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 PRODUCT-DETAILS

# MS132-16

## MS132-16 Manual Motor Starter




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### General Information

Extended Product Type	MS132-16
Product ID	1SAM350000R1011
EAN	4013614400117
Catalog Description	MS132-16 Manual Motor Starter

#### Long Description

The MS132-16 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  $I_e = 16.0$  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 are available as accessory.

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### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85362010

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### Popular Downloads

Data Sheet, Technical Information	2CDC131021D0201
Instructions and	2CDC131022M6802

## Manuals

Instructions and Manuals (Part 2)	2CDC131060M0202
Time-Current Characteristic Curve	1SAM300505F0011
I <sup>2</sup> t Characteristic	1SAM300507F0001 1SAM300507F0003
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
Dimension Diagram	1SAM300402F0002

## Dimensions

Product Net Width	45 mm
Product Net Height	97.8 mm
Product Net Depth / Length	86.55 mm
Product Net Weight	0.31 kg

## Technical

Rated Service Short-Circuit Breaking Capacity (I <sub>cs</sub> )	(230 V AC) 100 kA (250 V DC) 3 Poles in Series 10 kA (400 V AC) 100 kA (440 V AC) 20 kA (500 V AC) 20 kA (690 V AC) 3 kA
Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> )	(230 V AC) 100 kA (400 V AC) 100 kA (440 V AC) 20 kA (500 V AC) 20 kA (690 V AC) 3 kA
Rated Instantaneous Short-Circuit Current Setting (I <sub>i</sub> )	240 A
Setting Range	10 ... 16 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(400 V) Three Phase 7.5 kW
Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 250 V DC
Rated Operational Current (I <sub>e</sub> )	16 A
Rated Operational Current AC-3 (I <sub>e</sub> )	16 A
Rated Operational Current DC-5 (I <sub>e</sub> )	16 A
Rated Frequency (f)	Main Circuit 50 Hz Main Circuit 60 Hz
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	Main Circuit 6 kV
Rated Insulation Voltage (U <sub>i</sub> )	690 V
Power Loss	at Rated Operating Conditions per Pole 1.1 ... 2.8 W
Number of Poles	3
Conventional Free-air Thermal Current (I <sub>th</sub> )	Main Circuit 16 A
Degree of Protection	Housing IP20 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 ... 6 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 6 mm <sup>2</sup> Flexible 1/2x 1 ... 2.5 mm <sup>2</sup> Flexible 1/2x 2.5 ... 6 mm <sup>2</sup> Rigid 1/2x 1 ... 2.5 mm <sup>2</sup> Rigid 1/2x 2.5 ... 6 mm <sup>2</sup>
Tightening Torque	Main Circuit 2 N·m
Wire Stripping Length	Main Circuit 10 mm
Recommended Screw Driver	Pozidriv 2
Mounting Position	Position 1 to 6
Mounting on DIN Rail	TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715
Minimum Mounting Distance	Electrical Conductive Board, Horizontal - Up to 400 V 0 mm Electrical Conductive Board, Horizontal - Up to 690 V 1.5 mm Electrical Conductive Board, Vertical 75 mm Other Device Same Type, Horizontal 0 mm Other Device Same Type, Vertical 150 mm
Actuator Type	Rotary Handle
Contact Position Indication	ON / OFF / TRIP
Standards	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 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) 30 kA Any UL Listed Fuses or Circuit-Breakers, Group Installations (480 V AC) 35 kA Any UL Listed Fuses or Circuit-Breakers, Group Installations (600 V AC) 35 kA Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (480 V AC) 30 kA Any UL Listed Fuses or Circuit-Breakers, Motor Disconnect (600 V AC) 18 kA Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (480 V AC) 30 kA Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (600 V AC) 18 kA
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Ampere Rating UL/CSA	16 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 3 Hp (208 V AC) Three Phase 3 Hp (220 ... 240 V AC) Three Phase 5 Hp (440 ... 480 V AC) Three Phase 10 Hp (550 ... 600 V AC) Three Phase 10 Hp
Full Load Amps Motor Use	(200 V AC) Three Phase 11 A (208 V AC) Three Phase 10.6 A (220 ... 240 V AC) Three Phase 15.2 A (440 ... 480 V AC) Three Phase 14 A (550 ... 600 V AC) Three Phase 11 A
Locked Rotor Amps	(200 V AC) Three Phase 73.6 A (208 V AC) Three Phase 71 A (220 ... 240 V AC) Three Phase 92 A (440 ... 480 V AC) Three Phase 81 A (550 ... 600 V AC) Three Phase 64.8 A
General Use Rating UL/CSA	(600 V AC) 16 A
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 16-8 AWG Stranded 1/2x 16-8 AWG
Tightening Torque	Main Circuit 18 in·lb

