PRODUCT-DETAILS

MS132-20

MS132-20 Manual Motor Starter 16 ... 20 A



General Information

Extended Product Type	MS132-20
Product ID	1SAM350000R1013
EAN	4013614400131
Catalog Description	MS132-20 Manual Motor Starter 16 ... 20 A
Long Description	The MS132-20 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 Ie = 20.0 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 Ics = 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

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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	1SAM300505F0013
I^2t Characteristic	1SAM300507F0001 1SAM300507F0003
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
CAD Dimensional Drawing	2CDC001079B0201
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_{cs})	(230 V AC) 100 kA (250 V DC) 3 Poles in Series 10 kA (400 V AC) 100 kA (440 V AC) 30 kA (500 V AC) 20 kA (690 V AC) 3 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{cu})	(230 V AC) 100 kA (400 V AC) 100 kA (440 V AC) 30 kA (500 V AC) 20 kA (690 V AC) 3 kA
Rated Instantaneous Short-Circuit Current Setting (I_i)	300 A
Setting Range	16 ... 20 A
Rated Operational Power AC-3 (P_e)	(400 V) Three Phase 7.5 kW
Rated Operational Power AC-3e (P_e)	(400 V) Three Phase 7.5 kW
Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 250 V DC
Rated Operational Current (I_e)	20 A
Rated Operational Current AC-3 (I_e)	20 A
Rated Operational Current AC-3e (I_e)	20 A

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Rated Operational Current DC-5 (I_e)	20 A
Rated Frequency (f)	Main Circuit 50 Hz Main Circuit 60 Hz
Operating Frequency (f_{sw})	0 ... 400 Hz
Rated Impulse Withstand Voltage (U_{imp})	Main Circuit 6 kV
Rated Insulation Voltage (U_i)	690 V
Power Loss	at Rated Operating Conditions per Pole 1.5 ... 2.3 W
Number of Poles	3
Conventional Free-air Thermal Current (I_{th})	Main Circuit 20 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 mm² Flexible with Insulated Ferrule 1/2x 0.75 ... 6 mm² Flexible 1/2x 1 ... 2.5 mm² Flexible 1/2x 2.5 ... 6 mm² Rigid 1/2x 1 ... 2.5 mm² Rigid 1/2x 2.5 ... 6 mm²
Tightening Torque	Main Circuit 2 N·m
Wire Stripping Length	Main Circuit 10 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 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 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 IEC 60335-2-40 A2L
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

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	kA Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (480Y / 277 V AC) 30 kA Any UL Listed Fuses or Circuit-Breakers, Tap Conductor Protection in Group Installations (600Y / 347 V AC) 18 kA
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Horsepower Rating UL/CSA	(200 V AC) Three Phase 5 Hp (208 V AC) Three Phase 5 Hp (220 ... 240 V AC) Three Phase 5 Hp (440 ... 480 V AC) Three Phase 10 Hp (550 ... 600 V AC) Three Phase 15 Hp
Full Load Amps Motor Use	(200 V AC) Three Phase 17.5 A (208 V AC) Three Phase 16.7 A (220 ... 240 V AC) Three Phase 15.2 A (440 ... 480 V AC) Three Phase 14 A (550 ... 600 V AC) Three Phase 17 A
Locked Rotor Amps	(200 V AC) Three Phase 105.8 A (208 V AC) Three Phase 102 A (220 ... 240 V AC) Three Phase 92 A (440 ... 480 V AC) Three Phase 81 A (550 ... 600 V AC) Three Phase 93 A
General Use Rating UL/CSA	(600 V AC) 20 A
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 16-8 AWG Stranded 1/2x 16-8 AWG
Tightening Torque UL/CSA	Main Circuit 18 in·lb

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	5g 3 ... 150 Hz

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	1SAA963005-4502
RoHS Information	1SAA963006-4502
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
Toxic Substances Control Act - TSCA	2CMT2023-006539
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

ABB EcoSolutions

Environmental Product	1SAC200360H0001

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Declaration - EPD	1SAC200385H0001
End of Life Instructions	1SAC200332H0001

