PRODUCT-DETAILS

# DS301C B10 A30

## Residual Current Circuit Breaker with Overcurrent Protection DS301C - 1P+N - 30 mA - 10 A - B - Type A



### General Information

| | |
|---|---|
| Extended Product Type | DS301C B10 A30 |
| Product ID | 2CSR255163R1105 |
| EAN | 8012542359456 |
| Catalog Description | Residual Current Circuit Breaker with Overcurrent Protection DS301C - 1P+N - 30 mA - 10 A - B - Type A |
| Long Description | The DS301C series is a 1P+N RCBO in one module width for the protection of end user single-phase circuits against overload and short-circuit currents, protection against the effects of sinusoidal alternating and direct pulsating earth fault currents, protection against indirect contacts and additional protection against direct contacts |

### ABB EcoSolutions

| | |
|---|---|
| ABB EcoSolutions | Yes |
| EcoSolutions Profile | 9AKK108471A0996 |
| Recyclability Rate of the Product acc. to EN45555 | Design for Closing Resource Loops - Standard EN45555 - 79.18 % |
| Material Resource Reduction (wt. %) | Design for Reduced Resource Consumption - 45 % |
| ABB Site Meeting Group | No non-hazardous waste is sent to a landfill |

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| | |
|---|---|
| Waste To Landfill Target | UL 2799 Zero Waste To Landfill Validation available |
| Sustainable Material Content in Packaging (wt. %) | Recycled Cardboard - 71.18 %<br>Recycled Paper - 0 % |
| Improved Energy Efficiency for Customers | Product Efficiency - Product considered more energy-efficient compared to similar product on market or older products from the same line |
| Extended Product Lifetime | Product Durability |
| End Of Life Disassembling Instructions | 9AKK108469A2271 |
| Environmental Product Declaration - EPD | 9AKK108468A8865 |

## Technical

| | |
|---|---|
| Type of Residual Current | Type A |
| Test Voltage (Ut) | 170 ... 264 V |
| Dielectric Test Voltage | 2.5 kV |
| Rated Ultimate Short-Circuit Breaking Capacity ($I_{cu}$) | 6 kA |
| Rated Residual Breaking Capacity (IΔm) | EN 61009-1 6000 A<br>IEC 61009-1 4500 A |
| Rated Service Short-Circuit Breaking Capacity ($I_{cs}$) | 6 kA |
| Power Supply Connection | Arbitrary |
| Contact Position Indication | Red ON / Green OFF |
| Energy Limiting Class | 3 |
| Electrical Endurance | 7000 cycle |
| Mechanical Endurance | 7000 cycle |
| Number of Protected Poles | 1 |
| Number of Poles | 1P+N |
| Number of Modular Spacings per DIN Rail | 1 |
| Fault Indication | Blue Flag Below Toggle |
| Operating Characteristic | Instantaneous |
| Position of Neutral Terminals | Right |
| Tightening Torque | 1.2 N·m |
| Accessory Type | Busbar Psc series, Padlock |
| Actuator Type | Toggle - Insulation group II, Black RAL 9005, sealable in ON-OFF positions |
| Housing Type | Insulation group I - II, RAL 7035 |
| Screw Terminal Type | Failsafe Bi-directional Cylinder-lift Terminal |
| Options Provided | Screwless ( Please check equivalent DSX301C ) |
| Accessories Available | No |
| Connecting Capacity | Busbar 10 ... 10 mm²<br>Rigid 1.5 ... 16 mm²<br>Flexible 1.5 ... 16 mm² |
| Rated Cross-Section | 1 - Solid-Core 1.5 … 16 mm²<br>4 - Multi-Wired 1.5 … 10 mm² |
| Wire Stripping Length | 10 mm |
| Terminal Type | Screw Terminals |

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## Electrical

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|---|---|
| Tripping Characteristic | B |
| Rated Operational Voltage | acc. to IEC 60898-1 240 V |
| Rated Insulation Voltage ($U_i$) | acc. to IEC/EN 60664-1 500 V |
| Rated Impulse Withstand Voltage ($U_{imp}$) | 4 kV |
| Input Voltage Type | AC |
| Rated Current ($I_n$) | 10 A |
| Rated Residual Current | 30 mA |
| Rated Short-Circuit Capacity | 6 kA |
| Rated Frequency (f) | 50 Hz |
| Power Loss | Average per Pole 1.3 W<br>Phase Pole 2.35 W<br>Neutral Pole 0.25 W<br>Total 2.6 W |
| Overvoltage Category | III |