UL/CSA

## Environmental

Ambient Air Temperature	Around the Enclosure 0 ... +40 °C Operation -25 ... +70 °C Operation Compensated -25 ... +60 °C 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

## Certificates and Declarations (Document Number)

ABS Certificate	1SAA963001-0101
ATEX Certificate	1SAA963000-3902
BV Certificate	1SAA963001-0202
CB Certificate	1SAA963002-2002
CCC Certificate	1SAA963001-3805
cUL Certificate	cUL_E137861 cUL_E345003
cULus Certificate	cUL_E137861
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
Declaration of Conformity - CE	1SAD938514-0125
DNV GL Certificate	1SAA963001-0304
EAC Certificate	1SAA963000-2701
GOST Certificate	1SAA963001-2702
I <sup>2</sup> t Characteristic	1SAM300507F0001 1SAM300507F0003
Instructions and Manuals	2CDC131022M6802
Instructions and Manuals (Part 2)	2CDC131060M0202
LR Certificate	1SAA963001-0502
RINA Certificate	1SAA963002-0802
RMRS Certificate	1SAA918000-0704
RoHS Information	1SAD938511-0125
Time-Current Characteristic Curve	1SAM300505F0011
UL Certificate	UL_E137861 UL_E345003

## Container Information

Package Level 1 Units	box 1 piece
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	4013614400117
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	13.386 kg
Package Level 2 EAN	4013614409011

## 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
eClass	7.0 27370401
UNSPSC	39121521
IDEA Granular Category Code (IGCC)	4845 >> 3 Pole Motor Circuit Protector Circuit Breakers
E-Number (Sweden)	3112127

## Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SAM201901R1001	HKF1-11 Hilfskontakt	HKF1-11	1	piece
1SAM201901R1201	HKF1-11K Hilfskontakt	HKF1-11K	1	piece
1SAM201901R1002	HKF1-20 Hilfskontakt	HKF1-20	1	piece
1SAM201901R1202	HKF1-20K Hilfskontakt	HKF1-20K	1	piece
1SAM201901R1004	HKF1-01 Hilfskontakt	HKF1-01	1	piece
1SAM201901R1003	HKF1-10 Hilfskontakt	HKF1-10	1	piece
1SAM201902R1002	HK1-20 Hilfskontakt	HK1-20	1	piece
1SAM201902R1202	HK1-20K Hilfskontakt	HK1-20K	1	piece
1SAM201902R1001	HK1-11 Hilfskontakt	HK1-11	1	piece
1SAM201902R1201	HK1-11K Hilfskontakt	HK1-11K	1	piece
1SAM201902R1003	HK1-02 Hilfskontakt	HK1-02	1	piece
1SAM201902R1203	HK1-02K Hilfskontakt	HK1-02K	1	piece
1SAM201902R1004	HK1-20L Hilfskontakt	HK1-20L	1	piece
1SAM201902R1204	HK1-20LK Hilfskontakt	HK1-20LK	1	piece
1SAM201903R1002	SK1-20 Signalkontakt	SK1-20	1	piece
1SAM201903R1202	SK1-20K Signalkontakt	SK1-20K	1	piece
1SAM201903R1001	SK1-11 Signalkontakt	SK1-11	1	piece
1SAM201903R1201	SK1-11K Signalkontakt	SK1-11K	1	piece
1SAM201903R1003	SK1-02 Signalkontakt	SK1-02	1	piece
1SAM201903R1203	SK1-02K Signalkontakt	SK1-02K	1	piece
1SAM301901R1002	CK1-20 Kurzschluss-Signalkontakt	CK1-20	1	piece
1SAM301901R1001	CK1-11 Kurzschluss-Signalkontakt	CK1-11	1	piece
1SAM301901R1003	CK1-02 Kurzschluss-Signalkontakt	CK1-02	1	piece
1SAM201910R1001	AA1-24 Arbeitsstromauslöser	AA1-24	1	piece
1SAM201910R1002	AA1-110 Arbeitsstromauslöser	AA1-110	1	piece
1SAM201910R1003	AA1-230 Arbeitsstromauslöser	AA1-230	1	piece
1SAM201910R1004	AA1-400 Arbeitsstromauslöser	AA1-400	1	piece
1SAM201904R1010	UA1-20 Unterspannungsauslöser	UA1-20	1	piece
1SAM201904R1001	UA1-24 Unterspannungsauslöser	UA1-24	1	piece

