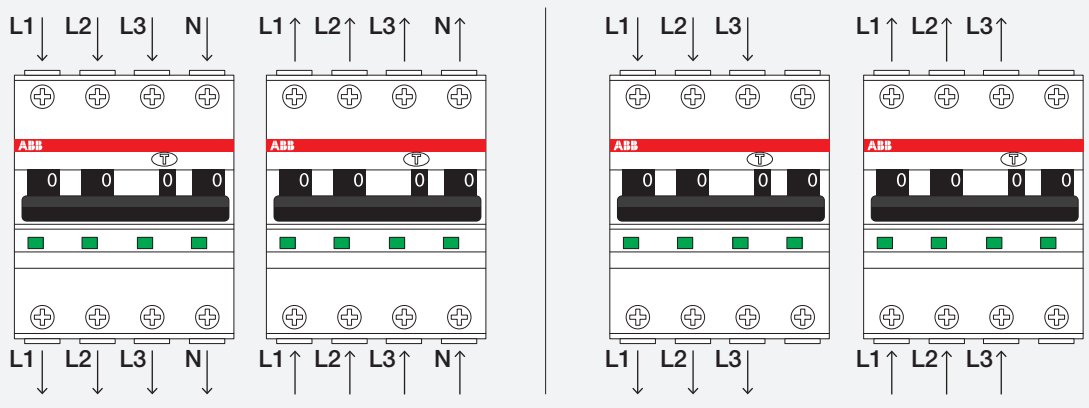
DS203NC can be used in three phases systems, with or without neutral, with no need to add an external resistance and can be supplied from top or bottom terminals.

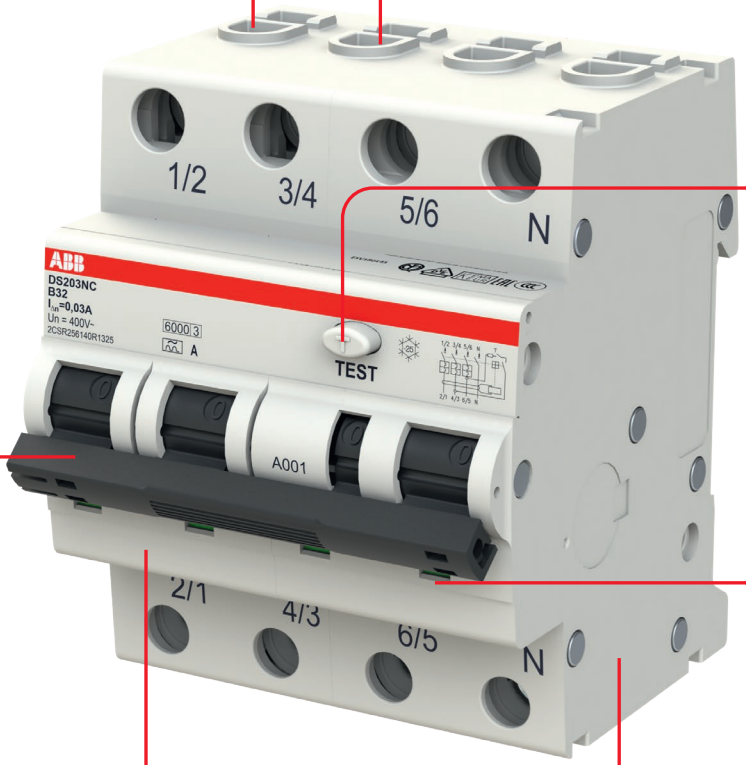


The effective choice

The benefits of a product with the highest quality standards

Compact size for easy installation in small spaces and retrofitting of already existing facilities.

Terminals designed to ease the installation.



Test pushbutton to verify the correct functioning of the device.

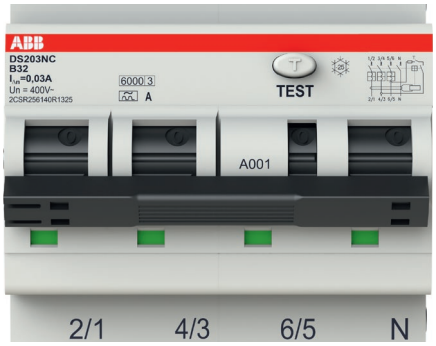
Operating toggle can be sealed into on/off position to ensure maintenance in complete safety.

The indication of the status of the contacts is done with a mechanical connection to the mobile contacts and independently from the toggle position.
The contacts position indicator (CPI) allows to exactly know the status of the contacts of the device (green: open contacts, red: closed contacts).

Space for identification labels of the protected line.

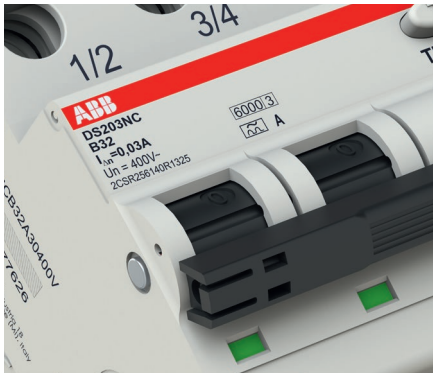
Same profile as the System pro M compact® range.

Use with cables and with busbars
Terminals with two slots allow to use different types of conductors: one housing is designed for cables up to 25 mm², the other for busbars or cables up to 10 mm².

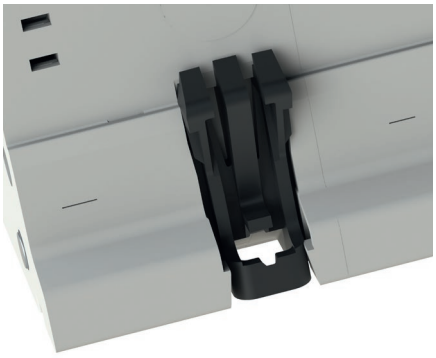


New toggle
The toggle is now squared, with a new and more ergonomic grip, to prevent slip during operations.

Differential trip indicator
In case of tripping due to earth fault, a blue flag appears on the toggle thus immediately showing the cause of the trip of the device. This feature helps in troubleshooting on the network and reduces the downtime for maintenance.



Laser print information
All the necessary technical and installation information is laser printed on the front and side of units ensuring visibility along the time, including order code on the front of the device for future orders.



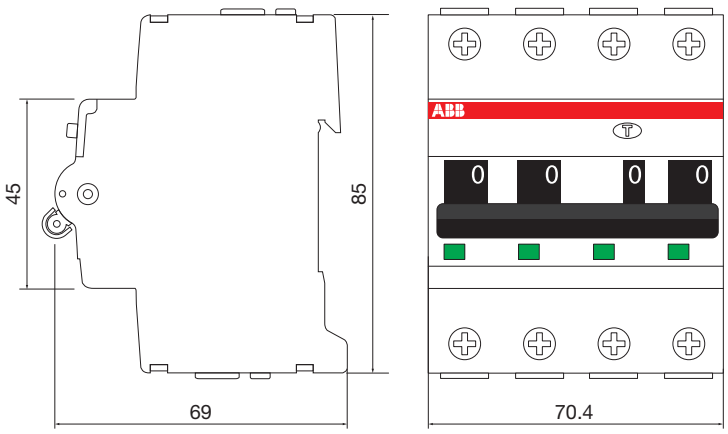
Mounting clip
The mounting clip eases the installation and removal from the DIN rail, even when used in a battery of devices with busbars on bottom terminals (without the need to remove other devices).

