



 PRODUCT-DETAILS

S203-C50

Miniature Circuit Breaker - S200 - 3P - 50 A - C - (AC) 6 kA



General Information

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| Extended Product Type | S203-C50 |
| Product ID | 2CDS253001R0504 |
| EAN | 4016779551069 |
| Catalog Description | Miniature Circuit Breaker - S200 - 3P - 50 A - C - (AC) 6 kA |
| Long Description | System pro M compact S200 miniature circuit breakers are current limiting. They have two different tripping mechanisms, the delayed thermal tripping mechanism for overload protection and the electromechanic tripping mechanism for short circuit protection. They are available in different characteristics (B,C,D,K,Z), configurations (1P,1P+N,2P,3P,3P+N,4P), breaking capacities (up to 6 kA at 230/400 V AC) and rated currents (up to 63A). All MCBs of the product range S200 comply with IEC/EN 60898-1, IEC/EN 60947-2, UL1077 allowing the use for residential, commercial and industrial applications. Bottom-fitting auxiliary contact can be mounted on S200 to save 50% space. |

ABB EcoSolutions

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|---|---|
| ABB EcoSolutions | Yes |
| EcoSolutions Profile | 9AKK108469A3796 |
| Recyclability Rate of the Product acc. to EN45555 | Design for Closing Resource Loops - Standard EN45555 - 80.7 % |

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| Extended Product Lifetime | Product Durability |
| Offered with Takeback Services | Take Back for Recycling |
| End Of Life Disassembling Instructions | 9AKK108468A3132 |
| Environmental Product Declaration - EPD | 9AKK108467A7832 |

Technical

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|---|---|
| Dielectric Test Voltage | 50 / 60 Hz - 1 min 2 kV |
| Rated Ultimate Short-Circuit Breaking Capacity (I_{cu}) | (230 V AC) 20 kA (400 V AC) 10 kA (440 V AC) 10 kA (230 V) 20 kA (400 V) 10 kA |
| Rated Service Short-Circuit Breaking Capacity (I_{cs}) | (230 V AC) 15 kA (400 V AC) 7.5 kA (440 V AC) 7.5 kA |
| Power Supply Connection | Arbitrary |
| Contact Position Indication | Red ON / Green OFF |
| Energy Limiting Class | 3 |
| Electrical Endurance | 10000 AC cycle |
| Mechanical Endurance | 20000 cycle |
| Number of Protected Poles | 3 |
| Number of Poles | 3P |
| Tightening Torque | 2.8 N·m |
| Actuator Type | Toggle |
| Screw Terminal Type | Failsafe Bi-directional Cylinder-lift Terminal |
| Actuator Marking | I / O |
| Actuator Material | Insulation Group II, Black, Sealable |
| Recommended Screw Driver | Pozidriv 2 |
| Accessories Available | Yes |
| Connecting Capacity | Busbar 10/10 mm ² Flexible with Ferrule 0.75 ... 25 mm ² Flexible 0.75 ... 25 mm ² Rigid 0.75 ... 35 mm ² Rigid 0.75 ... 35 mm ² Stranded 0.75 ... 35 mm ² |
| Installation Size | acc. to DIN 43880 1 |
| Wire Stripping Length | 12.5 mm |
| Terminal Type | Screw Terminals |

Electrical

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| Tripping Characteristic | C |
| Rated Operational Voltage | acc. to IEC 60898-1 400 V AC acc. to IEC 60947-2 440 V AC |
| Operational Voltage | Maximum (Incl. Tolerance) 440 V AC Minimum 12 V AC Minimum 12 V DC |
| Rated Insulation Voltage (U_i) | acc. to IEC/EN 60664-1 440 V |

