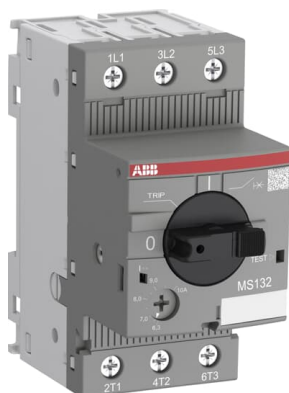


PRODUCT-DETAILS

# MS132-4.0

## MS132-4.0 Manual Motor Starter 2.5 ... 4.0 A



### General Information

|                       |  |
|-----------------------|--|
| Extended Product Type | MS132-4.0                                    |
| Product ID            | 1SAM350000R1008                              |
| EAN                   | 4013614400087                                |
| Catalog Description   | MS132-4.0 Manual Motor Starter 2.5 ... 4.0 A |

Long Description

The MS132-4.0 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  $I_e = 4.00$  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  $I_{cs} = 100$  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.

### Ordering

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

### Popular Downloads

|                                   |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 2CDC131021D0202 |
| Instructions and Manuals          | 2CDC131022M6802 |

|                                      |                                    |
|--------------------------------------|------------------------------------|
| Instructions and Manuals<br>(Part 2) | 2CDC131060M0202                    |
| Ex Operating Instructions            | 2CDC131063M6801                    |
| Time-Current<br>Characteristic Curve | 1SAM300505F0108                    |
| I <sup>2</sup> t Characteristic      | 1SAM300507F0001<br>1SAM300507F0003 |
| Cut-off Current<br>Characteristic    | 1SAM300508F0001<br>1SAM300508F0003 |
| CAD Dimensional<br>Drawing           | 2CDC001079B0201                    |
| Dimension Diagram                    | 1SAM300402F0001                    |

## Dimensions

|                               |          |
|-------------------------------|----------|
| Product Net Width             | 45 mm    |
| Product Net Height            | 90 mm    |
| Product Net Depth /<br>Length | 86.75 mm |
| Product Net Weight            | 0.265 kg |

## Technical

|   |   |
|---|---|
| Rated Service Short-<br>Circuit Breaking Capacity<br>(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) 30 kA<br>(500 V AC) 20 kA<br>(690 V AC) 3 kA |
| Rated Ultimate Short-<br>Circuit Breaking Capacity<br>(I <sub>cu</sub> )  | (230 V AC) 100 kA<br>(400 V AC) 100 kA<br>(440 V AC) 30 kA<br>(500 V AC) 20 kA<br>(690 V AC) 3 kA                                       |
| Rated Instantaneous<br>Short-Circuit Current<br>Setting (I <sub>i</sub> ) | 50 A  |
| Setting Range   | 2.5 ... 4.0 A   |
| Rated Operational Power<br>AC-3 (P <sub>e</sub> )                         | (400 V) Three Phase 1.5 kW  |
| Rated Operational Power<br>AC-3e (P <sub>e</sub> )                        | (400 V) Three Phase 1.5 kW  |
| Rated Operational Voltage   | Main Circuit 690 V AC<br>Main Circuit 250 V DC  |
| Rated Operational Current<br>(I <sub>e</sub> )                            | 4 A   |
| Rated Operational Current<br>AC-3 (I <sub>e</sub> )                       | 4 A   |
| Rated Operational Current<br>AC-3e (I <sub>e</sub> )                      | 4 A   |
| Rated Operational Current<br>DC-5 (I <sub>e</sub> )                       | 4 A   |
| Rated Frequency (f)   | Main Circuit 50 Hz<br>Main Circuit 60 Hz  |
| Operating Frequency (f <sub>sw</sub> )                                    | 0 ... 400 Hz  |
| Rated Impulse Withstand<br>Voltage (U <sub>imp</sub> )                    | Main Circuit 6 kV   |
| Rated Insulation Voltage<br>(U <sub>i</sub> )                             | 690 V   |
| Power Loss  | at Rated Operating Conditions per Pole 0.7 ... 1.8 W  |
| Number of Poles   | 3   |
| Conventional Free-air<br>Thermal Current (I <sub>th</sub> )               | Main Circuit 4 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 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 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 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 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 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                | (200 V AC) Three Phase 0.75 Hp<br>(208 V AC) Three Phase 0.75 Hp<br>(220 ... 240 V AC) Three Phase 1 Hp<br>(440 ... 480 V AC) Three Phase 2 Hp<br>(550 ... 600 V AC) Three Phase 3 Hp  |
| Full Load Amps Motor Use                | (200 V AC) Three Phase 4 A<br>(208 V AC) Three Phase 4 A<br>(220 ... 240 V AC) Three Phase 4 A<br>(440 ... 480 V AC) Three Phase 4 A<br>(550 ... 600 V AC) Three Phase 3.9 A   |
| Locked Rotor Amps                       | (200 V AC) Three Phase 24 A<br>(208 V AC) Three Phase 24 A<br>(220 ... 240 V AC) Three Phase 24 A<br>(440 ... 480 V AC) Three Phase 24 A<br>(550 ... 600 V AC) Three Phase 25.6 A  |
| General Use Rating UL/CSA               | (600 V AC) 4 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  |
| Resistance to Shock acc. to IEC 60068-2-27     | 11 ms Pulse 25g   |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 5g / 3 ... 150 Hz   |
| RoHS Status                                    | Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019  |

## 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 Characteristic   | 1SAM300508F0001<br>1SAM300508F0003         |
| Declaration of Conformity - CCC  | 2020980307003526<br>2020980307003041       |
| Declaration of Conformity - CE   | 1SAD101100-3402                            |
| Declaration of Conformity - UKCA | 1SAD201100-3402                            |
| DNV GL Certificate               | 1SAA963001-0304                            |
| EAC Certificate                  | 1SAA963000-2701                            |
| I <sub>Pt</sub> 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 / Length | 95 mm           |
| Package Level 1 Height         | 50 mm           |
| Package Level 1 Gross Weight   | 0.28 kg         |
| Package Level 1 EAN            | 4013614400087   |
| Package Level 2 Units          | carton 40 piece |
| Package Level 2 Width          | 280 mm          |
| Package Level 2 Depth / Length | 395 mm          |
| Package Level 2 Height         | 210 mm          |
| Package Level 2 Gross Weight   | 11.586 kg       |
| Package Level 2 EAN            | 4013614408984   |

## 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)                 | 3705992                                     |
| E-Number (Sweden)                  | 3112124                                     |

## 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 |

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## Categories

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

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