Approval stamps
DS203NC residual current circuit breakers with overcurrent protection can meet different installation habits in various countries and are approved by the most important certification bodies like IMQ, VDE, KEMA.

DS203NC
Technical features

			DS203NC L	DS203NC
Standards			IEC/EN 61009-1; IEC/EN 61009-2-1	IEC/EN 61009-1; IEC/EN 61009-2-1
Electrical features				
Type (wave form of the earth leakage sensed)			AC, A, APR	AC, A, APR, S
Number of poles			3P+N	3P+N
Rated current In		A	6≤ In ≤ 32A	6≤ In ≤ 32A
Rated sensitivity Idn		mA	30-300	30-100-300
Rated voltage Ue		V	400-415V	400-415V
Insulation voltage Ui		V	500 V AC	500 V AC
Overvoltage category			III	III
Pollution degree			2	2
Max operating voltage of circuit test		V	440	440
Min. operating voltage of circuit test		V	30mA: 300; 300mA: 195	30mA: 300; 100mA, 300mA: 195
Rated frequency		Hz	50/60	50/60
Rated breaking capacity acc. to IEC/ EN 61009	ultimate Icn	A	4500	6000
Rated breaking capacity acc. to IEC/EN 60947-2	ultimate Icu	kA	6	10
	service Ics	kA	4,5	5
Rated residual breaking capacity IΔm acc. To EN 61009		kA	4,5	6
Rated impulse withstand voltage (1.2/50) Uimp		kV	4	4
Dielectric test voltage at ind. freq. for 1 min.		kV	2.5	2.5
Thermomagnetic release - characteristic	B: 3 In ≤ Im ≤ 5 In			■
	C: 5 In ≤ Im ≤ 10 In		■	■
	K: 10 In ≤ Im ≤ 14 In			■
Surge current resistance (wave 8/20)		A	250 (3000 for APR versions)	250 (3000 for APR versions; 5000 for selective type)
Mechanical features				
Housing			Insulation group II, RAL 7035	Insulation group II, RAL 7035
Toggle			black, sealable in ON-OFF positions	black, sealable in ON-OFF positions
Flag indicator			Differential trip indicator: blue on toggle	Differential trip indicator: blue on toggle
Contact position indication			CPI on window	CPI on window
Electrical life	operations		10000	10000
Mechanical life	operations		20000	20000
Protection degree	housing		IP4X	IP4X
	terminals		IP2X	IP2X
Shock resistance acc. to IEC/EN 60068-2-27			30g - 2 shocks - 13ms	30g - 2 shocks - 13ms
Vibration resistance acc. to IEC/EN 60068-2-6			0,35mm or 5g - 20 cycles at 5…150…5 Hz without load	0,35mm or 5g - 20 cycles at 5…150…5 Hz without load
Environmental conditions (damp heat) acc. to IEC/EN 60068-2-30		°C/ RH	28 cycles with 55°C/90-96% and 25°C/95-100%	28 cycles with 55°C/90-96% and 25°C/95-100%
Reference temperature for setting of thermal element		°C	30	30
Ambient temperature (with daily average ≤ +35 °C)		°C	-25…+55	-25…+55
Storage temperature		°C	-40…+70	-40…+70

			DS203NC L	DS203NC
Installation				
Terminal type	top/ bottom		failsafe bi-directional cylinder-lift terminal (shock protected)	failsafe bi-directional cylinder-lift terminal (shock protected)
Terminal size for cables	top/ bottom	mm^2	25/25	25/25
Terminal size for busbars	top/ bottom	mm^2	10/10	10/10
Tightening torque	top/ bottom	Nm	2.8	2.8
Mounting			on DIN rail EN 60715 (35 mm) by means of mounting clip	on DIN rail EN 60715 (35 mm) by means of mounting clip
Supply from			Top/bottom terminals	Top/bottom terminals
Dimensions and weight				
Dimensions (H x D x W)		mm	85 x 69 x 70.4	85 x 69 x 70.4
Weight		g	480	480
Combination with auxiliary elements				
Combinable with accessories and auxiliaries, by means of interface contact SN201-IH	Auxiliary contact		yes	yes
	Signal contact		yes	yes
	Shunt trip		yes	yes
	Undervoltage release		yes	yes
	Overvoltage release		yes	yes



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Dimensions in mm

Order code

DS203NC L - AC type - C curve

Icn = 4500 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC L C6 AC30	2CSR246040R1064	8012542353928	1
		8	DS203NC L C8 AC30	2CSR246040R1084	8012542343622	1
		10	DS203NC L C10 AC30	2CSR246040R1104	8012542353829	1
		13	DS203NC L C13 AC30	2CSR246040R1134	8012542343523	1
		16	DS203NC L C16 AC30	2CSR246040R1164	8012542353720	1
		20	DS203NC L C20 AC30	2CSR246040R1204	8012542343424	1
		25	DS203NC L C25 AC30	2CSR246040R1254	8012542353621	1
		32	DS203NC L C32 AC30	2CSR246040R1324	8012542343325	1
	0,3	6	DS203NC L C6 AC300	2CSR246040R3064	8012542343226	1
		8	DS203NC L C8 AC300	2CSR246040R3084	8012542343127	1
		10	DS203NC L C10 AC300	2CSR246040R3104	8012542343028	1
		13	DS203NC L C13 AC300	2CSR246040R3134	8012542342922	1
		16	DS203NC L C16 AC300	2CSR246040R3164	8012542776727	1
		20	DS203NC L C20 AC300	2CSR246040R3204	8012542342823	1
		25	DS203NC L C25 AC300	2CSR246040R3254	8012542342724	1
		32	DS203NC L C32 AC300	2CSR246040R3324	8012542358428	1

DS203NC L - A type - C curve

Icn = 4500 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC L C6 A30	2CSR246140R1064	8012542354628	1
		8	DS203NC L C8 A30	2CSR246140R1084	8012542344322	1
		10	DS203NC L C10 A30	2CSR246140R1104	8012542354529	1
		13	DS203NC L C13 A30	2CSR246140R1134	8012542344223	1
		16	DS203NC L C16 A30	2CSR246140R1164	8012542354420	1
		20	DS203NC L C20 A30	2CSR246140R1204	8012542344124	1
		25	DS203NC L C25 A30	2CSR246140R1254	8012542354321	1
		32	DS203NC L C32 A30	2CSR246140R1324	8012542498025	1
	0,3	6	DS203NC L C6 A300	2CSR246140R3064	8012542499220	1
		8	DS203NC L C8 A300	2CSR246140R3084	8012542344025	1
		10	DS203NC L C10 A300	2CSR246140R3104	8012542354222	1
		13	DS203NC L C13 A300	2CSR246140R3134	8012542343929	1
		16	DS203NC L C16 A300	2CSR246140R3164	8012542354123	1
		20	DS203NC L C20 A300	2CSR246140R3204	8012542343820	1
		25	DS203NC L C25 A300	2CSR246140R3254	8012542354024	1
		32	DS203NC L C32 A300	2CSR246140R3324	8012542343721	1

