

# RCBO's DS 261 / DS 271

Residual current operated  
circuit breakers with integral  
overcurrent protection



When connecting aluminium conductors ensure that the contact surfaces of the conductors are cleaned, brushed and treated with grease. Re-tighten contact terminals after 6 to 8 weeks' time.

We recommend that connector sleeves be used when working with flexible conductors.

#### **Conditions for Delivery and Sale**

For domestic business, the Standard Terms for Delivery of Products and Services of the Electrical Industry (ABB Form 2292) shall apply in connection with the Standard Sale Terms (ABB Form 2327) in their then applicable version. For foreign business, the Standard Terms for Delivery of Products and Services of the Electrical Industry (ABB Form 2293 German-English, or ABB-Form 2294 German- French) shall apply in connection with the Standard Sale Terms (ABB-Form 2381 English) in their then applicable version.

#### **Warranty**

We assume warranty in accordance with the Standard Sale and Delivery Terms. Complaints shall be made in writing within eight days following receipt of the goods.

**Technical information and illustrations are not binding and subject to change without notice.**

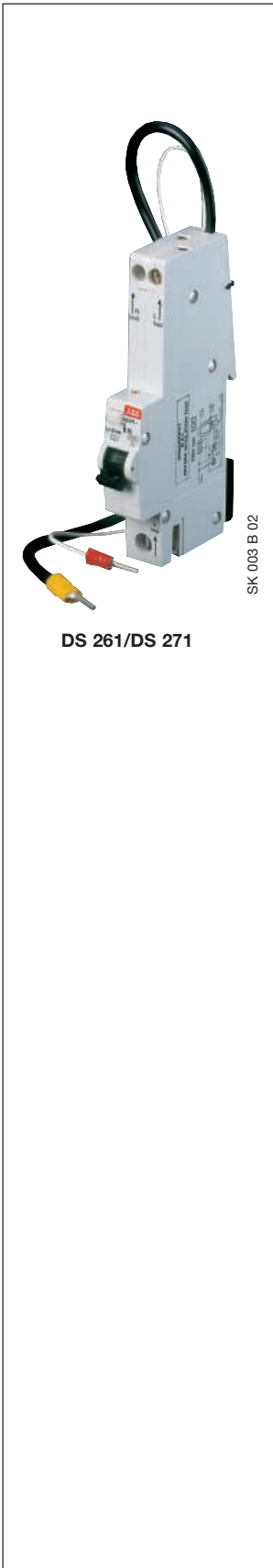
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# Residual current Operated circuit breakers DS 261 and DS 271

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<b>Contents</b>	<b>Page</b>
Description, Technical data .....	4
Tripping diagrams .....	5
Selection table DS 261AC-B and DS 261AC-C .....	5
Selection table DS 261A-B and DS 261A-C .....	6
Selection table DS 271AC-B and DS 271AC-C .....	6
Selection table DS 261A-B and DS 261A-C .....	7
Dimension drawings .....	7

# Residual current Operated circuit breakers DS 261 and DS 271



## Description

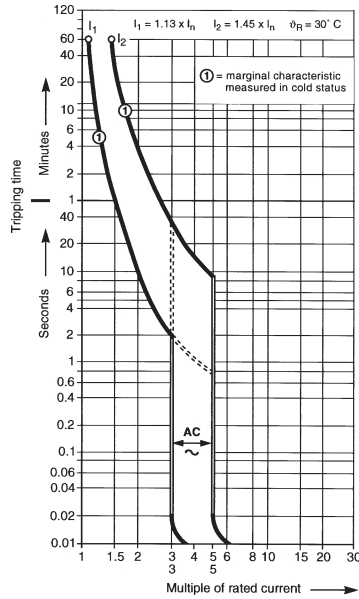
The residual current operated circuit breakers with integral overcurrent protection (RCBO) DS261/DS271 are a combination of an MCB and an RCCB in one unit in a compact housing (1 module). RCBO's are used to provide supplementary protection for people from the risk of electrocution and protection against the risk of an electrical fire and overcurrent protection of equipment and cables.

