MS325-0.16 1/5



PRODUCT-DETAILS

## MS325-0.16

## MS325-0.16 Manual Motor Starter 0.10 ... 0.16 A



Extended Product Type	MS325-0.16
Product ID	1SAM150000R1001
EAN	4013614194979
Cotolog Description	MS22E 0.16 Manual Motor Starter 0.10 0.16 A

Catalog Description

MS325-0.16 Manual Motor Starter 0.10 ... 0.16 A

The MS325-0.16 manual motor starter is a 54 mm width devices with a rated operational current of le = 0.16 Å. 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 lcs = 100 kA at 400 VAC and the trip class 10Å. 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.

Long Description

## Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85362010
Replacement Product ID	1SAM350000R1001

MS325-0.16 2/5

Technical     Rated Service Short-	Popular Downloads	
Instructions and Manuals   CDC0131089M6807   Countries   Countr	Data Sheet, Technical	2CDC131046D0201
Dimensions		20D0121000M0001
Dimensions		
Product Net Height         54 mm           Product Net Height         875 mm           Product Net Depth / Length         7.5 5 mm           Length         0.28 kg           Product Net Weight         0.28 kg           Technical           Rated Service Short-Circuit Freaking Capacity (400 ∨ AC) 1000 kA           (400 ∨ AC) 1000 kA         (400 ∨ AC) 1000 kA           (650 ∨ AC) 1000 kA         (400 ∨ AC) 1000 kA           Rated Ultimate Short-Circuit Breaking Capacity (400 ∨ AC) 1000 kA         (600 ∨ AC) 1000 kA           (600 ∨ AC) 1000 kA         (600 ∨ AC) 1000 kA           Rated Instantaneous (600 ∨ AC) 1000 kA         1.6 A           Short-Circuit Curnet Setting (I)         (600 ∨ AC) 1000 kA           Setting Range         0. 10 0.16 A           Rated Operational Power AC-3 (Pe) and AC-3		10/14/100010/0001
Product Net Width         54 mm           Product Net Helight         8.75 mm           Congth         7.55 mm           Product Net Depth / Length         0.28 kg           Froduct Net Weight         0.28 kg           Technical           Rated Service Short-Circuit Freeking Capacity (400 V AC) 1000 kA (400	Dimensions	
Product Net Height         87.5 mm           Product Net Depth / Length         75.5 mm           Length         0.28 kg           Product Net Weight         0.28 kg           Technical         2.20 ∨ AC, 100 kA           Rated Service Short-Circuit Freaking Capacity (100 ∨ AC, 100 kA (100 ∨ AC, 100 ∨ AC, 100 kA (100 ∨ AC, 100 ∨ AC,		
Product Net Weight		
Product Net Weight         0.28 kg           Technical         Cased Service Short         (230 V AC) 100 kA (100 kg (10		75.5 mm
Rated Service Short- Circuit Breaking Capacity         (230 V AC) 100 kA (400 V AC) 100 kA (500 V AC) 100 kA (500 V AC) 100 kA (500 V AC) 100 kA (500 V AC) 100 kA (100 V C) 100 kA (100 V C) 100 kA (100 V C) 100 kA (500 V AC) 100 kA	_	0.28 kg
Circuit Breaking Capacity         (400 V AC) 100 kA           (I <sub>cs</sub> )         (360 V AC) 100 kA           Rated Ultimate Short-         (230 V AC) 100 kA           Circuit Breaking Capacity         (230 V AC) 100 kA           (I <sub>cu</sub> )         (400 V AC) 100 kA           (I <sub>cu</sub> )         (400 V AC) 100 kA           Rated Instantaneous         (500 V AC) 100 kA           Short-Circuit Current         (500 V AC) 100 kA           Setting Range         0.10 0.16 A           Rated Operational Power         (400 V) Three Phase 0.03 kW           AC-3 (P <sub>e</sub> )         Main Circuit 690 V AC           Rated Operational Current         0.16 A           (I <sub>c</sub> )         Main Circuit 690 V AC           Rated Operational Current         0.16 A           (I <sub>c</sub> )         Main Circuit 690 V AC           Rated Operational Current         0.16 A           (I <sub>c</sub> )         Main Circuit 690 V AC           Rated Impulse Withstand         Main Circuit 50 Hz           Voltage (U <sub>imp</sub> )         Main Circuit 6 KV           Rated Insulation Voltage         690 V           (U <sub>i</sub> )         Main Circuit 6 KV           Onwentional Free-air         Main Circuit 7 in Free-air           Thermal Current (I <sub>th</sub> )         Main Circuit 10 in Fa	Technical	
