## MS450-40



Products Low Voltage Products and Systems Circuit Breakers Manual Motor Starters

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General Information

Extended Product Type: MS450-40

**Product ID:** 1SAM450000R1005 **EAN:** 4013614265174

Catalog Description: MS450-40 Manual Motor Starter

Long Description: The MS450-40 manual motor starter is a 55 mm width devices with a rated operational curr

ent of le = 40.0 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 failure s. The manual motor starter offers a rated service short-circuit breaking capacity lcs = 25 k A at 400 VAC and the 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, signalling contacts, undervoltage releases, shunt trips, 3-phase bus bars, power in-feed blocks ar

e available as accessory.

## Additional Information

ATEX Certificate:	1SAA937000-3901
Actuator Type:	Rotary Handle
Ambient Air Temperature:	Operation -20 +70 °C Operation Compensated -20 +60 °C Storage -50 +80 °C
Ambient Air Temperature Compensation:	Yes
Ampere Rating UL/CSA:	40 A
BV Certificate:	1SAA937000-0202
CCC Certificate:	1SAA937000-3803
Connecting Capacity Main Circuit UL/CSA:	Flexible 2x 18-2 AWG Stranded 2x 18-2 AWG
Connecting Capacity Main Circuit:	Flexible with Ferrule 1x 0.75 25 mm <sup>2</sup> Flexible with Ferrule 2x 0.75 16 mm <sup>2</sup> Solid 1/2x 0.75 16 mm <sup>2</sup> Stranded 1x 0.75 35 mm <sup>2</sup> Stranded 2x 0.75 25 mm <sup>2</sup>
Contact Position Indication:	ON / OFF / TRIP
Conventional Free-air Thermal Current (I <sub>th</sub> ):	Main Circuit 40 A
Country of Origin:	Germany (DE)
Customs Tariff Number:	85362010
DNV Certificate:	1SAA937000-0302
Data Sheet, Technical Information:	1SBC100173C0201
Data Sheet, Technical Information (Part 2):	1SAM400501F0005
Data Sheet, Technical Information (Part 3):	9AKK105713A1100
Declaration of Conformity - CE:	1SAD938504-0050
Degree of Protection:	Housing IP20 Main Circuit Terminals IP00
E-nummer:	3112210
EAC Certificate:	1SAA937001-2703
EAN:	4013614265174
EPLAN Catalog Tree:	Electrical engineering / Protection devices / Motor overload switch

EPLAN Function Definition:	Motor overload switch / Motor overload switch, 6 connection points / Motor overload switch thr ee-pole 1_2_3_4_5_6
ETIM 4:	EC000074 - Motor protective circuit-breaker
ETIM 5:	EC000074 - Motor protective circuit-breaker
ЕТІМ 6:	EC000074 - Motor protection circuit-breaker
Electrical Durability:	25000 cycle
Environmental Information:	1SAA918004-2401
GL Certificate:	1SAA937000-0404
GOST Certificate:	1SAA963001-2702
General Use Rating UL/CSA:	(600 V AC) 40 A
Horsepower Rating UL/CSA:	(200 V AC) Three Phase 10 Hp (208 V AC) Three Phase 10 Hp (220 240 V AC) Three Phase 15 Hp (440 480 V AC) Three Phase 30 Hp (550 600 V AC) Three Phase 40 Hp
IIT Publishing Status:	Level 0 - Information enabled
Industrial IT Certification Level:	0
Instructions and Manuals:	1SAM407001R1001
Instructions and Manuals (Part 2):	2CDC131017M5701
Invoice Description:	MS450-40 Manual Motor Starter
LR Certificate:	1SAA937000-0504
Maximum Operating Altitude Permissible:	2000 m
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Mechanical Durability:	50000 cycle
Minimum Order Quantity:	1 piece
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
Number of Poles:	3
Number of Protected Poles:	3
Object Classification Code:	F
Package Level 1 EAN:	4013614265174
Package Level 1 Gross Weight:	1.067 kg
Package Level 1 Height:	147 mm
Package Level 1 Length:	165 mm
Package Level 1 Units:	1 piece
Package Level 1 Width:	62.5 mm
Phase Loss Sensitive:	Yes
Pollution Degree:	3
Power Loss:	at Rated Operating Conditions per Pole 3.2 6.7 W
Product Main Type:	MS450
Product Name:	Manual Motor Starter
Product Net Depth:	149 mm
Product Net Height:	140 mm
Product Net Weight:	1.047 kg
Product Net Width:	55 mm
RMRS Certificate:	1SAA918000-0704
Rated Current (I <sub>n</sub> ): Rated Frequency (f):	40 A  Main Circuit 50 Hz
B-4-31	Main Circuit 60 Hz

