PRODUCT-DETAILS

# MS132-0.63T

## MS132-0.63T Circuit Breaker for Primary Transformer Protection 0.40 ... 0.63 A



### General Information

| | |
|---|---|
| Extended Product Type | MS132-0.63T |
| Product ID | 1SAM340000R1004 |
| EAN | 4013614484940 |
| Catalog Description | MS132-0.63T Circuit Breaker for Primary Transformer Protection 0.40 ... 0.63 A |
| Long Description | The circuit breaker for transformer protection MS132-0.63T is a compact 45 mm width device designed to protect control transformers on the primary side. This device has a rated operational current of Ie = 0.63 A. It allows fuse-less protection against overload and short-circuit. The short-circuit current setting is fixed to 20 times the rated operational current to handle the high inrush current generated by transformers. The device allows manually connect and disconnect the transformer from the mains thanks of its built-in disconnection function. The circuit breaker for transformer protection offers a rated service short-circuit breaking capacity of Ics = 100 kA at 400 VAC and a trip class 10. Further features are temperature compensation, trip-free mechanism, rotary handle with a clear switch position indication and short circuit trip indicator. The handle is lockable to protect against unauthorized changes. Auxiliary contacts, signalling contacts, undervoltage releases, shunt trips, power in-feed blocks and terminal spacers are available as accessory. |

### Ordering

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|---|---|
| Minimum Order Quantity | 1 piece |

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|---|---|
| Customs Tariff Number | 85362010 |

## Popular Downloads

| | |
|---|---|
| Data Sheet, Technical Information | 2CDC131058D0201 |
| Instructions and Manuals | 2CDC131057M6801 |
| Instructions and Manuals (Part 2) | 2CDC131060M0202 |
| Time-Current Characteristic Curve | 1SAM300535F0004 |
| $I^2t$ Characteristic | 1SAM300517F0001 |
| Cut-off Current Characteristic | 1SAM300518F0001 |
| CAD Dimensional Drawing | 2CDC001079B0201 |
| Dimension Diagram | 1SAM300402F0001 |

## Dimensions

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| Product Net Width | 45 mm |
| Product Net Height | 90 mm |
| Product Net Depth / Length | 86.75 mm |
| Product Net Weight | 0.215 kg |

## Technical

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|---|---|
| Rated Service Short-Circuit Breaking Capacity ($I_{cs}$) | (230 V AC) 100 kA<br>(400 V AC) 100 kA |
| Rated Ultimate Short-Circuit Breaking Capacity ($I_{cu}$) | (400 V AC) 100 kA |
| Rated Instantaneous Short-Circuit Current Setting ($I_i$) | 12.6 A |
| Setting Range | 0.40 ... 0.63 A |
| Rated Operational Voltage | Main Circuit 690 V AC |
| Rated Operational Current ($I_e$) | 0.63 A |
| Rated Frequency (f) | Main Circuit 50 Hz<br>Main Circuit 60 Hz |
| Operating Frequency ($f_{sw}$) | 0 ... 400 Hz |
| Rated Impulse Withstand Voltage ($U_{imp}$) | Main Circuit 6 kV |
| Rated Insulation Voltage ($U_i$) | 690 V |
| Power Loss | at Rated Operating Conditions per Pole 0.6 ... 1.5 W |
| Number of Poles | 3P |
| Conventional Free-air Thermal Current ($I_{th}$) | Main Circuit 0.63 A |
| Degree of Protection | Housing IP20<br>Main Circuit Terminals IP10 |

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|---|---|
| Pollution Degree | 3 |
| Electrical Durability | 50000 cycle |
| Mechanical Durability | 100000 cycle |
| Terminal Type | Screw Terminals |
| Connecting Capacity Main Circuit | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm²<br>Flexible 1/2x 0.75 ... 2.5 mm²<br>Rigid 1/2x 1 ... 4 mm² |
| Tightening Torque | Main Circuit 0.8 ... 1.2 N·m |
| Wire Stripping Length | Main Circuit 9 mm |
| Recommended Screw Driver | M3.5<br>Pozidriv 2 |
| Mounting Position | 1 ... 6 |
| 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 |
| Minimum Mounting Distance | Electrical Conductive Board, Vertical 75 mm<br>Other Device Same Type, Horizontal 9 mm<br>Other Device Same Type, Vertical 150 mm |
| Actuator Type | Rotary Handle |
| Contact Position Indication | ON / OFF / TRIP |
| Standards | IEC/EN 60947-1<br>IEC/EN 60947-2<br>IEC/EN 60947-4-1<br>IEC 60335-2-40 A2L |