DS203NC L - APR type - C curve

Icn = 4500 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC L C6 APR30	2CSR246440R1064	8012542079125	1
		8	DS203NC L C8 APR30	2CSR246440R1084	8012542079026	1
		10	DS203NC L C10 APR30	2CSR246440R1104	8012542078920	1
		13	DS203NC L C13 APR30	2CSR246440R1134	8012542078821	1
		16	DS203NC L C16 APR30	2CSR246440R1164	8012542078722	1
		20	DS203NC L C20 APR30	2CSR246440R1204	8012542078623	1
		25	DS203NC L C25 APR30	2CSR246440R1254	8012542078524	1
		32	DS203NC L C32 APR30	2CSR246440R1324	8012542078425	1

DS203NC - AC type - B curve

Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC B6 AC30	2CSR256040R1065	8012542077428	1
		8	DS203NC B8 AC30	2CSR256040R1085	8012542077329	1
		10	DS203NC B10 AC30	2CSR256040R1105	8012542077220	1
		13	DS203NC B13 AC30	2CSR256040R1135	8012542077121	1
		16	DS203NC B16 AC30	2CSR256040R1165	8012542077022	1
		20	DS203NC B20 AC30	2CSR256040R1205	8012542076926	1
		25	DS203NC B25 AC30	2CSR256040R1255	8012542790525	1
		32	DS203NC B32 AC30	2CSR256040R1325	8012542076827	1
	0,1	6	DS203NC B6 AC100	2CSR256040R2065	8012542076728	1
		8	DS203NC B8 AC100	2CSR256040R2085	8012542076629	1
		10	DS203NC B10 AC100	2CSR256040R2105	8012542076520	1
		13	DS203NC B13 AC100	2CSR256040R2135	8012542076421	1
		16	DS203NC B16 AC100	2CSR256040R2165	8012542076322	1
		20	DS203NC B20 AC100	2CSR256040R2205	8012542076223	1
		25	DS203NC B25 AC100	2CSR256040R2255	8012542076124	1
		32	DS203NC B32 AC100	2CSR256040R2325	8012542076025	1
	0,3	6	DS203NC B6 AC300	2CSR256040R3065	8012542353423	1
		8	DS203NC B8 AC300	2CSR256040R3085	8012542353324	1
		10	DS203NC B10 AC300	2CSR256040R3105	8012542266327	1
		13	DS203NC B13 AC300	2CSR256040R3135	8012542266228	1
		16	DS203NC B16 AC300	2CSR256040R3165	8012542266129	1
		20	DS203NC B20 AC300	2CSR256040R3205	8012542266020	1
		25	DS203NC B25 AC300	2CSR256040R3255	8012542265924	1
		32	DS203NC B32 AC300	2CSR256040R3325	8012542790822	1

Order code

DS203NC - AC type - C curve
Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC C6 AC30	2CSR256040R1064	8012542265825	1
		8	DS203NC C8 AC30	2CSR256040R1084	8012542353225	1
		10	DS203NC C10 AC30	2CSR256040R1104	8012542518228	1
		13	DS203NC C13 AC30	2CSR256040R1134	8012542186823	1
		16	DS203NC C16 AC30	2CSR256040R1164	8012542352228	1
		20	DS203NC C20 AC30	2CSR256040R1204	8012542186724	1
		25	DS203NC C25 AC30	2CSR256040R1254	8012542352129	1
		32	DS203NC C32 AC30	2CSR256040R1324	8012542263920	1
	0,1	6	DS203NC C6 AC100	2CSR256040R2064	8012542263821	1
		8	DS203NC C8 AC100	2CSR256040R2084	8012542263722	1
		10	DS203NC C10 AC100	2CSR256040R2104	8012542263623	1
		13	DS203NC C13 AC100	2CSR256040R2134	8012542263524	1
		16	DS203NC C16 AC100	2CSR256040R2164	8012542518327	1
		20	DS203NC C20 AC100	2CSR256040R2204	8012542263425	1
		25	DS203NC C25 AC100	2CSR256040R2254	8012542186021	1
		32	DS203NC C32 AC100	2CSR256040R2324	8012542352020	1
	0,3	6	DS203NC C6 AC300	2CSR256040R3064	8012542185925	1
		8	DS203NC C8 AC300	2CSR256040R3084	8012542185826	1
		10	DS203NC C10 AC300	2CSR256040R3104	8012542185727	1
		13	DS203NC C13 AC300	2CSR256040R3134	8012542185628	1
		16	DS203NC C16 AC300	2CSR256040R3164	8012542185529	1
		20	DS203NC C20 AC300	2CSR256040R3204	8012542185420	1
		25	DS203NC C25 AC300	2CSR256040R3254	8012542517825	1
		32	DS203NC C32 AC300	2CSR256040R3324	8012542180821	1

DS203NC - A type - B curve

Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC B6 A30	2CSR256140R1065	8012542078326	1
		8	DS203NC B8 A30	2CSR256140R1085	8012542078227	1
		10	DS203NC B10 A30	2CSR256140R1105	8012542078128	1
		13	DS203NC B13 A30	2CSR256140R1135	8012542078029	1
		16	DS203NC B16 A30	2CSR256140R1165	8012542077923	1
		20	DS203NC B20 A30	2CSR256140R1205	8012542077824	1
		25	DS203NC B25 A30	2CSR256140R1255	8012542077725	1
		32	DS203NC B32 A30	2CSR256140R1325	8012542077626	1
	0,1	6	DS203NC B6 A100	2CSR256140R2065	8012542080329	1
		8	DS203NC B8 A100	2CSR256140R2085	8012542080220	1
		10	DS203NC B10 A100	2CSR256140R2105	8012542080121	1
		13	DS203NC B13 A100	2CSR256140R2135	8012542080022	1
		16	DS203NC B16 A100	2CSR256140R2165	8012542079927	1
		20	DS203NC B20 A100	2CSR256140R2205	8012542079828	1
		25	DS203NC B25 A100	2CSR256140R2255	8012542079729	1
		32	DS203NC B32 A100	2CSR256140R2325	8012542079620	1
	0,3	6	DS203NC B6 A300	2CSR256140R3065	8012542079521	1
		8	DS203NC B8 A300	2CSR256140R3085	8012542079422	1
		10	DS203NC B10 A300	2CSR256140R3105	8012542079323	1
		13	DS203NC B13 A300	2CSR256140R3135	8012542079224	1
		16	DS203NC B16 A300	2CSR256140R3165	8012542305026	1
		20	DS203NC B20 A300	2CSR256140R3205	8012542305125	1
		25	DS203NC B25 A300	2CSR256140R3255	8012542400226	1
		32	DS203NC B32 A300	2CSR256140R3325	8012542400028	1

