

PRODUCT-DETAILS

# MS165-54

## MS165-54 Manual Motor Starter



### Ogólne informacje

|                       |                               |
|-----------------------|-------------------------------|
| Extended Product Type | MS165-54                      |
| ID Produktu           | 1SAM451000R1016               |
| Numer EAN             | 4013614486104                 |
| Opis katalogowy       | MS165-54 Manual Motor Starter |

|      |  |
|------|--|
| Opis | <p>MS165 is a compact and powerful range for motor protection up to 45 kW (400 V) / 80 A in width of 55 mm. They offer a reliable protection for motors in the event of overload or phase failure. The devices have trip class 10.</p> <p>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 build-in disconnect function, temperature compensation, trip-free mechanism and a rotary handle with a clear switch position indication. The manual motor starter (also known as motor protection circuit breaker or manual motor protector) 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 MS116/MS132/MS165 range.</p> |
|------|--|

### Charakterystyka zamówienia

|                            |          |
|----------------------------|----------|
| Minimalna ilość zamówienia | 1 sztuka |
| Kod taryfy celnej          | 85362010 |

### Najczęściej Pobierane

|                                       |                 |
|---------------------------------------|-----------------|
| Arkusze danych, informacja techniczna | 2CDC131083D0201 |
| Instrukcje i podręczniki              | 2CDC131081M6801 |
| Instructions and Manuals (Part 2)     | 2CDC131060M0202 |
| Time-Current Characteristic Curve     | 1SAM400505F0006 |
| I <sup>2</sup> t Characteristic       | 1SAM400506F0001 |
| Cut-off Current Characteristic        | 1SAM400507F0001 |
| Dimension Diagram                     | 1SAM400401F0001 |

## Wymiary

|                          |           |
|--------------------------|-----------|
| Szerokość produktu netto | 55 mm     |
| Wysokość produktu netto  | 142.65 mm |
| Głębokość produktu netto | 122.1 mm  |
| Waga produktu netto      | 0.97 kg   |

## Dane techniczne

|   |  |
|---|--|
| Rated Service Short-Circuit Breaking Capacity (I <sub>cs</sub> )    | (230 V AC) 30 kA<br>(250 V DC) 3 Poles in Series 100 kA<br>(400 V AC) 30 kA<br>(440 V AC) 30 kA<br>(500 V AC) 20 kA<br>(690 V AC) 6 kA |
| Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> )   | (230 V AC) 50 kA<br>(250 V DC) 100 kA<br>(400 V AC) 50 kA<br>(440 V AC) 45 kA<br>(500 V AC) 20 kA<br>(690 V AC) 8 kA                   |
| Rated Instantaneous Short-Circuit Current Setting (I <sub>s</sub> ) | 810 A  |
| Setting Range   | 40 ... 54 A  |
| Moc znamionowa AC-3 (P <sub>e</sub> )                               | (400 V) Three Phase 22 kW  |
| Moc znamionowa AC-3e (P <sub>e</sub> )                              | (400 V) Three Phase 22 kW  |
| Znamionowe napięcie pracy   | Obwód główny 690 V AC<br>Obwód główny 250 V DC   |
| Znamionowy prąd pracy (I <sub>e</sub> )                             | 54 A   |
| Znamionowy prąd pracy AC-3 (I <sub>e</sub> )                        | 54 A   |
| Znamionowy prąd pracy AC-3e (I <sub>e</sub> )                       | 54 A   |
| Znamionowy prąd pracy DC-5 (I <sub>e</sub> )                        | 54 A   |
| Częstotliwość znamionowa (f)  | Obwód główny 50 Hz<br>Obwód główny 60 Hz   |
| Znamionowa  | Obwód główny 8 kV  |

