

PRODUCT-DETAILS

MS132-16-HKF1-20

MS132-16-HKF1-20 Manual Motor Starter



General Information

Extended Product Type	MS132-16-HKF1-20
Product ID	1SAM350006R1011
EAN	4013614482212
Catalog Description	MS132-16-HKF1-20 Manual Motor Starter

Long Description

The MS132-16-HKF1-20 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 $I_e = 16.0$ A and a pre-assembled front mounted auxiliary contact HKF1-20. 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.

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85362010

Popular Downloads

Data Sheet, Technical Information	2CDC131021D0202
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Instructions and Manuals	2CDC131022M6802
Instructions and Manuals (Part 2)	2CDC131060M0202
Time-Current Characteristic Curve	1SAM300505F0011
I ² t Characteristic	1SAM300507F0001 1SAM300507F0003
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
Dimension Diagram	1SAM300402F0001

Dimensions

Product Net Width	45 mm
Product Net Height	97.8 mm
Product Net Depth / Length	86.55 mm
Product Net Weight	0.326 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)	240 A
Setting Range	10 ... 16 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)	16 A
Rated Operational Current AC-3 (I _e)	16 A
Rated Operational Current AC-3e (I _e)	16 A
Rated Operational Current DC-5 (I _e)	16 A
Rated Frequency (f)	Main Circuit 50 Hz Main Circuit 60 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 1.1 W
Number of Poles	3
Mounted Auxiliary Contacts	2 NO, 0 NC
Conventional Free-air	Main Circuit 16 A

Thermal Current (I_{th})	
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 ² Flexible with Insulated Ferrule 1/2x 0.75 ... 6 mm ² Flexible 1/2x 1 ... 2.5 mm ² Flexible 1/2x 2.5 ... 6 mm ² Rigid 1/2x 1 ... 2.5 mm ² Rigid 1/2x 2.5 ... 6 mm ²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1/2x 0.75 ... 1.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm ² Flexible 1/2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 1.5 mm ²
Tightening Torque	Auxiliary Circuit 0.8 ... 1.2 N·m Main Circuit 2 N·m
Wire Stripping Length	Auxiliary Circuit 8 mm Main Circuit 10 mm
Recommended Screw Driver	Pozidriv 2
Mounting Position	Position 1 to 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 IEC/EN 60947-5-1 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 (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	Auxiliary Circuit 250 V AC/DC 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
Connecting Capacity Auxiliary Circuit UL/CSA	Flexible 1/2x 16-14 AWG Stranded 1/2x 16-14 AWG
Tightening Torque UL/CSA	Auxiliary Circuit 7 in-lb Main Circuit 18 in-lb
Contact Rating UL/CSA	B300 R300

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	1SAA963000-3901
BV Certificate	1SAA963001-0201
CB Certificate	1SAA963002-2002
CQC Certificate	CQC2017010307034621
cUL Certificate	UL_E137861 UL_E345003
cULus Certificate	cUL_E137861
Cut-off Current Characteristic	1SAM300508F0001 1SAM300508F0003
Declaration of Conformity - CCC	2020980307004600
Declaration of Conformity - CE	1SAD938516-0125
DNV Certificate	1SAA963001-0303
EAC Certificate	1SAA963000-2701
GL Certificate	1SAA963001-0401
GOST Certificate	1SAA963001-2702
I ² t Characteristic	1SAM300507F0001 1SAM300507F0003
Instructions and Manuals	2CDC131022M6802
Instructions and	2CDC131060M0202

Manuals (Part 2)

KC Certificate	1SAA963002-1502
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	0.341 kg
Package Level 1 EAN	4013614482212
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	14.026 kg
Package Level 2 EAN	4013614483516

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	V11.0 : 27370401
UNSPSC	39121521
IDEA Granular Category Code (IGCC)	4845 >> 3 Pole Motor Circuit Protector Circuit Breakers

Categories

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

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