## Technical Data

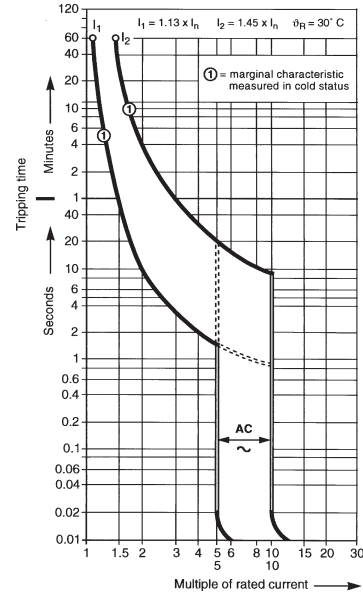
Type:	DS261AC	DS261A	DS271AC	DS271A
Standards:	EN 61009-1, BSEN 61009-2-2, IEC 61009			
Number of poles:	1P + solid Neutral			
Rated current $I_n$ :	6A, 10A, 16A, 20A, 25A, 32A			
MCB tripping characteristic:	B and C			
Rated residual operating current $I_{\Delta n}$ :	10mA and 30mA			
RCCB type:	AC	A	AC	A
Rated voltage $U_n$ :	230V			
Rated frequency:	50...60Hz			
Max. service voltage $U_{max}$ :	$U_n + 10\%$			
Function:	dependent on line voltage $0,85U_n \dots 1,1U_n$			
Rated short-circuit capacity $I_{cn}$ :	6.000 A	6.000 A	10.000 A	10.000 A
Service short-circuit capacity $I_{cs}$ :	6.000 A	6.000 A	7.500 A	7.500 A
Rated residual making and breaking capacity $I_{\Delta m}$ :	6.000 A	6.000 A	6.000 A	6.000 A
Energy limiting class:	3	3	3	3
Serviceable life:	At least 5000 switching cycles			
Ambient temperature:	-25°C up to 55°C			
Storage temperature:	-25°C up to 70°C			
Climatic resistance acc. to IEC68 part 2-30:	Damp heat, cyclic (55°C/28cycles)			
Fixing:	Snap-on to DIN rail acc. to IEC 60715 and installation in consumer units and distribution boards			
Terminal and wiring line side:	L1:	Combi-frame with screw M5 for conductors from 1 up to 25mm <sup>2</sup>		
	N:	flexible cable 4mm <sup>2</sup>		
	FE:	flexible cable 0,5mm <sup>2</sup>		
load side:	L1 and N:	Frame with screw M4 for conductors from 1 up to 10mm <sup>2</sup>		

# Residual current Operated circuit breakers DS 261 and DS 271

## Tripping diagrams



DS 261/DS 271.. -B



DS 261/DS 271.. -C

## Selection table

Rated residual current $I_{\Delta n}$ mA	Rated current $I_n$ A	Ordering details	bbn 4012233	Price 1 piece	Weight 1 piece	Pack. unit
		Type No.	Order code	DM	kg	pcs.

### Series DS 261 AC (Solid Neutral, 6 kA, Type AC)

#### Characteristic B

10	6	DS261AC-B6/0,01A	GH D261 1031 R1065			
10	10	DS261AC-B10/0,01A	GH D261 1031 R1105			
10	16	DS261AC-B16/0,01A	GH D261 1031 R1165			
10	20	DS261AC-B20/0,01A	GH D261 1031 R1205			
10	25	DS261AC-B25/0,01A	GH D261 1031 R1255			
10	32	DS261AC-B32/0,01A	GH D261 1031 R1325			
30	6	DS261AC-B6/0,03A	GH D261 1031 R2065			
30	10	DS261AC-B10/0,03A	GH D261 1031 R2105			
30	16	DS261AC-B16/0,03A	GH D261 1031 R2165			
30	20	DS261AC-B20/0,03A	GH D261 1031 R2205			
30	25	DS261AC-B25/0,03A	GH D261 1031 R2255			
30	32	DS261AC-B32/0,03A	GH D261 1031 R2325			

