

## PRODUCT-DETAILS

# MS132-20T

## MS132-20T Circuit Breaker for Primary Transformer Protection



### Общая информация

|                                 |                                                              |
|---------------------------------|--------------------------------------------------------------|
| Тип расширенного изделия        | MS132-20T                                                    |
| Идентификационный номер изделия | 1SAM340000R1013                                              |
| Европейский товарный код (EAN)  | 4013614485039                                                |
| Описание в каталоге             | MS132-20T Circuit Breaker for Primary Transformer Protection |

### Длинное описание

The circuit breaker for transformer protection MS132-20T is a compact 45 mm width device designed to protect control transformers on the primary side. This device has a rated operational current of  $I_e = 20$  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 and terminal spacers are available as accessory.

### Ordering

|                          |          |
|--------------------------|----------|
| Минимальный объем заказа | 1 штука  |
| Номер таможенного тарифа | 85362010 |

| Popular Downloads                  |                 |
|------------------------------------|-----------------|
| Технические данные                 | 2CDC131058D0201 |
| Технические данные (часть 2)       | 1SAM300535F0013 |
| Инструкции и руководства           | 2CDC131057M6801 |
| Инструкции и руководства (часть 2) | 2CDC131060M0202 |
| I <sup>2</sup> t Characteristic    | 1SAM300517F0001 |
| Схема размеров                     | 1SAM300402F0002 |

| Dimensions             |          |
|------------------------|----------|
| Чистая ширина изделия  | 45 mm    |
| Чистая высота изделия  | 97.8 mm  |
| Чистая толщина изделия | 86.05 mm |
| Чистый вес изделия     | 0.31 kg  |

| Technical                                                                                |                                                            |
|------------------------------------------------------------------------------------------|------------------------------------------------------------|
| Номинальная рабочая отключающая способность при коротком замыкании (I <sub>cs</sub> )    | (230 В AC) 100 kA<br>(400 В AC) 100 kA<br>(440 В AC) 30 kA |
| Номинальная предельная отключающая способность при коротком замыкании (I <sub>cu</sub> ) | (400 В AC) 100 kA                                          |
| Уставка номинального мгновенного тока короткого замыкания (I <sub>i</sub> )              | 400 A                                                      |
| Диапазон настройки                                                                       | 16 ... 20 A                                                |
| Номинальное рабочее напряжение                                                           | Главная цепь 690 V AC                                      |
| Номинальный рабочий ток (I <sub>e</sub> )                                                | 20 A                                                       |
| Номинальная частота (f)                                                                  | Главная цепь 50 Hz<br>Главная цепь 60 Hz                   |
| Номинальное выдерживаемое импульсное напряжение (U <sub>imp</sub> )                      | Главная цепь 6 kV                                          |
| Номинальное напряжение изоляции (U <sub>i</sub> )                                        | 690 V                                                      |
| Потери мощности                                                                          | at Rated Operating Conditions per Pole 1 W                 |
| Количество полюсов                                                                       | 3                                                          |
| Условный тепловой ток на открытом воздухе (I <sub>th</sub> )                             | Main Circuit 20 A                                          |
| Степень защиты                                                                           | Housing IP20<br>Main Circuit Terminals IP10                |
| Степень загрязнения                                                                      | степень загрязнения 3                                      |

|                                                |                                                                                                                                                                                                                                                                                          |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Коммутационная износостойкость                 | 50000 цикл                                                                                                                                                                                                                                                                               |
| Механическая износостойкость                   | 100000 цикл                                                                                                                                                                                                                                                                              |
| Тип клемм                                      | Клеммы с винтовым зажимом                                                                                                                                                                                                                                                                |
| Сечение подключаемого кабеля-главная цепь      | Гибкий с зажимом 1/2x 0.75 ... 6 mm <sup>2</sup><br>Гибкий с изолированным зажимом 1/2x 0.75 ... 6 mm <sup>2</sup><br>Гибкий 1/2x 1 ... 2.5 mm <sup>2</sup><br>Гибкий 1/2x 2.5 ... 6 mm <sup>2</sup><br>Жесткий 1/2x 1 ... 2.5 mm <sup>2</sup><br>Жесткий 1/2x 2.5 ... 6 mm <sup>2</sup> |
| Крутящие моменты затяжки                       | Главная цепь 2 N·m                                                                                                                                                                                                                                                                       |
| Длина зачистки провода                         | Главная цепь 10 mm                                                                                                                                                                                                                                                                       |
| Рекомендуемый инструмент (отвертка)            | M4<br>Pozidriv 2                                                                                                                                                                                                                                                                         |
| Монтажное положение                            | Position 1 to 6                                                                                                                                                                                                                                                                          |
| Монтаж на DIN-рейке                            | Монтажная рейка 35 x 15 mm<br>Монтажная рейка 35 x 7,5 mm                                                                                                                                                                                                                                |
| 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                                                                                                                                                        |
| Тип исполнительного элемента (рабочая головка) | Rotary Handle                                                                                                                                                                                                                                                                            |
| Contact Position Indication                    | ON / OFF / TRIP                                                                                                                                                                                                                                                                          |
| Стандарты                                      | IEC/EN 60947-1<br>IEC/EN 60947-2<br>IEC/EN 60947-4-1                                                                                                                                                                                                                                     |