|   |  |
|---|--|
| wytrzymałość na impuls napięciowy ( $U_{imp}$ )   |  |
| Znamionowe napięcie izolacji ( $U_i$ )            | 1000 V   |
| Straty mocy                                       | na biegun 3.84 W   |
| Liczba biegunów                                   | 3  |
| Prąd przy chłodzeniu konwencjonalnym ( $I_{th}$ ) | Obwód główny 54 A  |
| Stopień ochrony obudowy                           | Housing IP20<br>Main Circuit Terminals IP10  |
| Stopień zanieczyszczenia                          | 3  |
| Electrical Durability                             | 25000 cycle  |
| Wytrzymałość mechaniczna                          | 50000 cycle  |
| Typ terminala                                     | Screw Terminals  |
| Dane montażowe-obwód główny (roboczy)             | Elastyczny z tulejką 1/2x 1 ... 35 mm <sup>2</sup><br>Elastyczny z izolowaną tulejką 1/2x 1 ... 35 mm <sup>2</sup><br>Elastyczny 1/2x 1 ... 35 mm <sup>2</sup><br>Szttywny 1/2x 1 ... 4 mm <sup>2</sup><br>Solid 1/2x 1 ... 4 mm <sup>2</sup><br>Skrećka 1/2x 1 ... 50 mm <sup>2</sup>   |
| Momenty dokrecajace                               | Obwód główny (roboczy) 4 N·m   |
| Długość odizolowania przewodu                     | Obwód główny 16 mm   |
| Recommended Screw Driver                          | Pozidriv 2   |
| Pozycja montażu                                   | Position 1 to 6  |
| Montaż na szynie DIN                              | TH35-15 (Szyna montażowa 35 x 15 mm) wg IEC 60715<br>TH35-7.5 (Szyna montażowa 35 x 7.5 mm) wg IEC 60715   |
| Minimum Mounting 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 |
| Typ napędu  | Rotary Handle  |
| Contact Position Indication                       | ON / OFF / TRIP  |
| Standardy   | CSA 22.2 No. 14<br>IEC/EN 60947-1<br>IEC/EN 60947-2<br>IEC/EN 60947-4-1<br>UL 60947-4-1  |

## Technical UL/CSA

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

|  |   |
|--|---|
| Maksymalne napięcie robocze UL/CSA           | Obwód główny 600 V AC   |
| Napięcie znamionowe UL/CSA                   | 54 A  |
| Moc znamionowa [Hp] UL/CSA                   | 200V AC Trzy fazy 15 Hp<br>208V AC Trzy fazy 15 Hp<br>220 ... 240V AC Trzy fazy 20 Hp<br>440 ... 480V AC Trzy fazy 40 Hp<br>550 ... 600V AC Trzy fazy 50 Hp |
| Full Load Amps Motor Use                     | 200V AC Trzy fazy 48.3 A<br>208V AC Trzy fazy 46.2 A<br>220 ... 240V AC Trzy fazy 54 A<br>440 ... 480V AC Trzy fazy 52 A<br>550 ... 600V AC Trzy fazy 52 A  |
| Locked Rotor Amps                            | 200V AC Trzy fazy 267 A<br>208V AC Trzy fazy 257 A<br>220 ... 240V AC Trzy fazy 290 A<br>440 ... 480V AC Trzy fazy 290 A<br>550 ... 600V AC Trzy fazy 290 A |
| Znamionowe dane montażowe UL/CSA             | (600 V AC) 54 A   |
| Dane montażowe-obwód główny (roboczy) UL/CSA | Elastyczny 1/2x 16-0 AWG<br>Skrętka 1/2x 16-0 AWG   |
| Momenty dokrecające UL/CSA                   | Obwód główny (roboczy) 35 in-lb   |

## Normy środowiskowe

|   |  |
|---|--|
| Temperatura powietrza otoczenia             | Eksplatacja -25 ... +60 °C<br>Eksplatacja zrównoważona -25 ... +60 °C<br>Przechowywanie -50 ... +80 °C |
| Kompensacja temperatury powietrza otoczenia | Tak  |
| Maksymalna wysokość montażu m.n.p.m         | 2000 m   |
| Odporność na wstrząsy IEC 60068-2-27        | 11 ms Pulse 25g  |
| Odporność na wibracje IEC 60068-2-6         | 5g / 3 ... 150 Hz  |
| Status RoHS                                 | Following EU Directive 2011/65/EU  |

