

PRODUCT-DETAILS

MS132-1.0T

MS132-1.0T Circuit Breaker for Primary Transformer Protection



General Information

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| Extended Product Type | MS132-1.0T |
| Product ID | 1SAM340000R1005 |
| EAN | 4013614484957 |
| Catalog Description | MS132-1.0T Circuit Breaker for Primary Transformer Protection |

Long Description

The circuit breaker for transformer protection MS132-1.0T is a compact 45 mm width device designed to protect control transformers on the primary side. This device has a rated operational current of $I_e = 1.0$ 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 $I_{cs} = 100$ 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 are available as accessory.

Ordering

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| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 85362010 |

Popular Downloads

| | |
|-----------------------|-----------------|
| Data Sheet, Technical | 2CDC131058D0201 |
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Information

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|--|-----------------|
| Data Sheet, Technical Information (Part 2) | 1SAM300535F0005 |
| Instructions and Manuals | 2CDC131057M6801 |
| Instructions and Manuals (Part 2) | 2CDC131060M0202 |
| I ² t Characteristic | 1SAM300517F0001 |
| 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 (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) | 20 A |
| Setting Range | 0.63 ... 1.0 A |
| Rated Operational Voltage | Main Circuit 690 V AC |
| Rated Operational Current (I_e) | 1 A |
| Rated Frequency (f) | Main Circuit 50 Hz Main Circuit 60 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 | 3 |
| Conventional Free-air Thermal Current (I_{th}) | Main Circuit 1 A |
| Degree of Protection | Housing IP20 Main Circuit Terminals IP10 |
| 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 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible 1/2x 0.75 ... 2.5 mm ² Rigid 1/2x 1 ... 4 mm ² |
| Tightening Torque | Main Circuit 0.8 ... 1.2 N·m |
| Wire Stripping Length | Main Circuit 9 mm |
| Recommended Screw Driver | Pozidriv 2 M3.5 |
| Mounting Position | Position 1 to 6 |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715 TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |

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|-----------------------------|---|
| Minimum Mounting Distance | Electrical Conductive Board, Vertical 75 mm Other Device Same Type, Horizontal 9 mm Other Device Same Type, Vertical 150 mm |
| Actuator Type | Rotary Handle |
| Contact Position Indication | ON / OFF / TRIP |
| Standards | IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 |

Technical UL/CSA

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|---|--|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V AC |
| Ampere Rating UL/CSA | 1 A |
| Full Load Amps Motor Use | (120 V AC) Single Phase 1 A (220 ... 240 V AC) Single Phase 1 A |
| Locked Rotor Amps | (120 V AC) Single Phase 6 A (220 ... 240 V AC) Single Phase 6 A |
| Connecting Capacity Main Circuit UL/CSA | Flexible 1/2x 16-12 AWG 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 Operation -25 ... +70 °C Operation Compensated -25 ... +60 °C 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 acc. to IEC 60068-2-6 | 5g / 3 ... 150 Hz |
| RoHS Status | Following EU Directive 2011/65/EU |

Certificates and Declarations (Document Number)

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|-----------------------------------|-----------------|
| CCC Certificate | 1SAA963001-3805 |
| cULus Certificate | cUL_E137861 |
| cUR Certificate | cUL_E137861 |
| Declaration of Conformity - CE | 1SAD938507-0188 |
| GOST Certificate | 1SAA937000-2703 |
| I ² t Characteristic | 1SAM300517F0001 |
| Instructions and Manuals | 2CDC131057M6801 |
| Instructions and Manuals (Part 2) | 2CDC131060M0202 |
| RMRS Certificate | 1SAA918000-0704 |
| RoHS Information | 1SAD938503-0188 |

Container Information

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| Package Level 1 Units | 1 piece |
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|--------------------------------|---------------|
| 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 | 4013614484957 |
| Package Level 2 Units | 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 Weight | 9.586 kg |
| Package Level 2 EAN | 4013614487156 |

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 |
| eClass | 7.0 27370409 |
| UNSPSC | 39121601 |
| IDEA Granular Category Code (IGCC) | 4813 >> Circuit breakers |

