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 PRODUCT-DETAILS

# MS132-20KT

## MS132-20KT Circuit Breaker for Primary Transformer Protection 16 ... 20 A




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**General Information**

Extended Product Type	MS132-20KT
Product ID	1SAM340010R1013
EAN	4013614535239
Catalog Description	MS132-20KT Circuit Breaker for Primary Transformer Protection 16 ... 20 A

Long Description	<p>The circuit breaker for transformer protection MS132-20KT is a compact 45 mm width device designed to protect control transformers on the primary side. This device has a rated operational current of <math>I_e = 20</math> A with Push-In Spring terminals. It allows fuseless protection against overload and short-circuit. The short-circuit current setting is fixed to 20 times the rated operational current to handle the high inrush current generated by transformers. The device allows manually connect and disconnect the transformer from the mains thanks of its built-in disconnection function. The circuit breaker for transformer protection offers a rated service short-circuit breaking capacity of <math>I_{cs} = 100</math> kA at 400 VAC and trip class 10. Further features are temperature compensation, trip-free mechanism, rotary handle with a clear switch position indication and short circuit trip indicator. The handle is lockable to protect against unauthorized changes. Auxiliary contacts, signalling contacts, undervoltage releases, shunt trips and terminal spacers are available as accessory.</p>
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**Ordering**

Minimum Order Quantity	1 piece
Customs Tariff Number	85362010

## Popular Downloads

Data Sheet, Technical Information	2CDC131058D0201
Instructions and Manuals	2CDC131158M6801
Instructions and Manuals (Part 2)	2CDC131060M0202
Time-Current Characteristic Curve	1SAM300535F0013
$I^2t$ Characteristic	1SAM300517F0001
Cut-off Current Characteristic	1SAM300518F0001
CAD Dimensional Drawing	2CDC001079B0201
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 (400 V AC) 100 kA (440 V AC) 30 kA
Rated Ultimate Short-Circuit Breaking Capacity ( $I_{cu}$ )	(400 V AC) 100 kA
Rated Instantaneous Short-Circuit Current Setting ( $I_i$ )	400 A
Setting Range	16 ... 20 A
Rated Operational Voltage	Main Circuit 690 V AC
Rated Operational Current ( $I_e$ )	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 1.0 ... 1.6 W
Number of Poles	3P
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 <sup>2</sup> Flexible with Insulated Ferrule 1x 0.5 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.5 ... 2.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 4 mm <sup>2</sup> Solid 1/2x 1 ... 2.5 mm <sup>2</sup>

Wire Stripping Length	Stranded 1/2x 1 ... 6 mm <sup>2</sup>
Mounting Position	Main Circuit 12 mm
Mounting on DIN Rail	1 ... 6
Minimum Mounting Distance	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
Actuator Type	Electrical Conductive Board, Vertical 75 mm Other Device Same Type, Horizontal 9 mm Other Device Same Type, Vertical 150 mm
Contact Position Indication	Rotary Handle
Standards	ON / OFF / TRIP
	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 IEC 60335-2-40 A2L

### Technical UL/CSA

Short-Circuit Current Rating (SCCR)	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	(120 V AC) Single Phase 1.5 Hp (220 ... 240 V AC) Single Phase 3 Hp
Full Load Amps Motor Use	(120 V AC) Single Phase 20 A (220 ... 240 V AC) Single Phase 17 A
Locked Rotor Amps	(120 V AC) Single Phase 120 A (220 ... 240 V AC) Single Phase 120 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)

### ABB EcoSolutions

End Of Life Disassembling	1SAC200333H0001
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## Instructions

Environmental Product Declaration - EPD	1SAC200360H0001 1SAC200385H0001
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**Certificates and Declarations**

A2L Certificate - IEC	1SAA963000-4601
CCC Certificate	2024010307658958
CQC Certificate	CQC2017010307034621
Cut-off Current Characteristic	1SAM300518F0001
Declaration of Conformity - CCC	2020980307004600
Declaration of Conformity - CE	1SAD101100-3404
Declaration of Conformity - UKCA	1SAD201100-3404
I <sup>2</sup> t Characteristic	1SAM300517F0001
KC Certificate	1SAA963002-1502
RMRS Certificate	1SAA918000-0704
UL Certificate	E137861-20090225

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**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	4013614535239
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	13.386 kg
Package Level 2 EAN	4013614535550

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**External Classifications and Standards**

Object Classification Code	F
ETIM 5	EC000228 - Power circuit-breaker for trafo/generator/installation prot.
ETIM 6	EC000228 - Power circuit-breaker for trafo/generator/installation prot.
ETIM 7	EC000228 - Power circuit-breaker for trafo/generator/installation protection
ETIM 8	EC000228 - Power circuit-breaker for trafo/generator/installation protection
eClass	V11.0 : 27370409
UNSPSC	39121601
IDEA Granular Category Code (IGCC)	4813 >> Circuit breakers
E-Number (Finland)	3709089

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**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	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 starters, 6x6	MSMN	1	piece
1SAM101923R0012	MSMNO Driver w/o coding w. screw for manual motor starters, 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

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## Categories

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Low Voltage Products and Systems → Control Products → Manual Motor Starters → Manual Motor Starters for Special Use

