

Алматы (7273) 495-231  
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Архангельск (8182) 63-90-72  
Астрахань (8512) 99-46-04  
Барнаул (3852) 73-04-60  
Белгород (4722) 40-23-64  
Благовещенск (4162) 22-76-07  
Брянск (4832) 59-03-52  
Владивосток (423) 249-28-31  
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Кемерово (3842) 65-04-62  
Киров (8332) 68-02-04  
Коломна (4966) 23-41-49  
Кострома (4942) 77-07-48  
Краснодар (861) 203-40-90  
Красноярск (391) 204-63-61  
Курск (4712) 77-13-04  
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Магнитогорск (3519) 55-03-13  
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Орел (4862) 44-53-42  
Оренбург (3532) 37-68-04  
Пенза (8412) 22-31-16  
Петрозаводск (8142) 55-98-37  
Псков (8112) 59-10-37  
Пермь (342) 205-81-47

Ростов-на-Дону (863) 308-18-15  
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Самара (846) 206-03-16  
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Саранск (8342) 22-96-24  
Симферополь (3652) 67-13-56  
Смоленск (4812) 29-41-54  
Сочи (862) 225-72-31  
Ставрополь (8652) 20-65-13  
Сургут (3462) 77-98-35  
Сыктывкар (8212) 25-95-17  
Тамбов (4752) 50-40-97  
Тверь (4822) 63-31-35

Тольятти (8482) 63-91-07  
Томск (3822) 98-41-53  
Тула (4872) 33-79-87  
Тюмень (3452) 66-21-18  
Ульяновск (8422) 24-23-59  
Улан-Удэ (3012) 59-97-51  
Уфа (347) 229-48-12  
Хабаровск (4212) 92-98-04  
Чебоксары (8352) 28-53-07  
Челябинск (351) 202-03-61  
Череповец (8202) 49-02-64  
Чита (3022) 38-34-83  
Якутск (4112) 23-90-97  
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## 3SB71LB, RCD blocks

Independent power supply with build-in power source, directly draws power from the incoming end to avoid the risk of protection function failure caused by supply failure.

- Overload protection
- Short circuit protection
- Isolation
- Controlling
- Used in residential building, non-residential building, industry, energy and infrastructure



## Functions

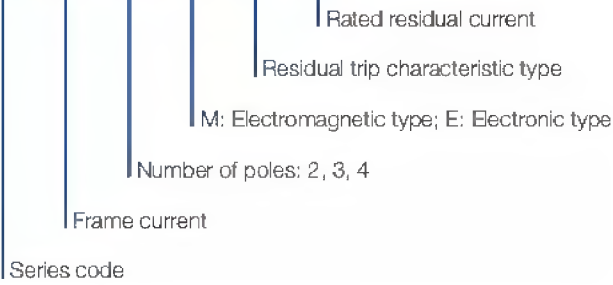
- Assembly on side with MCBs
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts

## Technical specifications

- Standard: IEC 61009-1
- Type (wave form of the earth leakage sensed): AC, A
- Number of poles: 2, 3, 4
- Rated current In (A): 40, 63
- Rated voltage Ue (V AC): 230/400
- Rated insulation voltage Ui (V AC): 500
- Rated frequency Fn (Hz): 50/60
- Rated residual currents IΔn (mA): 30, 100, 300
- Rated breaking capacity (Icn) : Icn of the associated MCB
- Rated residual breaking capacity Im: Icn of the associated MCB
- Electrical life (times): 4,000
- Mechanical life (times): 10,000
- Degree of protection: IP20, with connected conductors
- Mounting position: Any
- Conductor cross-sections
- Solid and stranded (mm<sup>2</sup>): 0.75-35
- Finely stranded with end sleeve (mm<sup>2</sup>): 0.75-25
- Terminals
- Terminal tightening torque (N·m): 2.8
- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity
- Storage temperature (°C): -40 ~ +75
- Altitude (meters): Max. 2000

## Instruction of type code

**B71LB 40 2 E A 030**









## Features






- Electronic Type, voltage dependent and Electromagnetic type, voltage independent
- Assembly on side with MCBs 3SB71 series

## Selection and ordering data

### Electronic Type



	Number of poles	Rated residual current $I_{\Delta n}$ (mA)	Rated current $I_n$ (A)	Type A	
				Type code	Order code
 	2	30	40	B71LB40 2EA030	19538
		100	40	B71LB40 2EA100	19539
		300	40	B71LB40 2EA300	19540
		30	63	B71LB63 2EA030	19541
		100	63	B71LB63 2EA100	19542
		300	63	B71LB63 2EA300	19543
 	3	30	40	B71LB40 3EA030	19544
		100	40	B71LB40 3EA100	19545
		300	40	B71LB40 3EA300	19546
		30	63	B71LB63 3EA030	19547
		100	63	B71LB63 3EA100	19548
		300	63	B71LB63 3EA300	19549
 	4	30	40	B71LB40 4EA030	19550
		100	40	B71LB40 4EA100	19551
		300	40	B71LB40 4EA300	19552
		30	63	B71LB63 4EA030	19553
		100	63	B71LB63 4EA100	19554
		300	63	B71LB63 4EA300	19555

### Electromagnetic type

	Number of poles	Rated residual current $I_{\Delta n}$ (mA)	Rated current $I_n$ (A)	Type AC 		Type A 	
				Type code	Order code	Type code	Order code
	2	30	40	B71LB40 2MC030	19502	B71LB40 2MA030	19508
		100	40	B71LB40 2MC100	19503	B71LB40 2MA100	19509
		300	40	B71LB40 2MC300	19504	B71LB40 2MA300	19510
		30	63	B71LB63 2MC030	19505	B71LB63 2MA030	19511
		100	63	B71LB63 2MC100	19506	B71LB63 2MA100	19512
		300	63	B71LB63 2MC300	19507	B71LB63 2MA300	19513
	3	30	40	B71LB40 3MC030	19514	B71LB40 3MA030	19520
		100	40	B71LB40 3MC100	19515	B71LB40 3MA100	19521
		300	40	B71LB40 3MC300	19516	B71LB40 3MA300	19522
		30	63	B71LB63 3MC030	19517	B71LB63 3MA030	19523
		100	63	B71LB63 3MC100	19518	B71LB63 3MA100	19524
		300	63	B71LB63 3MC300	19519	B71LB63 3MA300	19525
	4	30	40	B71LB40 4MC030	19526	B71LB40 4MA030	19532
		100	40	B71LB40 4MC100	19527	B71LB40 4MA100	19533
		300	40	B71LB40 4MC300	19528	B71LB40 4MA300	19534
		30	63	B71LB63 4MC030	19529	B71LB63 4MA030	19535
		100	63	B71LB63 4MC100	19530	B71LB63 4MA100	19536
		300	63	B71LB63 4MC300	19531	B71LB63 4MA300	19537

## Types

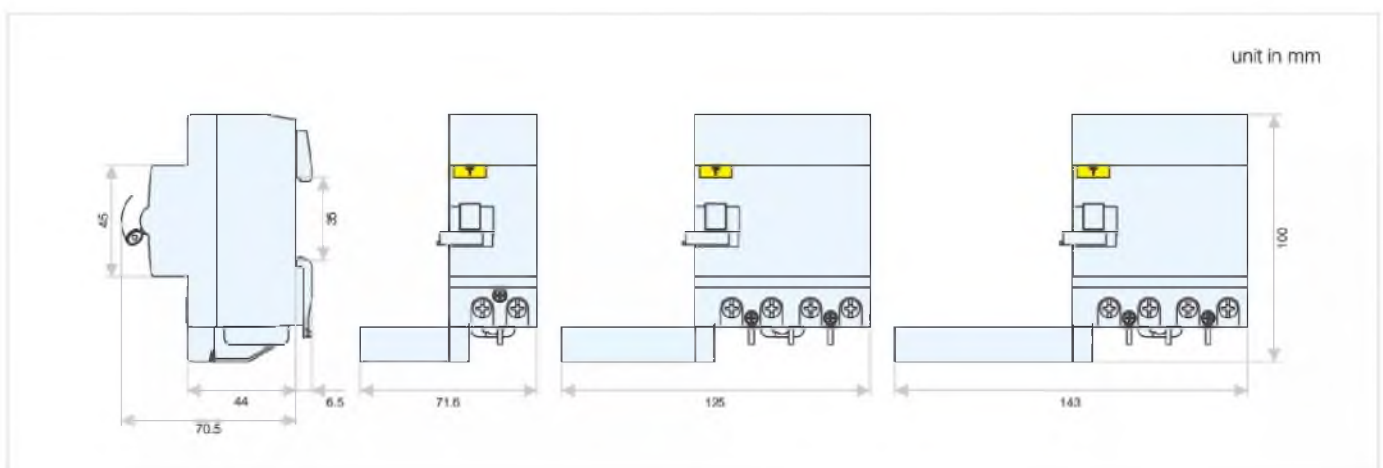
Both RCCBs and RCBOs are further divided into types depending on the operating function:

- Type AC : For which tripping is ensured for residual sinusoidal alternating currents, whether suddenly applied or slowly rising.
- Type A : For which tripping is ensured for residual sinusoidal alternating currents and residual pulsating direct currents, whether suddenly applied or slowly rising.

## Tripping sensitivity data

- RCD with a rated residual current of maximum 30 mA are used for personnel, material and fire protection, as well as for protection against direct contact.
- RCD with a rated residual current of maximum 300 mA are used as preventative fire protection in case of insulation faults.
- RCD with a rated residual current of 100 mA co-ordinated with the earth system according to the formula  $I_{\Delta n} < 50/R$ , to provide protection against indirect contacts.