Order code

DS203NC - A type - C curve
Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC C6 A30	2CSR256140R1064	8012542400127	1
		8	DS203NC C8 A30	2CSR256140R1084	8012542058823	1
		10	DS203NC C10 A30	2CSR256140R1104	8012542896524	1
		13	DS203NC C13 A30	2CSR256140R1134	8012542768227	1
		16	DS203NC C16 A30	2CSR256140R1164	8012542830924	1
		20	DS203NC C20 A30	2CSR256140R1204	8012542839927	1
		25	DS203NC C25 A30	2CSR256140R1254	8012542768524	1
		32	DS203NC C32 A30	2CSR256140R1324	8012542831228	1
	0,1	6	DS203NC C6 A100	2CSR256140R2064	8012542840220	1
		8	DS203NC C8 A100	2CSR256140R2084	8012542896425	1
		10	DS203NC C10 A100	2CSR256140R2104	8012542768128	1
		13	DS203NC C13 A100	2CSR256140R2134	8012542830825	1
		16	DS203NC C16 A100	2CSR256140R2164	8012542839828	1
		20	DS203NC C20 A100	2CSR256140R2204	8012542896722	1
		25	DS203NC C25 A100	2CSR256140R2254	8012542768425	1
		32	DS203NC C32 A100	2CSR256140R2324	8012542831129	1
	0,3	6	DS203NC C6 A300	2CSR256140R3064	8012542840121	1
		8	DS203NC C8 A300	2CSR256140R3084	8012542830726	1
		10	DS203NC C10 A300	2CSR256140R3104	8012542839729	1
		13	DS203NC C13 A300	2CSR256140R3134	8012542896623	1
		16	DS203NC C16 A300	2CSR256140R3164	8012542768326	1
		20	DS203NC C20 A300	2CSR256140R3204	8012542831020	1
		25	DS203NC C25 A300	2CSR256140R3254	8012542840022	1
		32	DS203NC C32 A300	2CSR256140R3324	8012542631620	1

DS203NC - A type - K curve
Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC K6 A30	2CSR256140R1067	8012542376026	1
		8	DS203NC K8 A30	2CSR256140R1087	8012542629726	1
		10	DS203NC K10 A30	2CSR256140R1107	8012542375920	1
		13	DS203NC K13 A30	2CSR256140R1137	8012542779322	1
		16	DS203NC K16 A30	2CSR256140R1167	8012542769323	1
		20	DS203NC K20 A30	2CSR256140R1207	8012542631521	1
		25	DS203NC K25 A30	2CSR256140R1257	8012542375821	1
		32	DS203NC K32 A30	2CSR256140R1327	8012542779223	1

DS203NC - APR type - C curve

Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,03	6	DS203NC C6 APR30	2CSR256440R1064	8012542349822	1
		8	DS203NC C8 APR30	2CSR256440R1084	8012542180722	1
		10	DS203NC C10 APR30	2CSR256440R1104	8012542349723	1
		13	DS203NC C13 APR30	2CSR256440R1134	8012542261520	1
		16	DS203NC C16 APR30	2CSR256440R1164	8012542261421	1
		20	DS203NC C20 APR30	2CSR256440R1204	8012542261322	1
		25	DS203NC C25 APR30	2CSR256440R1254	8012542261223	1
		32	DS203NC C32 APR30	2CSR256440R1324	8012542261124	1
	0,1	6	DS203NC C6 APR100	2CSR256440R2064	8012542274223	1
		8	DS203NC C8 APR100	2CSR256440R2084	8012542517924	1
		10	DS203NC C10 APR100	2CSR256440R2104	8012542261025	1
		13	DS203NC C13 APR100	2CSR256440R2134	8012542180029	1
		16	DS203NC C16 APR100	2CSR256440R2164	8012542349624	1
		20	DS203NC C20 APR100	2CSR256440R2204	8012542179924	1
		25	DS203NC C25 APR100	2CSR256440R2254	8012542179825	1
		32	DS203NC C32 APR100	2CSR256440R2324	8012542179726	1
	0,3	6	DS203NC C6 APR300	2CSR256440R3064	8012542179627	1
		8	DS203NC C8 APR300	2CSR256440R3084	8012542179528	1
		10	DS203NC C10 APR300	2CSR256440R3104	8012542179429	1
		13	DS203NC C13 APR300	2CSR256440R3134	8012542518020	1
		16	DS203NC C16 APR300	2CSR256440R3164	8012542176329	1
		20	DS203NC C20 APR300	2CSR256440R3204	8012542351023	1
		25	DS203NC C25 APR300	2CSR256440R3254	8012542176220	1
		32	DS203NC C32 APR300	2CSR256440R3324	8012542350927	1

DS203NC - A S type - C curve

Icn = 6000 A

Poles	Rated residual current	Rated current	Description			Pack unit
	IΔn A	In A	Type	ABB code	EAN code	pc.
3P+N	0,1	16	DS203NC C16 A S100	2CSR256240R2164	8012542021827	1
		20	DS203NC C20 A S100	2CSR256240R2204	8012542021728	1
		25	DS203NC C25 A S100	2CSR256240R2254	8012542021629	1
		32	DS203NC C32 A S100	2CSR256240R2324	8012542021520	1
	0,3	16	DS203NC C16 A S300	2CSR256240R3164	8012542297727	1
		20	DS203NC C20 A S300	2CSR256240R3204	8012542373223	1
		25	DS203NC C25 A S300	2CSR256240R3254	8012542373124	1
		32	DS203NC C32 A S300	2CSR256240R3324	8012542077527	1

Auxiliary elements and accessories

Signal contact

	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Signal contact 1NO+1NC	SN201-S *	2CSS200924R0001	8012542104957	0.04	1

Interface module / Auxiliary contact

	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Int. module / Aux. contact 1NO+1NC	SN201-IH	2CSS200923R0001	8012542104858	0.05	1

Signal / Auxiliary contact

	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Change-over 1NO+1NC	S2C-S/H6R	2CDS200922R0001	4016779563819	0.04	1

Auxiliary contact

	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Change-over 1NO+1NC	S2C-H6R	2CDS200912R0001	4016779563826	0.04	1

Shunt trips

	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Shunt trip 12/60 V AC/DC	F2C-A1	2CSS200933R0011	8012542974901	0.15	1
Shunt trip 110-415 V AC /110-250 V DC	F2C-A2	2CSS200933R0012	8012542975007	0.15	1

Undervoltage releases

	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Undervoltage release 12 V DC	S2C-UA12 DC	2CSS200911R0001	8012542839705	0.09	1
Undervoltage release 24 V AC	S2C-UA24 AC	2CSS200911R0002	8012542839804	0.09	1
Undervoltage release 24 V DC	S2C-UA24 DC	2CSS200911R0007	8012542896401	0.09	1
Undervoltage release 48 V AC	S2C-UA48 AC	2CSS200911R0003	8012542839903	0.09	1
Undervoltage release 48 V DC	S2C-UA48 DC	2CSS200911R0008	8012542896500	0.09	1
Undervoltage release 110 V AC	S2C-UA110 AC	2CSS200911R0004	8012542840008	0.09	1
Undervoltage release 110 V DC	S2C-UA110 DC	2CSS200911R0009	8012542896609	0.09	1
Undervoltage release 230 V AC	S2C-UA230 AC	2CSS200911R0005	8012542840107	0.09	1
Undervoltage release 230 V DC	S2C-UA230 DC	2CSS200911R0010	8012542896708	0.09	1
Undervoltage release 400 V AC	S2C-UA400 AC	2CSS200911R0006	8012542840206	0.09	1