Certificates and Declarations

A2L Certificate – IEC	1SAA963000-4601
ABS Certificate	1SAA963001-0101
ATEX Certificate	1SAA963000-3902
BV Certificate	1SAA963001-0202
CB Certificate	1SAA963002-2002 1SAA963007-2002
CCC Certificate	2020980307003526 2020980307003041
CQC Certificate	CQC2010010307387700 CQC2019010307243864
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
Declaration of Conformity - CCC	2020980307003526 2020980307003041
Declaration of Conformity - CE	1SAD101100-3402
Declaration of Conformity - UKCA	1SAD201100-3402
DNV GL Certificate	1SAA963001-0304
EAC Certificate	1SAA963000-2701
I^2t Characteristic	1SAM300507F0001 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 E345003-20090225

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	4013614400131
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	4013614409035

Classifications

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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)	3705997
E-Number (Norway)	4364081
E-Number (Sweden)	3112128

Accessories

Identifier	Description	Type	Quantity	Unit Of Measure
1SAM201901R1001	HKF1-11 Aux.-contact for front mounting	HKF1-11	1	piece
1SAM201901R1201	HKF1-11K Aux.-contact for frontmounting with Push-In terminals	HKF1-11K	1	piece
1SAM201901R1002	HKF1-20 Aux.-contact 2NO, front mounting	HKF1-20	1	piece
1SAM201901R1202	HKF1-20K Aux.-contact for frontmounting with Push-In terminals	HKF1-20K	1	piece
1SAM201901R1004	HKF1-01 Aux.-contact for front mounting	HKF1-01	1	piece
1SAM201901R1003	HKF1-10 Aux.-contact for front mounting	HKF1-10	1	piece
1SAM201902R1002	HK1-20 Aux.-contact 2 NO	HK1-20	1	piece
1SAM201902R1202	HK1-20K Aux.-contact 2 NO with Push-In terminals	HK1-20K	1	piece
1SAM201902R1001	HK1-11 Aux.-contact 1 NO + 1 NC	HK1-11	1	piece
1SAM201902R1201	HK1-11K Aux.-contact 1 NO + 1 NC with Push-In terminals	HK1-11K	1	piece
1SAM201902R1003	HK1-02 Aux.-contact 2 NC	HK1-02	1	piece
1SAM201902R1203	HK1-02K Aux.-contact 2 NC with Push-In terminals	HK1-02K	1	piece
1SAM201902R1004	HK1-20L Aux.-cont. w. 2 lead contacts 2 NO	HK1-20L	1	piece
1SAM201902R1204	HK1-20LK Aux-cont. w. 2 leading contacts 2 NO, with Push-In terminals	HK1-20LK	1	piece
1SAM201903R1002	SK1-20 Signaling Contact 2 NO	SK1-20	1	piece
1SAM201903R1202	SK1-20K Signaling Contact 2 NO with Push-In terminals	SK1-20K	1	piece
1SAM201903R1005	SK1-20AR Signaling Contact, 2NO with screw terminals	SK1-20AR	1	piece
1SAM201903R1205	SK1-20ARK Signaling Contact, 2NO with Push-in Spring terminals	SK1-20ARK	1	piece
1SAM201903R1001	SK1-11 Signaling Contact 1 NO + 1 NC	SK1-11	1	piece
1SAM201903R1201	SK1-11K Signaling Contact 1 NO + 1 NC with Push-In terminals	SK1-11K	1	piece
1SAM201903R1004	SK1-11AR Signaling Contact, 1NO+1NC with screw terminals	SK1-11AR	1	piece
1SAM201903R1204	SK1-11ARK Signaling Contact, 1NO+1NC with Push-in Spring terminals	SK1-11ARK	1	piece
1SAM201903R1003	SK1-02 Signaling Contact 2 NC	SK1-02	1	piece
1SAM201903R1203	SK1-02K Signaling Contact 2 NC with Push-In terminals	SK1-02K	1	piece
1SAM201903R1006	SK1-02AR Signaling Contact, 2NC with screw terminals	SK1-02AR	1	piece

