

PRODUCT-DETAILS

# MS165-42B

## MS165-42B Manual Motor Starters



### Общая информация

|                                 |                                 |
|---------------------------------|---------------------------------|
| Тип расширенного изделия        | MS165-42B                       |
| Идентификационный номер изделия | 1SAM451200R1015                 |
| Европейский товарный код (EAN)  | 4013614522192                   |
| Описание в каталоге             | MS165-42B Manual Motor Starters |

### Длинное описание

MS165-B is a compact and powerful range for motor protection up to 45 kW (400 V AC) / 80 A in width of 55 mm, complying with the latest railway rolling stock standards and allowing installation in passengers or driver cabins for trains frequently operating tunnels or undergrounds.

They offer a reliable protection for motors in the event of overload or phase failure. The devices have trip class 10. This type has also a clear and reliable indication of fault in a separate window in the event of short-circuit tripping. Further features are the built-in disconnect function, temperature compensation, trip-free mechanism and a rotary handle with a clear switch position indication. The manual motor starter is suitable for three- and single-phase applications. The handle is lockable to protect against unauthorized changes.

Auxiliary contacts, signaling contacts, undervoltage releases, shunt trips, power in-feed blocks are available as accessory. These are suitable throughout the MS132-B / MS165-B range.

- designed in accordance to the applicable parts of IEC 60077 standard
- shocks and vibration withstand conforming to IEC 61373 (category 1, class B)
- usable according to European fire and smoke safety standard EN 45545-2

### Ordering

|                          |         |
|--------------------------|---------|
| Минимальный объем заказа | 1 штука |
|--------------------------|---------|

|                          |          |
|--------------------------|----------|
| Номер таможенного тарифа | 85362010 |
|--------------------------|----------|

|                                    |                                    |
|------------------------------------|------------------------------------|
| Popular Downloads                  |                                    |
| Технические данные                 | 1SBC100200C02__                    |
| Технические данные (часть 2)       | 1SAM400506F0001<br>1SAM400507F0001 |
| Инструкции и руководства           | 2CDC131081M6801                    |
| Инструкции и руководства (часть 2) | 2CDC131060M0202                    |
| Time-Current Characteristic Curve  | 1SAM400505F0005                    |
| Схема размеров                     | 1SAM400401F0001                    |

|                        |           |
|------------------------|-----------|
| Dimensions             |           |
| Чистая ширина изделия  | 55 mm     |
| Чистая высота изделия  | 142.65 mm |
| Чистая толщина изделия | 122.1 mm  |
| Чистый вес изделия     | 0.97 kg   |

|                                                                                    |                                                                                                                                         |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| Technical                                                                          |                                                                                                                                         |
| Номинальная рабочая отключающая способность при коротком замыкании ( $I_{cs}$ )    | (230 В AC) 50 kA<br>(250 V DC) 3 Poles in Series 100 kA<br>(400 В AC) 50 kA<br>(440 В AC) 50 kA<br>(500 В AC) 30 kA<br>(690 В AC) 10 kA |
| Номинальная предельная отключающая способность при коротком замыкании ( $I_{cu}$ ) | (230 В AC) 50 kA<br>(250 В DC) 100 kA<br>(400 В AC) 50 kA<br>(440 В AC) 50 kA<br>(500 В AC) 30 kA<br>(690 В AC) 10 kA                   |
| Уставка номинального мгновенного тока короткого замыкания ( $I_i$ )                | 630 A                                                                                                                                   |
| Диапазон настройки                                                                 | 30 ... 42 A                                                                                                                             |
| Номинальная рабочая мощность, АС-3 ( $P_e$ )                                       | (400 V) Three Phase 22 kW                                                                                                               |
| Номинальная рабочая мощность, АС-3е ( $P_e$ )                                      | (400 V) Three Phase 22 kW                                                                                                               |
| Номинальное рабочее напряжение                                                     | Главная цепь 690 V AC<br>Главная цепь 250 V DC                                                                                          |
| Номинальный рабочий ток ( $I_e$ )                                                  | 42 A                                                                                                                                    |
| Номинальный рабочий ток, АС-3 ( $I_e$ )                                            | 42 A                                                                                                                                    |
| Номинальный рабочий ток, АС-3е ( $I_e$ )                                           | 42 A                                                                                                                                    |
| Номинальный рабочий ток                                                            | 42 A                                                                                                                                    |