Shunt trips

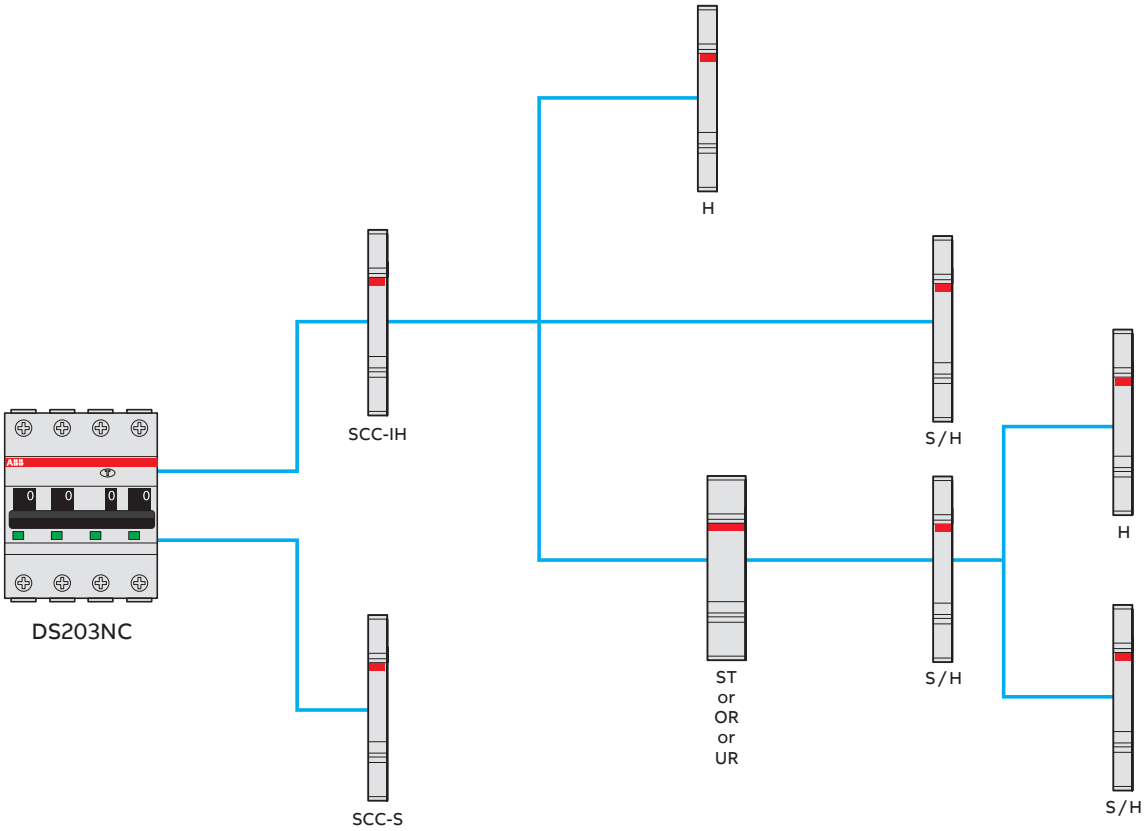
	Description Type	Order code	EAN code	Weight 1 pc. [kg]	Pack unit pc.
Overvoltage release (max tripping voltage AC: 275V)	S2C-OVP1	2CSS200910R0005	8012542748137	0.10	1/5
Overvoltage release (max tripping voltage AC: 290V)	S2C-OVP2	2CSS200993R0005	8012542952039	0.10	1/5

* DS203NC can be installed with SN201-S signal contact with production date after June 2015. Check the date on the SN201-S accessory

Accessories and integration

Fully equipped, perfectly modular

Combination of auxiliary elements with DS203NC



SCC-IH	Auxiliary slim range adapter	SCC-IH6R
SCC-S	Signal slim range adapter	SCC-S6R
H	Auxiliary contact	S2C-H6R
S/H	Signal/auxiliary contact	S2C-S/H6R
ST	Shunt trip	S3C-A...
UR	Undervoltage release	S2C-UA
OR	Overvoltage release	S2C-OVP

Technical details

Tripping characteristics

Tripping characteristics

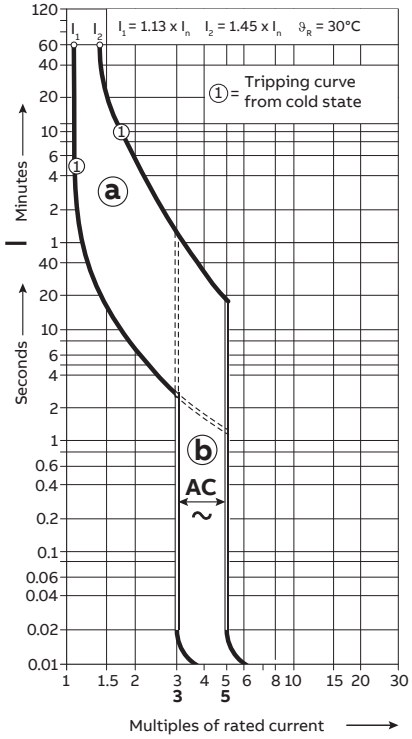
			Thermal release **			Electromagnetic release *		
Acc. to	Tripping characteristic and rated current		Current:		Tripping time	Currents:		Tripping time
			conventional non-tripping current	conventional tripping current		hold current surges	trip at least at	
IEC/EN 61009-1	B	6 to 32 A	1.13 · In		> 1 h	3 · In		> 0.1 s
				1.45 · In	< 1 h		5 · In	< 0.1 s
	C	6 to 32 A	1.13 · In		> 1 h	5 · In		> 0.1 s
				1.45 · In	< 1 h		10 · In	< 0.1 s
IEC/EN 60947-2	K	6 to 32 A	1.05 · In		> 1 h	10 · In		> 0.2 s
				1.2 · In	< 1 h ***		14 · In	< 0.2 s
				1.5 · In	< 2 min. ***			
				6.0 · In	> 2 s (T1)			

* The indicated electromagnetic tripping values apply to a frequency range of 16 2/3 ... 50 Hz.

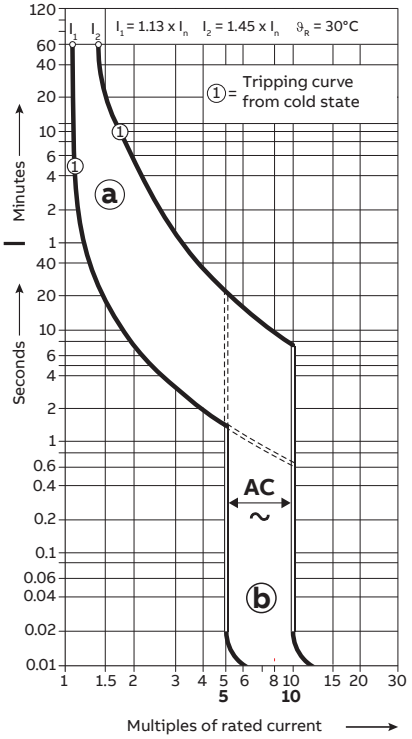
** The thermal releases are calibrated to a nominal reference ambient temperature; for K, the value is 20 °C, for B and C = 30 °C. In the case of higher ambient temperatures, the current values fall by ca. 6 % for each 10 K temperature rise.

