

PRODUCT-DETAILS

MS325-20

MS325-20 Manual Motor Starter



General Information

Extended Product Type	MS325-20
Product ID	1SAM150000R1013
EAN	4013614194382
Catalog Description	MS325-20 Manual Motor Starter
Long Description	<p>The MS325-20 manual motor starter is a 54 mm width devices with a rated operational current of $I_e = 20$ 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 $I_{cs} = 55$ kA at 400 VAC and the trip class 10A. 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. Auxiliary contacts, signalling contacts, undervoltage releases, shunt trips, 3-phase bus bars, power in-feed blocks and locking devices for protection against unauthorized changes are available as accessory.</p>

Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85362010
Replacement Product ID (NEW)	1SAM350000R1013

Popular Downloads

Data Sheet, Technical Information	2CDC131046D0201
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Instructions and Manuals	2CDC131089M6801
Time-Current Characteristic Curve	1SAM100513F0013

Dimensions

Product Net Width	54 mm
Product Net Height	87.5 mm
Product Net Depth / Length	75.5 mm
Product Net Weight	0.34 kg

Technical

Rated Service Short-Circuit Breaking Capacity (I_{cs})	(230 V AC) 100 kA (400 V AC) 55 kA (440 V AC) 35 kA (500 V AC) 22 kA (690 V AC) 3.5 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{cu})	(230 V AC) 100 kA (400 V AC) 55 kA (440 V AC) 35 kA (500 V AC) 22 kA (690 V AC) 3.5 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 0.55 kW
Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 690 V AC Main Circuit 440 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)	1.6 A
Rated Frequency (f)	Main Circuit 60 Hz Main Circuit 50 Hz 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 1.0 ... 1.6 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 Main Circuit Terminals IP20
Pollution Degree	3
Electrical Durability	50000 cycle
Mechanical Durability	100000 cycle
Terminal Type	Screw Terminals
Connecting Capacity	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ²

Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 4 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 4 mm ² Flexible 1/2x 0.75 ... 2.5 mm ² Flexible 1/2x 1 ... 6 mm ² Rigid 1/2x 1 ... 4 mm ² Rigid 1/2x 1 ... 6 mm ²
Tightening Torque	Main Circuit 1.4 N·m
Wire Stripping Length	Auxiliary Circuit 8 mm Main Circuit 10 mm
Recommended Screw Driver	Pozidriv 2 M3.5 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
Standards	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1

Technical UL/CSA

Short-Circuit Current Rating (SCCR)	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) 5 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) 5 kA
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Ampere Rating UL/CSA	20 A
Horsepower Rating UL/CSA	(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 1.6 A (208 V AC) Three Phase 1.6 A (220 ... 240 V AC) Three Phase 1.6 A (440 ... 480 V AC) Three Phase 1.6 A (550 ... 600 V AC) Three Phase 1.6 A
Locked Rotor Amps	(200 V AC) Three Phase 9.6 A (208 V AC) Three Phase 9.6 A (220 ... 240 V AC) Three Phase 9.6 A (440 ... 480 V AC) Three Phase 9.6 A (550 ... 600 V AC) Three Phase 9.6 A
General Use Rating UL/CSA	(600 V AC) 1.6 A
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 16-12 AWG Flexible 1/2x 14-8 AWG Stranded 1/2x 16-12 AWG Stranded 1/2x 14-8 AWG
Tightening Torque UL/CSA	Auxiliary Circuit 7 in·lb Main Circuit 14 in·lb

Environmental

Ambient Air Temperature	Around the Enclosure 0 ... +40 °C Operation -25 ... +50 °C Operation Compensated -25 ... +55 °C Operation Compensated -25 ... +50 °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 15g
Resistance to Vibrations acc. to IEC 60068-2-6	5g / 10 ... 150 Hz
RoHS Status	Following EU Directive 2002/95/EC August 18, 2005 and amendment

Certificates and Declarations (Document Number)

ATEX Certificate	1SAA918000-3903
BV Certificate	1SAA918000-0205
CB Certificate	1SAA918000-2003
CQC Certificate	CQC2017010307033534
cUL Certificate	cUL_E137861 cUL_E345003
Declaration of Conformity - CCC	2020980307003580
Declaration of Conformity - CE	1SAD938518-0003
Declaration of Conformity - UKCA	1SAD938501-1003
DNV Certificate	1SAA918000-0306
GL Certificate	1SAA918000-0403
Instructions and Manuals	2CDC131089M6801
LR Certificate	1SAA918000-0504
RINA Certificate	1SAA918000-0803
RMRS Certificate	1SAA918000-0704
RoHS Information	1SAD938514-0003
Time-Current Characteristic Curve	1SAM100513F0013
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	58 mm
Package Level 1 Height	78 mm
Package Level 1 Gross Weight	0.37 kg
Package Level 1 EAN	4013614194382
Package Level 2 Units	carton 24 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	8.18 kg
Package Level 2 EAN	4013614494512

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	
ETIM 8	EC000074 - Motor protection circuit-breaker	
eClass	V11.0 : 27370401	
UNSPSC	39121521	
IDEA Granular Category Code (IGCC)	4845 >> 3 Pole Motor Circuit Protector Circuit Breakers	
E-Number (Finland)	3707067	

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