### Series DS 261 AC (Solid Neutral, 6 kA, Type AC)

#### Characteristic C

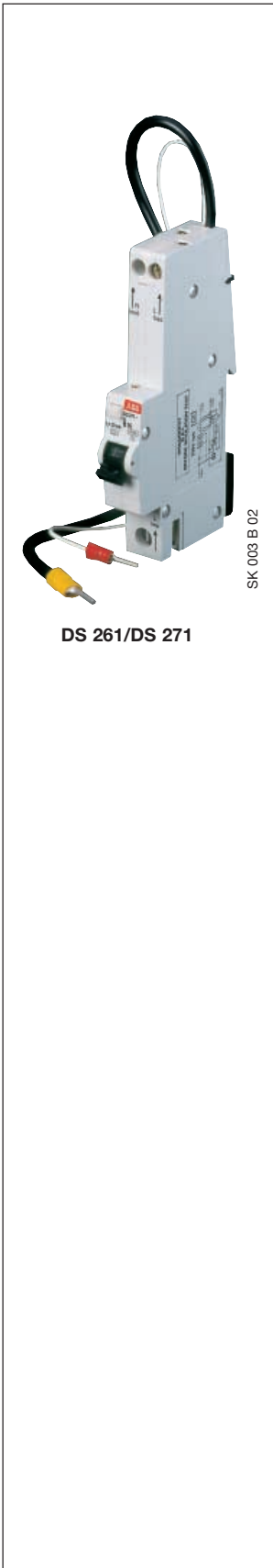
10	6	DS261AC-C6/0,01A	GH D261 1031R1064			
10	10	DS261AC-C10/0,01A	GH D261 1031R1104			
10	16	DS261AC-C16/0,01A	GH D261 1031R1164			
10	20	DS261AC-C20/0,01A	GH D261 1031R1204			
10	25	DS261AC-C25/0,01A	GH D261 1031R1254			
10	32	DS261AC-C32/0,01A	GH D261 1031R1324			
30	6	DS261AC-C6/0,03A	GH D261 1031R2064			
30	10	DS261AC-C10/0,03A	GH D261 1031R2104			
30	16	DS261AC-C16/0,03A	GH D261 1031R2164			
30	20	DS261AC-C20/0,03A	GH D261 1031R2204			
30	25	DS261AC-C25/0,03A	GH D261 1031R2254			
30	32	DS261AC-C32/0,03A	GH D261 1031R2324			



DS 261/DS 271

SK 003 B 02

# Residual current Operated circuit breakers DS 261 and DS 271



## Selection table

Rated residual current $I_{\Delta n}$ , mA	Rated current $I_n$ A	Ordering details		bbn 4012233	Price 1 piece	Weight 1 piece	Pack. unit
		Type No.	Order code	EAN	DM	kg	pcs.

### Series DS 261 A (Solid Neutral, 6 kA, Type A)

#### Characteristic B

10	6	DS261A-B6/0,01A	GH D261 1030 R1065				
10	10	DS261A-B10/0,01A	GH D261 1030 R1105				
10	16	DS261A-B16/0,01A	GH D261 1030 R1165				
10	20	DS261A-B20/0,01A	GH D261 1030 R1205				
10	25	DS261A-B25/0,01A	GH D261 1030 R1255				
10	32	DS261A-B32/0,01A	GH D261 1030 R1325				
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30	6	DS261A-B6/0,03A	GH D261 1030 R2065				
30	10	DS261A-B10/0,03A	GH D261 1030 R2105				
30	16	DS261A-B16/0,03A	GH D261 1030 R2165				
30	20	DS261A-B20/0,03A	GH D261 1030 R2205				
30	25	DS261A-B25/0,03A	GH D261 1030 R2255				
30	32	DS261A-B32/0,03A	GH D261 1030 R2325				

### Series DS 261 A (Solid Neutral, 6 kA, Type A)

#### Characteristic C

10	6	DS261A-C6/0,01A	GH D261 1030 R1064				
10	10	DS261A-C10/0,01A	GH D261 1030 R1104				
10	16	DS261A-C16/0,01A	GH D261 1030 R1164				
10	20	DS261A-C20/0,01A	GH D261 1030 R1204				
10	25	DS261A-C25/0,01A	GH D261 1030 R1254				
10	32	DS261A-C32/0,01A	GH D261 1030 R1324				
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30	6	DS261A-C6/0,03A	GH D261 1030 R2064				
30	10	DS261A-C10/0,03A	GH D261 1030 R2104				
30	16	DS261A-C16/0,03A	GH D261 1030 R2164				
30	20	DS261A-C20/0,03A	GH D261 1030 R2204				
30	25	DS261A-C25/0,03A	GH D261 1030 R2254				
30	32	DS261A-C32/0,03A	GH D261 1030 R2324				