## Certyfikaty i deklaracje (Numer dokumentu)

|                                 |                            |
|---------------------------------|----------------------------|
| Certyfikat ABS                  | 1SAA963002-0101            |
| Certyfikat ATEX                 | 1SAA918001-3901            |
| Certyfikat BV                   | 1SAA963002-0201            |
| Certyfikat CB                   | 1SAA918002-2002            |
| Certyfikat CQC                  | CQC2015010307760141        |
| cUL Certificate                 | cUL_E345003<br>cUL_E137861 |
| Cut-off Current Characteristic  | 1SAM400507F0001            |
| Declaration of Conformity - CCC | 2020980307003042           |
| Deklaracja zgodności - CE       | 1SAD938507-0190            |
| DNV GL Certificate              | 1SAA963002-0301            |

|                                      |                         |
|--------------------------------------|-------------------------|
| Certyfikat EAC                       | 1SAA963000-2701         |
| Informacje środowiskowe              | 1SAC200051H0009         |
| I <sub>Pt</sub> Characteristic       | 1SAM400506F0001         |
| Instrukcje i podręczniki             | 2CDC131081M6801         |
| Instructions and Manuals<br>(Part 2) | 2CDC131060M0202         |
| KC Certificate                       | 1SAA963001-1501         |
| Certyfikat LR                        | 1SAA918001-0501         |
| Certyfikat RMRS                      | 1SAA918000-0704         |
| Dane RoHS                            | 1SAD938505-0190         |
| Time-Current<br>Characteristic Curve | 1SAM400505F0006         |
| UL Certificate                       | UL_E137861<br>UL_345003 |

## Informacje o pakowaniu

|                                      |                  |
|--------------------------------------|------------------|
| Jednostka opakowania<br>(poziom 1)   | box 1 sztuka     |
| Szerokość opakowania<br>(poziom 1)   | 78 mm            |
| Długość opakowania<br>(poziom 1)     | 155 mm           |
| Wysokość opakowania<br>(poziom 1)    | 155 mm           |
| Waga opakowania brutto<br>(poziom 1) | 1.1 kg           |
| EAN opakowania (poziom<br>1)         | 4013614486104    |
| Jednostka opakowania<br>(poziom 2)   | carton 12 sztuka |
| Szerokość opakowania<br>(poziom 2)   | 330 mm           |
| Długość opakowania<br>(poziom 2)     | 400 mm           |
| Wysokość opakowania<br>(poziom 2)    | 320 mm           |
| Waga opakowania brutto<br>(poziom 2) | 13 kg            |
| EAN opakowania (poziom<br>2)         | 4013614503962    |

## Klasyfikacje

|                                       |   |
|---------------------------------------|---|
| Kod klasyfikacji                      | F   |
| ETIM 5                                | EC000074 - Motor protective circuit-breaker             |
| ETIM 6                                | EC000074 - Motor protection circuit-breaker             |
| ETIM 7                                | EC000074 - Motor protection circuit-breaker             |
| eClass                                | V11.0 : 27370401  |
| UNSPSC                                | 39121521  |
| IDEA Granular Category<br>Code (IGCC) | 4845 >> 3 Pole Motor Circuit Protector Circuit Breakers |

|                    |         |
|--------------------|---------|
| E-Number (Finland) | 3707289 |
| E-Number (Sweden)  | 3110056 |

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**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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## Kategorie

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Produkty niskiego napięcia i systemy → Aparatura sterownicza → Wyłączniki silnikowe → Wyłączniki silnikowe

Produkty niskiego napięcia i systemy → Wyłączniki → Wyłączniki silnikowe