1SAM201904R1002	UA1-48 Unterspannungsauslöser	UA1-48	1	piece
1SAM201904R1003	UA1-60 Unterspannungsauslöser	UA1-60	1	piece
1SAM201904R1004	UA1-110 Unterspannungsauslöser	UA1-110	1	piece
1SAM201904R1008	UA1-208 Unterspannungsauslöser	UA1-208	1	piece
1SAM201904R1005	UA1-230 Unterspannungsauslöser	UA1-230	1	piece
1SAM201904R1006	UA1-400 Unterspannungsauslöser	UA1-400	1	piece
1SAM201904R1007	UA1-415 Unterspannungsauslöser	UA1-415	1	piece
1SAM201904R1009	UA1-575 Unterspannungsauslöser	UA1-575	1	piece
1SAM201906R1102	PS1-2-0-65 3-Phasen Sammelschiene	PS1-2-0-65	1	piece
1SAM201906R1112	PS1-2-1-65 3-Phasen Sammelschiene	PS1-2-1-65	1	piece
1SAM201906R1122	PS1-2-2-65 3-Phasen Sammelschiene	PS1-2-2-65	1	piece
1SAM201916R1103	PS1-3-0-100 3-Phasen Sammelschiene	PS1-3-0-100	1	piece
1SAM201906R1103	PS1-3-0-65 3-Phasen Sammelschiene	PS1-3-0-65	1	piece
1SAM201916R1113	PS1-3-1-100 3-Phasen Sammelschiene	PS1-3-1-100	1	piece
1SAM201906R1113	PS1-3-1-65 3-Phasen Sammelschiene	PS1-3-1-65	1	piece
1SAM201916R1123	PS1-3-2-100 3-Phasen Sammelschiene	PS1-3-2-100	1	piece
1SAM201906R1123	PS1-3-2-65 3-Phasen Sammelschiene	PS1-3-2-65	1	piece
1SAM201916R1104	PS1-4-0-100 3-Phasen Sammelschiene	PS1-4-0-100	1	piece
1SAM201906R1104	PS1-4-0-65 3-Phasen Sammelschiene	PS1-4-0-65	1	piece
1SAM201916R1114	PS1-4-1-100 3-Phasen Sammelschiene	PS1-4-1-100	1	piece
1SAM201906R1114	PS1-4-1-65 3-Phasen Sammelschiene	PS1-4-1-65	1	piece
1SAM201906R1124	PS1-4-2-65 3-Phasen Sammelschiene	PS1-4-2-65	1	piece
1SAM201916R1105	PS1-5-0-100 3-Phasen Sammelschiene	PS1-5-0-100	1	piece
1SAM201906R1105	PS1-5-0-65 3-Phasen Sammelschiene	PS1-5-0-65	1	piece
1SAM201916R1115	PS1-5-1-100 3-Phasen Sammelschiene	PS1-5-1-100	1	piece
1SAM201906R1115	PS1-5-1-65 3-Phasen Sammelschiene	PS1-5-1-65	1	piece
1SAM201906R1125	PS1-5-2-65 3-Phasen Sammelschiene	PS1-5-2-65	1	piece
1SAM201907R1101	S1-M1-25 3-Phasen Einspeiseblock	S1-M1-25	1	piece
1SAM201907R1102	S1-M2-25 3-Phasen Einspeiseblock	S1-M2-25	1	piece
1SAM201907R1103	S1-M3-25 3-Phasen Einspeiseblock	S1-M3-25	1	piece
1SAM201913R1103	S1-M3-35 3-Phasen Einspeiseblock	S1-M3-35	1	piece