### Series DS 271 AC (Solid Neutral, 10 kA, Type AC)

#### Characteristic B

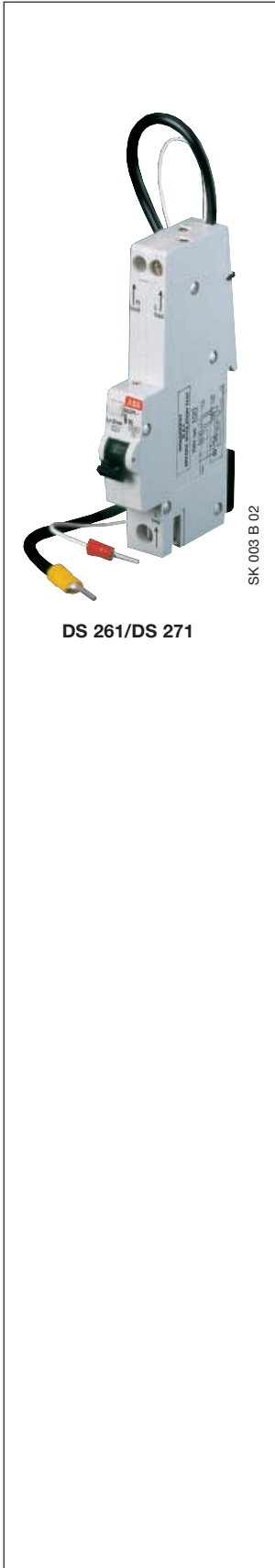
10	6	DS271AC-B6/0,01A	GH D271 1031 R1065				
10	10	DS271AC-B10/0,01A	GH D271 1031 R1105				
10	16	DS271AC-B16/0,01A	GH D271 1031 R1165				
10	20	DS271AC-B20/0,01A	GH D271 1031 R1205				
10	25	DS271AC-B25/0,01A	GH D271 1031 R1255				
10	32	DS271AC-B32/0,01A	GH D271 1031 R1325				
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30	6	DS271AC-B6/0,03A	GH D271 1031 R2065				
30	10	DS271AC-B10/0,03A	GH D271 1031 R2105				
30	16	DS271AC-B16/0,03A	GH D271 1031 R2165				
30	20	DS271AC-B20/0,03A	GH D271 1031 R2205				
30	25	DS271AC-B25/0,03A	GH D271 1031 R2255				
30	32	DS271AC-B32/0,03A	GH D271 1031 R2325				

### Series DS 271 AC (Solid Neutral, 10 kA, Type AC)

#### Characteristic C

10	6	DS271AC-C6/0,01A	GH D271 1031 R1064				
10	10	DS271AC-C10/0,01A	GH D271 1031 R1104				
10	16	DS271AC-C16/0,01A	GH D271 1031 R1164				
10	20	DS271AC-C20/0,01A	GH D271 1031 R1204				
10	25	DS271AC-C25/0,01A	GH D271 1031 R1254				
10	32	DS271AC-C32/0,01A	GH D271 1031 R1324				
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30	6	DS271AC-C6/0,03A	GH D271 1031 R2064				
30	10	DS271AC-C10/0,03A	GH D271 1031 R2104				
30	16	DS271AC-C16/0,03A	GH D271 1031 R2164				
30	20	DS271AC-C20/0,03A	GH D271 1031 R2204				
30	25	DS271AC-C25/0,03A	GH D271 1031 R2254				
30	32	DS271AC-C32/0,03A	GH D271 1031 R2324				

# Residual current Operated circuit breakers DS 261 and DS 271



DS 261/DS 271

SK 003 B 02

## Selection table

Rated residual current $I_{\Delta n}$ mA	Rated current $I_n$ A	Ordering details		bbn 4012233	Price 1 piece	Weight 1 piece	Pack. unit
		Type No.	Order code	EAN	DM	kg	pcs.

### Series DS 271 A (Solid Neutral, 10 kA, Type A)

#### Characteristic B

10	6	DS271A-B6/0,01A	GH D271 1030 R1065				
10	10	DS271A-B10/0,01A	GH D271 1030 R1105				
10	16	DS271A-B16/0,01A	GH D271 1030 R1165				
10	20	DS271A-B20/0,01A	GH D271 1030 R1205				
10	25	DS271A-B25/0,01A	GH D271 1030 R1255				
10	32	DS271A-B32/0,01A	GH D271 1030 R1325				
30	6	DS271A-B6/0,03A	GH D271 1030 R2065				
30	10	DS271A-B10/0,03A	GH D271 1030 R2105				
30	16	DS271A-B16/0,03A	GH D271 1030 R2165				
30	20	DS271A-B20/0,03A	GH D271 1030 R2205				
30	25	DS271A-B25/0,03A	GH D271 1030 R2255				
30	32	DS271A-B32/0,03A	GH D271 1030 R2325				