## Outline and installation dimensions



## 3SL71, RCCB, up to 100 A

Independent power supply with build-in power source, directly draws power from the incoming end to avoid the risk of protection function failure caused by supply failure.

- Overload protection
- Short circuit protection
- Isolation
- Controlling
- Used in residential building, non-residential building, industry, energy and infrastructure

### Functions

- Switching and isolation function
- Controlling
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts
- Protection against fire hazard caused by insulation faults
- Used in residential building, non-residential building, energy sources, industry and infrastructure
- Combination with auxiliary elements: auxiliary contact, signal contact, shunt trip, undervoltage release

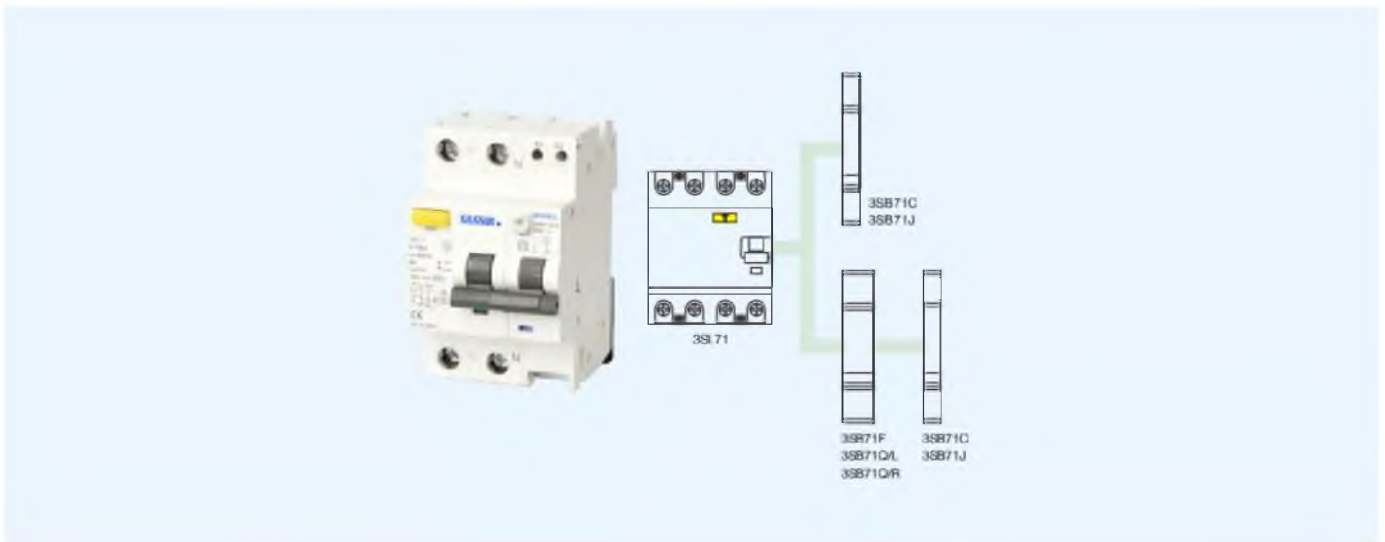
### Technical specifications

- Standard: IEC 61008-1
- Type (wave form of the earth leakage sensed): AC, A
- Trip time type: instantaneous, selectivity S
- Number of poles: 2, 4
- Rated current  $I_n$  (A): 16, 25, 40, 63, 80, 100
- Rated voltage  $U_e$  (V AC): 230/400
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $f_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 10 (2P 16 A), 30, 100, 300
- Rated conditional short-circuit current:  
 $I_{nc} = I_{\Delta c} = 6000 \text{ A SCPD fuse } 100 \text{ A Gg}$
- Making and breaking capacity  $I_m$  (A): 1000
- Rated residual breaking capacity  $I_{\Delta m}$  (A): 1000
- Degree of protection: IP20, with connected conductors
- Terminals
- Terminal tightening torque (N·m): 3
- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity

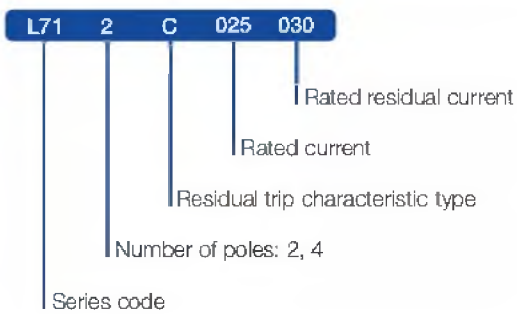
### References

- Additional components: page 189 ~ 191

### Combination of auxiliary elements with 3SL71



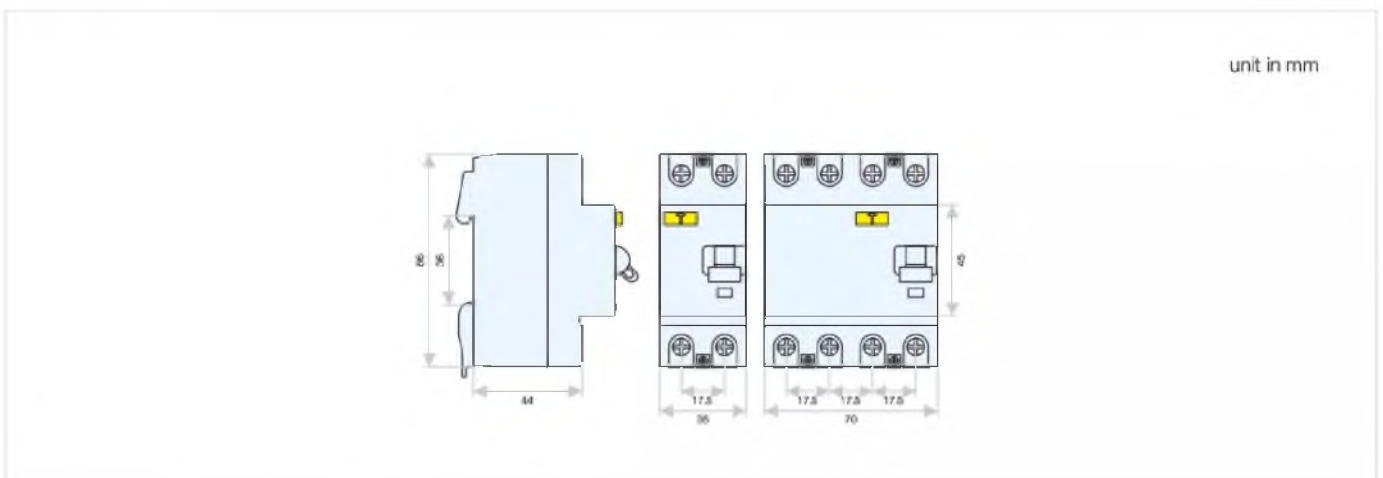
## Instruction of type code



## Features

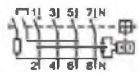
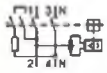
- Electromagnetic type, voltage independent.
- The handle being sealable or equipped with padlock bracket avoids dangerous operation changes (ON / OFF)
- The handle provides a clear indication of the contact position
- Adequate printing of all data on the front provides long-term identification