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| Rated Impulse Withstand Voltage (U_{imp})) | 4 kV at 2000 m 5 kV at Sea Level 6.2 kV |
| Input Voltage Type | AC/DC |
| Rated Current (I_n) | 50 A |
| Rated Short-Circuit Capacity | (AC) 6 kA (DC) 6 kA |
| Rated Conditional Short- Circuit Current (I_{nc}) | (230 V) 20 kA (400 V) 20 kA |
| Frequency (f) | 50 Hz |
| Rated Frequency (f) | 50 / 60 Hz |
| Power Loss | 9.75 W at Rated Operating Conditions per Pole 3.25 W |
| Overvoltage Category | III |
| I ² t Characteristic | 9AKK107992A5102 |

Design

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| Housing Material | Insulation Group II, RAL 7035 |
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Technical UL/CSA

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| Maximum Operating Voltage UL/CSA | 110 V DC 480Y/277 V AC |
| Interrupting Rating acc. to UL1077 | (277 V AC) 6 kA (480Y / 277 V AC) 6 kA (240 V) 10 kA |
| Connecting Capacity UL/CSA | Busbar 18-8 AWG Conductor 18-4 AWG |
| Tightening Torque UL/CSA | 18 in-lb |

Material Compliance

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| RoHS Information | 2CDK403001D0607 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| RoHS Date | 20240228 |
| REACH Declaration | 9AKK107492A1906 |
| REACH Information | True - contains substances > 0.1 mass percentage |
| REACH Date | 20240821 |
| Conflict Minerals Reporting Template (CMRT) | 9AKK108468A3363 |
| SCIP | e6800e55-46b1-49a3-881b-0f66d0e903ad Germany |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |
| WEEE B2C / B2B | Business To Business |

Environmental

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| Ambient Air Temperature | Operation -25 ... +55 °C Storage -40 ... +70 °C |
| Reference Ambient Air Temperature | 30 °C |
| Degree of Protection | IP20 IP40 |

Enclosure with Cover IP40

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| Pollution Degree | 3 |
| Environmental Conditions | 28 cycles with 55 °C / 90-96 % and 25 °C / 95-100 % |
| Resistance to Vibrations | 20 Cycles with Load 0.8 In: 5g 5 ... 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 | 3.0 |
| Product Net Width | 52.5 mm |
| Product Net Height | 88 mm |
| Product Net Depth / Length | 69 mm |
| Product Net Weight | 0.375 kg |
| Pole Net Weight | 0.125 kg |
| Built-In Depth (t ₂) | 69 mm |
| Dimension Diagram | 2CDC022007F0010 |

Engineering

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| EPLAN Data | 9AAC204436_EPLAN |
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Ordering

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| Package Level 1 Units | carton 1 piece |
| Package Level 1 Gross Weight | 0.4 kg |
| E-Number (Finland) | 3210650 |
| E-Number (Norway) | 1665334 |
| E-Number (Sweden) | 2100610 |

Certificates and Declarations

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| Declaration of Conformity - CE | 2CDK403001D0607 |
| Declaration of Conformity - UKCA | 9AKK108467A5053 |

Installation

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| Instructions and Manuals | 2CDS207104P0002 |
| Mounting Type | DIN-Rail |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |
| Mounting Position | any |

Popular Downloads

| | |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 9AKK107991A8329 |
| I ² t Characteristic | 9AKK107992A5102 |

External Classifications and Standards

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|------------------------------------|---|
| ETIM 9 | EC000042 - Miniature circuit breaker (MCB) |
| ETIM 10 | EC000042 - Miniature circuit breaker (MCB) |
| UNSPSC | 39121603 |
| eClass | V11.0 : 27141901 |
| IDEA Granular Category Code (IGCC) | 4897 >> Miniature circuit breakers |
| Object Classification Code | F |
| Standards | IEC/EN 60898-1 IEC/EN 60947-2 UL 1077 |
| Certification Agency | EN IEC UL |
| Standardization Body | EN IEC UL |

Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|-----------------|---|---------------|----------|-----------------|
| 2CDS200922R0001 | S2C-S/H6R Universal Auxiliary/Signal Con | S2C-S/H6R | 1 | piece |
| 2CDS200912R0001 | S2C-H6R Auxiliary Contact 1CO | S2C-H6R | 1 | piece |
| 2CDS200970R0031 | S2C-H01 Bottom-fitting auxiliary contact S2C-H01 Bottom-fitting auxiliary contact 1NC | S2C-H01 | 1 | piece |
| 2CDS200970R0032 | S2C-H10 Bottom-fitting auxiliary contact 1NO | S2C-H10 | 1 | piece |
| 2CDS200936R0001 | S2C-H11L Auxiliary Contact 1NO / 1NC, Left side mounting | S2C-H11L | 1 | piece |
| 2CDS200936R0002 | S2C-H20L Auxiliary Contact 2NO | S2C-H20L | 1 | piece |
| 2CDS200936R0003 | S2C-H02L Auxiliary Contact 2NC, Left side mounting | S2C-H02L | 1 | piece |
| 2CDS200946R0001 | S2C-H6-11R Auxiliary contact 1NO/1NC | S2C-H6-11R | 1 | piece |
| 2CDS200946R0002 | S2C-H6-20R Auxiliary contact 2NO | S2C-H6-20R | 1 | piece |
| 2CDS200946R0003 | S2C-H6-02R Auxiliary contact 2NC | S2C-H6-02R | 1 | piece |
| 2CDS200909R0001 | S2C-A1 Shunt Trip, 12...60V | S2C-A1 | 1 | piece |
| 2CDS200909R0002 | S2C-A2 Shunt Trip, 110...415V | S2C-A2 | 1 | piece |
| 2CSS200911R0001 | S2C-UA 12 DC Undervoltage release | S2C-UA 12 DC | 1 | piece |
| 2CSS200911R0002 | S2C-UA 24 AC Undervoltage release | S2C-UA 24 AC | 1 | piece |
| 2CSS200911R0003 | S2C-UA 48 AC Undervoltage release | S2C-UA 48 AC | 1 | piece |
| 2CSS200911R0004 | S2C-UA 110 AC Undervoltage release | S2C-UA 110 AC | 1 | piece |
| 2CSS200911R0005 | S2C-UA 230 AC Undervoltage release | S2C-UA 230 AC | 1 | piece |
| 2CSS200911R0006 | S2C-UA 400 AC Undervoltage release | S2C-UA 400 AC | 1 | piece |
| 2CSS200911R0007 | S2C-UA 24 DC Undervoltage release | S2C-UA 24 DC | 1 | piece |
| 2CSS200911R0008 | S2C-UA 48 DC Undervoltage release | S2C-UA 48 DC | 1 | piece |
| 2CSS200911R0009 | S2C-UA 110 DC Undervoltage release | S2C-UA 110 DC | 1 | piece |
| 2CSS200911R0010 | S2C-UA 230 DC Undervoltage release | S2C-UA 230 DC | 1 | piece |
| GHS2001901R0003 | S2C-DH Rotary operating mechanism | S2C-DH | 1 | piece |
| 2CSS200998R0001 | S2C-BP Mechanical tripping device | S2C-BP | 1 | piece |
| 2CSS200999R0001 | S2C-EST Plug-in base | S2C-EST | 1 | piece |
| 2CDS200918R0001 | S2C-Nt Hand operated neutral | S2C-NT | 1 | piece |
| 2CCA880100R0001 | CMS-100PS Sensor | CMS-100PS | 1 | piece |
| 2CCA880101R0001 | CMS-101PS Sensor | CMS-101PS | 1 | piece |
| 2CCA880102R0001 | CMS-102PS Sensor | CMS-102PS | 1 | piece |

Categories

Low Voltage Products and Systems → Modular DIN Rail Products → Miniature Circuit Breakers MCBs → Miniature Circuit Breakers MCBs → S200



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