## Material Compliance

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|---|---|
| RoHS Declaration | 9AKK108466A7779 |
| RoHS Information | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| RoHS Date | 20220727 |
| REACH Declaration | 9AKK108467A9482 |
| REACH Information | True - contains substances > 0.1 mass percentage |
| REACH Date | 20240429 |
| Conflict Minerals Reporting Template (CMRT) | 9AKK108468A3363 |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |
| WEEE B2C / B2B | Business To Consumer |

## Environmental

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|---|---|
| Ambient Air Temperature | Operation -25 … 55 °C |
| Reference Ambient Air Temperature | 30 °C |
| Degree of Protection | IP20<br>IP40 |
| Pollution Degree | 2 |
| Environmental Conditions | 28 cycles<br>\|with 55 °C / 90-96 %<br>\|and 25 °C / 95-100 % |
| Resistance to Vibrations | 20 Cycles with Load 0.8 In: 1g or 1mm 50 … 150 … 5 Hz |
| Resistance to Shock acc. to IEC 60068-2-27 | 25g 2 shocks 13 ms |

## Dimensions

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|---|---|
| Width in Number of Modular Spacings | 1 |
| Product Net Width | 17.6 mm |

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| | |
|---|---|
| Product Net Height | 92 mm |
| Product Net Depth / Length | 68 mm |
| Product Net Weight | 110 g |
| Built-In Depth ($t_2$) | 17.6 mm |

## Engineering

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|---|---|
| EPLAN Data | 9AAF618237_EPLAN |

## Ordering

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|---|---|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Gross Weight | 0.127 kg |
| E-Number (Finland) | 3214079 |
| E-Number (Norway) | 1682785 |
| E-Number (Sweden) | 2160187 |

## Certificates and Declarations

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|---|---|
| CB Certificate | 9AKK107991A9485 |
| CCC Certificate | 9AKK108467A0379 |
| CEBEC Certificate | 9AKK108466A9450 |
| Declaration of Conformity - CE | 9AKK108466A7779 |
| KEMA Certificate | 9AKK108467A0378 |
| SEV Certificate | 9AKK108467A0377 |
| VDE Certificate | 9AKK108466A9224 |

## Installation

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|---|---|
| Instructions and Manuals | 9AKK107991A9407 |
| Mounting Type | DIN-Rail |
| Mounting Position | Any |

## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical Information | 9AKK108466A9620 |
| Mechanical Drawings | 9AKK107991A9486<br>9AKK107991A9487 |

## External Classifications and Standards

| | |
|---|---|
| ETIM 9 | EC000905 - Earth leakage circuit breaker |
| ETIM 10 | EC000905 - Earth leakage circuit breaker |
| UNSPSC | 39121601 |
| eClass | V11.0 : 27142207 |
| IDEA Granular Category Code (IGCC) | 4875 >> Residual current circuit breaker (RCCB) |

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| | |
|---|---|
| Object Classification Code | F |
| Standards | IEC/EN 61009-1<br>IEC/EN 61009-2-1 |

## Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|---|---|---|---|---|
| GJF1101903R0004 | SA 1E LOCK ADAPTOR | SA1E | 1 | piece |
| GJF1101903R0002 | SA 2 Padlock with 2 keys | SA2 | 1 | piece |
| GJF1109999R0001 | SA2 PADLOCK | SA2I | 1 | piece |
| GJF1101903R0003 | SA3 Locking Device, Set incl. padlock | SA3 | 1 | piece |
| 2CDL210331R1012 | Busbar PSc 1/24/10 N 12 Modules, 24Pins,10mm² | PSc 1/24/10 N | 1 | piece |
| 2CDL210331R1060 | Busbar PSc 1/114/10 N 1 meter long, 114Pins,10mm² | PSc 1/120/10 N | 1 | piece |
| 2CDL230331R1012 | Busbar PSc 3/24/10 N 12 Modules, 24Pins,10mm² | PSc 3/24/10 N | 1 | piece |
| 2CDL230331R1060 | Busbar PSc 3/114/10 N 1 meter long, 114Pins,10mm² | PSc 3/120/10 N | 1 | piece |
| 2CDL200331R0003 | End Cap for PSc Busbars | PSc-END | 1 | piece |
| 2CDL200331R0013 | Shock protection cap for PSc Busbars | BSKc | 1 | piece |

## Categories

Low Voltage Products and Systems → Modular DIN Rail Products → Residual Current Devices RCDs → Residual Current Circuit Breakers with Overcurrent Protection RCBO






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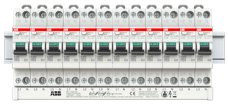

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