## Technical UL/CSA

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|---|---|
| Short-Circuit Current Rating (SCCR) | Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (480Y / 277 V AC) 65 kA<br>Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (600Y / 347 V AC) 47 kA |
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V AC |
| Full Load Amps Motor Use | (120 V AC) Single Phase 0.63 A<br>(220 ... 240 V AC) Single Phase 0.63 A |
| Locked Rotor Amps | (120 V AC) Single Phase 3.78 A<br>(220 ... 240 V AC) Single Phase 3.78 A |
| Connecting Capacity Main Circuit UL/CSA | Flexible 1/2x 16-12 AWG<br>Stranded 1/2x 16-12 AWG |
| Tightening Torque UL/CSA | Main Circuit 10 ... 12 in·lb |

## Environmental

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|---|---|
| Ambient Air Temperature | Around the Enclosure 0 ... +40 °C<br>Operation -25 ... +70 °C<br>Operation Compensated -25 ... +60 °C<br>Storage -50 ... +80 °C |
| Ambient Air Temperature Compensation | Yes |
| Maximum Operating Altitude Permissible | 2000 m |
| Resistance to Shock acc. to IEC 60068-2-27 | 11 ms Pulse 25g |
| Resistance to Vibrations | 5g 3 ... 150 Hz |

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## Material Compliance

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|---|---|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 1SAA963005-4502 |
| RoHS Information | 1SAA963006-4502 |
| RoHS Status | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| Toxic Substances Control Act - TSCA | 2CMT2023-006539 |
| WEEE B2C / B2B | Business To Business |
| WEEE Category | 5. Small Equipment (No External Dimension More Than 50 cm) |

## ABB EcoSolutions

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|---|---|
| Environmental Product Declaration - EPD | 1SAC200360H0001<br>1SAC200385H0001 |

## Certificates and Declarations

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|---|---|
| A2L Certificate – IEC | 1SAA963000-4601 |
| CB Certificate | 1SAA963002-2002<br>1SAA963007-2002 |
| CCC Certificate | 2020980307003526<br>2020980307003041 |
| CQC Certificate | CQC2010010307387700<br>CQC2019010307243864 |
| Cut-off Current Characteristic | 1SAM300518F0001 |
| Declaration of Conformity - CCC | 2020980307003526 |
| Declaration of Conformity - CE | 1SAD101100-3404 |
| Declaration of Conformity - UKCA | 1SAD201100-3404 |
| $I^2t$ Characteristic | 1SAM300517F0001 |
| KC Certificate | 1SAA963002-1502 |
| RMRS Certificate | 1SAA918000-0704 |
| UL Certificate | E137861-20090225 |

## Container Information

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|---|---|
| Package Level 1 Units | box 1 piece |
| Package Level 1 Width | 92 mm |
| Package Level 1 Depth / Length | 95 mm |
| Package Level 1 Height | 50 mm |
| Package Level 1 Gross Weight | 0.23 kg |
| Package Level 1 EAN | 4013614484940 |
| Package Level 2 Units | carton 40 piece |
| Package Level 2 Width | 280 mm |
| Package Level 2 Depth / Length | 395 mm |
| Package Level 2 Height | 210 mm |
| Package Level 2 Gross | 9.586 kg |

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|---|---|
| Weight | |
| Package Level 2 EAN | 4013614487149 |

## Classifications

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|---|---|
| Object Classification Code | F |
| ETIM 4 | EC000228 - Power circuit-breaker for trafo/generator/installation prot. |
| ETIM 5 | EC000228 - Power circuit-breaker for trafo/generator/installation prot. |
| ETIM 6 | EC000228 - Power circuit-breaker for trafo/generator/installation prot. |
| ETIM 7 | EC000228 - Power circuit-breaker for trafo/generator/installation protection |
| ETIM 8 | EC000228 - Power circuit-breaker for trafo/generator/installation protection |
| eClass | V11.0 : 27370409 |
| UNSPSC | 39121601 |
| IDEA Granular Category Code (IGCC) | 4864 >> Enclosed 3 Pole Circuit Breakers |
| E-Number (Finland) | 3707268 |
| E-Number (Norway) | 4364103 |

## Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|---|---|---|---|---|
| 1SAM201901R1001 | HKF1-11 Aux.-contact for front mounting | HKF1-11 | 1 | piece |
| 1SAM201901R1201 | HKF1-11K Aux.-contact for frontmounting with Push-In terminals | HKF1-11K | 1 | piece |
| 1SAM201901R1002 | HKF1-20 Aux.-contact 2NO, front mounting | HKF1-20 | 1 | piece |
| 1SAM201901R1202 | HKF1-20K Aux.-contact for frontmounting with Push-In terminals | HKF1-20K | 1 | piece |
| 1SAM201901R1004 | HKF1-01 Aux.-contact for front mounting | HKF1-01 | 1 | piece |
| 1SAM201901R1003 | HKF1-10 Aux.-contact for front mounting | HKF1-10 | 1 | piece |
| 1SAM201902R1002 | HK1-20 Aux.-contact 2 NO | HK1-20 | 1 | piece |
| 1SAM201902R1202 | HK1-20K Aux.-contact 2 NO with Push-In terminals | HK1-20K | 1 | piece |
| 1SAM201902R1001 | HK1-11 Aux.-contact 1 NO + 1 NC | HK1-11 | 1 | piece |
| 1SAM201902R1201 | HK1-11K Aux.-contact 1 NO + 1 NC with Push-In terminals | HK1-11K | 1 | piece |
| 1SAM201902R1003 | HK1-02 Aux.-contact 2 NC | HK1-02 | 1 | piece |
| 1SAM201902R1203 | HK1-02K Aux.-contact 2 NC with Push-In terminals | HK1-02K | 1 | piece |
| 1SAM201902R1004 | HK1-20L Aux.-cont. w. 2 lead contacts 2 NO | HK1-20L | 1 | piece |
| 1SAM201902R1204 | HK1-20LK Aux-cont. w. 2 leading contacts 2 NO, with Push-In terminals | HK1-20LK | 1 | piece |
| 1SAM201903R1002 | SK1-20 Signaling Contact 2 NO | SK1-20 | 1 | piece |
| 1SAM201903R1202 | SK1-20K Signaling Contact 2 NO with Push-In terminals | SK1-20K | 1 | piece |
| 1SAM201903R1005 | SK1-20AR Signaling Contact, 2NO with screw terminals | SK1-20AR | 1 | piece |
| 1SAM201903R1205 | SK1-20ARK Signaling Contact, 2NO with Push-in Spring terminals | SK1-20ARK | 1 | piece |
| 1SAM201903R1001 | SK1-11 Signaling Contact 1 NO + 1 NC | SK1-11 | 1 | piece |
| 1SAM201903R1201 | SK1-11K Signaling Contact 1 NO + 1 NC with Push-In terminals | SK1-11K | 1 | piece |
| 1SAM201903R1004 | SK1-11AR Signaling Contact, 1NO+1NC with screw terminals | SK1-11AR | 1 | piece |