1SAM201914R1002	S1-PB1-25 3-Phasen Einspeiseblock	S1-PB1-25	1	piece
1SAM201908R1001	BS1-3 Schutzabdeckung	BS1-3	1	piece
1SAM201909R1001	FS116 Schraubenbefestigungs-Kit	FS116	1	piece
1SAM201914R1001	PB1-1-32 Phasenverbinder	PB1-1-32	1	piece
GJF1101903R0002	SA2 - Vorhängeschloss	SA2	1	piece
1SAM201911R1012	IB132-F Gehäuse	IB132-F	1	piece
1SAM201911R1010	IB132-G Gehäuse	IB132-G	1	piece
1SAM201911R1011	IB132-Y Gehäuse	IB132-Y	1	piece
1SAM201912R1010	DMS132-G Türmontagesatz	DMS132-G	1	piece
1SAM201912R1011	DMS132-Y Türmontagesatz	DMS132-Y	1	piece
1SAM201909R1021	MSAH1 Wellenhalter	MSAH1	1	piece
1SAM201920R1000	MSH-AR Wellenführungsring	MSH-AR	1	piece
1SAM201920R1011	MSHD-LTB Griff	MSHD-LTB	1	piece
1SAM201920R1012	MSHD-LTY Griff	MSHD-LTY	1	piece
1SAM101923R0002	MSMN Mitnehmer	MSMN	1	piece
1SAM101923R0012	MSMNO Mitnehmer	MSMNO	1	piece
1SAM101924R0013	MSEX-30 Achse	MSEX-30	1	piece
1SAM101924R0003	MSEX-32 Achse	MSEX-32	1	piece
1SCA101647R1001	OXS6X85 Welle Länge 85mm Wellen- $\varnothing$ 6mm für Selektorgriffe	OXS6X85	1	piece
1SCA108043R1001	OXS6X105 Welle Länge 105mm Wellen- $\varnothing$ 6mm für Pistolengriffe	OXS6X105	1	piece
1SCA101655R1001	OXS6X130 Welle Länge 130mm Wellen- $\varnothing$ 6mm für Selektorgriffe	OXS6X130	1	piece
1SCA101659R1001	OXS6X180 Welle Länge 180mm Wellen- $\varnothing$ 6mm für Selektorgriffe	OXS6X180	1	piece

### Where Used (as a spare part for "Products")

Identifier	Description	Quantity	Unit Of Measure
ACS 5000 Water Cooled	No Description Available	1	piece
ACS 6000	No Description Available	1	piece

### Product specific part data

Product	Category	Drive Part Category
ACS 5000 Water Cooled	ACS5000	Switches, Relays, Contactors
ACS 6000	ACS6000	Switches, Relays, Contactors

### Categories

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

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

Drives → Medium voltage AC drives → General Performance Drives → ACS5000

Drives → Medium voltage AC drives → Industrial drives → ACS6000





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