

## PRODUCT-DETAILS

# MS132-1.0

## MS132-1.0 Manual Motor Starter 0.63 ... 1.0 A



### General Information

|                       |   |
|-----------------------|---|
| Extended Product Type | MS132-1.0                                     |
| Product ID            | 1SAM350000R1005                               |
| EAN                   | 4013614400056                                 |
| Catalog Description   | MS132-1.0 Manual Motor Starter 0.63 ... 1.0 A |

|                  |   |
|------------------|---|
| Long Description | <p>The MS132-1.0 manual motor starter (also known as motor protection circuit breaker or manual motor protector) is a compact 45 mm width device with a rated operational current of <math>I_e = 1.00</math> A. This device is used to manually switch on and off motors and to protect them reliably and without the need for a fuse from short-circuits, overload and phase failures. The manual motor starter offers a rated service short-circuit breaking capacity <math>I_{cs} = 100</math> kA at 400 VAC and trip class 10. 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 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, 3-phase bus bars, power in-feed blocks and terminal spacers are available as accessory.</p> |
|------------------|---|

### Ordering

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

## Popular Downloads

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Data Sheet, Technical Information | 2CDC131021D0202                    |
| Instructions and Manuals          | 2CDC131022M6802                    |
| Instructions and Manuals (Part 2) | 2CDC131060M0202                    |
| Ex Operating Instructions         | 2CDC131063M6801                    |
| Time-Current Characteristic Curve | 1SAM300505F0105                    |
| I <sup>t</sup> Characteristic     | 1SAM300507F0001<br>1SAM300507F0003 |
| Cut-off Current Characteristic    | 1SAM300508F0001<br>1SAM300508F0003 |
| CAD Dimensional Drawing           | 2CDC001079B0201                    |
| Dimension Diagram                 | 1SAM300402F0001                    |

## Dimensions

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

## Technical

|   |   |
|---|---|
| Rated Service Short-Circuit Breaking Capacity (I <sub>cs</sub> )    | (230 V AC) 100 kA<br>(250 V DC) 3 Poles in Series 10 kA<br>(400 V AC) 100 kA<br>(440 V AC) 100 kA<br>(500 V AC) 100 kA<br>(690 V AC) 100 kA |
| Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> )   | (230 V AC) 100 kA<br>(400 V AC) 100 kA<br>(440 V AC) 100 kA<br>(500 V AC) 100 kA<br>(690 V AC) 100 kA                                       |
| Rated Instantaneous Short-Circuit Current Setting (I <sub>l</sub> ) | 12.5 A  |
| Setting Range   | 0.63 ... 1.0 A  |
| Rated Operational Power AC-3 (P <sub>e</sub> )                      | (400 V) Three Phase 0.25 kW   |
| Rated Operational Power AC-3e (P <sub>e</sub> )                     | (400 V) Three Phase 0.25 kW   |
| Rated Operational Voltage   | Main Circuit 690 V AC<br>Main Circuit 250 V DC  |
| Rated Operational Current (I <sub>e</sub> )                         | 1 A   |