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|---|---|---|---|---|
| 1SAM201903R1204 | SK1-11ARK Signaling Contact, 1NO+1NC with Push-in Spring terminals | SK1-11ARK | 1 | piece |
| 1SAM201903R1003 | SK1-02 Signaling Contact 2 NC | SK1-02 | 1 | piece |
| 1SAM201903R1203 | SK1-02K Signaling Contact 2 NC with Push-In terminals | SK1-02K | 1 | piece |
| 1SAM201903R1006 | SK1-02AR Signaling Contact, 2NC with screw terminals | SK1-02AR | 1 | piece |
| 1SAM201903R1206 | SK1-02ARK Signaling Contact, 2NC with Push-in Spring terminals | SK1-02ARK | 1 | piece |
| 1SAM301901R1002 | CK1-20 Short-Circuit Signaling Contact 2 NO | CK1-20 | 1 | piece |
| 1SAM301901R1001 | CK1-11 Short-Circuit Signaling Contact 1 NO + 1 NC | CK1-11 | 1 | piece |
| 1SAM301901R1003 | CK1-02 Short-Circuit Signaling Contact 2 NC | CK1-02 | 1 | piece |
| 1SAM201910R1001 | AA1-24 Shunt Trip 20-24V | AA1-24 | 1 | piece |
| 1SAM201910R1002 | AA1-110 Shunt Trip 110V | AA1-110 | 1 | piece |
| 1SAM201910R1003 | AA1-230 Shunt Trip 200-240V | AA1-230 | 1 | piece |
| 1SAM201910R1004 | AA1-400 Shunt Trip 350-415V | AA1-400 | 1 | piece |
| 1SAM201904R1010 | UA1-20 Undervoltage release 20V 50Hz / 24V 60 Hz | UA1-20 | 1 | piece |
| 1SAM201904R1001 | UA1-24 Undervoltage release 24 V | UA1-24 | 1 | piece |
| 1SAM201904R1002 | UA1-48 Undervoltage release 48V | UA1-48 | 1 | piece |
| 1SAM201904R1003 | UA1-60 Undervoltage release 60V | UA1-60 | 1 | piece |
| 1SAM201904R1004 | UA1-110 Undervoltage release 110V 110V 50Hz/120V 60Hz | UA1-110 | 1 | piece |
| 1SAM201904R1008 | UA1-208 Undervoltage release 208V 60Hz | UA1-208 | 1 | piece |
| 1SAM201904R1005 | UA1-230 Undervoltage release 230 V 50 Hz / 240 V 60 Hz | UA1-230 | 1 | piece |
| 1SAM201904R1006 | UA1-400 Undervoltage release 400V | UA1-400 | 1 | piece |
| 1SAM201904R1007 | UA1-415 Undervoltage release 415V 415V 50Hz/480V 60Hz | UA1-415 | 1 | piece |
| 1SAM201904R1009 | UA1-575 Undervoltage release 575V 60Hz | UA1-575 | 1 | piece |
| 1SAM201906R1102 | PS1-2-0-65 3-phase busbar for 2 MS116 / MS132, Ie=65A | PS1-2-0-65 | 1 | piece |
| 1SAM201906R1112 | PS1-2-1-65 3-phase busbar for 2 MS116 / MS132 with 1 HK/SK, Ie=65A | PS1-2-1-65 | 1 | piece |
| 1SAM201906R1122 | PS1-2-2-65 3-phase busbar for 2 MS116 / MS132 with 2 HK/SK, Ie=65A | PS1-2-2-65 | 1 | piece |
| 1SAM201916R1103 | PS1-3-0-100 3-phase busbar for 3 MS116 / MS132, Ie=100A | PS1-3-0-100 | 1 | piece |
| 1SAM201906R1103 | PS1-3-0-65 3-phase busbar for 3 MS116 / MS132, Ie=65A | PS1-3-0-65 | 1 | piece |
| 1SAM201916R1113 | PS1-3-1-100 3-phase busbar for 3 MS116 /MS132 with 1 HK/SK, Ie=100A | PS1-3-1-100 | 1 | piece |
| 1SAM201906R1113 | PS1-3-1-65 3-phase busbar for 3 MS116 / MS132 with 1 HK/SK, Ie=65A | PS1-3-1-65 | 1 | piece |
| 1SAM201916R1123 | PS1-3-2-100 3-phase busbar for 3 MS116 /MS132 with 2 HK/SK, Ie=100A | PS1-3-2-100 | 1 | piece |
| 1SAM201906R1123 | PS1-3-2-65 3-phase busbar for 3 MS116 / MS132 with 2 HK/SK, Ie=65A | PS1-3-2-65 | 1 | piece |
| 1SAM201916R1104 | PS1-4-0-100 3-phase busbar for 4 MS116 / MS132, Ie=100A | PS1-4-0-100 | 1 | piece |
| 1SAM201906R1104 | PS1-4-0-65 3-phase busbar for 4 MS116 / MS132, Ie=65A | PS1-4-0-65 | 1 | piece |
| 1SAM201916R1114 | PS1-4-1-100 3-phase busbar for 4 MS116 /MS132 with 1 HK/SK, Ie=100A | PS1-4-1-100 | 1 | piece |
| 1SAM201906R1114 | PS1-4-1-65 3-phase busbar for 4 MS116 / MS132 with 1 HK/SK, Ie=65A | PS1-4-1-65 | 1 | piece |
| 1SAM201906R1124 | PS1-4-2-65 3-phase busbar for 4 MS116 / MS132 with 2 HK/SK, Ie=65A | PS1-4-2-65 | 1 | piece |