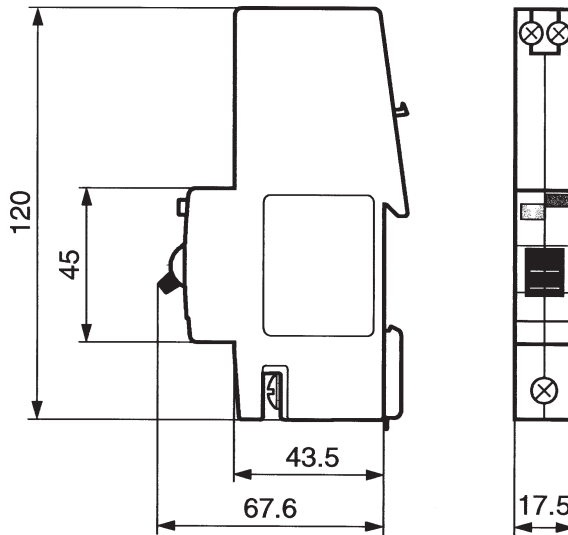
### Series DS 261 A (Solid Neutral, 10 kA, Type A)

#### Characteristic C

10	6	DS271A-C6/0,01A	GH D271 1030 R1064				
10	10	DS271A-C10/0,01A	GH D271 1030 R1104				
10	16	DS271A-C16/0,01A	GH D271 1030 R1164				
10	20	DS271A-C20/0,01A	GH D271 1030 R1204				
10	25	DS271A-C25/0,01A	GH D271 1030 R1254				
10	32	DS271A-C32/0,01A	GH D271 1030 R1324				
30	6	DS271A-C6/0,03A	GH D271 1030 R2064				
30	10	DS271A-C10/0,03A	GH D271 1030 R2104				
30	16	DS271A-C16/0,03A	GH D271 1030 R2164				
30	20	DS271A-C20/0,03A	GH D271 1030 R2204				
30	25	DS271A-C25/0,03A	GH D271 1030 R2254				
30	32	DS271A-C32/0,03A	GH D271 1030 R2324				

## Dimension drawings

## Dimension in mm



DS 261 / DS 271

SK 0024 Z 02

ABB STOTZ-KONTAKT, the Heidelberg-based company, develops, manufactures and sells highly modern, modular systems for electrical building installations. It offers complete installation ranges for a wide variety of applications:

## System pro M

### For classic installation applications

The modular **System pro M** for installation on DIN rails incorporates Europe's best-selling miniature circuit-breakers and residual-current-operated circuit-breakers as well as a complete range of built-in devices.

The system components have been designed with various functions and performance capabilities and are therefore able optimally cover the complete range of applications in building installation:

- conventional domestic electrical installations
- industrial and commercial installations
- protection and switch functions
- checking and monitoring tasks
- control and time-dependent tasks etc.

## System pro M compact®

The extension of **System pro M** for targeted use in domestic electrical installations stands out due to its compact and easily comprehensible range of miniature circuit-breakers, residual-current-operated circuit-breakers and cross wiring tools as well as an optimised installation technology taking into account the special circumstances and requirements of domestic electrical installations.

## System Connect

This pioneering system concept contains seamlessly integrated system units – consisting of miniature circuit-breakers and residual-current-operated circuit-breakers as well as apparatus racks and flush-mounted wall boxes - was designed to suit the special requirements of domestic electrical installations.

The new plug-in connection technology for the devices and apparatus rack ensures quick and reliable installations: assembly, connection of the devices and cross wiring are carried out time-effectively in one single step. If need be, component sets may still be changed quickly and flexibly right until transfer takes place; devices may also be exchanged easily at some later date, and economically in terms of both money and time, at that.

The entire **System Connect** was developed by ABB STOTZ-KONTAKT and Striebel & John, within the framework of their successful system partnership.

## EIB Installation Systems

### For intelligent Building Installation

Highly modern, programmable installation systems with bus technology based on the European EIB standard.

#### ABB i-bus® EIB

System with special 2-core bus cable, primarily for new buildings.

#### ABB Powernet EIB

System for retrofitting in existing buildings. Transfer of information via the existing network.

## Security Systems

### All-in-one Protection

Wide range of security systems and components: intruder and fire alarm systems, radio-controlled alarm systems, door locking system and signalling components.

During the century-long experience of the company, it has always contributed pioneering solutions to the safe application of electricity.

Today, ABB STOTZ-KONTAKT GmbH is an integral part of the ABB Group, a major player on the electrical and electronic markets.



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