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1SAM201903R1206	SK1-02ARK Signaling Contact, 2NC with Push-in Spring terminals	SK1-02ARK	1	piece
1SAM301901R1002	CK1-20 Short-Circuit Signaling Contact 2 NO	CK1-20	1	piece
1SAM301901R1001	CK1-11 Short-Circuit Signaling Contact 1 NO + 1 NC	CK1-11	1	piece
1SAM301901R1003	CK1-02 Short-Circuit Signaling Contact 2 NC	CK1-02	1	piece
1SAM201910R1001	AA1-24 Shunt Trip 20-24V	AA1-24	1	piece
1SAM201910R1002	AA1-110 Shunt Trip 110V	AA1-110	1	piece
1SAM201910R1003	AA1-230 Shunt Trip 200-240V	AA1-230	1	piece
1SAM201910R1004	AA1-400 Shunt Trip 350-415V	AA1-400	1	piece
1SAM201904R1010	UA1-20 Undervoltage release 20V 50Hz / 24V 60 Hz	UA1-20	1	piece
1SAM201904R1001	UA1-24 Undervoltage release 24 V	UA1-24	1	piece
1SAM201904R1002	UA1-48 Undervoltage release 48V	UA1-48	1	piece
1SAM201904R1003	UA1-60 Undervoltage release 60V	UA1-60	1	piece
1SAM201904R1004	UA1-110 Undervoltage release 110V 110V 50Hz/120V 60Hz	UA1-110	1	piece
1SAM201904R1008	UA1-208 Undervoltage release 208V 60Hz	UA1-208	1	piece
1SAM201904R1005	UA1-230 Undervoltage release 230 V 50 Hz / 240 V 60 Hz	UA1-230	1	piece
1SAM201904R1006	UA1-400 Undervoltage release 400V	UA1-400	1	piece
1SAM201904R1007	UA1-415 Undervoltage release 415V 415V 50Hz/480V 60Hz	UA1-415	1	piece
1SAM201904R1009	UA1-575 Undervoltage release 575V 60Hz	UA1-575	1	piece
1SAM201906R1102	PS1-2-0-65 3-phase busbar for 2 MS116 / MS132, Ie=65A	PS1-2-0-65	1	piece
1SAM201906R1112	PS1-2-1-65 3-phase busbar for 2 MS116 / MS132 with 1 HK/SK, Ie=65A	PS1-2-1-65	1	piece
1SAM201906R1122	PS1-2-2-65 3-phase busbar for 2 MS116 / MS132 with 2 HK/SK, Ie=65A	PS1-2-2-65	1	piece
1SAM201916R1103	PS1-3-0-100 3-phase busbar for 3 MS116 / MS132, Ie=100A	PS1-3-0-100	1	piece
1SAM201906R1103	PS1-3-0-65 3-phase busbar for 3 MS116 / MS132, Ie=65A	PS1-3-0-65	1	piece
1SAM201916R1113	PS1-3-1-100 3-phase busbar for 3 MS116 /MS132 with 1 HK/SK, Ie=100A	PS1-3-1-100	1	piece
1SAM201906R1113	PS1-3-1-65 3-phase busbar for 3 MS116 / MS132 with 1 HK/SK, Ie=65A	PS1-3-1-65	1	piece
1SAM201916R1123	PS1-3-2-100 3-phase busbar for 3 MS116 /MS132 with 2 HK/SK, Ie=100A	PS1-3-2-100	1	piece
1SAM201906R1123	PS1-3-2-65 3-phase busbar for 3 MS116 / MS132 with 2 HK/SK, Ie=65A	PS1-3-2-65	1	piece
1SAM201916R1104	PS1-4-0-100 3-phase busbar for 4 MS116 / MS132, Ie=100A	PS1-4-0-100	1	piece
1SAM201906R1104	PS1-4-0-65 3-phase busbar for 4 MS116 / MS132, Ie=65A	PS1-4-0-65	1	piece
1SAM201916R1114	PS1-4-1-100 3-phase busbar for 4 MS116 /MS132 with 1 HK/SK, Ie=100A	PS1-4-1-100	1	piece
1SAM201906R1114	PS1-4-1-65 3-phase busbar for 4 MS116 / MS132 with 1 HK/SK, Ie=65A	PS1-4-1-65	1	piece
1SAM201906R1124	PS1-4-2-65 3-phase busbar for 4 MS116 / MS132 with 2 HK/SK, Ie=65A	PS1-4-2-65	1	piece
1SAM201916R1105	PS1-5-0-100 3-phase busbar for 5 MS116 / MS132, Ie=100A	PS1-5-0-100	1	piece
1SAM201906R1105	PS1-5-0-65 3-phase busbar for 5 MS116 / MS132, Ie=65A	PS1-5-0-65	1	piece
1SAM201916R1115	PS1-5-1-100 3-phase busbar for 5 MS116 /MS132 with 1 HK/SK, Ie=100A	PS1-5-1-100	1	piece
1SAM201906R1115	PS1-5-1-65 3-phase busbar for 5 MS116 / MS132 with 1 HK/SK, Ie=65A	PS1-5-1-65	1	piece