Accessories

| Identifier | Description | Type | Quantity | Unit Of Measure |
|-----------------|--|----------|----------|-----------------|
| 1SAM201901R1001 | HKF1-11 Auxiliary Contact | HKF1-11 | 1 | piece |
| 1SAM201901R1201 | HKF1-11K Auxiliary Contact | HKF1-11K | 1 | piece |
| 1SAM201901R1002 | HKF1-20 Auxiliary Contact | HKF1-20 | 1 | piece |
| 1SAM201901R1202 | HKF1-20K Auxiliary Contact | HKF1-20K | 1 | piece |
| 1SAM201901R1004 | HKF1-01 Auxiliary Contact | HKF1-01 | 1 | piece |
| 1SAM201901R1003 | HKF1-10 Auxiliary Contact | HKF1-10 | 1 | piece |
| 1SAM201902R1002 | HK1-20 Auxiliary Contact | HK1-20 | 1 | piece |
| 1SAM201902R1202 | HK1-20K Auxiliary Contact | HK1-20K | 1 | piece |
| 1SAM201902R1001 | HK1-11 Auxiliary Contact | HK1-11 | 1 | piece |
| 1SAM201902R1201 | HK1-11K Auxiliary Contact | HK1-11K | 1 | piece |
| 1SAM201902R1003 | HK1-02 Auxiliary Contact | HK1-02 | 1 | piece |
| 1SAM201902R1203 | HK1-02K Auxiliary Contact | HK1-02K | 1 | piece |
| 1SAM201902R1004 | HK1-20L Auxiliary Contact | HK1-20L | 1 | piece |
| 1SAM201902R1204 | HK1-20LK Auxiliary Contact | HK1-20LK | 1 | piece |
| 1SAM201903R1002 | SK1-20 Signal Contact | SK1-20 | 1 | piece |
| 1SAM201903R1202 | SK1-20K Signal Contact | SK1-20K | 1 | piece |
| 1SAM201903R1001 | SK1-11 Signal Contact | SK1-11 | 1 | piece |
| 1SAM201903R1201 | SK1-11K Signal Contact | SK1-11K | 1 | piece |
| 1SAM201903R1003 | SK1-02 Signal Contact | SK1-02 | 1 | piece |
| 1SAM201903R1203 | SK1-02K Signal Contact | SK1-02K | 1 | piece |
| 1SAM301901R1002 | CK1-20 Short Circuit Signaling Contact | CK1-20 | 1 | piece |
| 1SAM301901R1001 | CK1-11 Short Circuit Signaling Contact | CK1-11 | 1 | piece |
| 1SAM301901R1003 | CK1-02 Short Circuit Signaling Contact | CK1-02 | 1 | piece |
| 1SAM201910R1001 | AA1-24 Shunt Trip | AA1-24 | 1 | piece |