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|---|---|---|---|---|
| 1SAM201916R1105 | PS1-5-0-100 3-phase busbar for 5 MS116 / MS132, Ie=100A | PS1-5-0-100 | 1 | piece |
| 1SAM201906R1105 | PS1-5-0-65 3-phase busbar for 5 MS116 / MS132, Ie=65A | PS1-5-0-65 | 1 | piece |
| 1SAM201916R1115 | PS1-5-1-100 3-phase busbar for 5 MS116 /MS132 with 1 HK/SK, Ie=100A | PS1-5-1-100 | 1 | piece |
| 1SAM201906R1115 | PS1-5-1-65 3-phase busbar for 5 MS116 / MS132 with 1 HK/SK, Ie=65A | PS1-5-1-65 | 1 | piece |
| 1SAM201906R1125 | PS1-5-2-65 3-phase busbar for 5 MS116 / MS132 with 2 HK/SK, Ie=65A | PS1-5-2-65 | 1 | piece |
| 1SAM201907R1101 | S1-M1-25 3-phase power infeed block Flat, for MS116 / MS132, 25mm2 | S1-M1-25 | 1 | piece |
| 1SAM201907R1102 | S1-M2-25 3-phase power infeed block High, for MS116 / MS132, 25mm2 | S1-M2-25 | 1 | piece |
| 1SAM201907R1103 | S1-M3-25 3-phase power infeed block Flat, for MS116 / MS132, 25mm2, Type E | S1-M3-25 | 1 | piece |
| 1SAM201913R1103 | S1-M3-35 3-phase power infeed block Flat, for MS116 / MS132, 35mm2, Type E | S1-M3-35 | 1 | piece |
| 1SAM201914R1002 | S1-PB1-25 1-phase power infeed block for MS116 / MS132 / MS132-T, 25mm2, IEC | S1-PB1-25 | 1 | piece |
| 1SAM301911R1001 | TS1-M3-S1 Terminal Spacer MS132 Size 1 For MS/MO132-0.16 - MS/MO132-10 Type E | TS1-M3-S1 | 1 | piece |
| 1SAM301912R1001 | TS1-M3-S2 Terminal Spacer MS132 Size 2 For MS/MO132-12 - MS/MO132-32 Type E | S1-M3-S2 | 1 | piece |
| 1SAM201908R1001 | BS1-3 Protection Cover for busbars empty places | BS1-3 | 1 | piece |
| 1SAM201909R1001 | FS116 Screw fixing kit for MS116, MS/MO132 10 pieces packed | FS116 | 1 | piece |
| 1SAM201914R1001 | PB1-1-32 phase connecting link for MS116 / MS132 / MS132-T, Ie=32A | PB1-1-32 | 1 | piece |
| GJF1101903R0002 | Terminals and Installation Material | SA2 | 1 | piece |
| 1SAM201911R1012 | IB132-F Enclosure, GY/RD, IP65 3 times lockable | IB132-F | 1 | piece |
| 1SAM201911R1010 | IB132-G Enclosure, GY/BK, IP65 Standard version, 3 times lockable | IB132-G | 1 | piece |
| 1SAM201911R1011 | IB132-Y Enclosure, RD/YE, IP65 Emergency-STOP, 3 times lockable | IB132-Y | 1 | piece |
| 1SAM201912R1010 | DMS132-G Door Mounting Kit, GY/BK, IP65 Standard version, 3 times lockable | DMS132-G | 1 | piece |
| 1SAM201912R1011 | DMS132-Y Door Mounting Kit, RD/YE, IP65 Emergency-STOP, 3 times lockable | DMS132-Y | 1 | piece |
| 1SAM201909R1021 | MSAH1 Shaft Supporter suitable for MS116, MS132/MO132 | MSAH1 | 1 | piece |
| 1SAM201920R1011 | MSHD-LTB Handle, IP64, black, 3 times lockable, defeatable, 0-TRIP-I | MSHD-LTB | 1 | piece |
| 1SAM201920R1012 | MSHD-LTY Handle, IP64, red/yellow, 3 times lockable, defeatable, 0-TRIP-I | MSHD-LTY | 1 | piece |
| 1SAM101923R0002 | MSMN Driver w. screw for manual motor staters, 6x6 | MSMN | 1 | piece |
| 1SAM101923R0012 | MSMNO Driver w/o coding w. screw for manual motor staters, 6x6 | MSMNO | 1 | piece |
| 1SCA101647R1001 | OXS6X85 SHAFT | OXS6X85 | 1 | piece |
| 1SCA108043R1001 | OXS6X105 SHAFT | OXS6X105 | 1 | piece |
| 1SCA101655R1001 | OXS6X130 SHAFT | OXS6X130 | 1 | piece |
| 1SCA101659R1001 | OXS6X180 SHAFT | OXS6X180 | 1 | piece |

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## Categories

Low Voltage Products and Systems → Control Products → Manual Motor Starters → Manual Motor Starters for Special Use



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