## Outline and installation dimensions



## Selection and ordering data

Number of poles	Rated residual current I <sub>Δn</sub> (mA)	Rated current I <sub>n</sub> (A)	Type AC		Type A		Type S+AC		Type S+A		
			Type code	Order code	Type code	Order code	Type code	Order code	Type code	Order code	
2	10	16	L71 2C016/010	36067	L71 2A016/010	36104	-	-	-	-	
		30	L71 2C016/030	36068	L71 2A016/030	36105	-	-	-	-	
		25	L71 2C025/030	36069	L71 2A025/030	36106	-	-	-	-	
		40	L71 2C040/030	36070	L71 2A040/030	36107	-	-	-	-	
		63	L71 2C063/030	36071	L71 2A063/030	36108	-	-	-	-	
		80	L71 2C080/030	36072	L71 2A080/030	36109	-	-	-	-	
	100	16	L71 2C016/100	36074	L71 2A016/100	36111	L71 2SC016/100	36141	L71 2SA016/100	36165	
		25	L71 2C025/100	36075	L71 2A025/100	36112	L71 2SC025/100	36142	L71 2SA025/100	36166	
		40	L71 2C040/100	36076	L71 2A040/100	36113	L71 2SC040/100	36143	L71 2SA040/100	36167	
		63	L71 2C063/100	36077	L71 2A063/100	36114	L71 2SC063/100	36144	L71 2SA063/100	36168	
		80	L71 2C080/100	36078	L71 2A080/100	36115	L71 2SC080/100	36145	L71 2SA080/100	36169	
		100	L71 2C100/100	36079	L71 2A100/100	36116	L71 2SC100/100	36146	L71 2SA100/100	36170	
	300	16	L71 2C016/300	36080	L71 2A016/300	36117	L71 2SC016/300	36147	L71 2SA016/300	36171	
		25	L71 2C025/300	36081	L71 2A025/300	36118	L71 2SC025/300	36148	L71 2SA025/300	36172	
		40	L71 2C040/300	36082	L71 2A040/300	36119	L71 2SC040/300	36149	L71 2SA040/300	36173	
		63	L71 2C063/300	36083	L71 2A063/300	36120	L71 2SC063/300	36150	L71 2SA063/300	36174	
		80	L71 2C080/300	36084	L71 2A080/300	36121	L71 2SC080/300	36151	L71 2SA080/300	36175	
		100	L71 2C100/300	36085	L71 2A100/300	36122	L71 2SC100/300	36152	L71 2SA100/300	36176	
	4	30	16	L71 4C016/030	36086	L71 4A016/030	36123	-	-	-	-
			25	L71 4C025/030	36087	L71 4A025/030	36124	-	-	-	-
			40	L71 4C040/030	36088	L71 4A040/030	36125	-	-	-	-
63			L71 4C063/030	36089	L71 4A063/030	36126	-	-	-	-	
80			L71 4C080/030	36090	L71 4A080/030	36127	-	-	-	-	
100			L71 4C100/030	36091	L71 4A100/030	36128	-	-	-	-	
100		16	L71 4C016/100	36092	L71 4A016/100	36129	L71 4SC016/100	36153	L71 4SA016/100	36177	
		25	L71 4C025/100	36093	L71 4A025/100	36130	L71 4SC025/100	36154	L71 4SA025/100	36178	
		40	L71 4C040/100	36094	L71 4A040/100	36131	L71 4SC040/100	36155	L71 4SA040/100	36179	
		63	L71 4C063/100	36095	L71 4A063/100	36132	L71 4SC063/100	36156	L71 4SA063/100	36180	
		80	L71 4C080/100	36096	L71 4A080/100	36133	L71 4SC080/100	36157	L71 4SA080/100	36181	
		100	L71 4C100/100	36097	L71 4A100/100	36134	L71 4SC100/100	36158	L71 4SA100/100	36182	
300		16	L71 4C016/300	36098	L71 4A016/300	36135	L71 4SC016/300	36159	L71 4SA016/300	36183	
		25	L71 4C025/300	36099	L71 4A025/300	36136	L71 4SC025/300	36160	L71 4SA025/300	36184	
		40	L71 4C040/300	36100	L71 4A040/300	36137	L71 4SC040/300	36161	L71 4SA040/300	36185	
		63	L71 4C063/300	36101	L71 4A063/300	36138	L71 4SC063/300	36162	L71 4SA063/300	36186	
		80	L71 4C080/300	36102	L71 4A080/300	36139	L71 4SC080/300	36163	L71 4SA080/300	36187	
		100	L71 4C100/300	36103	L71 4A100/300	36140	L71 4SC100/300	36164	L71 4SA100/300	36188	



## 3SL71N-40, RCBO, 1P+N, up to 40 A

Independent power supply with build-in power source, directly draws power from the incoming end to avoid the risk of protection function failure caused by supply failure.

- Overload protection
- Short circuit protection
- Isolation
- Controlling
- Used in residential building, non-residential building, industry, energy and infrastructure

### Functions

- Switching and isolation function
- Protection against overload and short-circuit currents
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults
- Used in residential building

### Technical specifications

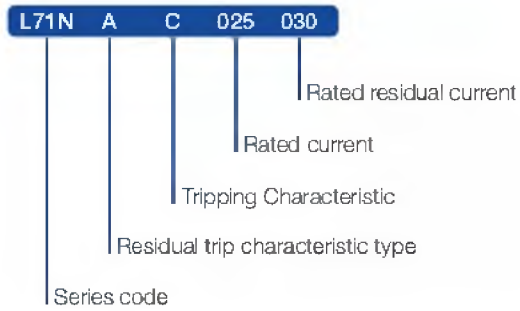
- Standard: IEC 61009-1
- Type (wave form of the earth leakage sensed): AC, A
- Number of pole: 1P+N
- Rated current  $I_n$  (A): 6, 10, 16, 20, 25, 32, 40
- Rated voltage  $U_e$  (V AC): 230
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $f_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 30, 100, 300
- Rated breaking capacity acc. to IEC 61009-1 ultimate  $I_{cn}$  (kA): 6
- Rated breaking capacity acc. to IEC 60947-2 ultimate  $I_{cu}$  (kA): 10
- Rated residual breaking capacity  $I_{\Delta m}$  (kA): 6
- Rated impulse withstand voltage (1.2/50)  $U_{imp}$  (kV): 4
- Dielectric test voltage at ind. freq. for 1 min. (kV): 2.5
- Surge current resistance (wave 8/20) (A): 3000
- Tripping characteristic: B, C
- Characteristic B ( $I_n$ ): 3-5
- Characteristic C ( $I_n$ ): 5-10
- Electrical life (times): 4,000
- Mechanical life (times): 10,000
- Degree of protection: IP20, with connected conductors
- Mounting position: Any
- Conductor cross-sections
- Solid and stranded (mm<sup>2</sup>): 0.75-35
- Finely stranded with end sleeve (mm<sup>2</sup>): 0.75-25
- Terminals

- Terminal tightening torque (N·m): 2.8
- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity
- Storage temperature (°C): -40 ~ +75
- Altitude (meters): Max. 2000

## References

- Additional components: page 189 ~ 191

## Instruction of type code

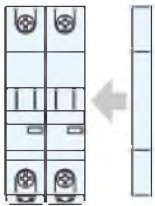


## Features

- The combination of an RCCB and a miniature circuit breaker in a compact design for personnel, fire and line protection
- Electromagnetic type, voltage independent
- The MCB part protects lines against overload and short circuits and is available in characteristics B and C
- The handle provides a clear indication of the contact position
- The earth reference cable ensures protection against earth leakage in case of loss of supply neutral

## Add-on devices

Auxiliaries



## Selection and ordering data



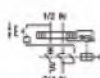
Type AC 

Number of poles	Rated residual current $I_{\Delta n}$ (mA)	Rated current $I_n$ (A)	Characteristic B		Characteristic C	
			Type code	Order code	Type code	Order code
1P+N	30	6	L71NC B06/030	20276	L71NC C06/030	20283
		10	L71NC B10/030	20277	L71NC C10/030	20284
		16	L71NC B16/030	20278	L71NC C16/030	20285
		20	L71NC B20/030	20279	L71NC C20/030	20286
		25	L71NC B25/030	20280	L71NC C25/030	20287
		32	L71NC B32/030	20281	L71NC C32/030	20288
		40	L71NC B40/030	20282	L71NC C40/030	20289
		100	6	L71NC B06/100	20304	L71NC C06/100
	10		L71NC B10/100	20305	L71NC C10/100	20312
	16		L71NC B16/100	20306	L71NC C16/100	20313
	20		L71NC B20/100	20307	L71NC C20/100	20314
	25		L71NC B25/100	20308	L71NC C25/100	20315
	32		L71NC B32/100	20309	L71NC C32/100	20316
	40		L71NC B40/100	20310	L71NC C40/100	20317
	300		6	L71NC B06/300	20332	L71NC C06/300
		10	L71NC B10/300	20333	L71NC C10/300	20340
		16	L71NC B16/300	20334	L71NC C16/300	20341
		20	L71NC B20/300	20335	L71NC C20/300	20342
		25	L71NC B25/300	20336	L71NC C25/300	20343
		32	L71NC B32/300	20337	L71NC C32/300	20344
		40	L71NC B40/300	20338	L71NC C40/300	20345



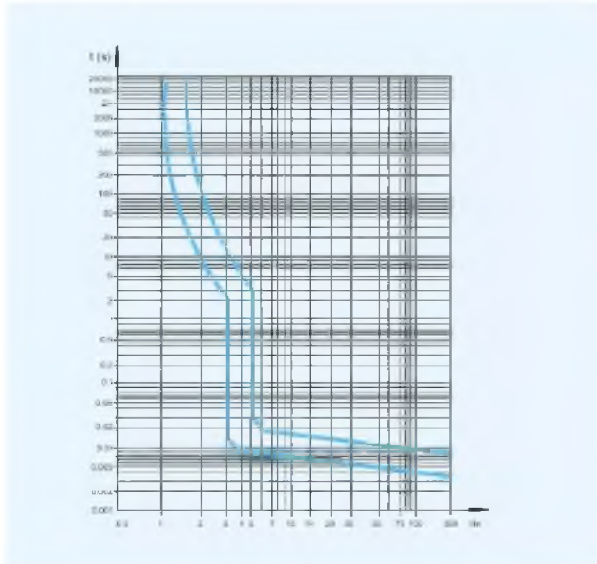
Type A 

Number of poles	Rated residual current $I_{\Delta n}$ (mA)	Rated current $I_n$ (A)	Characteristic B		Characteristic C	
			Type code	Order code	Type code	Order code
1P+N	30	6	L71NA B06/030	20290	L71NA C06/030	20297
		10	L71NA B10/030	20291	L71NA C10/030	20298
		16	L71NA B16/030	20292	L71NA C16/030	20299
		20	L71NA B20/030	20293	L71NA C20/030	20300
		25	L71NA B25/030	20294	L71NA C25/030	20301
		32	L71NA B32/030	20295	L71NA C32/030	20302
		40	L71NA B40/030	20296	L71NA C40/030	20303
		100	6	L71NA B06/100	20318	L71NA C06/100
	10		L71NA B10/100	20319	L71NA C10/100	20326
	16		L71NA B16/100	20320	L71NA C16/100	20327
	20		L71NA B20/100	20321	L71NA C20/100	20328
	25		L71NA B25/100	20322	L71NA C25/100	20329
	32		L71NA B32/100	20323	L71NA C32/100	20330
	40		L71NA B40/100	20324	L71NA C40/100	20331
	300		6	L71NA B06/300	20346	L71NA C06/300
		10	L71NA B10/300	20347	L71NA C10/300	20354
		16	L71NA B16/300	20348	L71NA C16/300	20355
		20	L71NA B20/300	20349	L71NA C20/300	20356
		25	L71NA B25/300	20350	L71NA C25/300	20357
		32	L71NA B32/300	20351	L71NA C32/300	20358
		40	L71NA B40/300	20352	L71NA C40/300	20359

