

# S202M-K20



Miniature Circuit Breaker - S200M - 2P - K - 20 ampere



## General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | S202M-K20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Product ID            | 2CDS272001R0487                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 4016779600736                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | Miniature Circuit Breaker - S200M - 2P - K - 20 ampere                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| 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. |

## Ordering

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

## Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 9AKK107046A0423 |
| Instructions and Manuals          | 2CSC400002D0208 |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 35 mm   |
| Product Net Depth / Length | 69 mm   |
| Product Net Height         | 88 mm   |
| Product Net Weight         | 0.25 kg |

## Technical

|                           |                                               |
|---------------------------|-----------------------------------------------|
| Standards                 | IEC/EN 60947-2<br>UL 1077<br>CSA 22.2 No. 235 |
| Number of Poles           | 2                                             |
| Tripping Characteristic   | K                                             |
| Rated Current ( $I_n$ )   | 20 A                                          |
| Rated Operational Voltage | acc. to IEC 60898-1 400 V AC                  |

|                                                             |                                                                                                                                                                                                          |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                             | acc. to IEC 60947-2 440 V AC                                                                                                                                                                             |
| Power Loss                                                  | 5.4 W<br>at Rated Operating Conditions per Pole 2.7 W                                                                                                                                                    |
| Rated Insulation Voltage ( $U_i$ )                          | acc. to IEC/EN 60664-1 440 V                                                                                                                                                                             |
| Operational Voltage                                         | Minimum 12 V AC<br>Minimum 12 V DC                                                                                                                                                                       |
| Rated Frequency (f)                                         | 50 Hz<br>60 Hz                                                                                                                                                                                           |
| Rated Ultimate Short-Circuit Breaking Capacity ( $I_{cu}$ ) | (230 V AC) 25 kA<br>(440 V AC) 15 kA                                                                                                                                                                     |
| Rated Service Short-Circuit Breaking Capacity ( $I_{cs}$ )  | (230 V AC) 18.8 kA                                                                                                                                                                                       |
| Energy Limiting Class                                       | 3                                                                                                                                                                                                        |
| Overvoltage Category                                        | III                                                                                                                                                                                                      |
| Pollution Degree                                            | 3                                                                                                                                                                                                        |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )               | 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 Type                                               | Insulation group II, black, sealable                                                                                                                                                                     |
| Contact Position Indication                                 | Red ON / Green OFF                                                                                                                                                                                       |
| Degree of Protection                                        | IP20                                                                                                                                                                                                     |
| Remarks                                                     | IP40 in enclosure with cover                                                                                                                                                                             |
| Electrical Endurance                                        | 20000 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                                        | TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715<br>TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715                                                                                           |
| Mounting Position                                           | Any                                                                                                                                                                                                      |

## Environmental

|                                                |                                                                 |
|------------------------------------------------|-----------------------------------------------------------------|
| Ambient Air Temperature                        | Operation -25 ... +55 °C<br>Storage -40 ... +70 °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<br>with 55 °C / 90-96 %<br>and 25 °C / 95-100 %       |
| RoHS Status                                    | Following EU Directive 2002/95/EC August 18, 2005 and amendment |

## Technical UL/CSA

|                                  |                             |
|----------------------------------|-----------------------------|
| Maximum Operating Voltage UL/CSA | 125 V DC<br>480Y / 277 V AC |
| Connecting Capacity UL/CSA       | Busbar 14-8 AWG             |

|                                    |                                                               |
|------------------------------------|---------------------------------------------------------------|
|                                    | Conductor 14-4 AWG                                            |
| Tightening Torque UL/CSA           | 18 in·lb                                                      |
| Interrupting Rating acc. to UL1077 | (125 V DC) 10 kA<br>(277 V AC) 6 kA<br>(480Y / 277 V AC) 6 kA |

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## Certificates and Declarations (Document Number)

|                                |                 |
|--------------------------------|-----------------|
| Declaration of Conformity - CE | 2CDK403001D0605 |
| Environmental Information      | 2CDK400030D0201 |
| Instructions and Manuals       | 2CSC400002D0208 |
| RoHS Information               | 2CDK400003K0203 |

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## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 5 piece       |
| Package Level 1 Width          | 92 mm         |
| Package Level 1 Depth / Length | 183 mm        |
| Package Level 1 Height         | 80 mm         |
| Package Level 1 Gross Weight   | 1.3 kg        |
| Package Level 1 EAN            | 4016779603621 |
| Package Level 2 Units          | 60 piece      |
| Package Level 2 Width          | 275 mm        |
| Package Level 2 Depth / Length | 400 mm        |
| Package Level 2 Height         | 210 mm        |
| Package Level 2 Gross Weight   | 10.48 kg      |
| Package Level 2 EAN            | 4016779977609 |

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## Classifications

|                            |                                            |
|----------------------------|--------------------------------------------|
| Object Classification Code | F                                          |
| ETIM 4                     | EC000042 - Miniature circuit breaker (MCB) |
| ETIM 5                     | EC000042 - Miniature circuit breaker (MCB) |
| ETIM 6                     | EC000042 - Miniature circuit breaker (MCB) |
| ETIM 7                     | EC000042 - Miniature circuit breaker (MCB) |
| eClass                     | 7.0 27141901                               |
| UNSPSC                     | 39121614                                   |

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## Accessories

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| Identifier      | Description                            | Type          | Quantity | Unit Of Measure |
|-----------------|----------------------------------------|---------------|----------|-----------------|
| 2CCA880100R0001 | CMS-100PS Sensor                       | CMS-100PS     | 1        | piece           |
| 2CCA880101R0001 | CMS-101PS Sensor                       | CMS-101PS     | 1        | piece           |
| 2CCA880102R0001 | CMS-102PS Sensor                       | CMS-102PS     | 1        | piece           |
| 2CDS200909R0001 | S2C-A1 - Shunt Trip                    | S2C-A1        | 1        | piece           |
| 2CDS200909R0002 | S2C-A2 - Shunt Trip                    | S2C-A2        | 1        | piece           |
| 2CDS200912R0001 | S2C-H6R - Auxiliary Contact            | S2C-H6R       | 1        | piece           |
| 2CDS200918R0001 | S2C-NT - Hand Operated Neutral         | S2C-NT        | 1        | piece           |
| 2CDS200922R0001 | S2C-S/H6R - Signal / Auxiliary Contact | S2C-S/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           |
| 2CDS200970R0001 | S2C-H01 - Auxiliary Contact            | S2C-H01       | 1        | piece           |
| 2CDS200970R0002 | S2C-H10 - Auxiliary Contact            | S2C-H10       | 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           |
| 2CSS200998R0001 | S2C-BP - Mechanical tripping device    | S2C-BP        | 1        | piece           |
| 2CSS200999R0001 | S2C-EST - Plug-in base                 | S2C-EST       | 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           |

## Categories

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

