

## PRODUCT-DETAILS

# S203-D50NA

## Miniature Circuit Breaker - S200 - 3+NP - D - 50 ampere



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | S203-D50NA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Product ID            | 2CDS253103R0501                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| EAN                   | 4016779552073                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Catalog Description   | Miniature Circuit Breaker - S200 - 3+NP - D - 50 ampere                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| 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. |

### Technical

|                                 |                                                              |
|---------------------------------|--------------------------------------------------------------|
| Standards                       | IEC/EN 60898-1<br>IEC/EN 60947-2<br>UL 1077                  |
| Number of Poles                 | 3+N                                                          |
| Number of Protected Poles       | 3                                                            |
| Tripping Characteristic         | D                                                            |
| Rated Current (I <sub>n</sub> ) | 50 A                                                         |
| Rated Operational Voltage       | acc. to IEC 60898-1 400 V AC<br>acc. to IEC 60947-2 440 V AC |
| Rated Voltage (U <sub>r</sub> ) | 400 V AC                                                     |

|                                                                   |                                                                                                                                                                                                          |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Loss                                                        | 11.6 W<br>at Rated Operating Conditions per Pole 2.9 W                                                                                                                                                   |
| Rated Insulation Voltage (U <sub>i</sub> )                        | acc. to IEC/EN 60664-1 440 V                                                                                                                                                                             |
| Operational Voltage                                               | Maximum (Incl. Tolerance) 440 V AC<br>Maximum 440 V AC<br>Minimum 12 V AC<br>Minimum 12 V DC                                                                                                             |
| Rated Frequency (f)                                               | 50 Hz<br>60 Hz                                                                                                                                                                                           |
| Rated Short-Circuit Capacity (I <sub>cn</sub> )                   | (400 V AC) 6 kA                                                                                                                                                                                          |
| Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> ) | (230 V AC) 20 kA<br>(440 V AC) 10 kA                                                                                                                                                                     |
| Rated Service Short-Circuit Breaking Capacity (I <sub>cs</sub> )  | (230 V AC) 15 kA                                                                                                                                                                                         |
| Overvoltage Category                                              | III                                                                                                                                                                                                      |
| Pollution Degree                                                  | 3                                                                                                                                                                                                        |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> )               | 4 kV<br>(6.2 kV @ sea level)<br>(5.0 kV @ 2000 m)                                                                                                                                                        |
| Dielectric Test Voltage                                           | 50/60 Hz, 1 min: 2 kV                                                                                                                                                                                    |
| Housing Material                                                  | Insulation Group II, RAL 7035                                                                                                                                                                            |
| Actuator Material                                                 | Insulation Group II, Black, Sealable                                                                                                                                                                     |
| Actuator Marking                                                  | I / O                                                                                                                                                                                                    |
| Contact Position Indication                                       | Red ON / Green OFF                                                                                                                                                                                       |
| Degree of Protection                                              | IP20                                                                                                                                                                                                     |
| Remarks                                                           | IP40 in enclosure with cover                                                                                                                                                                             |
| Electrical Endurance                                              | 10000 AC cycle<br>20000 cycle                                                                                                                                                                            |
| Terminal Type                                                     | Screw Terminals                                                                                                                                                                                          |
| Screw Terminal Type                                               | Failsafe Bi-directional Cylinder-lift Terminal                                                                                                                                                           |
| Connecting Capacity                                               | Busbar 10 / 10 mm <sup>2</sup><br>Flexible with Ferrule 0.75 ... 25 mm <sup>2</sup><br>Flexible 0.75 ... 25 mm <sup>2</sup><br>Rigid 0.75 ... 35 mm <sup>2</sup><br>Stranded 0.75 ... 35 mm <sup>2</sup> |
| Tightening Torque                                                 | 2.8 N·m                                                                                                                                                                                                  |
| Recommended Screw Driver                                          | Pozidriv 2                                                                                                                                                                                               |
| Mounting on DIN Rail                                              | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715                                                                                           |
| Mounting Position                                                 | Any                                                                                                                                                                                                      |
| Built-In Depth (t <sub>2</sub> )                                  | 69 mm                                                                                                                                                                                                    |
| Installation Size                                                 | acc. to DIN 43880 1                                                                                                                                                                                      |
| Position of Neutral Terminals                                     | Right                                                                                                                                                                                                    |
| Power Supply Connection                                           | Arbitrary                                                                                                                                                                                                |

## Environmental

|                                                |                                                      |
|------------------------------------------------|------------------------------------------------------|
| Ambient Air Temperature                        | Operation -25 ... +55 °C<br>Storage -40 ... +70 °C   |
| Reference Ambient Air Temperature              | 30 °C                                                |
| Resistance to Shock acc. to IEC 60068-2-27     | 25g / 2 shocks / 13 ms                               |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5g, 20 cycles at 5 ... 150 ... 5 Hz with load 0.8 In |