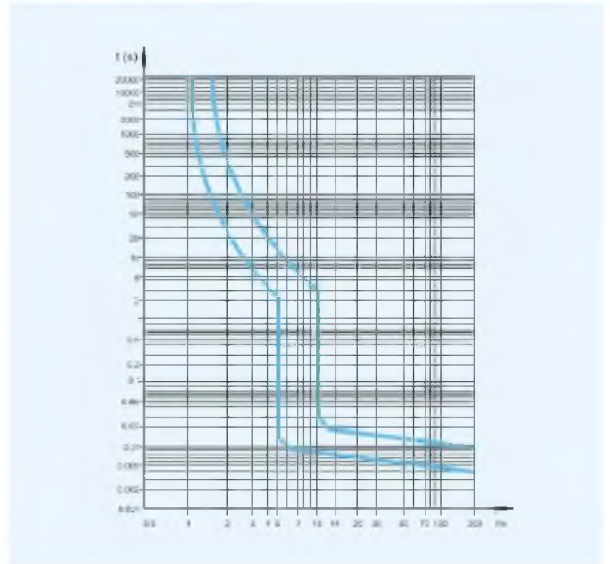


Tripping characteristic curves

Characteristic B



Characteristic C



### Outline and installation dimensions



## 3SB71L-50, RCBO, integrated with earthing cable

Independent power supply with build-in power source, directly draws power from the incoming end to avoid the risk of protection function failure caused by supply failure.

- Overload protection
- Short circuit protection
- Isolation
- Controlling
- Used in residential building, non-residential building, industry, energy and infrastructure

### Functions

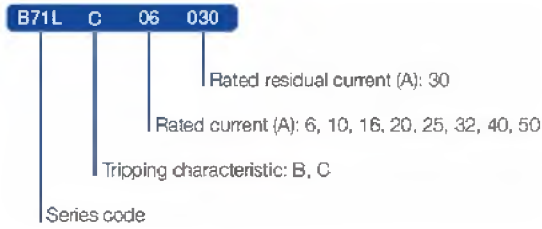
- Switching and isolation function
- Protection against overload and short-circuit currents
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts
- Protection against fire hazard caused by insulation faults
- Used in residential building and distribution boards

### Technical specifications

- Standard: IEC 61009-1
- Type (wave form of the earth leakage sensed): AC
- Number of pole: 1+N (1 module)
- Rated current  $I_n$  (A): 6, 10, 16, 20, 25, 32, 40, 50
- Rated voltage  $U_e$  (V AC): 230
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $f_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 30
- Rated breaking capacity acc. to IEC 61009-1 ultimate  $I_{cn}$  (kA): 10
- Rated breaking capacity acc. to IEC 60947-2 ultimate  $I_{cu}$  (kA): 10
- Rated residual breaking capacity  $I_{\Delta m}$  (kA): 10
- Rated impulse withstand voltage (1.2/50)  $U_{imp}$  (kV): 4
- Dielectric test voltage at ind. freq. for 1 min. (kV): 2
- Surge current resistance (wave 8/20) (A): 3000
- Tripping characteristic: B, C
- Characteristic B ( $I_n$ ): 3-5
- Characteristic C ( $I_n$ ): 5-10
- Electrical life (times): 4,000
- Mechanical life (times): 10,000
- Degree of protection: IP20, with connected conductors
- Mounting position: Any
- Conductor cross-sections
- Solid and stranded (mm<sup>2</sup>): 0.75-35
- Finely stranded with end sleeve (mm<sup>2</sup>): 0.75-25
- Terminals
- Terminal tightening torque (N·m): 2.5

- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity
- Storage temperature (°C): -40 ~ +75
- Altitude (meters): Max. 2000

## Instruction of type code



## Features

- The combination of an RCCB and a miniature circuit breaker in a compact design
- The MCB part protects lines against overload and short circuits and is available in characteristics B and C
- Electronic Type, voltage dependent
- The handle provides a clear indication of the contact position
- The earth reference cable ensures protection against earth leakage in case of loss of supply neutral

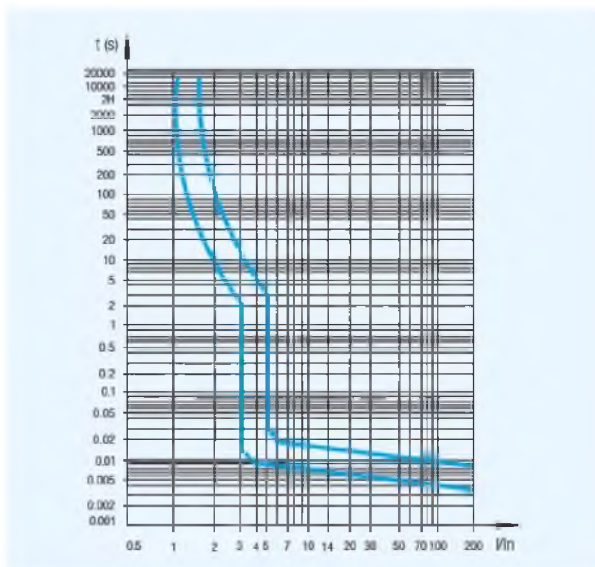
## Selection and ordering data

Type AC

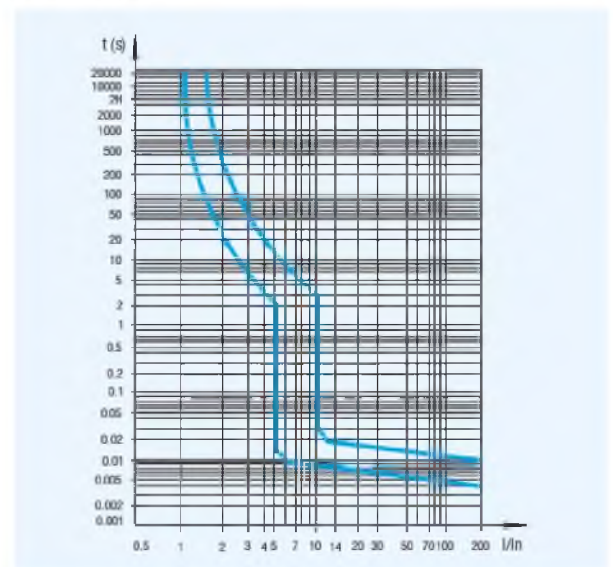
	Number of poles	Rated residual current I <sub>Δn</sub> (mA)	Rated current I <sub>n</sub> (A)	Characteristic B		Characteristic C	
				Type code	Order code	Type code	Order code
	1P+N	30	6	B71L B06/030	23589	B71L C06/030	23597
			10	B71L B10/030	23590	B71L C10/030	23598
			16	B71L B16/030	23591	B71L C16/030	23599
			20	B71L B20/030	23592	B71L C20/030	23600
			25	B71L B25/030	23593	B71L C25/030	23601
			32	B71L B32/030	23594	B71L C32/030	23602
			40	B71L B40/030	23595	B71L C40/030	23603
			50	B71L B50/030	23596	B71L C50/030	23604

## Tripping characteristic curves

Characteristic B



Characteristic C



## Outline and installation dimensions

## 3SB71LN

Independent power supply with build-in power source, directly draws power from the incoming end to avoid the risk of protection function failure caused by external power failure.

- Overload protection
- Short circuit protection
- Isolation
- Controlling

## Functions

- Switching and isolation function
- Protection against overload and short-circuit currents
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults
- Used in residential building

## Technical specifications

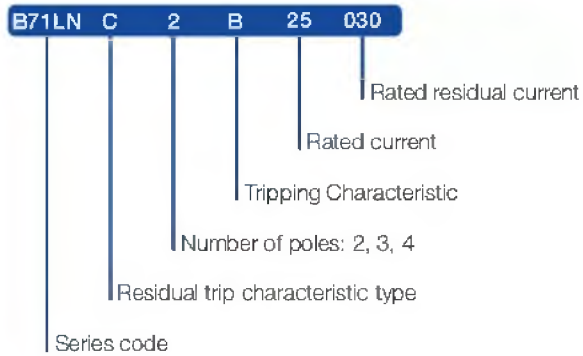
- Standard: IEC 61009-1
- Type (wave form of the earth leakage sensed): AC, A
- Number of poles: 2, 3, 4
- Rated current  $I_n$  (A): 6, 10, 16, 20, 25, 32, 40
- Rated voltage  $U_e$  (V AC): 230/400
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $f_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 30, 100, 300
- Rated breaking capacity acc. to IEC 61009-1 ultimate  $I_{cn}$  (kA): 10
- Rated breaking capacity acc. to IEC 60947-2 ultimate  $I_{cu}$  (kA): 10
- Rated residual breaking capacity  $I_{\Delta m}$  (kA): 6
- Rated impulse withstand voltage (1.2/50)  $U_{imp}$  (kV): 4
- Dielectric test voltage at ind. freq. for 1 min. (kV): 2.5
- Surge current resistance (wave 8/20) (A): 3000
- Tripping characteristic: B, C, D
- Characteristic B ( $I_n$ ): 3-5
- Characteristic C ( $I_n$ ): 5-10
- Characteristic D ( $I_n$ ): 10-14
- Electrical life (times): 4,000
- Mechanical life (times): 10,000
- Degree of protection: IP20, with connected conductors
- Mounting position: Any
- Conductor cross-sections
- Solid and stranded (mm<sup>2</sup>): 0.75-35
- Finely stranded with end sleeve (mm<sup>2</sup>): 0.75-25
- Terminals

