

## PRODUCT-DETAILS

# S203M-C20

## S203M-C20 Miniature Circuit Breaker - 3P - C - 20 A



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | S203M-C20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product ID            | 2CDS273001R0204                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 4016779550468                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | S203M-C20 Miniature Circuit Breaker - 3P - C - 20 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Long Description      | System pro M compact S200M 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 10 kA at 230/400 V AC) and rated currents (up to 63A). All MCBs of the product range S200M comply with IEC/EN 60898-1 and IEC/EN 609 47-2, allowing the use for residential, commercial and industrial applications. Bottom-fitting auxiliary contact can be mounted on S200M to save 50% space. |

### ABB EcoSolutions

|                  |     |
|------------------|-----|
| ABB EcoSolutions | Yes |
|------------------|-----|

### Circular Value

|                                |                                                             |
|--------------------------------|-------------------------------------------------------------|
| Circular Design Principles     | Design for Closing Resource Loops - Standard EN45555 - 90 % |
| Recyclability Rate             |                                                             |
| Offered with Extended Lifetime | Product Durability                                          |
| Offered with Takeback Services | Take Back for Recycling                                     |

## Eco Transparency

Environmental Product  
Declaration - EPD

9AKK108467A7833

## Technical

|                                                                    |                                                                                                                |
|--------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| Standards                                                          | IEC/EN 60898-1<br>CSA 22.2 No. 235<br>IEC/EN 60947-2<br>UL 1077                                                |
| Tripping Characteristic                                            | C                                                                                                              |
| Rated Operational Voltage                                          | acc. to IEC 60898-1 400 V AC<br>acc. to IEC 60898-1 400 V<br>acc. to IEC 60947-2 440 V AC                      |
| Operational Voltage                                                | Maximum (Incl. Tolerance) 440 V AC<br>Minimum 12 V AC<br>Minimum 12 V DC                                       |
| Rated Insulation Voltage<br>( $U_i$ )                              | acc. to IEC/EN 60664-1 440 V                                                                                   |
| Rated Impulse Withstand<br>Voltage ( $U_{imp}$ )                   | 4 kV<br>at 2000 m 5 kV<br>at Sea Level 6.2 kV                                                                  |
| Dielectric Test Voltage                                            | 50/60 Hz, 1 min: 2 kV                                                                                          |
| Input Voltage Type                                                 | AC/DC                                                                                                          |
| Rated Current ( $I_n$ )                                            | 20 A                                                                                                           |
| Rated Short-Circuit<br>Capacity                                    | (AC) 10 kA<br>(230 V AC) 10 kA<br>(400 V AC) 10 kA<br>(400 V) 10 kA                                            |
| Rated Ultimate Short-<br>Circuit Breaking Capacity<br>( $I_{cu}$ ) | (230 V AC) 25 kA<br>(400 V AC) 15 kA<br>(440 V AC) 15 kA<br>(230 V) 25 kA<br>(400 V) 15 kA                     |
| Rated Conditional Short-<br>Circuit Current ( $I_{nc}$ )           | (230 V) 15 kA<br>(400 V) 25 kA                                                                                 |
| Rated Service Short-<br>Circuit Breaking Capacity<br>( $I_{cs}$ )  | (230 V AC) 7.5 kA                                                                                              |
| Frequency (f)                                                      | 50 Hz                                                                                                          |
| Rated Frequency (f)                                                | 50 / 60 Hz<br>50 ... 60 Hz                                                                                     |
| Power Loss                                                         | 7.5 W<br>at Rated Operating Conditions per Pole 2.5 W                                                          |
| Power Supply Connection                                            | Arbitrary                                                                                                      |
| Contact Position<br>Indication                                     | Red ON / Green OFF                                                                                             |
| Energy Limiting Class                                              | 3                                                                                                              |
| Electrical Endurance                                               | 20000 AC cycle                                                                                                 |
| Mechanical Endurance                                               | 20000 cycle                                                                                                    |
| Number of Poles                                                    | 3                                                                                                              |
| Number of Protected<br>Poles                                       | 3                                                                                                              |
| Overvoltage Category                                               | III                                                                                                            |
| Tightening Torque                                                  | 2.8 N·m                                                                                                        |
| Screw Terminal Type                                                | Failsafe Bi-directional Cylinder-lift Terminal                                                                 |
| Actuator Marking                                                   | I / O                                                                                                          |
| Actuator Material                                                  | Insulation Group II, Black, Sealable                                                                           |
| Housing Material                                                   | Insulation Group II, RAL 7035                                                                                  |
| 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                                                                                                            |
| Recommended Screw<br>Driver                                        | Pozidriv 2                                                                                                     |
| Accessories Available                                              | Yes                                                                                                            |