(I <sub>cs</sub> )         (440 V AC) 100 KA (500 V AC) 100 KA (400 V AC) 100 KA (400 V AC) 100 KA (500 V AC) (500 V AC) 100 KA (500 V AC) (500 V A		(230 V AC) 100 kA
Rated Ultimate Short-         (230 V AC) 100 kA           Circuit Breaking Capacity         (230 V AC) 100 kA           (Incut Circuit Breaking Capacity         (400 V AC) 100 kA           (Incut Circuit Breaking Capacity         (400 V AC) 100 kA           Rated Instantaneous         (500 V AC) 100 kA           Short-Circuit Current         (500 V AC) 100 kA           Setting Range         0.10 0.16 A           Rated Operational Power         (400 V) Three Phase 0.03 kW           AC-3 (Pa)         Main Circuit 690 V AC           Rated Operational Current         0.16 A           (Incut Circuit Cir		(400 V AC) 100 kA
Rated Ultimate Short- Circuit Breaking Capacity (Liqu)         (230 V AC) 100 kA (400 V AC) 100 kA (400 V AC) 100 kA (400 V AC) 100 kA (500 V	(I <sub>CS</sub> )	(500 V AC) 100 kA
(1 <sub>cu</sub> ) Rated Instantaneous Short-Circuit Current Setting (1 <sub>1</sub> ) Setting Range 3.1.6.A Rated Operational Power AC-3 (P <sub>a</sub> ) Rated Operational Power AC-3 (P <sub>a</sub> ) Rated Operational Voltage Main Circuit 690 ∨ AC Main Circuit 700 ∨ AC Main Circui	Rated Ultimate Short-	(230 V AC) 100 kA
Setting Range		
Rated Instantaneous Short-Circuit Current Setting (I <sub>1</sub> )  Setting Range (A00 V) Three Phase 0.03 kW Ac-3 (P <sub>2</sub> )  Rated Operational Power Ac-3 (P <sub>2</sub> )  Rated Operational Voltage Main Circuit 690 V AC Main Circuit 400 V DC  Rated Operational Current (I <sub>2</sub> )  Rated Prequency (f)  Rated Frequency (f)  Rated Insulation Voltage (V <sub>imp</sub> )  Power Loss at Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles 3.9  Conventional Free-air Main Circuit 10.16 A Thermal Current (I <sub>1</sub> )  Degree of Protection Main Circuit 10.16 A Thermal Current (I <sub>1</sub> )  Degree of Protection Flousing IP20  Pollution Degree 3.3  Electrical Durability 5.0000 cycle Mechanical Durability 6.0000 cycle Mechanical Durability 7.00000 cycle Mechanical Durabil	(I <sub>Cu</sub> )	(500 V AC) 100 kA
Rated Operational Power AC-3 (Pe) Rated Operational Voltage Rated Operational Voltage Rated Operational Current (le) Rated Operational Current (le) Rated Operational Current AC-3 (le) Rated Operational Current AC-3 (le) Rated Frequency (f) Rated Impulse Withstand Voltage (U <sub>imp</sub> ) Rated Insulation Voltage (U <sub>l)</sub> Rated Insulation Voltage (U <sub>l)</sub> Power Loss at Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles at Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles Begree of Protection Referent (lth) R	Short-Circuit Current	
AC-3 (Pe) Rated Operational Voltage Rated Operational Current (le) Rated Operational Current (le) Rated Operational Current (le) Rated Operational Current Rated Operational Current Rated Operational Current Rated Frequency (f) Rated Frequency (f) Rated Inpulse Withstand Voltage (U <sub>imp</sub> ) Rated Insulation Voltage (U <sub>l</sub> ) Rated Insulation Voltage (U <sub>l</sub> ) Power Loss Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles Rated Insulation Voltage Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles Rated Operating Conditions per Pole 0.7 1.8 W Remail Current (l <sub>th</sub> ) Remail Current (l <sub>th</sub> ) Remail Current (l <sub>th</sub> ) Repeated Insulation Voltage Remail Current (l <sub>th</sub> ) Repeated Insulation Voltage Remail Current (l <sub>th</sub> ) Remail Current (l <sub>th</sub> ) Remail Current (l <sub>th</sub> ) Repeated Insulation Voltage Remail Current (l <sub>th</sub> ) Remail Current	Setting Range	0.10 0.16 A