*** As from operating temperature (after I_1 > 1 h or, as applicable, 2 h).

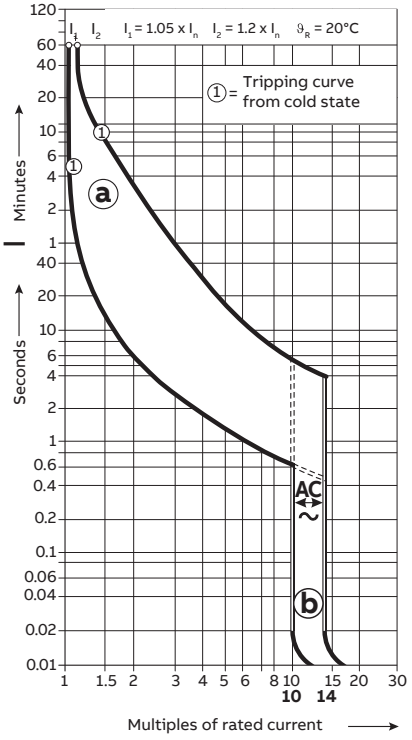
Characteristic B
IEC/EN 61009-1



Characteristic C
IEC/EN 61009-1



Characteristic K
IEC-EN60947-2



ⓐ thermal trip
ⓑ electromagnetic trip

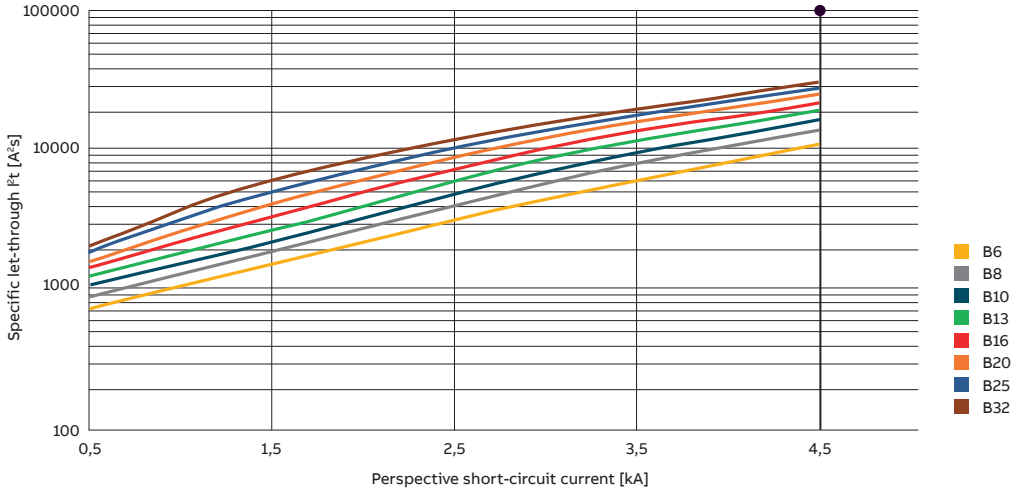
Technical details

Limitation of specific let-through energy I^2t

The I^2t curves give the values of the specific let-through energy expressed in A^2s (A=amps; s=seconds) in relation to the perspective short-circuit current (Irms) in kA.