- Terminal tightening torque (N·m): 2.5
- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity
- Storage temperature (°C): -40 ~ +75
- Altitude (meters): Max. 2000

## References

- Additional components: page 189 ~ 191

## Instruction of type code

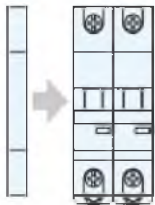


## Features




- The combination of an RCCB and a miniature circuit breaker in a compact design for personnel, fire and line protection
- Electromagnetic type, voltage independent
- The MCB part protects lines against overload and short circuits and is available in characteristics B, C and D
- The handle provides a clear indication of the contact position

## Add-on devices

### Auxiliaries






## Selection and ordering data

Number of poles	Rated residual current I $\Delta$ n (mA)	Rated current I $n$ (A)	Characteristic B		Characteristic C		Characteristic D	
			Type code	Order code	Type code	Order code	Type code	Order code
	30	6	B71LNC 2B06/030H	16947	B71LNC 2C06/030H	16968	B71LNC 2D06/030H	16989
			B71LNC 2B10/030H	16948	B71LNC 2C10/030H	16969	B71LNC 2D10/030H	16990
			B71LNC 2B16/030H	16949	B71LNC 2C16/030H	16970	B71LNC 2D16/030H	16991
			B71LNC 2B20/030H	16950	B71LNC 2C20/030H	16971	B71LNC 2D20/030H	16992
			B71LNC 2B25/030H	16951	B71LNC 2C25/030H	16972	B71LNC 2D25/030H	16993
			B71LNC 2B32/030H	16952	B71LNC 2C32/030H	16973	B71LNC 2D32/030H	16994
		B71LNC 2B40/030H	16953	B71LNC 2C40/030H	16974	B71LNC 2D40/030H	16995	
		100	B71LNC 2B06/100H	17010	B71LNC 2C06/100H	17031	B71LNC 2D06/100H	17052
			B71LNC 2B10/100H	17011	B71LNC 2C10/100H	17032	B71LNC 2D10/100H	17053
			B71LNC 2B16/100H	17012	B71LNC 2C16/100H	17033	B71LNC 2D16/100H	17054
			B71LNC 2B20/100H	17013	B71LNC 2C20/100H	17034	B71LNC 2D20/100H	17055
			B71LNC 2B25/100H	17014	B71LNC 2C25/100H	17035	B71LNC 2D25/100H	17056
	B71LNC 2B32/100H		17015	B71LNC 2C32/100H	17036	B71LNC 2D32/100H	17057	
	300	6	B71LNC 2B06/300H	17073	B71LNC 2C06/300H	17094	B71LNC 2D06/300H	17115
			B71LNC 2B10/300H	17074	B71LNC 2C10/300H	17095	B71LNC 2D10/300H	17116
			B71LNC 2B16/300H	17075	B71LNC 2C16/300H	17096	B71LNC 2D16/300H	17117
			B71LNC 2B20/300H	17076	B71LNC 2C20/300H	17097	B71LNC 2D20/300H	17118
			B71LNC 2B25/300H	17077	B71LNC 2C25/300H	17098	B71LNC 2D25/300H	17119
			B71LNC 2B32/300H	17078	B71LNC 2C32/300H	17099	B71LNC 2D32/300H	17120
		B71LNC 2B40/300H	17079	B71LNC 2C40/300H	17100	B71LNC 2D40/300H	17121	
		100	B71LNC 2B06/100H	17010	B71LNC 2C06/100H	17031	B71LNC 2D06/100H	17052
			B71LNC 2B10/100H	17011	B71LNC 2C10/100H	17032	B71LNC 2D10/100H	17053
			B71LNC 2B16/100H	17012	B71LNC 2C16/100H	17033	B71LNC 2D16/100H	17054
			B71LNC 2B20/100H	17013	B71LNC 2C20/100H	17034	B71LNC 2D20/100H	17055
B71LNC 2B25/100H			17014	B71LNC 2C25/100H	17035	B71LNC 2D25/100H	17056	
B71LNC 2B32/100H	17015		B71LNC 2C32/100H	17036	B71LNC 2D32/100H	17057		
	30	6	B71LNC 3B06/030H	16954	B71LNC 3C06/030H	16975	B71LNC 3D06/030H	16996
			B71LNC 3B10/030H	16955	B71LNC 3C10/030H	16976	B71LNC 3D10/030H	16997
			B71LNC 3B16/030H	16956	B71LNC 3C16/030H	16977	B71LNC 3D16/030H	16998
			B71LNC 3B20/030H	16957	B71LNC 3C20/030H	16978	B71LNC 3D20/030H	16999
			B71LNC 3B25/030H	16958	B71LNC 3C25/030H	16979	B71LNC 3D25/030H	17000
			B71LNC 3B32/030H	16959	B71LNC 3C32/030H	16980	B71LNC 3D32/030H	17001
		B71LNC 3B40/030H	16960	B71LNC 3C40/030H	16981	B71LNC 3D40/030H	17002	
		100	B71LNC 3B06/100H	17017	B71LNC 3C06/100H	17038	B71LNC 3D06/100H	17059
			B71LNC 3B10/100H	17018	B71LNC 3C10/100H	17039	B71LNC 3D10/100H	17060
			B71LNC 3B16/100H	17019	B71LNC 3C16/100H	17040	B71LNC 3D16/100H	17061
			B71LNC 3B20/100H	17020	B71LNC 3C20/100H	17041	B71LNC 3D20/100H	17062
			B71LNC 3B25/100H	17021	B71LNC 3C25/100H	17042	B71LNC 3D25/100H	17063
	B71LNC 3B32/100H		17022	B71LNC 3C32/100H	17043	B71LNC 3D32/100H	17064	
	300	6	B71LNC 3B06/300H	17080	B71LNC 3C06/300H	17101	B71LNC 3D06/300H	17122
			B71LNC 3B10/300H	17081	B71LNC 3C10/300H	17102	B71LNC 3D10/300H	17123
			B71LNC 3B16/300H	17082	B71LNC 3C16/300H	17103	B71LNC 3D16/300H	17124
			B71LNC 3B20/300H	17083	B71LNC 3C20/300H	17104	B71LNC 3D20/300H	17125
			B71LNC 3B25/300H	17084	B71LNC 3C25/300H	17105	B71LNC 3D25/300H	17126
			B71LNC 3B32/300H	17085	B71LNC 3C32/300H	17106	B71LNC 3D32/300H	17127
		B71LNC 3B40/300H	17086	B71LNC 3C40/300H	17107	B71LNC 3D40/300H	17128	
		100	B71LNC 3B06/100H	17017	B71LNC 3C06/100H	17038	B71LNC 3D06/100H	17059
			B71LNC 3B10/100H	17018	B71LNC 3C10/100H	17039	B71LNC 3D10/100H	17060
			B71LNC 3B16/100H	17019	B71LNC 3C16/100H	17040	B71LNC 3D16/100H	17061
			B71LNC 3B20/100H	17020	B71LNC 3C20/100H	17041	B71LNC 3D20/100H	17062
B71LNC 3B25/100H			17021	B71LNC 3C25/100H	17042	B71LNC 3D25/100H	17063	
B71LNC 3B32/100H	17022		B71LNC 3C32/100H	17043	B71LNC 3D32/100H	17064		
	30	6	B71LNC 4B06/030H	16961	B71LNC 4C06/030H	16982	B71LNC 4D06/030H	17003
			B71LNC 4B10/030H	16962	B71LNC 4C10/030H	16983	B71LNC 4D10/030H	17004
			B71LNC 4B16/030H	16963	B71LNC 4C16/030H	16984	B71LNC 4D16/030H	17194
			B71LNC 4B20/030H	16964	B71LNC 4C20/030H	16985	B71LNC 4D20/030H	17195
			B71LNC 4B25/030H	16965	B71LNC 4C25/030H	16986	B71LNC 4D25/030H	17196
			B71LNC 4B32/030H	16966	B71LNC 4C32/030H	16987	B71LNC 4D32/030H	17197
		B71LNC 4B40/030H	16967	B71LNC 4C40/030H	16988	B71LNC 4D40/030H	17198	
		100	B71LNC 4B06/100H	17024	B71LNC 4C06/100H	17045	B71LNC 4D06/100H	17066
			B71LNC 4B10/100H	17025	B71LNC 4C10/100H	17046	B71LNC 4D10/100H	17067
			B71LNC 4B16/100H	17026	B71LNC 4C16/100H	17047	B71LNC 4D16/100H	17257
			B71LNC 4B20/100H	17027	B71LNC 4C20/100H	17048	B71LNC 4D20/100H	17258
			B71LNC 4B25/100H	17028	B71LNC 4C25/100H	17049	B71LNC 4D25/100H	17259
	B71LNC 4B32/100H		17029	B71LNC 4C32/100H	17050	B71LNC 4D32/100H	17260	
	300	6	B71LNC 4B06/300H	17087	B71LNC 4C06/300H	17108	B71LNC 4D06/300H	17129
			B71LNC 4B10/300H	17088	B71LNC 4C10/300H	17109	B71LNC 4D10/300H	17130
			B71LNC 4B16/300H	17089	B71LNC 4C16/300H	17110	B71LNC 4D16/300H	17320
			B71LNC 4B20/300H	17090	B71LNC 4C20/300H	17111	B71LNC 4D20/300H	17321
			B71LNC 4B25/300H	17091	B71LNC 4C25/300H	17112	B71LNC 4D25/300H	17322
			B71LNC 4B32/300H	17092	B71LNC 4C32/300H	17113	B71LNC 4D32/300H	17323
		B71LNC 4B40/300H	17093	B71LNC 4C40/300H	17114	B71LNC 4D40/300H	17324	
		100	B71LNC 4B06/100H	17024	B71LNC 4C06/100H	17045	B71LNC 4D06/100H	17066
			B71LNC 4B10/100H	17025	B71LNC 4C10/100H	17046	B71LNC 4D10/100H	17067
			B71LNC 4B16/100H	17026	B71LNC 4C16/100H	17047	B71LNC 4D16/100H	17257
			B71LNC 4B20/100H	17027	B71LNC 4C20/100H	17048	B71LNC 4D20/100H	17258
B71LNC 4B25/100H			17028	B71LNC 4C25/100H	17049	B71LNC 4D25/100H	17259	
B71LNC 4B32/100H	17029		B71LNC 4C32/100H	17050	B71LNC 4D32/100H	17260		