Rated Operational Current (le) Rated Operational Current (le) Rated Operational Current AC-3 (le) Rated Frequency (f) Rated Frequency (f) Rated Impulse Withstand Voltage (U <sub>imp</sub> ) Rated Insulation Voltage (l <sub>l</sub> ) Rower Los At Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles Acres (le) Conventional Free-air Arbermal Current (lth) Degree of Protection Amain Circuit 0.16 A Rated Insulation Voltage Rated Insulation Voltage (log) Rower Loss At Rated Operating Conditions per Pole 0.7 1.8 W Amain Circuit 0.16 A Rated Insulation Voltage (log) Rated Insulation Voltage (log	Rated Operational Power	(400 V) Three Phase 0.03 kW
Rated Operational Current (I <sub>e</sub> )  Rated Operational Current AC-3 (I <sub>e</sub> )  Rated Frequency (f)  Rated Frequency (f)  Rated Impulse Withstand Voltage (U <sub>imp</sub> )  Rated Insulation Voltage (U <sub>i</sub> )  Power Loss At Rated Operating Conditions per Pole 0.7 1.8 W  Number of Poles  Conventional Free-air Thermal Current (I <sub>th</sub> )  Degree of Protection  Relading Poles  Electrical Durability  Power Loss  Relading Poles  Conventional Free-air Main Circuit 0.16 A  Housing IP20  Main Circuit Terminals IP20  Auxiliary Circuit 8 mm²  Flexible with Insulated Ferrule 1/2x 0.75 4 mm²  Flexible 1/2x 1 6 mm²  Rigid 1/2x 1 6 mm²  Auxiliary Circuit 8 mm  Wire Stripping Length	Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 440 V DC
AC-3 (I <sub>e</sub> )  Rated Frequency (f)  Rated Impulse Withstand Voltage (U <sub>imp</sub> )  Rated Insulation Voltage (U <sub>il</sub> )  Rower Loss  At Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles  Conventional Free-air Thermal Current (I <sub>th</sub> )  Degree of Protection  Adain Circuit 0.16 A  Housing IP20 Main Circuit Terminals IP20 Pollution Degree  Selectrical Durability  Terminal Type  Connecting Capacity Main  Circuit  Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm²		0.16 A
Rated Impulse Withstand Voltage (U <sub>imp</sub> )  Rated Insulation Voltage (U <sub>imp</sub> )  Rated Insulation Voltage (O <sub>imp</sub> )  Rated Insulation Voltage (O <sub>imp</sub> )  Power Loss at Rated Operating Conditions per Pole 0.7 1.8 W  Number of Poles 3P  Conventional Free-air Main Circuit 0.16 A Thermal Current (I <sub>th</sub> )  Degree of Protection Housing IP20 Main Circuit Terminals IP20  Pollution Degree 3  Electrical Durability 50000 cycle  Mechanical Durability 50000 cycle  Terminal Type Screw Terminals  Connecting Capacity Main Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 1 6 mm²  Tightening Torque Main Circuit 8 mm  Wire Stripping Length  Auxiliary Circuit 8 mm		0.16 A
Voltage (U <sub>imp</sub> )  Rated Insulation Voltage (U <sub>i</sub> )  Power Loss at Rated Operating Conditions per Pole 0.7 1.8 W  Number of Poles  Conventional Free-air Thermal Current (I <sub>th</sub> )  Degree of Protection  Pollution Degree  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Circuit Circuit Tightening Torque  Main Circuit 1.4 N·m  Wire Stripping Length	Rated Frequency (f)	Main Circuit 50 Hz Main Circuit 60 Hz
Power Loss at Rated Operating Conditions per Pole 0.7 1.8 W Number of Poles 3P Conventional Free-air Main Circuit 0.16 A Thermal Current (I <sub>th</sub> )  Degree of Protection Housing IP20 Main Circuit Terminals IP20 Pollution Degree 3 Electrical Durability 50000 cycle Mechanical Durability 50000 cycle Mechanical Durability 100000 cycle Terminal Type Screw Terminals Connecting Capacity Main Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 1 6 mm² Flexible 1/2x 1 6 mm² Tightening Torque Main Circuit 1.4 N·m Wire Stripping Length  Auxiliary Circuit 8 mm²		Main Circuit 6 kV
