PRODUCT-DETAILS

# S402M-K13

# Miniature Circuit Breaker



## General Information

| | |
|---|---|
| Extended Product Type | S402M-K13 |
| Product ID | 2CCS572001R0447 |
| EAN | 7612270102464 |
| Catalog Description | Miniature Circuit Breaker |
| Long Description | SMISSLINE TP S400M are a current limiting miniature circuit breakers. 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), configurations (1P,1P+N,2P,3P,3P+N), breaking capacities (up to 10 kA at 240/415 V AC ) and rated currents (up to 63A). MCBs of the product range S400M are comply with IEC/EN 60898-1 for B,C and D characteristic and IEC/EN 60947-2 for C and K characteristic. The pluggable solution is only for the SMISSLINE TP System, allowing the use for commercial, industrial, and critical power applications. |

## ABB EcoSolutions

| | |
|---|---|
| ABB EcoSolutions | Yes |
| Circular Design Principles Recyclability Rate | Design for Closing Resource Loops - Standard EN45555 - 58.6323356825684 % |
| Circular Design Principles Ecodesign | 9AKK108469A6507 |
| Group Waste to Landfill | No non-hazardous waste is sent to a landfill |

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| Target | |
|---|---|
| Sustainable Material Content in Packaging | Recycled Cardboard - 18.1 %<br>Recycled Cardboard - 67.7 %<br>Chemically Recycled Polymer - 0.0 % |
| Offered with Extended Lifetime | Product Durability |
| End of Life Instructions | 9AKK108469A6908 |
| Environmental Product Declaration - EPD | 9AKK108469A5735 |

## Technical

| | |
|---|---|
| Standards | IEC/EN 60947-2 |
| Tripping Characteristic | K |
| Rated Operational Voltage | acc. to IEC 60898-1 240 V |
| Operational Voltage | Maximum (Incl. Tolerance) 440 V AC<br>Minimum 12 V AC<br>Minimum 12 V DC |
| Rated Insulation Voltage ($U_i$) | acc. to IEC/EN 60664-1 440 V |
| Rated Impulse Withstand Voltage ($U_{imp}$) | 4 kV |
| Input Voltage Type | AC |
| Rated Current ($I_n$) | 13 A |
| Rated Operational Current ($I_e$) | 13 A |
| Rated Short-Circuit Capacity | (230 V) 10 kA<br>(400 V) 10 kA |
| Rated Ultimate Short-Circuit Breaking Capacity ($I_{cu}$) | (230 V) 25 kA<br>(400 V) 25 kA |
| Rated Short-Circuit Making Capacity ($I_{cm}$) | (440 V AC) 30 kA<br>(415 V AC) 52.2 kA |
| Rated Service Short-Circuit Breaking Capacity ($I_{cs}$) | (240 V AC) 15 kA<br>(415 V AC) 15 kA<br>(440 V AC) 7.5 kA |
| Rated Service Short-Circuit Breaking Capacity, in % of Icu ($I_{cs}$) | 50 % |
| Frequency (f) | 50 ... 60 Hz |
| Rated Frequency (f) | 50 ... 60 Hz |
| Power Loss | 3.8 W |
| Power Supply Connection | Arbitrary |
| Contact Position Indication | Red ON / Green OFF |
| Energy Limiting Class | 3 |
| Electrical Endurance | 10000 cycle |
| Mechanical Endurance | 10000 cycle |
| Number of Protected Poles | 2 |
| Number of Poles | 2 |
| Overvoltage Category | III |
| Tightening Torque | 2.8 N·m |
| Release Type | K |
| Screw Terminal Type | Failsafe Bi-directional Cylinder-lift Terminal |
| Actuator Marking | I / O |
| Mounting Position | Any |
| Recommended Screw Driver | Pozidriv 2 |
| Accessories Available | Yes |
| Connecting Capacity | Flexible 0.75 … 25 mm²<br>Rigid 0.75 … 35 mm² |
| Terminal Type | Screw Terminals |