## Selection and ordering data

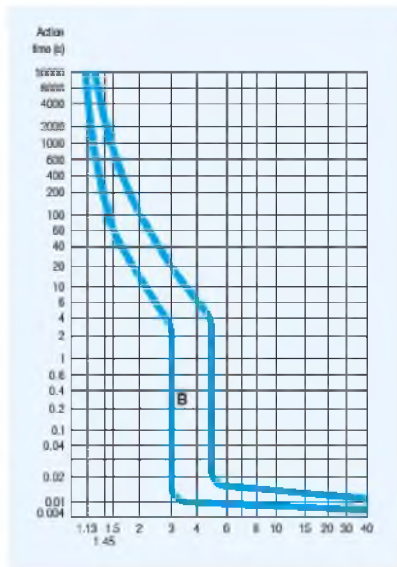
Type A 

Number of poles	Rated residual current I $\Delta$ n (mA)	Rated current I $n$ (A)	Characteristic B		Characteristic C		Characteristic D	
			Type code	Order code	Type code	Order code	Type code	Order code
	30	6	B71LNA 2B06/030H	17136	B71LNA 2C06/030H	17157	B71LNA 2D06/030H	17178
		10	B71LNA 2B10/030H	17137	B71LNA 2C10/030H	17158	B71LNA 2D10/030H	17179
		16	B71LNA 2B16/030H	17138	B71LNA 2C16/030H	17159	B71LNA 2D16/030H	17180
		20	B71LNA 2B20/030H	17139	B71LNA 2C20/030H	17160	B71LNA 2D20/030H	17181
		25	B71LNA 2B25/030H	17140	B71LNA 2C25/030H	17161	B71LNA 2D25/030H	17182
		32	B71LNA 2B32/030H	17141	B71LNA 2C32/030H	17162	B71LNA 2D32/030H	17183
		40	B71LNA 2B40/030H	17142	B71LNA 2C40/030H	17163	B71LNA 2D40/030H	17184
	100	6	B71LNA 2B06/100H	17199	B71LNA 2C06/100H	17220	B71LNA 2D06/100H	17241
		10	B71LNA 2B10/100H	17200	B71LNA 2C10/100H	17221	B71LNA 2D10/100H	17242
		16	B71LNA 2B16/100H	17201	B71LNA 2C16/100H	17222	B71LNA 2D16/100H	17243
		20	B71LNA 2B20/100H	17202	B71LNA 2C20/100H	17223	B71LNA 2D20/100H	17244
		25	B71LNA 2B25/100H	17203	B71LNA 2C25/100H	17224	B71LNA 2D25/100H	17245
		32	B71LNA 2B32/100H	17204	B71LNA 2C32/100H	17225	B71LNA 2D32/100H	17246
		40	B71LNA 2B40/100H	17205	B71LNA 2C40/100H	17226	B71LNA 2D40/100H	17247
	300	6	B71LNA 2B06/300H	17262	B71LNA 2C06/300H	17283	B71LNA 2D06/300H	17304
		10	B71LNA 2B10/300H	17263	B71LNA 2C10/300H	17284	B71LNA 2D10/300H	17305
		16	B71LNA 2B16/300H	17264	B71LNA 2C16/300H	17285	B71LNA 2D16/300H	17306
		20	B71LNA 2B20/300H	17265	B71LNA 2C20/300H	17286	B71LNA 2D20/300H	17307
		25	B71LNA 2B25/300H	17266	B71LNA 2C25/300H	17287	B71LNA 2D25/300H	17308
		32	B71LNA 2B32/300H	17267	B71LNA 2C32/300H	17288	B71LNA 2D32/300H	17309
		40	B71LNA 2B40/300H	17268	B71LNA 2C40/300H	17289	B71LNA 2D40/300H	17310
	30	6	B71LNA 3B06/030H	17143	B71LNA 3C06/030H	17164	B71LNA 3D06/030H	17185
		10	B71LNA 3B10/030H	17144	B71LNA 3C10/030H	17165	B71LNA 3D10/030H	17186
		16	B71LNA 3B16/030H	17145	B71LNA 3C16/030H	17166	B71LNA 3D16/030H	17187
		20	B71LNA 3B20/030H	17146	B71LNA 3C20/030H	17167	B71LNA 3D20/030H	17188
		25	B71LNA 3B25/030H	17147	B71LNA 3C25/030H	17168	B71LNA 3D25/030H	17189
		32	B71LNA 3B32/030H	17148	B71LNA 3C32/030H	17169	B71LNA 3D32/030H	17190
		40	B71LNA 3B40/030H	17149	B71LNA 3C40/030H	17170	B71LNA 3D40/030H	17191
	100	6	B71LNA 3B06/100H	17206	B71LNA 3C06/100H	17227	B71LNA 3D06/100H	17248
		10	B71LNA 3B10/100H	17207	B71LNA 3C10/100H	17228	B71LNA 3D10/100H	17249
		16	B71LNA 3B16/100H	17208	B71LNA 3C16/100H	17229	B71LNA 3D16/100H	17250
		20	B71LNA 3B20/100H	17209	B71LNA 3C20/100H	17230	B71LNA 3D20/100H	17251
		25	B71LNA 3B25/100H	17210	B71LNA 3C25/100H	17231	B71LNA 3D25/100H	17252
		32	B71LNA 3B32/100H	17211	B71LNA 3C32/100H	17232	B71LNA 3D32/100H	17253
		40	B71LNA 3B40/100H	17212	B71LNA 3C40/100H	17233	B71LNA 3D40/100H	17254
	300	6	B71LNA 3B06/300H	17269	B71LNA 3C06/300H	17290	B71LNA 3D06/300H	17311
		10	B71LNA 3B10/300H	17270	B71LNA 3C10/300H	17291	B71LNA 3D10/300H	17312
		16	B71LNA 3B16/300H	17271	B71LNA 3C16/300H	17292	B71LNA 3D16/300H	17313
		20	B71LNA 3B20/300H	17272	B71LNA 3C20/300H	17293	B71LNA 3D20/300H	17314
		25	B71LNA 3B25/300H	17273	B71LNA 3C25/300H	17294	B71LNA 3D25/300H	17315
		32	B71LNA 3B32/300H	17274	B71LNA 3C32/300H	17295	B71LNA 3D32/300H	17316
		40	B71LNA 3B40/300H	17275	B71LNA 3C40/300H	17296	B71LNA 3D40/300H	17317
	30	6	B71LNA 4B06/030H	17150	B71LNA 4C06/030H	17171	B71LNA 4D06/030H	17192
		10	B71LNA 4B10/030H	17151	B71LNA 4C10/030H	17172	B71LNA 4D10/030H	17193
		16	B71LNA 4B16/030H	17152	B71LNA 4C16/030H	17173	B71LNA 4D16/030H	17194
		20	B71LNA 4B20/030H	17153	B71LNA 4C20/030H	17174	B71LNA 4D20/030H	17195
		25	B71LNA 4B25/030H	17154	B71LNA 4C25/030H	17175	B71LNA 4D25/030H	17196
		32	B71LNA 4B32/030H	17155	B71LNA 4C32/030H	17176	B71LNA 4D32/030H	17197
		40	B71LNA 4B40/030H	17156	B71LNA 4C40/030H	17177	B71LNA 4D40/030H	17198
	100	6	B71LNA 4B06/100H	17213	B71LNA 4C06/100H	17234	B71LNA 4D06/100H	17255
		10	B71LNA 4B10/100H	17214	B71LNA 4C10/100H	17235	B71LNA 4D10/100H	17256
		16	B71LNA 4B16/100H	17215	B71LNA 4C16/100H	17236	B71LNA 4D16/100H	17257
		20	B71LNA 4B20/100H	17216	B71LNA 4C20/100H	17237	B71LNA 4D20/100H	17258
		25	B71LNA 4B25/100H	17217	B71LNA 4C25/100H	17238	B71LNA 4D25/100H	17259
		32	B71LNA 4B32/100H	17218	B71LNA 4C32/100H	17239	B71LNA 4D32/100H	17260
		40	B71LNA 4B40/100H	17219	B71LNA 4C40/100H	17240	B71LNA 4D40/100H	17261
	300	6	B71LNA 4B06/300H	17276	B71LNA 4C06/300H	17297	B71LNA 4D06/300H	17318
		10	B71LNA 4B10/300H	17277	B71LNA 4C10/300H	17298	B71LNA 4D10/300H	17319
		16	B71LNA 4B16/300H	17278	B71LNA 4C16/300H	17299	B71LNA 4D16/300H	17320
		20	B71LNA 4B20/300H	17279	B71LNA 4C20/300H	17300	B71LNA 4D20/300H	17321
		25	B71LNA 4B25/300H	17280	B71LNA 4C25/300H	17301	B71LNA 4D25/300H	17322
		32	B71LNA 4B32/300H	17281	B71LNA 4C32/300H	173023	B71LNA 4D32/300H	17323
		40	B71LNA 4B40/300H	17282	B71LNA 4C40/300H	17303	B71LNA 4D40/300H	17324

