



PRODUCT-DETAILS

# MS325-16

## MS325-16 Manual Motor Starter 12.5 ... 16 A



General Information	
Extended Product Type	MS325-16
Product ID	1SAM150000R1012
EAN	4013614194375
Catalog Description	MS325-16 Manual Motor Starter 12.5 ... 16 A
Long Description	The MS325-16 manual motor starter is a 54 mm width devices with a rated operational current of Ie = 16 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 = 60 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.

Ordering	
Minimum Order Quantity	1 piece
Customs Tariff Number	85362010
Replacement Product ID	1SAM350000R1011

(NEW)

Popular Downloads

Data Sheet, Technical Information	2CDC131046D0201
Instructions and Manuals	2CDC131089M6801
Time-Current Characteristic Curve	1SAM100513F0012

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) 60 kA (440 V AC) 40 kA (500 V AC) 25 kA (690 V AC) 4 kA
Rated Ultimate Short-Circuit Breaking Capacity ( $I_{cu}$ )	(230 V AC) 100 kA (400 V AC) 60 kA (440 V AC) 40 kA (500 V AC) 25 kA (690 V AC) 4 kA
Rated Instantaneous Short-Circuit Current Setting ( $I_i$ )	240 A
Setting Range	12.5 ... 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 0.75 kW
Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 690 V AC Main Circuit 440 V DC
Rated Operational Current ( $I_e$ )	16 A
Rated Operational Current AC-3 ( $I_e$ )	16 A
Rated Operational Current AC-3e ( $I_e$ )	2.5 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 ... 1.7 W
Number of Poles	3

Mounted Auxiliary Contacts	1 NO, 1 NC
Number of Auxiliary Contacts NC	1
Number of Auxiliary Contacts NO	1
Conventional Free-air Thermal Current ( $I_{th}$ )	Main Circuit 16 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 Main Circuit	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 1/2x 0.75 ... 4 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 4 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1/2x 1 ... 6 mm <sup>2</sup> Rigid 1/2x 1 ... 4 mm <sup>2</sup> Rigid 1/2x 1 ... 6 mm <sup>2</sup>
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
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
Horsepower Rating UL/CSA	(200 V AC) Three Phase 0.5 Hp (208 V AC) Three Phase 0.5 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	(200 V AC) Three Phase 2.5 A

Use	(208 V AC) Three Phase 2.5 A (220 ... 240 V AC) Three Phase 2.5 A (440 ... 480 V AC) Three Phase 2.5 A (550 ... 600 V AC) Three Phase 2.5 A
Locked Rotor Amps	(200 V AC) Three Phase 15 A (208 V AC) Three Phase 15 A (220 ... 240 V AC) Three Phase 15 A (440 ... 480 V AC) Three Phase 15 A (550 ... 600 V AC) Three Phase 15 A
General Use Rating UL/CSA	(600 V AC) 2.5 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	5g 10 ... 150 Hz

Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	1SAA960005-4502
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)

Certificates and Declarations

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	1SAD101100-3412

Declaration of Conformity - UKCA	1SAD201100-3412
DNV Certificate	1SAA918000-0306
GL Certificate	1SAA918000-0403
LR Certificate	1SAA918000-0504
RINA Certificate	1SAA918000-0804
RMRS Certificate	1SAA918000-0704
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	4013614194375
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	4013614494505

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)	4731 >> Manual Starters
E-Number (Finland)	3707064

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## Categories

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

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