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## Material Compliance

| | |
|---|---|
| RoHS Information | 9AKK107991A9634 |
| RoHS Status | Following EU Directive 2002/95/EC August 18, 2005 and amendment |
| RoHS Date | 20170426 |
| REACH Declaration | 9AKK108467A9561 |
| REACH Information | True - contains substances > 0.1 mass percentage |
| REACH Date | 20230417 |
| Conflict Minerals Reporting Template (CMRT) | 9AKK108468A3363 |

## Environmental

| | |
|---|---|
| Ambient Air Temperature | Operation -25 … 60 °C |
| Reference Ambient Air Temperature | 40 °C |
| Degree of Protection | IP20 |
| Pollution Degree | 3 |
| Resistance to Vibrations | 1 mm 2 … 13.2 Hz |
| Environmental Information | 9AKK108467A9561 |

## Dimensions

| | |
|---|---|
| Width in Number of Modular Spacings | 2 |
| Product Net Width | 36 mm |
| Product Net Height | 91 mm |
| Product Net Depth / Length | 75 mm |
| Product Net Weight | 221 g |
| Built-In Depth ($t_2$) | 75 mm |
| Dimension Diagram | 9AKK107492A6192 |

## Ordering

| | |
|---|---|
| Package Level 1 Units | carton 5 piece |
| Package Level 1 Gross Weight | 1170 g |
| E-Number (Norway) | 1623344 |
| E-Number (Switzerland) | 809259807 |

## Certificates and Declarations

| | |
|---|---|
| Declaration of Conformity - CE | 9AKK107991A9634 |

## Installation

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|---|---|
| Instructions and Manuals | 2CCC451019M0109 |

## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical | 9AKK107492A6192 |

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Information

## 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 | 85362020 |
| eClass | V11.0 : 27141901 |
| Object Classification Code | FC |

## Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|---|---|---|---|---|
| 2CCS500900R0081 | HK40011-L | Auxiliary swtich | 1 | piece |
| 2CCS500900R0214 | HK40011-R | Auxiliary swtich | 1 | piece |
| 2CCF201112R0001 | HK40020-L | Auxiliary swtich | 1 | piece |
| 2CCF201114R0001 | HK40002-L | Auxiliary swtich | 1 | piece |
| 2CCF201113R0001 | HK40020-R | Auxiliary swtich | 1 | piece |
| 2CCF201115R0001 | HK40002-R | Auxiliary swtich | 1 | piece |
| 2CCS500900R0101 | SK40011-L | Signal contact | 1 | piece |
| 2CCS500900R0215 | SK40011-R | Signal contact | 1 | piece |
| 2CCF201162R0001 | SK40020-L | Signal contact | 1 | piece |
| 2CCF201164R0001 | SK40002-L | Signal contact | 1 | piece |
| 2CCF201163R0001 | SK40020-R | Signal contact | 1 | piece |
| 2CCF201165R0001 | SK40002-R | Signal contact | 1 | piece |
| 2CCS500900R0141 | SK40010-LSA | Signal contact | 1 | piece |
| 2CCF201212R0001 | HK40010-LSA | Auxiliary swtich | 1 | piece |
| 2CCS500900R0216 | SK40010-RSA | Signal contact | 1 | piece |
| 2CCF201213R0001 | HK40010-RSA | Auxiliary swtich | 1 | piece |
| 2CCS500900R0161 | ZLS931 | Spare parts | 1 | piece |
| 2CCS500900R0021 | NT40163 | Neutral disconnect terminal block | 1 | piece |
| 2CCS500900R0011 | NT40263 | Neutral disconnect terminal block | 1 | piece |
| 2CDS200909R0001 | S2C-A1 | Shunt Trip | 1 | piece |
| 2CDS200909R0002 | S2C-A2 | Shunt Trip | 1 | piece |
| 2CCA880212R0001 | CMS-122PS | Sensor | 2 | piece |
| 2CCA880102R0001 | CMS-102PS | Sensor | 2 | piece |

## Categories

Low Voltage Products and Systems → Modular DIN Rail Products → Plug-in Distribution Systems → Plug-in Distribution Systems → Miniature Circuit Breakers MCBs

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