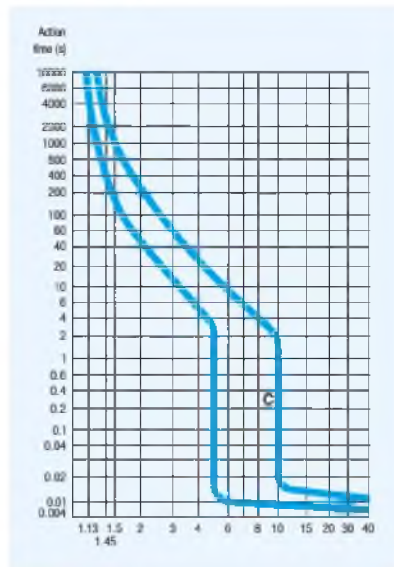
Tripping characteristic curves



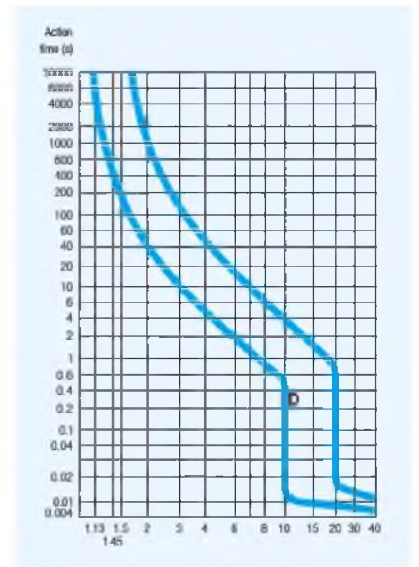
Characteristic B



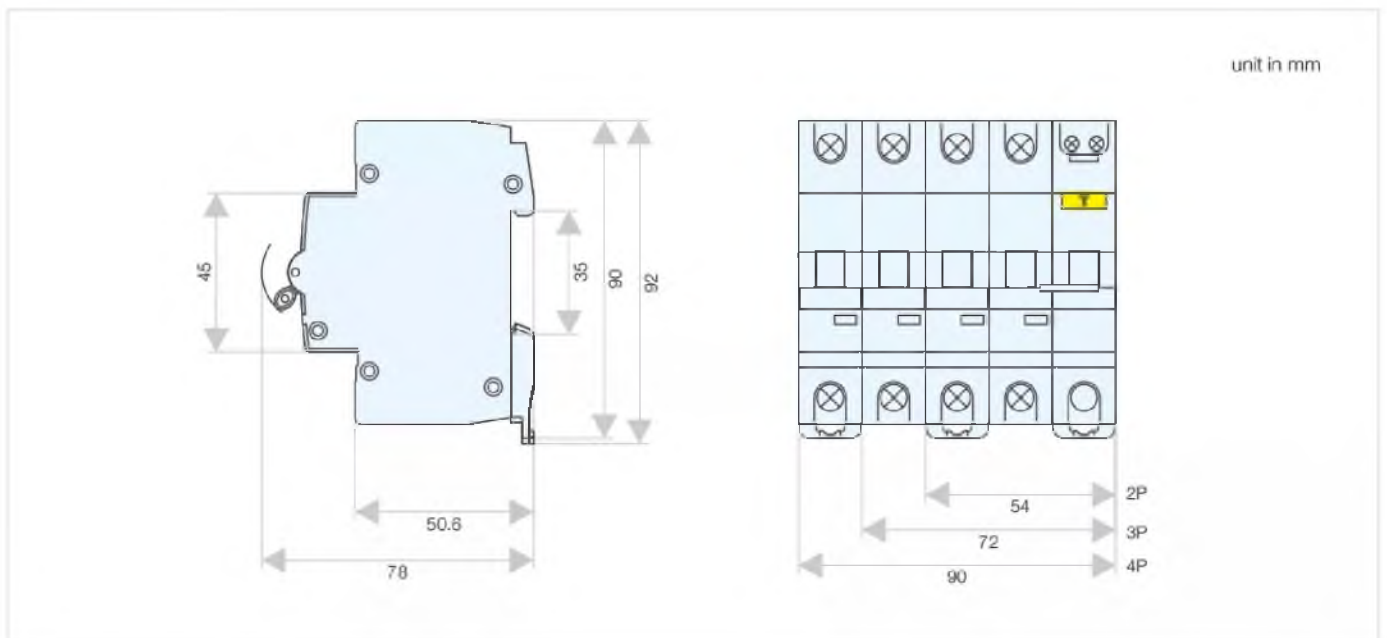
Characteristic C



Characteristic D



### Outline and installation dimensions



## PRBNE615, RCBO, integrated with earthing cable

- Switching and isolation function
- Protection against overload and short-circuit currents
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contact and additional protection against direct contact
- Protection against fire hazard caused by insulation faults
- Used in residential buildings and distribution boards

### Technical Specifications

- Standard: IEC 61009-1
- Type (wave form of the earth leakage sensed): AC, A
- Number of pole: 1+N (1 module)
- Rated current  $I_n$  (A): 6, 10, 16, 20, 25, 32, 40, 50
- Rated voltage  $U_e$  (V AC): 230
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $f_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 30
- Rated breaking capacity acc. to IEC 61009-1 ultimate  $I_{cn}$  (kA): 6
- Rated residual breaking capacity  $I_{\Delta m}$  (kA): 3
- Rated impulse withstand voltage (1.2/50)  $U_{imp}$  (kV): 4
- Dielectric test voltage at ind. freq. for 1 min. (kV): 2
- Surge current resistance (wave 8/20) (A): 3000
- Tripping characteristic: B, C
- Characteristic B ( $I_n$ ): 3-5
- Characteristic C ( $I_n$ ): 5-10
- Electrical life (times): 4,000
- Mechanical life (times): 10,000
- Degree of protection: IP20, with connected conductors
- Mounting position: Any
- Conductor cross-sections
- Solid and stranded (mm<sup>2</sup>): 0.75-35
- Finely stranded with end sleeve (mm<sup>2</sup>): 0.75-25
- Terminals
- Terminal tightening torque (N·m): 2.5
- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity
- Storage temperature (°C): -40 ~ +75
- Altitude (meters): Max. 2000

### Features

- The combination of an RCCB and a miniature circuit breaker is achieved in a compact design.
- The MCB part protects lines against overload and short circuits and is available in characteristics Characteristic B and C.
- Electronic Type, voltage dependent
- The earth reference cable ensures protection against earth leakage in case of any loss of supply neutral.

## 3SL6, RCCB, up to 100 A

- Switching and isolation function
- Controlling
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults
- Used in residential building , non-residential building, energy sources, industry and infrastructure.
- Anti false wiring design to ensure safe wiring

### Technical Specifications

- Standard: IEC 61008-1 (AC type / A type), IEC 62643 (B type)
- Type (wave form of the earth leakage sensed): AC, A, B
- Tripping time type: instantaneous, selectivity S
- Number of poles (P): 1P+N, 3P+N
- Rated current  $I_n$  (A): 10, 16, 25, 40, 63, 80, 100
- Rated voltage  $U_e$  (V AC): 2P: 230; 4P: 380
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $F_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 10, 30, 100, 300
- Rated conditional short-circuit current:
  - $I_{nc} = I_{\Delta c} = 6000$  A SCPD fuse 100 A Gg
- Making and breaking capacity for 3SL6-63  $I_m$  (A): 630
- Making and breaking capacity for 3SL6-100  $I_m$  (A): 1000
- Rated residual breaking capacity  $I_{\Delta m}$  (A): 1000
- Degree of protection: IP20, with connected conductors
- Conductor cross-section
  - Solid and stranded (mm<sup>2</sup>): 1-35
  - Finely stranded with end sleeve (mm<sup>2</sup>): 1-25
- Electrical endurance (Cycles): 4,000
- Mechanical endurance (Cycles): 10,000
- Fire resistance according to IEC 60695: 960 °C
- Mounting position: Any
- Busbar connection: Pin type
- Terminal tightening torque (N·m): 2.5
- Ambient temperature (°C): -5 ~ +40, max. 95 % humidity

### Features

- Electromagnetic type, voltage independent.
- The handle being sealable or equipped with padlock bracket avoids dangerous operation changes (ON / OFF)
- Adequate printing of all data on the front provides long-term identification

## RCCB, VRC510, up to 100 A

- Switching and isolation function
- Controlling
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults
- Used in residential building , non-residential building, energy sources, industry and infrastructure.
- Anti false wiring design to ensure safe wiring

### Functions

- Switching and isolation function
- Controlling
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults
- Used in residential building , non-residential building, energy sources, industry and infrastructure.
- Anti false wiring design to ensure safe wiring

