



PRODUCT-DETAILS

MS132-20K

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



General Information	
Extended Product Type	MS132-20K
Product ID	1SAM350010R1013
EAN	4013614400438
Catalog Description	MS132-20K Manual Motor Starter 16 ... 20 A
Long Description	The MS132-20K 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 $I_e = 20.0\text{ A}$ with Push-in spring terminals. 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 MS132-K manual motor starter offers a rated service short-circuit breaking capacity $I_{cs} = 100\text{ kA}$ 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 MS132-K 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 and terminal spacers are available as accessory.
Ordering	
Minimum Order Quantity	1 piece

Customs Tariff Number

85362010

Popular Downloads

Data Sheet, Technical Information	1SBC100212C0203
Instructions and Manuals	2CDC131120M6801
Instructions and Manuals (Part 2)	2CDC131060M0202
Ex Operating Instructions	2CDC131063M6801
Time-Current Characteristic Curve	1SAM300505F0013
I²t Characteristic	1SAM300507F0001 1SAM300507F0003
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
CAD Dimensional Drawing	2CDC001079B0201
Installation Video	9AKK108466A6074 9AKK108466A6068
Marketing Video	9AKK107991A4712 2CDC131153V0201

Dimensions

Product Net Width	45 mm
Product Net Height	112 mm
Product Net Depth / Length	87 mm
Product Net Weight	0.317 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	20 A

Current AC-3 (I _e)	
Rated Operational Current AC-3e (I _e)	20 A
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 IP20
Pollution Degree	3
Electrical Durability	50000 cycle
Mechanical Durability	100000 cycle
Terminal Type	Push-in Spring Terminals
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 0.5 ... 4 mm ² Flexible with Insulated Ferrule 1x 0.5 ... 4 mm ² Flexible with Insulated Ferrule 2x 0.5 ... 2.5 mm ² Flexible 1/2x 0.75 ... 4 mm ² Solid 1/2x 1 ... 2.5 mm ² Stranded 1/2x 1 ... 6 mm ²
Wire Stripping Length	Main Circuit 12 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
Remarks	UL508 Self-Protected Combination Motor Controller (Type E) in combination with terminal spacer TS1-M3-K

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) 30 kA Any UL Listed Fuses or Circuit-Breakers, Group Installations (600 V AC) 18 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 (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	Stranded 1/2x 18-10 AWG Stranded 1x 8 AWG

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)

Circular Value

End of Life Instructions	1SAC200333H0001
--------------------------	-----------------

Certificates and Declarations	
ABS Certificate	1SAA963001-0101
ATEX Certificate	1SAA963000-3902
CB Certificate	1SAA963002-2002
CQC Certificate	CQC2017010307034621
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
Declaration of Conformity - CCC	2020980307004600
Declaration of Conformity - CE	1SAD101100-3402
Declaration of Conformity - UKCA	1SAD201100-3402
EAC Certificate	1SAA963004-2701
I ² t Characteristic	1SAM300507F0001 1SAM300507F0003
IECEX Certificate	1SAA963000-4001
KC Certificate	1SAA963002-1502
RINA Certificate	1SAA963002-0802
UL Certificate	E137861-20090225 E345003-20090225

Container Information	
Package Level 1 Units	box 1 piece
Package Level 1 Width	50 mm
Package Level 1 Depth / Length	117 mm
Package Level 1 Height	82 mm
Package Level 1 Gross Weight	0.343 kg
Package Level 1 EAN	4013614400438
Package Level 2 Units	carton 28 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	14.026 kg
Package Level 2 EAN	4013614522857

Classifications	
Object Classification Code	F
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)	3707842

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
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
1SAM301903R1002	PS1-2-0-65K 3-phase busbar 2x MS132-K, 65A	PS1-2-0-65K	1	piece
1SAM301903R1003	PS1-3-0-65K 3-phase busbar 3x MS132-K, 65A	PS1-3-0-65K	1	piece
1SAM301903R1004	PS1-4-0-65K 3-phase busbar 4x MS132-K, 65A	PS1-4-0-65K	1	piece
1SAM301903R1005	PS1-5-0-65K 3-phase busbar 5x MS132-K, 65A	PS1-5-0-65K	1	piece
1SAM301903R1012	PS1-2-1-65K 3-phase busbar 2x MS132-K + 1 lateral aux.contact, 65A	PS1-2-1-65K	1	piece
1SAM301903R1013	PS1-3-1-65K 3-phase busbar 3x MS132-K + 1 lateral aux.contact, 65A	PS1-3-1-65K	1	piece
1SAM301903R1014	PS1-4-1-65K 3-phase busbar 4x MS132-K + 1 lateral aux.contact, 65A	PS1-4-1-65K	1	piece
1SAM301903R1015	PS1-5-1-65K 3-phase busbar 5x MS132-K + 1 lateral aux.contact, 65A	PS1-5-1-65K	1	piece
1SAM201909R1001	FS116 Screw fixing kit for MS116, MS/MO132 10 pieces packed	FS116	1	piece
1SAM301913R1001	TS1-M3-K Terminal Spacer MS132-K For MS132- 0.16K - MS132-32K Type E	TS1-M3-K	1	piece
GJF1101903R0002	SA2 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
1SAM201920R1000	MSH-AR Shaft alignment ring suitable for MSHD and MSH handles	MSH-AR	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

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

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