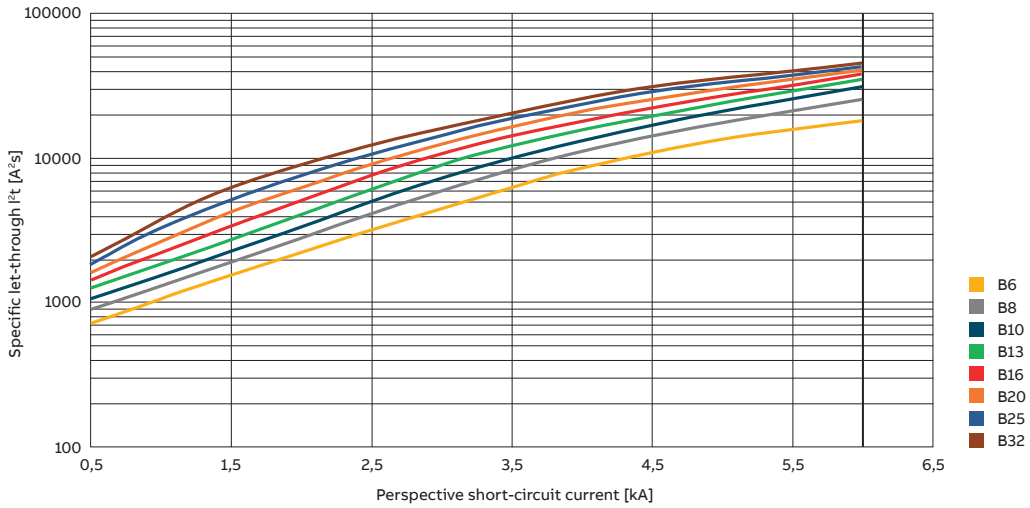
DS203NC L, characteristic B

400 V let-through energy



DS203NC, characteristic B

400 V let-through energy

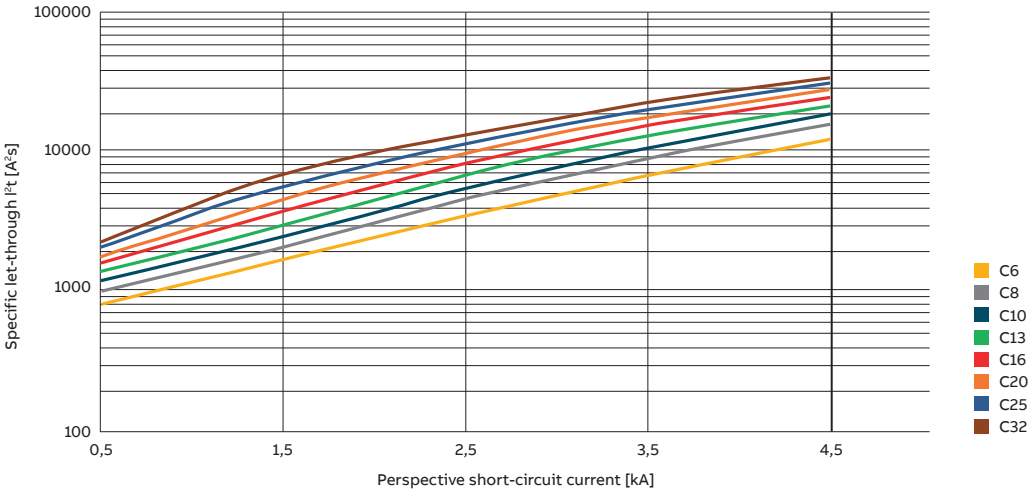


Technical details

Limitation of specific let-through energy I^2t

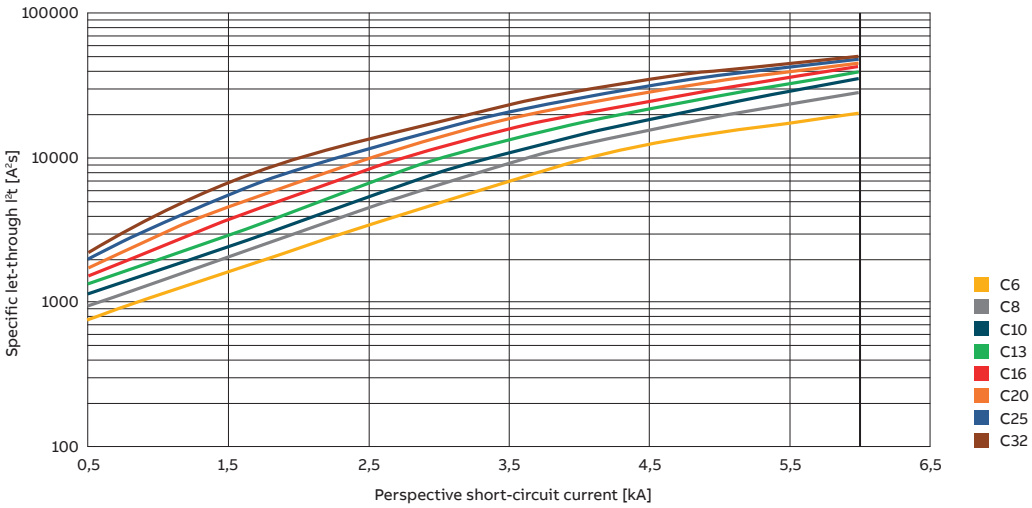
DS203NC L, characteristic C

400 V let-through energy



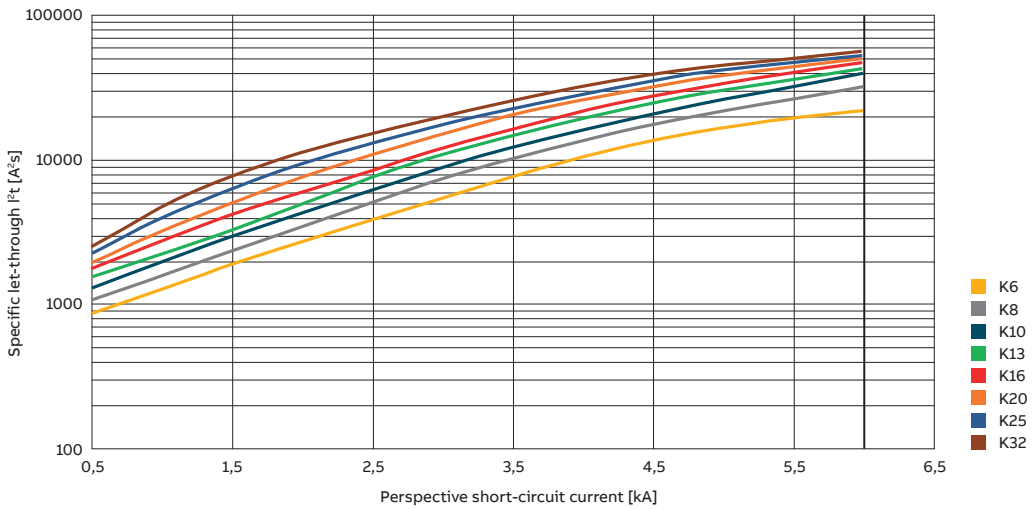
DS203NC, characteristic C

400 V let-through energy



DS203NC, characteristic K

400 V let-through energy

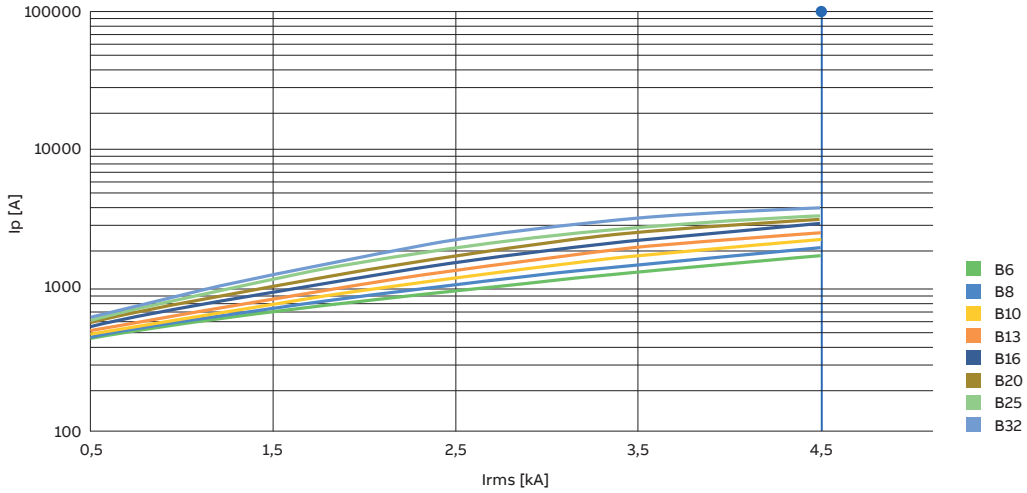


Technical details

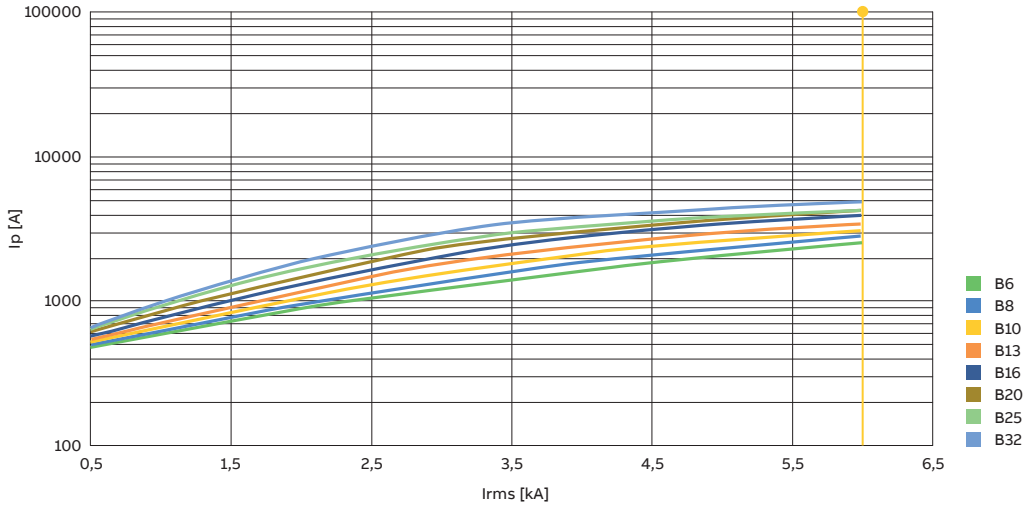
Peak current Ip

The Ip curves give the values of the peak current, expressed in kA, in relation to the perspective symmetrical short-circuit current (kA).