### Technical specifications

- Standard: IEC 61008-1 (AC type / A type), IEC 62643 (B type)
- Type (wave form of the earth leakage sensed): AC, A, B
- Trip time type: instantaneous, selectivity S
- Number of poles (P): 1P+N, 3P+N
- Rated current  $I_n$  (A): 10, 16, 25, 40, 63, 80, 100
- Rated voltage  $U_e$  (V AC): 2P: 230; 4P: 380
- Rated insulation voltage  $U_i$  (V AC): 500
- Rated frequency  $f_n$  (Hz): 50/60
- Rated residual currents  $I_{\Delta n}$  (mA): 10, 30, 100, 300
- Rated conditional short-circuit current:
  - $I_{nc} = I_{\Delta c} = 6000$  A SCPD fuse 100 A Gg
- Making and breaking capacity for VRC5-63  $I_m$  (A): 630
- Making and breaking capacity for VRC5-100  $I_m$  (A): 1000
- Rated residual breaking capacity  $I_{\Delta m}$  (A): 1000
- Degree of protection: IP20, with connected conductors
- Conductor cross-section
  - Solid and stranded (mm<sup>2</sup>): 1-35
  - Finely stranded with end sleeve (mm<sup>2</sup>): 1-25
- Electrical endurance (Cycles): 4,000
- Mechanical endurance (Cycles): 10,000
- Fire resistance according to IEC 60695: 960 °C
- Mounting position: Any
- Busbar connection: Pin type
- Terminal tightening torque (N·m): 2.5

# RCBO, VRBNE515, integrated with earthing cable

- Switching and isolation function.
- Protection against overload and short-circuit currents.
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults.
- Used in residential building and distribution boards.

## Functions

- Switching and isolation function.
- Protection against overload and short-circuit currents.
- Protection against the effects of sinusoidal alternating earth fault currents
- Protection against indirect contacts and additional protection against direct contacts.
- Protection against fire hazard caused by insulation faults.
- Used in residential building and distribution boards.

## Technical specifications

- Standard: IEC 61009-1
  - Type (wave form of the earth leakage sensed): AC, A
  - Number of pole: 1+N (1 module)
  - Rated current  $I_n$  (A): 6, 10, 16, 20, 25, 32, 40, 50
  - Rated voltage  $U_e$  (V AC): 230
  - Rated insulation voltage  $U_i$  (V AC): 500
  - Rated frequency  $f_n$  (Hz): 50/60
  - Rated residual currents  $I_{\Delta n}$  (mA): 30
  - Rated breaking capacity acc. to IEC 61009-1 ultimate  $I_{cn}$  (kA): 6
  - Rated residual breaking capacity  $I_{\Delta m}$  (kA): 3
  - Rated impulse withstand voltage (1.2/50)  $U_{imp}$  (kV): 4
  - Dielectric test voltage at ind. freq. for 1 min. (kV): 2
  - Surge current resistance (wave 8/20) (A): 3000
  - Tripping characteristic: B, C
  - Characteristic B ( $I_n$ ): 3-5
  - Characteristic C ( $I_n$ ): 5-10
  - Electrical life (times): 4,000
  - Mechanical life (times): 10,000
  - Degree of protection: IP20, with connected conductors
  - Mounting position: Any
  - Conductor cross-sections
  - Solid and stranded (mm<sup>2</sup>): 0.75-35
  - Finely stranded with end sleeve (mm<sup>2</sup>): 0.75-25
  - Terminals
- 
- Ambient temperature (°C): -25 ~ +45, max. 95 % humidity
  - Storage temperature (°C): -40 ~ +75
  - Altitude (meters): Max. 2000

## Features

The combination of an RCCB and a miniature circuit breaker is achieved in a compact design.

The MCB part protects lines against overload and short circuits and is available in characteristics characteristic B and C.

Electronic Type, voltage dependent

The earth reference cable ensures protection against earth leakage in case of any loss of supply neutral.

## RCBO, VRBNC515E, compact

The VRBNC515E electronic RCBO is designed to fulfill the requirements of circuit protection by providing the technology residual current protection combined with current circuit protection in a compact design.

### Functions

- Equipment control and protection against short-circuits and overloads
- Isolation of electrical circuits
- Protecting people from direct and indirect contact
- Protecting installations from insulation faults to prevent electrically ignited fires

### Technical specifications

- Standards: IEC 61009-1
- Number of poles: 1P+N
- Neutral can be switched off: yes
- Electrical features
- Residual current-detection principle: Electronic (voltage dependent)
- Rated operational voltage  $U_e$  (V AC): 230
- Rated current  $I_n$  (A): 6, 10, 16, 20, 25, 32, 40, 45
- Rated residual operating current  $I_{\Delta n}$  (mA): 10, 30, 100
- Type (wave form of residual current): AC, A
- Rated insulation voltage  $U_i$  (V): 500
- Rated impulse withstand voltage  $U_{imp}$  (kV): 4
- Rated ultimate breaking capacity (kA): 6
- Rated service breaking capacity (kA): 6
- Instantaneous tripping characteristic: B, C
- Thermal-magnetic release characteristic:
- B:  $3 I_n \leq I_n \leq 5 I_n$
- C:  $5 I_n \leq I_n \leq 10 I_n$
- Mechanical features
- Endurance
- Electrical life (times): 10000
- Mechanical life (times): 20000
- Protection degree: Housing IP40; terminals IP20
- Pollution degree: 3
- Ambient temperature (°C): -25 ... +45
- Storage temperature (°C): -40 ... +70
- Environmental conditions (°C/RH): 28 cycles with +20 °C/95% and +40 °C/50%

### Installation and connection

- Overvoltage category: III
- Connection capacity (mm<sup>2</sup>): 1 ... 10
- Supply from: Top terminals
- Terminal tightening torque (N·m): 2.5

- Altitude (meters): Max. 2000

## Applications

- Ideal for installations that require the added benefit of RCBOs with switched neutral line.
- The compact design makes it suited for new builds as well as the retrofit market, to enhance the protection level in electrical circuits by additional personal safety.
- In new buildings, the 50 % space saving compared to the 2 modular width version allows implementation of more compact and cheaper distribution boards.
- Especially in projects where many circuits have to be equipped with individual residual current protection, smaller distribution boards can be installed, which saves significant costs.
- In old buildings, it is very easy to replace the existing 1-pole MCBs with a compact RCBO in only 1 modular width, this means no additional space is required in the distribution board.

## Features

Thanks to the built in switched neutral line on the left, a faulty or damaged circuit can be fully isolate by disconnecting live and neutral conductors, and testing of outgoing circuits is easier as an electrician does not have to disconnect terminals before testing.

Compact size only 18 mm in width saves 50 % space compared to the version 2 modular width RCBOs.

Rated current is up to 40 A with high breaking capacity 6 kA.

Real contact position indicator for easier identification, independently on the toggle position.

Cage terminals with fail safe feature to avoid improper installation.

Additional components are available, such as: auxiliary contact, fault signal contact, under-voltage release and shunt release.

## RCBO, VRB510E, up to 80 A

The VRB510E electronic RCBO is designed to fulfill the requirements of circuit protection by providing the technology residual current protection combine current circuit protection.

- Equipment control and protection against short-circuits and overloads
- Isolation of electrical circuits
- Protecting people from direct and indirect contact
- Protecting installations from insulation faults to prevent electrically ignited fires

### Features

- Rated current up to 80 A.
- Breaking capacity 6 kA and 10 kA.
- Overload protection is available for both live line and neutral line
- Adjustable rated residual current make it suitable for different protection requirements
- Real contact position indicator for easier identification, independently on the toggle position
- Cage terminals with fail safe feature to avoid improper installation.
- Additional components are available, such as: auxiliary contact, fault signal contact, under-voltage release and shunt release.

### Technical specifications



		VRB515E	VRB516E
Standards		IEC 61009-1	
Number of poles		1P+N	3P+N
Neutral can be switched off		Yes	Yes
<b>Electrical features</b>			
Residual current-detection principle		Electronic (voltage dependent)	
Rated operational voltage Ue	V AC	230	400
Rated current In	A	6, 10, 16, 20, 25, 32, 40, 50, 63, 80	
Rated residual operating current IΔn	mA	30, 100, 300	
Adjustable rated residual current		-	yes
Type (wave form of residual current)		AC, A	
Rated insulation voltage Ui	V	500	
Rated impulse withstand voltage Uimp	kV	4	
Rated ultimate breaking capacity	kA	6	10
Rated service breaking capacity	kA	6	7.5
Instantaneous tripping characteristic		B, C, D	
Thermal-magnetic release characteristic		B: $3 I_n \leq I_n \leq 5 I_n$ C: $5 I_n \leq I_n \leq 10 I_n$ D: $10 I_n \leq I_n \leq 20 I_n$	
<b>Mechanical features</b>			
Endurance	Electrical	cycles	10000
	Mechanical	cycles	20000
Protection degree	Housing		IP40
	Terminals		IP20
Pollution degree		3	
Ambient temperature		°C	-25 ... +45
Storage temperature		°C	-40 ... +70
Environmental conditions		°C/RH	28 cycles with +20 °C/95% and +40 °C/50%
Altitude		Meter	≤ 2000
<b>Installation and connection</b>			
Overvoltage category		III	
Connection capacity		mm <sup>2</sup>	1 ... 35
Supply from		Top terminals	
Tightening torque		N·m	2.5
Dimensions (W × H × D)		mm	36 × 82 × 72.6
Weight		g	210.5

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