|   |   |
|---|---|
| Rated Operational Current<br>AC-3 ( $I_e$ )           | 1 A   |
| Rated Operational Current<br>AC-3e ( $I_e$ )          | 1 A   |
| Rated Operational Current<br>DC-5 ( $I_e$ )           | 1 A   |
| Rated Frequency (f)                                   | Main Circuit 50 Hz<br>Main Circuit 60 Hz  |
| Operating Frequency ( $f_{sw}$ )                      | 0 ... 400 Hz  |
| Rated Impulse Withstand<br>Voltage ( $U_{imp}$ )      | Main Circuit 6 kV   |
| Rated Insulation Voltage<br>( $U_i$ )                 | 690 V   |
| Power Loss  | at Rated Operating Conditions per Pole 0.6 ... 1.6 W  |
| Number of Poles                                       | 3   |
| Conventional Free-air<br>Thermal Current ( $I_{th}$ ) | Main Circuit 1 A  |
| Degree of Protection                                  | Housing IP20<br>Main Circuit Terminals IP10   |
| Pollution Degree                                      | 3   |
| Electrical Durability                                 | 50000 cycle   |
| Mechanical Durability                                 | 100000 cycle  |
| Terminal Type   | Screw Terminals   |
| Connecting Capacity Main<br>Circuit                   | Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup>  |
| Tightening Torque                                     | Main Circuit 0.8 ... 1.2 N·m  |
| Wire Stripping Length                                 | Main Circuit 9 mm   |
| Recommended Screw<br>Driver                           | 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<br>Distance                          | 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 |
| Actuator Type   | Rotary Handle   |
| Contact Position<br>Indication                        | ON / OFF / TRIP   |
| Standards   | IEC/EN 60947-1<br>IEC/EN 60947-2<br>IEC/EN 60947-4-1<br>UL 60947-1<br>UL 60947-4-1  |
| Remarks   | UL508 Self-Protected Combination Motor Controller (Type E) in combination<br>with feeder block S1-M3-xx   |

## Technical UL/CSA

|   |  |
|---|--|
| Short-Circuit Current Rating (SCCR)     | Manual Self-Protected Combination Controllers (Type E), (480Y / 277 V AC) 65 kA<br>Manual Self-Protected Combination Controllers (Type E), (600Y / 347 V AC) 47 kA<br>Any UL Listed Fuses or Circuit-Breakers, Group Installations (480 V AC) 65 kA<br>Any UL Listed Fuses or Circuit-Breakers, Group Installations (600 V AC) 47 kA<br>Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (480 V AC) 65 kA<br>Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (600 V AC) 47 kA<br>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  |
| Horsepower Rating UL/CSA                | (550 ... 600 V AC) Three Phase 0.5 Hp  |
| Full Load Amps Motor Use                | (200 V AC) Three Phase 1 A<br>(208 V AC) Three Phase 1 A<br>(220 ... 240 V AC) Three Phase 1 A<br>(440 ... 480 V AC) Three Phase 1 A<br>(550 ... 600 V AC) Three Phase 1 A   |
| Locked Rotor Amps                       | (200 V AC) Three Phase 6 A<br>(208 V AC) Three Phase 6 A<br>(220 ... 240 V AC) Three Phase 6 A<br>(440 ... 480 V AC) Three Phase 6 A<br>(550 ... 600 V AC) Three Phase 6 A   |
| General Use Rating UL/CSA               | (600 V AC) 1 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

|  |   |
|--|---|
| 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  |
| REACH Declaration                          | No declaration needed   |
| Resistance to Shock acc. to IEC 60068-2-27 | 11 ms Pulse 25g   |
| Resistance to Vibrations                   | 5g 3 ... 150 Hz   |
| RoHS Information                           | 1SAA963006-4502   |
| RoHS Status                                | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019  |

## Material Compliance

|                                      |                 |
|--------------------------------------|-----------------|
| Conflict Minerals Reporting Template | 9AKK108467A5658 |
|--------------------------------------|-----------------|

(CMRT)

|                   |  |
|-------------------|--|
| REACH Declaration | No declaration needed  |
| RoHS Information  | 1SAA963006-4502  |
| RoHS Status       | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019 |
| WEEE B2C / B2B    | Business To Business   |
| WEEE Category     | 5. Small Equipment (No External Dimension More Than 50 cm)             |

