

PRODUCT-DETAILS

MS495-90

MS495-90 Manual Motor Starter



General Information

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| Extended Product Type | MS495-90 |
| Product ID | 1SAM550000R1009 |
| EAN | 4013614265471 |
| Catalog Description | MS495-90 Manual Motor Starter |
| Long Description | <p>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.</p> |

Ordering

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| Minimum Order Quantity | 1 piece |
| Customs Tariff Number | 85362090 |

Popular Downloads

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

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

Dimensions

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

Technical

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| 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 ² Flexible with Ferrule 2x 2.5 ... 35 mm ² Solid 1/2x 2.5 ... 16 mm ² Stranded 1x 10 ... 70 mm ² Stranded 2x 10 ... 50 mm ² |
| Tightening Torque | Main Circuit 4 ... 6 N·m |
| Wire Stripping Length | Main Circuit 17 mm |

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| 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

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|---|---|
| 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

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| 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)

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|----------------------------------|---------------------|
| 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 |

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| 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

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|--------------------------------|---------------|
| 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

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| 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

