

PRODUCT-DETAILS

# MS495-90

## MS495-90 Manual Motor Starter



### General Information

Extended Product Type	MS495-90
Product ID	1SAM550000R1009
EAN	4013614265471
Catalog Description	MS495-90 Manual Motor Starter

Long Description

The MS495-90 manual motor starter is a 70 mm width devices with a rated operational current of  $I_e = 90.0$  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 failures. The manual motor starter offers a rated service short-circuit breaking capacity  $I_{cs} = 25$  kA 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 and shunt trips are available as accessory.

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85362090

### Popular Downloads

Data Sheet, Technical Information	1SBC100173C0201
Data Sheet, Technical Information (Part 3)	9AKK105713A1102

Instructions and Manuals	1SAM507001R1001
Instructions and Manuals (Part 2)	2CDC131017M5701
Time-Current Characteristic Curve	1SAM500501F0009

## Dimensions

Product Net Width	70 mm
Product Net Height	165 mm
Product Net Depth / Length	174 mm
Product Net Weight	2.28 kg

## Technical

Rated Service Short-Circuit Breaking Capacity ( $I_{cs}$ )	(230 V AC) 100 kA (400 V AC) 25 kA (440 V AC) 20 kA (500 V AC) 4 kA (690 V AC) 3 kA
Rated Ultimate Short-Circuit Breaking Capacity ( $I_{cu}$ )	(230 V AC) 100 kA (400 V AC) 50 kA (440 V AC) 50 kA (500 V AC) 8 kA (690 V AC) 5 kA
Rated Instantaneous Short-Circuit Current Setting ( $I_i$ )	1170 A
Setting Range	70 ... 90 A
Rated Operational Power AC-3 ( $P_e$ )	(400 V) Three Phase 45 kW
Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 450 V DC
Rated Operational Current ( $I_e$ )	90 A
Rated Operational Current AC-3 ( $I_e$ )	90 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 2.9 W
Number of Poles	3
Conventional Free-air Thermal Current ( $I_{th}$ )	Main Circuit 90 A
Degree of Protection	Housing IP20 Main Circuit Terminals IP00
Pollution Degree	3
Electrical Durability	25000 cycle
Mechanical Durability	50000 cycle
Terminal Type	Screw Terminals
Connecting Capacity Main Circuit	Flexible with Ferrule 1x 2.5 ... 50 mm <sup>2</sup> Flexible with Ferrule 2x 2.5 ... 35 mm <sup>2</sup> Solid 1/2x 2.5 ... 16 mm <sup>2</sup> Stranded 1x 10 ... 70 mm <sup>2</sup> Stranded 2x 10 ... 50 mm <sup>2</sup>
Tightening Torque	Main Circuit 4 ... 6 N·m
Wire Stripping Length	Main Circuit 17 mm

Recommended Screw Driver	Hexagon 4
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
Actuator Type	Rotary Handle
Contact Position Indication	ON / OFF / TRIP
Standards	CSA 22.2 No. 14 IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 508

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Ampere Rating UL/CSA	90 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 30 Hp (208 V AC) Three Phase 30 Hp (220 ... 240 V AC) Three Phase 30 Hp (440 ... 480 V AC) Three Phase 75 Hp (550 ... 600 V AC) Three Phase 100 Hp
General Use Rating UL/CSA	(600 V AC) 90 A
Connecting Capacity Main Circuit UL/CSA	Flexible 1x 10-2/0 AWG Flexible 1/2x 10-1/0 AWG Stranded 1x 10-2/0 AWG Stranded 1/2x 10-1/0 AWG
Tightening Torque UL/CSA	Main Circuit 35 ... 53 in-lb

## Environmental

Ambient Air Temperature	Operation -20 ... +70 °C Operation Compensated -20 ... +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
RoHS Status	Following EU Directive 2011/65/EU

## Certificates and Declarations (Document Number)

ATEX Certificate	1SAA937000-3901
BV Certificate	1SAA937000-0202
CQC Certificate	CQC2013010307604042
cUL Certificate	cUL_E195536
Declaration of Conformity - CCC	2020980307003525
Declaration of Conformity - CE	1SAD938506-0050
Declaration of Conformity - UKCA	1SAD938500-1050
DNV Certificate	1SAA937000-0301
EAC Certificate	1SAA937001-2703
GL Certificate	1SAA937000-0404

GOST Certificate	1SAA963001-2702
Instructions and Manuals	1SAM507001R1001
Instructions and Manuals (Part 2)	2CDC131017M5701
LR Certificate	1SAA937000-0504
RMRS Certificate	1SAA918000-0704
RoHS Information	1SAD938506-0050
Time-Current Characteristic Curve	1SAM500501F0009
UL Certificate	UL_E167205 UL_E195536

## Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	76.5 mm
Package Level 1 Depth / Length	190 mm
Package Level 1 Height	171 mm
Package Level 1 Gross Weight	2.3 kg
Package Level 1 EAN	4013614265471

## 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
E-Number (Finland)	3707077
E-Number (Sweden)	3112268

## Categories

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

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

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