Kated Impulse Withstand Voltage (U <sub>imp</sub> ):	Main Circuit 6 KV
Rated Instantaneous Short-Circuit Current	520 A
Setting (I <sub>i</sub> ):	
Rated Insulation Voltage (U <sub>i</sub> ):	690 V
Rated Operational Current (I <sub>e</sub> ):	40 A
Rated Operational Current AC-3 (I <sub>e</sub> ):	40 A
Rated Operational Power AC-3 (P <sub>e</sub> ):	(400 V) Three Phase 18.5 kW
Rated Operational Voltage:	Main Circuit 690 V AC Main Circuit 450 V DC
Rated Service Short-Circuit Breaking Capacity (I <sub>cs</sub> ):	(230 V AC) 100 kA (400 V AC) 25 kA (440 V AC) 15 kA (500 V AC) 5 kA (690 V AC) 2 kA
Rated Service Short-Circuit Breaking Capacity, in %of Icu (I <sub>cs</sub> ):	50 %
Rated Ultimate Short-Circuit Breaking Capacity (I <sub>cu</sub> ):	(230 V AC) 100 kA (400 V AC) 50 kA (440 V AC) 50 kA (500 V AC) 10 kA (690 V AC) 4 kA
Rated Uninterrupted Current (I <sub>u</sub> ):	40 A
Recommended Screw Driver:	M5 Pozidriv 2
Resistance to Shock acc. to IEC 60068-2-27:	11 ms Pulse 25g
Resistance to Vibrations acc. to IEC 60068-2-6:	2g / 5 150 Hz
RoHS Date:	0016
RoHS Date: RoHS Information:	0016 1SAA918002-4401
RoHS Information:	1SAA918002-4401
RoHS Information: RoHS Status:	1SAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment
RoHS Information:  RoHS Status:  Selectivity Category:	1SAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment A
RoHS Information:  RoHS Status:  Selectivity Category:  Selling Unit of Measure:	1SAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment A piece
RoHS Information:  RoHS Status:  Selectivity Category:  Selling Unit of Measure:  Setting Range:	1SAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment A piece 28 40 A
RoHS Information:  RoHS Status:  Selectivity Category:  Selling Unit of Measure:  Setting Range:  Short Description:	1SAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment A piece 28 40 A MS450-40 Manual Motor Starter gG Type Fuses 100 A, 500 V AC gG Type Fuses 125 A, 440 V AC gG Type Fuses 160 A, 400 V AC
RoHS Information:  RoHS Status:  Selectivity Category:  Selling Unit of Measure:  Setting Range:  Short Description:  Short-Circuit Protective Devices:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC gG Type Fuses 125 A, 440 V AC gG Type Fuses 160 A, 400 V AC gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 508
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices: Standards:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC  gG Type Fuses 125 A, 440 V AC  gG Type Fuses 160 A, 400 V AC  gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1  IEC/EN 60947-2  IEC/EN 60947-4-1  UL 508  CSA 22.2 No. 14
RoHS Information:  RoHS Status:  Selectivity Category:  Selling Unit of Measure:  Setting Range:  Short Description:  Short-Circuit Protective Devices:  Standards:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC  gG Type Fuses 125 A, 440 V AC  gG Type Fuses 160 A, 400 V AC  gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1  IEC/EN 60947-2  IEC/EN 60947-4-1  UL 508  CSA 22.2 No. 14  Yes
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices:  Standards: Standards: Tightening Torque:	ISAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece 28 40 A  MS450-40 Manual Motor Starter gG Type Fuses 100 A, 500 V AC gG Type Fuses 125 A, 440 V AC gG Type Fuses 160 A, 400 V AC gG Type Fuses 63 A, 690 V AC IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 508 CSA 22.2 No. 14  Yes  Main Circuit 3 4.5 N·m
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices:  Standards:  Suitable for Isolation: Tightening Torque: Tightening Torque UL/CSA:	ISAA918002-4401 Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece 28 40 A  MS450-40 Manual Motor Starter gG Type Fuses 100 A, 500 V AC gG Type Fuses 125 A, 440 V AC gG Type Fuses 160 A, 400 V AC gG Type Fuses 63 A, 690 V AC IEC/EN 60947-1 IEC/EN 60947-4-1 UL 508 CSA 22.2 No. 14  Yes  Main Circuit 3 4.5 N·m
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices:  Standards:  Suitable for Isolation: Tightening Torque UL/CSA: Trip Class:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC  gG Type Fuses 125 A, 440 V AC  gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1  IEC/EN 60947-2  IEC/EN 60947-4-1  UL 508  CSA 22.2 No. 14  Yes  Main Circuit 3 4.5 N·m  Main Circuit 27 40 in·lb  10  UL_E167205
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices:  Standards:  Standards:  Suitable for Isolation: Tightening Torque: Tightening Torque UL/CSA: Trip Class: UL Certificate:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC  gG Type Fuses 125 A, 440 V AC  gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1  IEC/EN 60947-2  IEC/EN 60947-4-1  UL 508  CSA 22.2 No. 14  Yes  Main Circuit 3 4.5 N·m  Main Circuit 27 40 in·lb  10  UL_E167205  UL_E195536
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices:  Standards:  Standards:  Suitable for Isolation: Tightening Torque: Tightening Torque UL/CSA: Trip Class: UL Certificate:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC  gG Type Fuses 125 A, 440 V AC  gG Type Fuses 160 A, 400 V AC  gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1  IEC/EN 60947-4-1  UL 508  CSA 22.2 No. 14  Yes  Main Circuit 3 4.5 N·m  Main Circuit 27 40 in·lb  10  UL_E167205  UL_E195536  39121521
RoHS Information: RoHS Status: Selectivity Category: Selling Unit of Measure: Setting Range: Short Description: Short-Circuit Protective Devices:  Standards:  Standards:  Suitable for Isolation: Tightening Torque: Tightening Torque UL/CSA: Trip Class: UL Certificate:  UNSPSC: Utilization:	1SAA918002-4401  Following EU Directive 2002/95/EC August 18, 2005 and amendment  A  piece  28 40 A  MS450-40 Manual Motor Starter  gG Type Fuses 100 A, 500 V AC  gG Type Fuses 125 A, 440 V AC  gG Type Fuses 63 A, 690 V AC  IEC/EN 60947-1  IEC/EN 60947-4-1  ILL 508  CSA 22.2 No. 14  Yes  Main Circuit 3 4.5 N·m  Main Circuit 27 40 in·lb  10  UL_E167205  UL_E195536  39121521  Motor Protection