ток, DC-5 ( $I_g$ )

|                                                                        |                                                                                                                                                                                                                                                                                                                                  |
|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Номинальная частота (f)                                                | Главная цепь 50 Hz<br>Главная цепь 60 Hz                                                                                                                                                                                                                                                                                         |
| Номинальное<br>выдерживаемое<br>импульсное напряжение<br>( $U_{imp}$ ) | Главная цепь 8 kV                                                                                                                                                                                                                                                                                                                |
| Номинальное<br>напряжение изоляции ( $U_i$ )                           | 1000 V                                                                                                                                                                                                                                                                                                                           |
| Потери мощности                                                        | at Rated Operating Conditions per Pole 2.79 W                                                                                                                                                                                                                                                                                    |
| Количество полюсов                                                     | 3                                                                                                                                                                                                                                                                                                                                |
| Условный тепловой ток<br>на открытом воздухе ( $I_{th}$ )              | Main Circuit 42 A                                                                                                                                                                                                                                                                                                                |
| Степень защиты                                                         | Housing IP20<br>Main Circuit Terminals IP10                                                                                                                                                                                                                                                                                      |
| Степень загрязнения                                                    | степень загрязнения 3                                                                                                                                                                                                                                                                                                            |
| Коммутационная<br>износостойкость                                      | 25000 цикл                                                                                                                                                                                                                                                                                                                       |
| Механическая<br>износостойкость                                        | 50000 цикл                                                                                                                                                                                                                                                                                                                       |
| Тип клемм                                                              | Клеммы с винтовым зажимом                                                                                                                                                                                                                                                                                                        |
| Сечение подключаемого<br>кабеля-главная цепь                           | Гибкий с зажимом 1/2x 1 ... 35 mm <sup>2</sup><br>Гибкий с изолированным зажимом 1/2x 1 ... 35 mm <sup>2</sup><br>Гибкий 1/2x 1 ... 35 mm <sup>2</sup><br>Жесткий 1/2x 1 ... 4 mm <sup>2</sup><br>Одножильный 1/2x 1 ... 4 mm <sup>2</sup><br>Многожильный 1/2x 1 ... 50 mm <sup>2</sup>                                         |
| Крутящие моменты<br>затяжки                                            | Главная цепь 4 N·m                                                                                                                                                                                                                                                                                                               |
| Длина зачистки провода                                                 | Главная цепь 16 mm                                                                                                                                                                                                                                                                                                               |
| Рекомендуемый<br>инструмент (отвертка)                                 | 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<br>Distance                                           | Electrical Conductive Board, Horizontal - Up to 1000 V 1.5 mm<br>Electrical Conductive Board, Horizontal - Up to 400 V 0 mm<br>Electrical Conductive Board, Horizontal - Up to 690 V 1.5 mm<br>Electrical Conductive Board, Vertical 75 mm<br>Other Device Same Type, Horizontal 0 mm<br>Other Device Same Type, Vertical 150 mm |
| Тип исполнительного<br>элемента (рабочая<br>головка)                   | Rotary Handle                                                                                                                                                                                                                                                                                                                    |
| Contact Position<br>Indication                                         | ON / OFF / TRIP                                                                                                                                                                                                                                                                                                                  |
| Стандарты                                                              | IEC 60077-1 (applicable parts)<br>IEC 60077-2 (applicable parts)<br>IEC/EN 60947-1<br>IEC/EN 60947-2<br>IEC/EN 60947-4-1                                                                                                                                                                                                         |

# Technical UL/CSA

|                                        |                                                                                                                                                                    |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Short-Circuit Current<br>Rating (SCCR) | Manual Self-Protected Combination Controllers (Type E), (480Y / 277 V AC) 65<br>kA<br>Manual Self-Protected Combination Controllers (Type E), (600Y / 347 V AC) 30 |
|----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                                                                                            |                                                                                                                                                                                        |
|------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                            | kA                                                                                                                                                                                     |
| Any UL Listed Fuses or Circuit-Breakers, Group Installations (480 V AC)                                    | 65 kA                                                                                                                                                                                  |
| Any UL Listed Fuses or Circuit-Breakers, Group Installations (600 V AC)                                    | 30 kA                                                                                                                                                                                  |
| Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (480 V AC)                                       | 65 kA                                                                                                                                                                                  |
| Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (600 V AC)                                       | 30 kA                                                                                                                                                                                  |
| Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (480Y / 277 V AC) | 65 kA                                                                                                                                                                                  |
| Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (600Y / 347 V AC) | 30 kA                                                                                                                                                                                  |
| Maximum Operating Voltage UL/CSA                                                                           | Главная цепь 600 V AC                                                                                                                                                                  |
| Номинальный ток UL                                                                                         | 42 A                                                                                                                                                                                   |
| Номинальная мощность в л.с.                                                                                | (200 V AC) Three Phase 10 Hp<br>(208 V AC) Three Phase 10 Hp<br>(220 ... 240 V AC) Three Phase 15 Hp<br>(440 ... 480 V AC) Three Phase 30 Hp<br>(550 ... 600 V AC) Three Phase 40 Hp   |
| Full Load Amps Motor Use                                                                                   | (200 V AC) Three Phase 32.2 A<br>(208 V AC) Three Phase 30.8 A<br>(220 ... 240 V AC) Three Phase 42 A<br>(440 ... 480 V AC) Three Phase 40 A<br>(550 ... 600 V AC) Three Phase 41 A    |
| Locked Rotor Amps                                                                                          | (200 V AC) Three Phase 186.3 A<br>(208 V AC) Three Phase 179 A<br>(220 ... 240 V AC) Three Phase 232 A<br>(440 ... 480 V AC) Three Phase 218 A<br>(550 ... 600 V AC) Three Phase 232 A |
| General Use Rating UL/CSA                                                                                  | (600 V AC) 42 A                                                                                                                                                                        |
| Connecting Capacity Main Circuit UL/CSA                                                                    | Гибкий 1/2x 16-0 AWG<br>Многожильный 1/2x 16-0 AWG                                                                                                                                     |
| Tightening Torque UL/CSA                                                                                   | Главная цепь 35 in-lb                                                                                                                                                                  |

