

## PRODUCT-DETAILS

# S803N-D50

## S803N-D50 High Performance MCB



### General Information

|                       |                                |
|-----------------------|--------------------------------|
| Extended Product Type | S803N-D50                      |
| Product ID            | 2CCS893001R0501                |
| EAN                   | 7612271205072                  |
| Catalog Description   | S803N-D50 High Performance MCB |

#### Long Description

The S803N-D50 is a 3-pole High Performance Circuit breaker with D-Characteristic, with cage terminal and a rated current of 50 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-D50 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-D50 more comfortable. Due to the fast arc extinction of S803N-D50 your application will be secured.

### Technical

|                           |                                  |
|---------------------------|----------------------------------|
| Standards                 | IEC/EN 60947-2<br>IEC/EN 60898-1 |
| Number of Poles           | 3                                |
| Number of Protected Poles | 3                                |
| Tripping Characteristic   | D                                |
| Rated Current ( $I_n$ )   | 50 A                             |
| Rated Operational Voltage | 400/690 V AC<br>375 V DC         |
| Rated Voltage ( $U_r$ )   | 230 / 400 V                      |

|                                                                   |                                                                                                                      |
|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Power Loss                                                        | 12.9 W<br>at Rated Operating Conditions per Pole 4.3 W                                                               |
| Rated Insulation Voltage (U <sub>i</sub> )                        | 690 V AC                                                                                                             |
| Operational Voltage                                               | Maximum 230/400 V AC<br>Minimum 12 V AC                                                                              |
| Rated Frequency (f)                                               | 50...60 Hz                                                                                                           |
| Rated Short-Circuit Capacity (I <sub>cn</sub> )                   | (400 V) 25 kA<br>(230 V) 25 kA                                                                                       |
| Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> ) | (240 / 415 V AC) 36 kA<br>(254 / 440 V AC) 20 kA<br>(400 / 690 V AC) 4.5 kA<br>(375 V DC) 20 kA                      |
| Rated Service Short-Circuit Breaking Capacity (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                        |
| Energy Limiting Class                                             | 3                                                                                                                    |
| Overvoltage Category                                              | IV                                                                                                                   |
| Pollution Degree                                                  | 3                                                                                                                    |
| Rated Impulse Withstand Voltage (U <sub>imp</sub> )               | 8 kV                                                                                                                 |
| Housing Material                                                  | Insulation group I, RAL 7035                                                                                         |
| Actuator Marking                                                  | I / O                                                                                                                |
| Contact Position Indication                                       | ON / OFF / TRIP                                                                                                      |
| Degree of Protection                                              | IP20                                                                                                                 |
| Remarks                                                           | Connection from top and bottom Connecting with CU only IP40 in enclosure with cover Cage terminal with captive screw |
| Electrical Endurance                                              | 6000 cycle<br>4000 cycle                                                                                             |
| Terminal Type                                                     | Screw Terminals                                                                                                      |
| Connecting Capacity                                               | Rigid 0 ... 50 mm <sup>2</sup><br>Flexible 0 ... 70 mm <sup>2</sup>                                                  |
| Tightening Torque                                                 | 3.5 N·m<br>31 in·lb                                                                                                  |
| 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> )                                  | 82.5 mm                                                                                                              |

## Environmental

|                                                |                                                                                                                                                                                                                                                                                         |
|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                        | Operation -25...60 °C                                                                                                                                                                                                                                                                   |
| Reference Ambient Air Temperature              | acc. to IEC60947-2 30 °C<br>acc. to EN60898-1 30 °C                                                                                                                                                                                                                                     |
| Resistance to Shock acc. to IEC 60068-2-27     | 5 g<br>30 ms                                                                                                                                                                                                                                                                            |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 2 - 13.2 Hz / 1mm 13.2 - 100Hz / 0.7g with load 100% x le                                                                                                                                                                                                                               |
| Environmental Conditions                       | Damp Heat Cyclic acc. to IEC 60068-2-30 12+12 cycle<br>Damp Heat Cyclic acc. to IEC 60068-2-30 55°C @ 90-96%<br>Damp Heat Cyclic acc. to IEC 60068-2-30 25°C @ 90-100%<br>Dry Heat Test B acc. to IEC 60068-2-2 16 hour @ 55 °C<br>Dry Heat Test B acc. to IEC 60068-2-2 2 hour @ 70 °C |
| RoHS Status                                    | Following EU Directive 2011/65/EU                                                                                                                                                                                                                                                       |

## Dimensions

|                            |         |
|----------------------------|---------|
| Product Net Width          | 81 mm   |
| Product Net Depth / Length | 82.5 mm |
| Product Net Height         | 95 mm   |
| Product Net Weight         | 735 g   |

### Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 105 mm        |
| Package Level 1 Depth / Length | 86 mm         |
| Package Level 1 Height         | 99 mm         |
| Package Level 1 Gross Weight   | 770 g         |
| Package Level 1 EAN            | 7612271205072 |

### Ordering

|                        |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85362020 |

### Certificates and Declarations (Document Number)

|                                |                                    |
|--------------------------------|------------------------------------|
| Declaration of Conformity - CE | 2CCC413016D0601                    |
| Environmental Information      | 2CCY413207D0203                    |
| Instructions and Manuals       | 2CCC413016M0008                    |
| RoHS Information               | 2CCC413016D0601<br>9AKK107680A3903 |

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 2CCC413003C0208 |
| Instructions and Manuals          | 2CCC413016M0008 |
| Dimension Diagram                 | 2CCC413003C0201 |

### 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) |

### Categories

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