## Connecting Capacity

Busbar 10 / 10 mm<sup>2</sup>  
 Flexible with Ferrule 0.75 ... 25 mm<sup>2</sup>  
 Flexible 0.75 ... 25 mm<sup>2</sup>  
 Flexible 0.75 ... 25 mm<sup>2</sup>  
 Rigid 0.75 ... 35 mm<sup>2</sup>  
 Rigid 0.75 ... 35 mm<sup>2</sup>  
 Stranded 0.75 ... 35 mm<sup>2</sup>

## Installation Size

acc. to DIN 43880 1

## Terminal Type

Screw Terminals

**Environmental**

## 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

## Pollution Degree

3

## Environmental Conditions

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

Resistance to Vibrations  
acc. to IEC 60068-2-6

5g, 20 cycles at 5 ... 150 ... 5 Hz with load 0.8 In

Resistance to Shock acc.  
to IEC 60068-2-27

25g 2 shocks 13 ms

## RoHS Status

Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019

## RoHS Information

2CDK400003K0203

## REACH Declaration

9AKK107492A1906

Conflict Minerals  
Reporting Template  
(CMRT)

9AKK108468A3363

**Technical UL/CSA**Maximum Operating  
Voltage UL/CSA

125 V DC  
 480Y/277 V AC

Interrupting Rating acc. to  
UL1077

(125 V DC) 10 kA  
 (277 V AC) 6 kA  
 (480Y / 277 V AC) 6 kA

Connecting Capacity  
UL/CSA

Busbar 14-8 AWG  
 Conductor 14-4 AWG

Tightening Torque  
UL/CSA

18 in·lb

**Dimensions**Width in Number of  
Modular Spacings

3

## 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<sub>2</sub>)

69 mm

## Dimension Diagram

2CDC022007F0010

**Ordering**

## Package Level 1 Units

carton 1 piece

Package Level 1 Gross  
Weight

0.4 kg

|                    |         |
|--------------------|---------|
| E-Number (Finland) | 3210814 |
| E-Number (Sweden)  | 2101245 |

## Certificates and Declarations

|                                     |                 |
|-------------------------------------|-----------------|
| Certification Agency                | EN<br>IEC       |
| Declaration of Conformity<br>- CE   | 2CDK403001D0607 |
| Declaration of Conformity<br>- UKCA | 9AKK108467A5053 |
| † Characteristic                    | 9AKK107992A5102 |

## Installation

|                          |                 |
|--------------------------|-----------------|
| Instructions and Manuals | 2CDS207104P0002 |
|--------------------------|-----------------|

## Popular Downloads

|                                      |                 |
|--------------------------------------|-----------------|
| Data Sheet, Technical<br>Information | 9AKK107046A0423 |
| † Characteristic                     | 9AKK107992A5102 |

## Classifications

|                                       |                                                            |
|---------------------------------------|------------------------------------------------------------|
| ETIM 8                                | EC000042 - Miniature circuit breaker (MCB)                 |
| ETIM 9                                | EC000042 - Miniature circuit breaker (MCB)                 |
| WEEE Category                         | 5. Small Equipment (No External Dimension More Than 50 cm) |
| WEEE B2C / B2B                        | Business To Business                                       |
| CN8                                   | 8536 20 10                                                 |
| UNSPSC                                | 39121603                                                   |
| eClass                                | V11.0 : 27141901                                           |
| IDEA Granular Category<br>Code (IGCC) | 4897 >> Miniature circuit breakers                         |
| Object Classification Code            | F                                                          |

## 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           |
| 2CDS200970R0001 | S2C-H01 Auxiliary Contact            | S2C-H01       | 1        | piece           |
| 2CDS200970R0002 | S2C-H10 Auxiliary Contact            | S2C-H10       | 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           |

## Categories

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