## Environmental

|                                                             |                                                                                          |
|-------------------------------------------------------------|------------------------------------------------------------------------------------------|
| Температура окружающей среды                                | Работа с компенсацией -25 ... +60 °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)

|                                |                 |
|--------------------------------|-----------------|
| Сертификат CB                  | 1SAA918002-2002 |
| Декларация о соответствии - CE | 1SAD938505-0198 |
| Экологическая                  | 1SAC200051H0009 |

## информация

|                                                                |                 |
|----------------------------------------------------------------|-----------------|
| Инструкции и руководства                                       | 2CDC131081M6801 |
| Инструкции и руководства (часть 2)                             | 2CDC131060M0202 |
| Правила ограничения содержания вредных веществ.RoHS информация | 1SAD938501-0198 |
| Time-Current Characteristic Curve                              | 1SAM400505F0005 |

## Container Information

|                                |                 |
|--------------------------------|-----------------|
| Package Level 1 Units          | box 1 штука     |
| Package Level 1 Width          | 78 mm           |
| Package Level 1 Depth / Length | 155 mm          |
| Package Level 1 Height         | 155 mm          |
| Package Level 1 Gross Weight   | 1.1 kg          |
| Package Level 1 EAN            | 4013614522192   |
| Package Level 2 Units          | carton 12 штука |
| Package Level 2 Width          | 330 mm          |
| Package Level 2 Depth / Length | 400 mm          |
| Package Level 2 Height         | 320 mm          |
| Package Level 2 Gross Weight   | 13 kg           |
| Package Level 2 EAN            | 4013614521959   |

## Classifications

|                                                                  |                                                         |
|------------------------------------------------------------------|---------------------------------------------------------|
| Код классификации объекта                                        | F                                                       |
| ETIM 5                                                           | EC000074 - Motor protective circuit-breaker             |
| ETIM 6                                                           | EC000074 - Motor protection circuit-breaker             |
| ETIM 7                                                           | EC000074 - Motor protection circuit-breaker             |
| е-класс                                                          | V11.0 : 27370401                                        |
| Универсальная стандартная классификация товаров и услуг (UNSPSC) | 39121521                                                |
| IDEA Granular Category Code (IGCC)                               | 4845 >> 3 Pole Motor Circuit Protector 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 |
| 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 |
| 1SAM401923R1003 | S2-M3-50 Power Infeed Block               | S2-M3-50    | 1 | piece |
| 1SAM401920R1002 | PS2-2-0-125 Busbar                        | PS2-2-0-125 | 1 | piece |
| 1SAM401920R1003 | PS2-3-0-125 Busbar                        | PS2-3-0-125 | 1 | piece |
| 1SAM401920R1004 | PS2-4-0-125 Busbar                        | PS2-4-0-125 | 1 | piece |
| 1SAM401920R1022 | PS2-2-2-125 Busbar                        | PS2-2-2-125 | 1 | piece |
| 1SAM401920R1023 | PS2-3-2-125 Busbar                        | PS2-3-2-125 | 1 | piece |
| 1SAM401920R1024 | PS2-4-2-125 Busbar                        | PS2-4-2-125 | 1 | piece |
| 1SAM401921R1001 | BS2-3 Protection Cover                    | BS2-3       | 1 | piece |
| 1SAM401922R1001 | KA165 Terminal Shroud                     | KA165       | 1 | piece |
| GJF1101903R0002 | SA2 - Terminals and Installation Material | SA2         | 1 | piece |
| 1SAM201920R1011 | MSHD-LTB Handles                          | MSHD-LTB    | 1 | piece |
| 1SAM201920R1012 | MSHD-LTY Handles                          | MSHD-LTY    | 1 | piece |

|                 |                             |          |   |       |
|-----------------|-----------------------------|----------|---|-------|
| 1SAM201920R1000 | MSH-AR Shaft Alignment Ring | MSH-AR   | 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 |

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Категории

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

Низковольтное оборудование → Силовые автоматические выключатели → Мотор-автоматы