DS203NC L, characteristic B



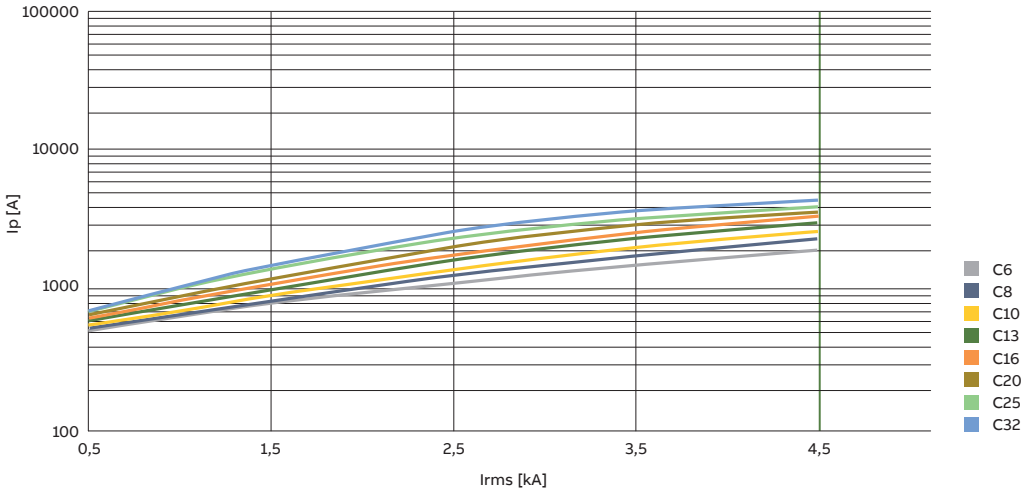
DS203NC, characteristic B



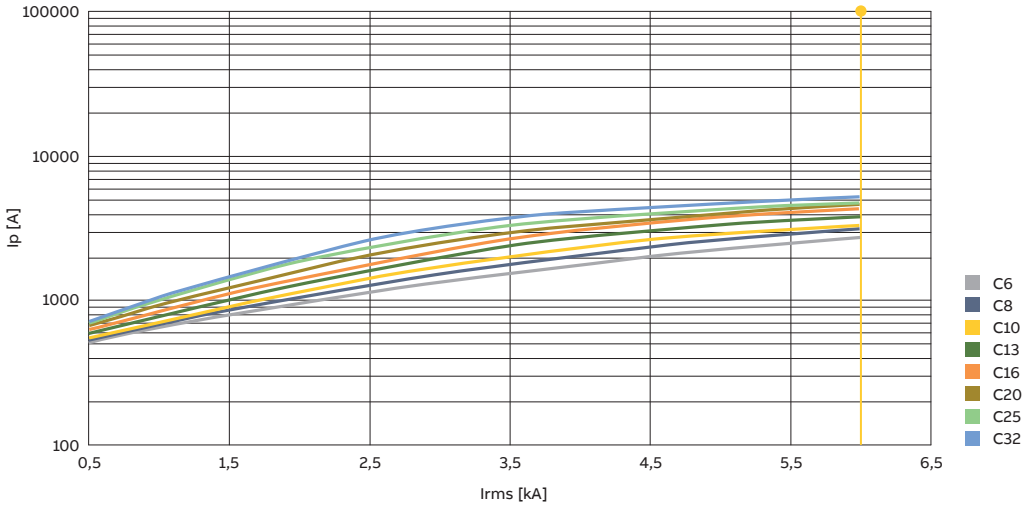
Technical details

Peak current Ip

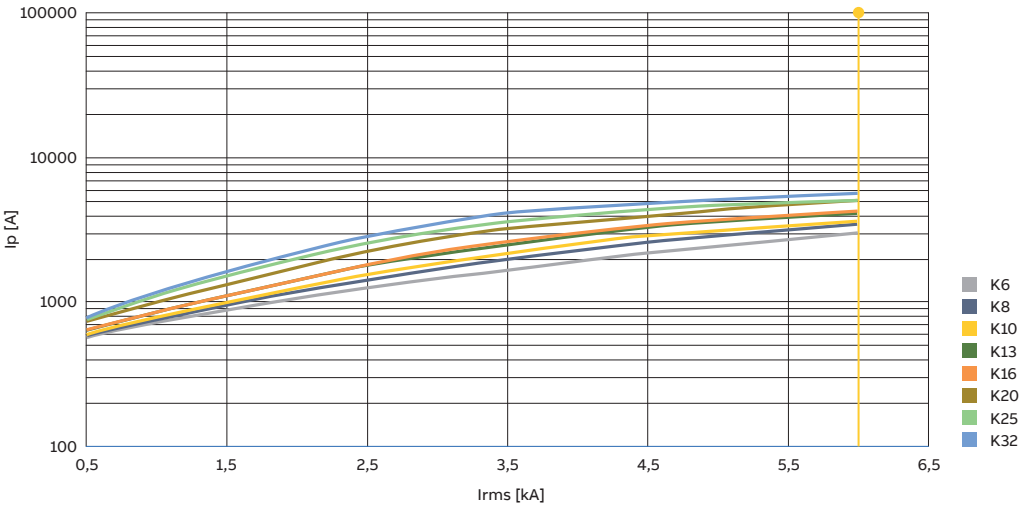
DS203NC L, characteristic C



DS203NC, characteristic C



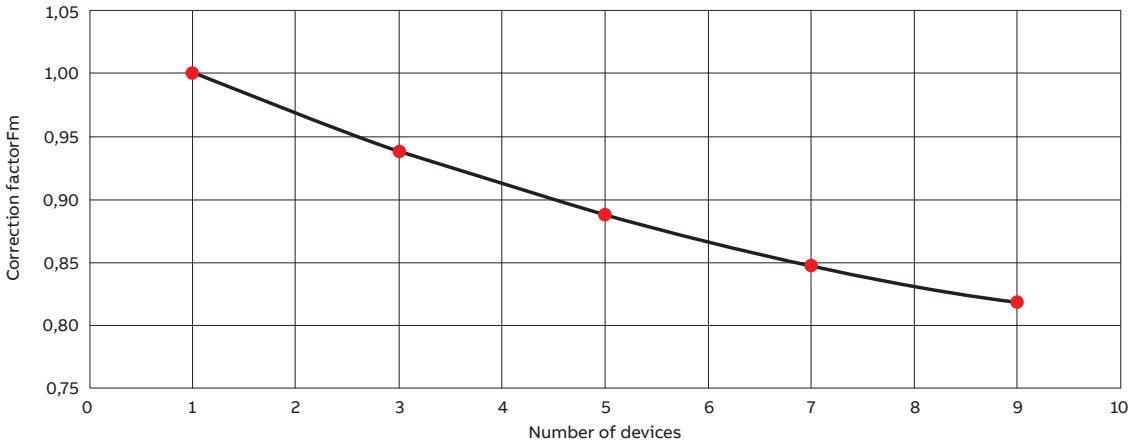
DS203NC, characteristic K



Technical details

Influence of adjacent devices, derating in temperature, power loss and performance in altitude

Influence of adjacent devices



n. of devices	1	2	3	4	5	6	7	8	9	>9
Correction factor	1.00	0.97	0.94	0.91	0.89	0.87	0.85	0.83	0.82	0.82

Derating in temperature

Max operating current depending on the ambient temperature of a circuit breaker in load circuit of characteristics type B, C, K.

	Temperature (°C)								
In	-25	-20	-10	0	10	20	30	40	55
6A	7.29	7.16	6.91	6.65	6.41	6.17	6.00	5.90	5.75
8A	9.71	9.54	9.20	8.85	8.55	8.24	8.00	7.83	7.57
10A	12.13	11.92	11.49	11.06	10.68	10.31	10.00	9.76	9.39
13A	15.77	15.49	14.93	14.37	13.89	13.41	13.00	12.65	12.12
16A	19.40	19.06	18.37	17.68	17.10	16.52	16.00	15.54	14.85
20A	23.66	23.32	22.63	21.94	21.26	20.57	20.00	19.53	18.84
25A	29.00	28.65	27.96	27.27	26.46	25.65	25.00	24.53	23.83
32A	38.67	38.13	37.04	35.96	34.48	33.00	32.00	31.47	30.67

Power loss and internal resistance

In	Power loss [W]	Internal resistence [mΩ]
6A	7.5	207.3
8A	4.2	66.4
10A	5.6	55.9
13A	7.2	42.5
16A	10.0	39.3
20A	11.8	29.5
25A	10.3	16.4
32A	15.1	14.8

Performance in attitude

Elevation [m]	Rated Current [A]	Rated Voltage [V]
3000	0.96 x In	0.877 x Un
4000	0.94 x In	0.775 x Un
5000	0.92 x In	0.676 x Un
6000	0.90 x In	0.588 x Un

Additional information
We reserve the right to make technical changes or modify the contents of this document without prior notification. ABB does not accept any responsibility whatsoever for potential errors or possible lack of information in this document.

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