



PRODUCT-DETAILS

# S803N-B20

## S803N-B20 High Performance MCB



General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | S803N-B20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Product ID            | 2CCS893001R0205                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| EAN                   | 7612271204075                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Catalog Description   | S803N-B20 High Performance MCB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Long Description      | <p>The S803N-B20 is a 3-pole High Performance Circuit breaker with B-characteristic, with cage terminal and a rated current of 20 A. It is a current limiting device with a maximum breaking capacity of 36kA at 240/415V. It can be used for voltages up to 400/690V and in DC as well. It has two different tripping mechanisms, the thermal tripping mechanism for overload protection and the electromechanic tripping mechanism for short circuit protection. The S803N-B20 complies with IEC/EN 60898-1 and IEC/EN 60947-2 and allows the use for residential, commercial and industrial applications. It has numerous of approvals, therefore it can be used worldwide. The extensive range of accessory makes the use of S803N-B20 more comfortable. Due to the fast arc extinction of S803N-B20 your application will be secured.</p> |

Technical

|                                 |                                                              |
|---------------------------------|--------------------------------------------------------------|
| Standards                       | IEC/EN 60947-2, IEC/EN 60898-1                               |
| Tripping Characteristic         | B                                                            |
| Type of Residual Current        | Standard Version                                             |
| Rated Voltage (U <sub>r</sub> ) | acc. to IEC 60947-2 690 V AC<br>acc. to IEC 60947-2 375 V DC |

|                                                                          |                                                                                                                         |
|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
|                                                                          | acc. to IEC 60898-1 400 V AC                                                                                            |
| Rated Operational Voltage                                                | acc. to IEC 60898-1 400 V                                                                                               |
| Operational Voltage                                                      | Maximum 230/400 V AC<br>Minimum 12 V AC                                                                                 |
| Rated Insulation Voltage<br>(U <sub>i</sub> )                            | acc. to IEC/EN 60664-1 690 V                                                                                            |
| Rated Impulse Withstand<br>Voltage (U <sub>imp</sub> )                   | 8 kV                                                                                                                    |
| Input Voltage Type                                                       | AC/DC                                                                                                                   |
| Rated Current (I <sub>n</sub> )                                          | 20 A                                                                                                                    |
| Rated Operational Current<br>(I <sub>e</sub> )                           | 20 A                                                                                                                    |
| Rated Short-Circuit<br>Capacity                                          | (230 V) 20 kA<br>(400 V) 20 kA                                                                                          |
| Rated Ultimate Short-<br>Circuit Breaking Capacity<br>(I <sub>cu</sub> ) | (415 V) 36 kA<br>(690 V) 4.5 kA                                                                                         |
| Rated Service Short-<br>Circuit Breaking Capacity<br>(I <sub>cs</sub> )  | (240 / 415 V AC) 30 kA<br>(254 / 440 V AC) 15 kA<br>(400 / 690 V AC) 3 kA<br>(125 V DC) 20 kA                           |
| Frequency (f)                                                            | 50 ... 60 Hz                                                                                                            |
| Rated Frequency (f)                                                      | 50/60 Hz                                                                                                                |
| Power Loss                                                               | 10.5 W<br>at Rated Operating Conditions per Pole 3.5 W                                                                  |
| Contact Position<br>Indication                                           | ON / OFF / TRIP                                                                                                         |
| Energy Limiting Class                                                    | 3                                                                                                                       |
| Electrical Endurance                                                     | 10000 cycle                                                                                                             |
| Mechanical Endurance                                                     | 10000 cycle                                                                                                             |
| Number of Protected<br>Poles                                             | 3                                                                                                                       |
| Number of Poles                                                          | 3                                                                                                                       |
| Overvoltage Category                                                     | IV                                                                                                                      |
| Tightening Torque                                                        | 3.5 N·m<br>31 in·lb                                                                                                     |
| Release Type                                                             | B                                                                                                                       |
| Actuator Marking                                                         | I / O                                                                                                                   |
| Housing Material                                                         | Insulation group I, 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                                                                                                                     |
| Remarks                                                                  | Connection from top and bottom Connecting with CU only IP40 in enclosure<br>with cover Cage terminal with captive screw |
| Connecting Capacity                                                      | Flexible 0 ... 50 mm²<br>Rigid 0 ... 70 mm²                                                                             |
| Terminal Type                                                            | Screw Terminals                                                                                                         |

Material Compliance

|                                                   |                                    |
|---------------------------------------------------|------------------------------------|
| RoHS Information                                  | 9AKK107680A3903<br>2CCC005083D0202 |
| RoHS Status                                       | Following EU Directive 2011/65/EU  |
| RoHS Date                                         | 20170426                           |
| Conflict Minerals<br>Reporting Template<br>(CMRT) | 9AKK108468A3363                    |

|                                            |                                                            |
|--------------------------------------------|------------------------------------------------------------|
| <b>Environmental</b>                       |                                                            |
| Ambient Temperature                        | -25...60 °C                                                |
| Ambient Air Temperature                    | Operation -25 ... 60 °C                                    |
| Reference Ambient Air Temperature          | acc. to IEC60947-2 30 °C<br>acc. to EN60898-1 30 °C        |
| Degree of Protection                       | IP20                                                       |
| Pollution Degree                           | 3                                                          |
| Resistance to Vibrations                   | 1 mm 2 - 13.2 Hz<br>0.7g with Load 100% x 1e 13.2 - 100 Hz |
| Resistance to Shock acc. to IEC 60068-2-27 | 5 g<br>30 ms                                               |
| Environmental Information                  | 2CCY413207D0203                                            |

|                                     |                 |
|-------------------------------------|-----------------|
| <b>Dimensions</b>                   |                 |
| Width in Number of Modular Spacings | 4.5             |
| Product Net Width                   | 81 mm           |
| Product Net Height                  | 95 mm           |
| Product Net Depth / Length          | 82.5 mm         |
| Product Net Weight                  | 735 g           |
| Size                                | 3 modules       |
| Built-In Depth (t <sub>2</sub> )    | 82.5 mm         |
| Dimension Diagram                   | 2CCC413003C0201 |

|                              |             |
|------------------------------|-------------|
| <b>Ordering</b>              |             |
| Package Level 1 Units        | box 1 piece |
| Package Level 1 Gross Weight | 770 g       |

|                                      |                 |
|--------------------------------------|-----------------|
| <b>Certificates and Declarations</b> |                 |
| Declaration of Conformity - CE       | 2CCC005083D0202 |

|                          |                 |
|--------------------------|-----------------|
| <b>Installation</b>      |                 |
| Instructions and Manuals | 2CCC413016M0008 |

|                                   |                 |
|-----------------------------------|-----------------|
| <b>Popular Downloads</b>          |                 |
| Data Sheet, Technical Information | 9AKK108468A9560 |
|                                   | 9AKK108468A9561 |
|                                   | 9AKK108468A9562 |

|                        |                                                            |
|------------------------|------------------------------------------------------------|
| <b>Classifications</b> |                                                            |
| 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                    | 85362020                                                   |
| UNSPSC                 | 39121603                                                   |

|                                    |                                                        |
|------------------------------------|--------------------------------------------------------|
| eClass                             | V11.0 : 27141901                                       |
| IDEA Granular Category Code (IGCC) | 4899 >> Miniature circuit breaker (MCB) screw-in model |
| Object Classification Code         | F                                                      |

Categories

Low Voltage Products and Systems → Modular DIN Rail Products → High Performance Circuit Breakers HPCBs → High Performance Circuit Breakers HPCBs