## Certificates and Declarations

|                                     |  |
|-------------------------------------|--|
| ABS Certificate                     | 1SAA963001-0101                            |
| ATEX Certificate                    | 1SAA963000-3902                            |
| BV Certificate                      | 1SAA963001-0202                            |
| CB Certificate                      | 1SAA963002-2002                            |
| CQC Certificate                     | CQC2010010307387700<br>CQC2019010307243864 |
| Cut-off Current<br>Characteristic   | 1SAM300508F0001<br>1SAM300508F0003         |
| Declaration of Conformity<br>- CCC  | 2020980307003526<br>2020980307003041       |
| Declaration of Conformity<br>- CE   | 1SAD101100-3402                            |
| Declaration of Conformity<br>- UKCA | 1SAD201100-3402                            |
| DNV GL Certificate                  | 1SAA963001-0304                            |
| EAC Certificate                     | 1SAA963000-2701                            |
| I <sub>p</sub> t Characteristic     | 1SAM300507F0001<br>1SAM300507F0003         |
| IECEX Certificate                   | 1SAA963000-4001                            |
| KC Certificate                      | 1SAA963002-1502                            |
| LR Certificate                      | 1SAA963001-0502                            |
| RINA Certificate                    | 1SAA963002-0802                            |
| RMRS Certificate                    | 1SAA918000-0704                            |
| UL Certificate                      | E137861-20090225<br>E345003-20090225       |

## Container Information

|                                   |                 |
|-----------------------------------|-----------------|
| Package Level 1 Units             | box 1 piece     |
| Package Level 1 Width             | 92 mm           |
| Package Level 1 Depth /<br>Length | 95 mm           |
| Package Level 1 Height            | 50 mm           |
| Package Level 1 Gross<br>Weight   | 0.23 kg         |
| Package Level 1 EAN               | 4013614400056   |
| Package Level 2 Units             | carton 40 piece |
| Package Level 2 Width             | 280 mm          |
| Package Level 2 Depth /           | 395 mm          |

## Length

|                        |        |
|------------------------|--------|
| Package Level 2 Height | 210 mm |
|------------------------|--------|

|                              |          |
|------------------------------|----------|
| Package Level 2 Gross Weight | 9.586 kg |
|------------------------------|----------|

|                     |               |
|---------------------|---------------|
| Package Level 2 EAN | 4013614408953 |
|---------------------|---------------|

## Classifications

|                                    |   |
|------------------------------------|---|
| Object Classification Code         | F   |
| ETIM 4                             | EC000074 - Motor protective circuit-breaker |
| ETIM 5                             | EC000074 - Motor protective circuit-breaker |
| ETIM 6                             | EC000074 - Motor protection circuit-breaker |
| ETIM 7                             | EC000074 - Motor protection circuit-breaker |
| ETIM 8                             | EC000074 - Motor protection circuit-breaker |
| eClass                             | V11.0 : 27370401                            |
| UNSPSC                             | 39121521                                    |
| IDEA Granular Category Code (IGCC) | 4731 >> Manual Starters                     |
| E-Number (Finland)                 | 3705989                                     |
| E-Number (Sweden)                  | 3112121                                     |

## 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 Signaling Contact    | SK1-20    | 1        | piece           |
| 1SAM201903R1202 | SK1-20K Signaling Contact   | SK1-20K   | 1        | piece           |
| 1SAM201903R1005 | SK1-20AR Signaling Contact  | SK1-20AR  | 1        | piece           |
| 1SAM201903R1205 | SK1-20ARK Signaling Contact | SK1-20ARK | 1        | piece           |
| 1SAM201903R1001 | SK1-11 Signaling Contact    | SK1-11    | 1        | piece           |
| 1SAM201903R1201 | SK1-11K Signaling Contact   | SK1-11K   | 1        | piece           |

|                 |  |             |   |       |
|-----------------|--|-------------|---|-------|
| 1SAM201903R1004 | SK1-11AR Signaling Contact             | SK1-11AR    | 1 | piece |
| 1SAM201903R1204 | SK1-11ARK Signaling Contact            | SK1-11ARK   | 1 | piece |
| 1SAM201903R1003 | SK1-02 Signaling Contact               | SK1-02      | 1 | piece |
| 1SAM201903R1203 | SK1-02K Signaling Contact              | SK1-02K     | 1 | piece |
| 1SAM201903R1006 | SK1-02AR Signaling Contact             | SK1-02AR    | 1 | piece |
| 1SAM201903R1206 | SK1-02ARK Signaling Contact            | SK1-02ARK   | 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 |

Categories

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