



PRODUCT-DETAILS

# S-ARC1 M B13

## S-ARC1 M B13 Arc fault detection device integrated with MCB



| General Information   |                                                                                                                                                                                                                       |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | S-ARC1 M B13                                                                                                                                                                                                          |
| Product ID            | 2CSA275901R9135                                                                                                                                                                                                       |
| EAN                   | 8012542342014                                                                                                                                                                                                         |
| Catalog Description   | S-ARC1 M B13 Arc fault detection device integrated with MCB                                                                                                                                                           |
| Long Description      | S-ARC1 M is a 1P+N arc fault detection device (AFDD) with an integrated MCB in two modules, for the protection against short-circuit currents, overload, earth arc faults, parallel arc faults and series arc faults. |

| ABB EcoSolutions                                  |                                                                                                     |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| ABB EcoSolutions                                  | Yes                                                                                                 |
| EcoSolutions Profile                              | 9AKK108471A1002                                                                                     |
| Recyclability Rate of the Product acc. to EN45555 | Design for Closing Resource Loops - Standard EN45555 - 81.91 %                                      |
| ABB Site Meeting Group Waste To Landfill Target   | No non-hazardous waste is sent to a landfill<br>UL 2799 Zero Waste To Landfill Validation available |
| Extended Product Lifetime                         | Product Durability                                                                                  |
| End Of Life                                       | 9AKK108469A4799                                                                                     |

Disassembling  
Instructions

|                                         |                 |
|-----------------------------------------|-----------------|
| Environmental Product Declaration - EPD | 9AKK108468A8866 |
|-----------------------------------------|-----------------|

# Technical

|                                                                   |                                                                                                            |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Dielectric Test Voltage                                           | 2.5 kV                                                                                                     |
| Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> ) | 10 kA                                                                                                      |
| Rated Service Short-Circuit Breaking Capacity (I <sub>cs</sub> )  | 7.5 kA                                                                                                     |
| Power Supply Connection                                           | Arbitrary                                                                                                  |
| Contact Position Indication                                       | Red ON / Green OFF                                                                                         |
| Energy Limiting Class                                             | 3                                                                                                          |
| Electrical Endurance                                              | 10000 cycle                                                                                                |
| Mechanical Endurance                                              | 20000 cycle                                                                                                |
| Number of Protected Poles                                         | 1                                                                                                          |
| Number of Poles                                                   | 1P+N                                                                                                       |
| Number of Modular Spacings per DIN Rail                           | 2                                                                                                          |
| Operating Characteristic                                          | Instantaneous                                                                                              |
| Position of Neutral Terminals                                     | Right                                                                                                      |
| Tightening Torque                                                 | 2.8 N·m                                                                                                    |
| Accessory Type                                                    | Auxiliary contact<br>Auxiliary/Signal contact<br>Shunt trip<br>Undervoltage release<br>Overvoltage release |
| Actuator Type                                                     | Toggle - Insulation group II, Orange RAL 2004, sealable in ON-OFF-positions                                |
| Housing Type                                                      | Insulation group I, RAL 7035                                                                               |
| Screw Terminal Type                                               | Failsafe Bi-directional Cylinder-lift Terminal                                                             |
| Includes                                                          | Fire protection switch                                                                                     |
| Accessories Available                                             | Yes                                                                                                        |
| Mounting Position of Accessories                                  | Right                                                                                                      |
| Number of Batteries                                               | 0                                                                                                          |
| Connecting Capacity                                               | Busbar 10 mm <sup>2</sup><br>Rigid 1...25 mm <sup>2</sup><br>Flexible 1...16 mm <sup>2</sup>               |
| Wire Stripping Length                                             | 12 mm                                                                                                      |
| Terminal Type                                                     | Screw Terminals                                                                                            |

# Electrical

|                                            |                |
|--------------------------------------------|----------------|
| Tripping Characteristic                    | B              |
| Rated Operational Voltage                  | 230...240 V AC |
| Rated Insulation Voltage (U <sub>i</sub> ) | 500 V          |
| Rated Impulse                              | 4 kV           |

Withstand Voltage (U<sub>imp</sub>)

|                                 |       |
|---------------------------------|-------|
| Input Voltage Type              | AC    |
| Rated Current (I <sub>n</sub> ) | 13 A  |
| Rated Short-Circuit Capacity    | 10 kA |
| Rated Frequency (f)             | 50 Hz |
| Power Loss                      | 2.2 W |
| Overvoltage Category            | III   |

Design

|                   |   |
|-------------------|---|
| Number of Modules | 2 |
|-------------------|---|