Environmental  
Conditions

28 cycles  
with 55 °C / 90-96 %  
and 25 °C / 95-100 %

RoHS Status

Following EU Directive 2011/65/EU

## Technical UL/CSA

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
| Maximum Operating Voltage UL/CSA   | 110 V DC<br>480Y/277 V AC                                     |
| Connecting Capacity UL/CSA         | Busbar 18-8 AWG<br>Conductor 18-4 AWG                         |
| Tightening Torque UL/CSA           | 25 in-lb                                                      |
| Interrupting Rating acc. to UL1077 | (110 V DC) 10 kA<br>(277 V AC) 6 kA<br>(480Y / 277 V AC) 6 kA |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 70 mm   |
| Product Net Depth / Length | 69 mm   |
| Product Net Height         | 88 mm   |
| Product Net Weight         | 0.58 kg |

## Container Information

|                                |                 |
|--------------------------------|-----------------|
| Package Level 1 Units          | carton 1 piece  |
| Package Level 1 Width          | 92 mm           |
| Package Level 1 Depth / Length | 78 mm           |
| Package Level 1 Height         | 80 mm           |
| Package Level 1 Gross Weight   | 0.59 kg         |
| Package Level 1 EAN            | 4016779610315   |
| Package Level 2 Units          | carton 24 piece |
| Package Level 2 Width          | 275 mm          |
| Package Level 2 Depth / Length | 395 mm          |
| Package Level 2 Height         | 210 mm          |
| Package Level 2 Gross Weight   | 11.92 kg        |
| Package Level 2 EAN            | 4016779974370   |

## Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85362010 |

## Certificates and Declarations (Document Number)

|                                |                 |
|--------------------------------|-----------------|
| Declaration of Conformity - CE | 2CDK403001D0607 |
| Environmental Information      | 2CDK400030D0201 |
| Instructions and Manuals       | 2CDS207104P0001 |
| RoHS Information               | 2CDK400003K0203 |

## Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 9AKK107046A0423 |
| Instructions and Manuals          | 2CDS207104P0001 |

## Classifications

|                            |                                            |
|----------------------------|--------------------------------------------|
| Object Classification Code | F                                          |
| ETIM 6                     | EC000042 - Miniature circuit breaker (MCB) |
| ETIM 7                     | EC000042 - Miniature circuit breaker (MCB) |
| ETIM 8                     | EC000042 - Miniature circuit breaker (MCB) |
| eClass                     | V11.0 : 27141901                           |
| UNSPSC                     | 39121614                                   |

## Accessories

| Identifier      | Description                            | Type          | Quantity | Unit Of Measure |
|-----------------|----------------------------------------|---------------|----------|-----------------|
| 2CDS200922R0001 | S2C-S/H6R - Signal / Auxiliary Contact | S2C-S/H6R     | 1        | piece           |
| 2CDS200912R0001 | S2C-H6R - Auxiliary Contact            | S2C-H6R       | 1        | piece           |
| 2CDS200936R0001 | S2C-H11L - Auxiliary Contact           | S2C-H11L      | 1        | piece           |
| 2CDS200936R0002 | S2C-H20L - Auxiliary Contact           | S2C-H20L      | 1        | piece           |
| 2CDS200936R0003 | S2C-H02L - Auxiliary Contact           | S2C-H02L      | 1        | piece           |
| 2CDS200946R0001 | S2C-H6-11R - Auxiliary Contact         | S2C-H6-11R    | 1        | piece           |
| 2CDS200946R0002 | S2C-H6-20R - Auxiliary Contact         | S2C-H6-20R    | 1        | piece           |
| 2CDS200946R0003 | S2C-H6-02R - Auxiliary Contact         | S2C-H6-02R    | 1        | piece           |
| 2CDS200909R0001 | S2C-A1 - Shunt Trip                    | S2C-A1        | 1        | piece           |
| 2CDS200909R0002 | S2C-A2 - Shunt Trip                    | 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           |
| 2CSS201997R0013 | S2C-CM1 - Motor operating device       | S2C-CM1       | 1        | piece           |
| 2CSS203997R0013 | S2C-CM2/3 - Motor operating device     | S2C-CM2/3     | 1        | piece           |
| 2CSS204997R0013 | S2C-CM4 - Motor operating device       | S2C-CM4       | 1        | piece           |
| GHS2001901R0003 | S2C-DH - Mechanical Accessories        | 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           |

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## Categories

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