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1SAM201906R1125	PS1-5-2-65 3-phase busbar for 5 MS116 / MS132 with 2 HK/SK, Ie=65A	PS1-5-2-65	1	piece
1SAM201907R1101	S1-M1-25 3-phase power infeed block Flat, for MS116 / MS132, 25mm2	S1-M1-25	1	piece
1SAM201907R1102	S1-M2-25 3-phase power infeed block High, for MS116 / MS132, 25mm2	S1-M2-25	1	piece
1SAM201907R1103	S1-M3-25 3-phase power infeed block Flat, for MS116 / MS132, 25mm2, Type E	S1-M3-25	1	piece
1SAM201913R1103	S1-M3-35 3-phase power infeed block Flat, for MS116 / MS132, 35mm2, Type E	S1-M3-35	1	piece
1SAM201914R1002	S1-PB1-25 1-phase power infeed block for MS116 / MS132 / MS132-T, 25mm2, IEC	S1-PB1-25	1	piece
1SAM301911R1001	TS1-M3-S1 Terminal Spacer MS132 Size 1 For MS/MO132-0.16 - MS/MO132-10 Type E	TS1-M3-S1	1	piece
1SAM301912R1001	TS1-M3-S2 Terminal Spacer MS132 Size 2 For MS/MO132-12 - MS/MO132-32 Type E	S1-M3-S2	1	piece
1SAM201908R1001	BS1-3 Protection Cover for busbars empty places	BS1-3	1	piece
1SAM201909R1001	FS116 Screw fixing kit for MS116, MS/MO132 10 pieces packed	FS116	1	piece
1SAM201914R1001	PB1-1-32 phase connecting link for MS116 / MS132 / MS132-T, Ie=32A	PB1-1-32	1	piece
GJF1101903R0002	Terminals and Installation Material	SA2	1	piece
1SAM201911R1012	IB132-F Enclosure, GY/RD, IP65 3 times lockable	IB132-F	1	piece
1SAM201911R1010	IB132-G Enclosure, GY/BK, IP65 Standard version, 3 times lockable	IB132-G	1	piece
1SAM201911R1011	IB132-Y Enclosure, RD/YE, IP65 Emergency-STOP, 3 times lockable	IB132-Y	1	piece
1SAM201912R1010	DMS132-G Door Mounting Kit, GY/BK, IP65 Standard version, 3 times lockable	DMS132-G	1	piece
1SAM201912R1011	DMS132-Y Door Mounting Kit, RD/YE, IP65 Emergency-STOP, 3 times lockable	DMS132-Y	1	piece
1SAM201909R1021	MSAH1 Shaft Supporter suitable for MS116, MS132/MO132	MSAH1	1	piece
1SAM201920R1011	MSHD-LTB Handle, IP64, black, 3 times lockable, defeatable, 0-TRIP-I	MSHD-LTB	1	piece
1SAM201920R1012	MSHD-LTY Handle, IP64, red/yellow, 3 times lockable, defeatable, 0-TRIP-I	MSHD-LTY	1	piece
1SAM101923R0002	MSMN Driver w. screw for manual motor staters, 6x6	MSMN	1	piece
1SAM101923R0012	MSMNO Driver w/o coding w. screw for manual motor staters, 6x6	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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Low Voltage Products and Systems → Circuit Breakers → Manual Motor Starters

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