Material Compliance

|                                             |                                                                        |
|---------------------------------------------|------------------------------------------------------------------------|
| RoHS Declaration                            | 9AKK107045A1564                                                        |
| RoHS Information                            | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| RoHS Date                                   | 20170621                                                               |
| REACH Declaration                           | 9AKK108467A9482                                                        |
| REACH Information                           | True - contains substances > 0.1 mass percentage                       |
| REACH Date                                  | 20240429                                                               |
| Conflict Minerals Reporting Template (CMRT) | 9AKK108468A3363                                                        |
| WEEE Category                               | 5. Small Equipment (No External Dimension More Than 50 cm)             |
| WEEE B2C / B2B                              | Business To Consumer                                                   |

Environmental

|                                            |                                                           |
|--------------------------------------------|-----------------------------------------------------------|
| Ambient Air Temperature                    | Operation -25 ... 55 °C<br>Storage -40 ... 70 °C          |
| Reference Ambient Air Temperature          | 30 °C                                                     |
| Degree of Protection                       | Terminals IP20<br>Housing IP40                            |
| Pollution Degree                           | 2                                                         |
| Environmental Conditions                   | 28 cycles<br>with 55 °C / 90-96 %<br>and 25 °C / 95-100 % |
| Resistance to Vibrations                   | 20 Cycles with Load 0.8 In: 5g or 0.2mm 5 ... 150 Hz      |
| Resistance to Shock acc. to IEC 60068-2-27 | 30g 2 shocks 13 ms                                        |

Dimensions

|                                     |       |
|-------------------------------------|-------|
| Width in Number of Modular Spacings | 2     |
| Product Net Width                   | 35 mm |
| Product Net Height                  | 85 mm |
| Product Net Depth / Length          | 69 mm |
| Product Net Weight                  | 180 g |
| Built-In Depth (t <sub>2</sub> )    | 69 mm |

Dimension Diagram

9AKK106930A8989

Engineering

EPLAN Data

9AAC190689\_EPLAN

Ordering

|                              |             |
|------------------------------|-------------|
| Package Level 1 Units        | box 1 piece |
| Package Level 1 Gross Weight | 0.200 kg    |
| E-Number (Finland)           | 3211058     |
| E-Number (Norway)            | 1683196     |
| E-Number (Sweden)            | 2100159     |

Certificates and Declarations

|                                |                 |
|--------------------------------|-----------------|
| Declaration of Conformity - CE | 9AKK107045A1563 |
| IMQ Certificate                | 9AKK107045A4216 |
| KC Certificate                 | 9AKK108466A5923 |
| VDE Certificate                | 9AKK107045A7202 |

Installation

|                          |                                    |
|--------------------------|------------------------------------|
| Instructions and Manuals | 9AKK106930A8985<br>9AKK106930A8986 |
| Mounting Type            | DIN-Rail                           |
| Mounting Position        | Any                                |

Popular Downloads

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Data Sheet, Technical Information | 2CDC420032D0201                    |
| Mechanical Drawings               | 9AKK106930A8988<br>9AKK106930A8989 |

External Classifications and Standards

|                                    |                                                                  |
|------------------------------------|------------------------------------------------------------------|
| ETIM 9                             | EC002694 - Miniature circuit breaker (MCB) with auxiliary device |
| ETIM 10                            | EC002694 - Miniature circuit breaker (MCB) with auxiliary device |
| UNSPSC                             | 39121603                                                         |
| eClass                             | V11.0 : 27141906                                                 |
| IDEA Granular Category Code (IGCC) | 4900 >> Miniature circuit breaker (MCB) with auxiliary device    |
| Object Classification Code         | F                                                                |
| Standards                          | IEC/EN 62606<br>IEC/EN 60898-1                                   |

Accessories

| Identifier      | Description                              | Type          | Quantity | Unit Of Measure |
|-----------------|------------------------------------------|---------------|----------|-----------------|
| 2CDS200912R0001 | S2C-H6R Auxiliary Contact 1CO            | S2C-H6R       | 1        | piece           |
| 2CDS200946R0001 | S2C-H6-11R Auxiliary contact 1NO/1NC     | S2C-H6-11R    | 1        | piece           |
| 2CDS200946R0002 | S2C-H6-20R Auxiliary contact 2NO         | S2C-H6-20R    | 1        | piece           |
| 2CDS200946R0003 | S2C-H6-02R Auxiliary contact 2NC         | S2C-H6-02R    | 1        | piece           |
| 2CDS200922R0001 | S2C-S/H6R Universal Auxiliary/Signal Con | S2C-S/H6R     | 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           |

Categories

Low Voltage Products and Systems → Modular DIN Rail Products → Protection Against Arc Faults AFDDs → Arc Fault Detection Devices with Integrated Overcurrent Protection - AFDD+MCB