Number of Poles  Conventional Free-air Thermal Current (I <sub>th</sub> )  Degree of Protection  Housing IP20 Main Circuit Terminals IP20 Pollution Degree  Electrical Durability  Mechanical Durability  Mechanical Durability  Terminal Type  Screw Terminals  Connecting Capacity Main  Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m  Wire Stripping Length		690 V
Conventional Free-air Thermal Current (Ith)  Degree of Protection  Housing IP20 Main Circuit Terminals IP20 Pollution Degree  Electrical Durability  Mechanical Durability  Mechanical Durability  Terminal Type  Screw Terminals  Connecting Capacity Main  Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m  Wire Stripping Length	Power Loss	at Rated Operating Conditions per Pole 0.7 1.8 W
Thermal Current (Ith)  Degree of Protection  Housing IP20 Main Circuit Terminals IP20  Pollution Degree  Electrical Durability  Mechanical Durability  Screw Terminal Type  Connecting Capacity Main Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m  Wire Stripping Length	Number of Poles	3P
Main Circuit Terminals IP20   Pollution Degree		Main Circuit 0.16 A
Electrical Durability  50000 cycle  Mechanical Durability  100000 cycle  Terminal Type  Screw Terminals  Connecting Capacity Main Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m  Wire Stripping Length  Auxiliary Circuit 8 mm	Degree of Protection	Housing IP20 Main Circuit Terminals IP20
Mechanical Durability     100000 cycle       Terminal Type     Screw Terminals       Connecting Capacity Main     Flexible with Ferrule 1/2x 0.75 4 mm²       Circuit     Flexible with Insulated Ferrule 1/2x 0.75 4 mm²       Flexible 1/2x 1 6 mm²     Flexible 1/2x 1 6 mm²       Tightening Torque     Main Circuit 1.4 N·m       Wire Stripping Length     Auxiliary Circuit 8 mm²	Pollution Degree	3
Terminal Type  Connecting Capacity Main Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m Wire Stripping Length  Auxiliary Circuit 8 mm	-	50000 cycle
Connecting Capacity Main  Circuit  Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m Wire Stripping Length  Auxiliary Circuit 8 mm	-	100000 cycle
Circuit  Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Rigid 1/2x 1 6 mm² Tightening Torque  Main Circuit 1.4 N·m Wire Stripping Length  Auxiliary Circuit 8 mm		Screw Terminals
Wire Stripping Length Auxiliary Circuit 8 mm		Flexible with Ferrule 1/2x 0.75 4 mm² Flexible with Insulated Ferrule 1/2x 0.75 4 mm² Flexible 1/2x 1 6 mm² Rigid 1/2x 1 6 mm²
	Tightening Torque	Main Circuit 1.4 N·m
	Wire Stripping Length	Auxiliary Circuit 8 mm Main Circuit 10 mm

MS325-0.16 3/5

Recommended Screw Driver	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
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	
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Connecting Capacity Main	Flexible 1/2x 14-8 AWG
Circuit UL/CSA	Stranded 1/2x 14-8 AWG
Tightening Torque	Auxiliary Circuit 7 in·lb
UL/CSA	Main Circuit 14 in·lb

Environmental	
Ambient Air Temperature	Around the Enclosure 0 +40 °C Operation -25 +50 °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

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
CCC Certificate	2024010307659819
CQC Certificate	CQC2017010307033534
cUL Certificate	cUL_E137861 cUL_E345003
Declaration of Conformity - CCC	2020980307003580

MS325-0.16 4/5

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	0.31 kg
Package Level 1 EAN	4013614194979
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	6.74 kg
Package Level 2 EAN	4013614494390

External Classifications and Standards	
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)	3707051

MS325-0.16 5/5

 $\label{low-Voltage-Products} \begin{tabular}{ll} Low Voltage Products and Systems $\rightarrow$ Control Products $\rightarrow$ Manual Motor Starters $\rightarrow$ Manual Motor$ 