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|-----------------|---|-------------|---|-------|
| 1SAM201910R1002 | AA1-110 Shunt Trip | AA1-110 | 1 | piece |
| 1SAM201910R1003 | AA1-230 Shunt Trip | AA1-230 | 1 | piece |
| 1SAM201910R1004 | AA1-400 Shunt Trip | AA1-400 | 1 | piece |
| 1SAM201904R1010 | UA1-20 Undervoltage Release | UA1-20 | 1 | piece |
| 1SAM201904R1001 | UA1-24 Undervoltage Release | UA1-24 | 1 | piece |
| 1SAM201904R1002 | UA1-48 Undervoltage Release | UA1-48 | 1 | piece |
| 1SAM201904R1003 | UA1-60 Undervoltage Release | UA1-60 | 1 | piece |
| 1SAM201904R1004 | UA1-110 Undervoltage Release | UA1-110 | 1 | piece |
| 1SAM201904R1008 | UA1-208 Undervoltage Release | UA1-208 | 1 | piece |
| 1SAM201904R1005 | UA1-230 Undervoltage Release | UA1-230 | 1 | piece |
| 1SAM201904R1006 | UA1-400 Undervoltage Release | UA1-400 | 1 | piece |
| 1SAM201904R1007 | UA1-415 Undervoltage Release | UA1-415 | 1 | piece |
| 1SAM201904R1009 | UA1-575 Undervoltage Release | UA1-575 | 1 | piece |
| 1SAM201906R1102 | PS1-2-0-65 Busbar | PS1-2-0-65 | 1 | piece |
| 1SAM201906R1112 | PS1-2-1-65 Busbar | PS1-2-1-65 | 1 | piece |
| 1SAM201906R1122 | PS1-2-2-65 Busbar | PS1-2-2-65 | 1 | piece |
| 1SAM201916R1103 | PS1-3-0-100 Busbar | PS1-3-0-100 | 1 | piece |
| 1SAM201906R1103 | PS1-3-0-65 Busbar | PS1-3-0-65 | 1 | piece |
| 1SAM201916R1113 | PS1-3-1-100 Busbar | PS1-3-1-100 | 1 | piece |
| 1SAM201906R1113 | PS1-3-1-65 Busbar | PS1-3-1-65 | 1 | piece |
| 1SAM201916R1123 | PS1-3-2-100 Busbar | PS1-3-2-100 | 1 | piece |
| 1SAM201906R1123 | PS1-3-2-65 Busbar | PS1-3-2-65 | 1 | piece |
| 1SAM201916R1104 | PS1-4-0-100 Busbar | PS1-4-0-100 | 1 | piece |
| 1SAM201906R1104 | PS1-4-0-65 Busbar | PS1-4-0-65 | 1 | piece |
| 1SAM201916R1114 | PS1-4-1-100 Busbar | PS1-4-1-100 | 1 | piece |
| 1SAM201906R1114 | PS1-4-1-65 Busbar | PS1-4-1-65 | 1 | piece |
| 1SAM201906R1124 | PS1-4-2-65 Busbar | PS1-4-2-65 | 1 | piece |
| 1SAM201916R1105 | PS1-5-0-100 Busbar | PS1-5-0-100 | 1 | piece |
| 1SAM201906R1105 | PS1-5-0-65 Busbar | PS1-5-0-65 | 1 | piece |
| 1SAM201916R1115 | PS1-5-1-100 Busbar | PS1-5-1-100 | 1 | piece |
| 1SAM201906R1115 | PS1-5-1-65 Busbar | PS1-5-1-65 | 1 | piece |
| 1SAM201906R1125 | PS1-5-2-65 Busbar | PS1-5-2-65 | 1 | piece |
| 1SAM201907R1101 | S1-M1-25 Power Infeed Block | S1-M1-25 | 1 | piece |
| 1SAM201907R1102 | S1-M2-25 Power Infeed Block | S1-M2-25 | 1 | piece |
| 1SAM201907R1103 | S1-M3-25 Power Infeed Block | S1-M3-25 | 1 | piece |
| 1SAM201913R1103 | S1-M3-35 Power Infeed Block | S1-M3-35 | 1 | piece |
| 1SAM201914R1002 | S1-PB1-25 Power Infeed Block | S1-PB1-25 | 1 | piece |
| 1SAM201908R1001 | BS1-3 Protection Cover | BS1-3 | 1 | piece |
| 1SAM201909R1001 | FS116 Screw Fixing Kit | FS116 | 1 | piece |
| 1SAM201914R1001 | PB1-1-32 Connecting Link | PB1-1-32 | 1 | piece |
| GJF1101903R0002 | SA2 - Terminals and Installation Material | SA2 | 1 | piece |
| 1SAM201911R1012 | IB132-F Enclosure | IB132-F | 1 | piece |
| 1SAM201911R1010 | IB132-G Enclosure | IB132-G | 1 | piece |
| 1SAM201911R1011 | IB132-Y Enclosure | IB132-Y | 1 | piece |
| 1SAM201912R1010 | DMS132-G Door Mounting Kit | DMS132-G | 1 | piece |
| 1SAM201912R1011 | DMS132-Y Door Mounting Kit | DMS132-Y | 1 | piece |
| 1SAM201909R1021 | MSAH1 Shaft Supporter | MSAH1 | 1 | piece |
| 1SAM201920R1000 | MSH-AR Shaft Alignment Ring | MSH-AR | 1 | piece |
| 1SAM201920R1011 | MSHD-LTB Handles | MSHD-LTB | 1 | piece |
| 1SAM201920R1012 | MSHD-LTY Handles | MSHD-LTY | 1 | piece |
| 1SAM101923R0002 | MSMN Driver | MSMN | 1 | piece |
| 1SAM101923R0012 | MSMNO Driver | MSMNO | 1 | piece |
| 1SAM101924R0013 | MSEX-30 Driver Shaft | MSEX-30 | 1 | piece |
| 1SAM101924R0003 | MSEX-32 Driver Shaft | MSEX-32 | 1 | piece |
| 1SCA101647R1001 | OXS6X85 SHAFT | OXS6X85 | 1 | piece |
| 1SCA108043R1001 | OXS6X105 SHAFT | OXS6X105 | 1 | piece |
| 1SCA101655R1001 | OXS6X130 SHAFT | OXS6X130 | 1 | piece |

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|-----------------|----------------|----------|---|-------|
| 1SCA101659R1001 | OXS6X180 SHAFT | OXS6X180 | 1 | piece |
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Categories

Low Voltage Products and Systems → Circuit Breakers → Manual Motor Starters

Low Voltage Products and Systems → Control Products → Manual Motor Starters → Manual Motor Starters