## Technical UL/CSA

|                                         |                                                                                                                                                                                                                                      |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short-Circuit Current Rating (SCCR)     | Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (480Y / 277 V AC) 30 kA<br>Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (600Y / 347 V AC) 18 kA |
| Maximum Operating Voltage UL/CSA        | Главная цепь 600 V AC                                                                                                                                                                                                                |
| Номинальный ток UL                      | 20 A                                                                                                                                                                                                                                 |
| Номинальная мощность в л.с.             | (120 V AC) Single Phase 1.5 Hp<br>(220 ... 240 V AC) Single Phase 3 Hp                                                                                                                                                               |
| Full Load Amps Motor Use                | (120 V AC) Single Phase 20 A<br>(220 ... 240 V AC) Single Phase 17 A                                                                                                                                                                 |
| Locked Rotor Amps                       | (120 V AC) Single Phase 120 A<br>(220 ... 240 V AC) Single Phase 120 A                                                                                                                                                               |
| Connecting Capacity Main Circuit UL/CSA | Гибкий 1/2x 16-8 AWG<br>Многожильный 1/2x 16-8 AWG                                                                                                                                                                                   |
| Tightening Torque UL/CSA                | Главная цепь 16 in·lb                                                                                                                                                                                                                |

## Environmental

|                              |                                                                                                                          |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Температура окружающей среды | Снаружи корпуса 0 ... +40 °C<br>Работа с компенсацией -25 ... +70 °C<br>Работа -25 ... +60 °C<br>Хранение -50 ... +80 °C |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------|

|                                                             |                                   |
|-------------------------------------------------------------|-----------------------------------|
| Компенсация температуры окружающей среды                    | Да                                |
| Максимально допустимая рабочая высота                       | 2000 m                            |
| Ударопрочность согласно МЭК 60068-2-27                      | Импульс 11 мс 25g                 |
| Вибропрочность согласно МЭК 60068-2-6                       | 5g / 3 ... 150 Hz                 |
| Правила ограничения содержания вредных веществ. RoHS статус | Following EU Directive 2011/65/EU |

## Certificates and Declarations (Document Number)

|                                                                 |                     |
|-----------------------------------------------------------------|---------------------|
| CQC Certificate                                                 | CQC2010010307387700 |
| Сертификат cUL                                                  | cUL_E137861         |
| cULus Certificate                                               | cUL_E137861         |
| Сертификат cUR                                                  | cUL_E137861         |
| Declaration of Conformity - CCC                                 | 2020980307003526    |
| Декларация о соответствии - CE                                  | 1SAD938508-0188     |
| Экологическая информация                                        | 1SAC200049H0009     |
| Сертификат ГОСТ                                                 | 1SAA937000-2703     |
| I²t Characteristic                                              | 1SAM300517F0001     |
| Инструкции и руководства                                        | 2CDC131057M6801     |
| Инструкции и руководства (часть 2)                              | 2CDC131060M0202     |
| KC Certificate                                                  | 1SAA963002-1502     |
| Сертификат RMRS                                                 | 1SAA918000-0704     |
| Правила ограничения содержания вредных веществ. RoHS информация | 1SAD938503-0188     |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 1 штука       |
| Package Level 1 Width          | 92 mm         |
| Package Level 1 Depth / Length | 102 mm        |
| Package Level 1 Height         | 50 mm         |
| Package Level 1 Gross Weight   | 0.325 kg      |
| Package Level 1 EAN            | 4013614485039 |
| Package Level 2 Units          | 40 штука      |
| Package Level 2 Width          | 280 mm        |
| Package Level 2 Depth / Length | 395 mm        |

|                              |               |
|------------------------------|---------------|
| Package Level 2 Height       | 210 mm        |
| Package Level 2 Gross Weight | 13.386 kg     |
| Package Level 2 EAN          | 4013614487231 |

## Classifications

|                                                                  |                                                                              |
|------------------------------------------------------------------|------------------------------------------------------------------------------|
| Код классификации объекта                                        | 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 |
| е-класс                                                          | V11.0 : 27370409                                                             |
| Универсальная стандартная классификация товаров и услуг (UNSPSC) | 39121601                                                                     |
| IDEA Granular Category Code (IGCC)                               | 4813 >> Circuit breakers                                                     |
| E-Number (Finland)                                               | 3707275                                                                      |

## 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 |
| 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 |
| 1SAM301911R1001 | TS1-M3-S1 Terminal Spacer                 | TS1-M3-S1   | 1 | piece |
| 1SAM301912R1001 | TS1-M3-S2 Terminal Spacer                 | S1-M3-S2    | 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 |
| 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 |
| 1SCA101647R1001 | OXS6X85 SHAFT              | OXS6X85  | 1 | piece |
| 1SCA108043R1001 | OXS6X105 SHAFT             | OXS6X105 | 1 | piece |
| 1SCA101655R1001 | OXS6X130 SHAFT             | OXS6X130 | 1 | piece |
| 1SCA101659R1001 | OXS6X180 SHAFT             | OXS6X180 | 1 | piece |

Категории

Низковольтное оборудование → Пускорегулирующая аппаратура → Мотор-автоматы → Мотор-автоматы

Низковольтное оборудование → Силовые автоматические выключатели → Мотор-автоматы

