

# MS116-1.0



Products Low Voltage Products and Systems Circuit Breakers Manual Motor Starters

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## General Information

<b>Extended Product Type:</b>	MS116-1.0
<b>Product ID:</b>	1SAM250000R1005
<b>EAN:</b>	4013614320286
<b>Catalog Description:</b>	MS116-1.0 Manual Motor Starter
<b>Long Description:</b>	<p>The MS116-1.0 manual motor starter is a compact 45 mm width devices with a rated operational current of <math>I_e = 1.0</math> 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 <math>I_{cs} = 50</math> 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.</p>

## Additional Information

<b>ABS Certificate:</b>	1SAA963000-0104
<b>Actuator Type:</b>	Rotary Handle
<b>Ambient Air Temperature:</b>	Around the Enclosure 0 ... +40 °C Operation -25 ... +70 °C Operation Compensated -25 ... +55 °C Storage -50 ... +80 °C
<b>Ambient Air Temperature Compensation:</b>	Yes
<b>Ampere Rating UL/CSA:</b>	1 A
<b>BV Certificate:</b>	1SAA963000-0204
<b>CB Certificate:</b>	1SAA963000-2003
<b>CCC Certificate:</b>	1SAA963000-3804
<b>Connecting Capacity Main Circuit UL/CSA:</b>	Flexible 1/2x 16-12 AWG Stranded 1/2x 16-12 AWG
<b>Connecting Capacity Main Circuit:</b>	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 1 ... 4 mm <sup>2</sup>
<b>Contact Position Indication:</b>	ON / OFF
<b>Conventional Free-air Thermal Current (<math>I_{th}</math>):</b>	Main Circuit 1 A
<b>Core Credit:</b>	0.00
<b>Country of Origin:</b>	Germany (DE)
<b>Customs Tariff Number:</b>	85362010
<b>DNV Certificate:</b>	1SAA963000-0303
<b>Data Sheet, Technical Information:</b>	2CDC131025D0201
<b>Data Sheet, Technical Information (Part 2):</b>	1SAM200505F0005
<b>Data Sheet, Technical Information (Part 3):</b>	1SAM200507F0001 1SAM200507F0002 1SAM200507F0003 1SAM200508F0001 1SAM200508F0002 1SAM200508F0003
<b>Declaration of Conformity - CE:</b>	1SAD938516-0060

Degree of Protection:	Housing IP20 Main Circuit Terminals IP10
Dimension Diagram:	1SAM200422F0001
E-number:	3111938
EAC Certificate:	1SAA963000-2701
EAN:	4013614320286
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 three-pole 1_2_3_4_5_6
ETIM 4:	EC000074 - Motor protective circuit-breaker
ETIM 5:	EC000074 - Motor protective circuit-breaker
ETIM 6:	EC000074 - Motor protection circuit-breaker
Electrical Durability:	100000 cycle
Environmental Information:	1SAA963001-2401
GL Certificate:	1SAA963000-0402
GOST Certificate:	1SAA963001-2702
General Use Rating UL/CSA:	(600 V AC) 1 A
Horsepower Rating UL/CSA:	(550 ... 600 V AC) Three Phase 0.5 Hp
IIT Publishing Status:	Level 0 - Information enabled
Industrial IT Certification Level:	0
Instructions and Manuals:	2CDC131011M6802
Invoice Description:	MS116-1.0 Manual Motor Starter Trip class 10A, 0.63 ... 1.0A
LR Certificate:	1SAA963000-0505
Maximum Operating Altitude Permissible:	2000 m
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Mechanical Durability:	100000 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 Gross Weight:	0.24 kg
Package Level 1 Height:	50 mm
Package Level 1 Length:	95 mm
Package Level 1 Units:	1 piece
Package Level 1 Width:	92 mm
Package Level 2 EAN:	4013614408656
Package Level 2 Gross Weight:	9.986 kg
Package Level 2 Height:	210 mm
Package Level 2 Length:	395 mm
Package Level 2 Units:	40 piece
Package Level 2 Width:	280 mm
Part Type:	New
Phase Loss Sensitive:	Yes
Pollution Degree:	3
Power Loss:	at Rated Operating Conditions per Pole 0.7 ... 1.7 W
Product Main Type:	MS116
Product Name:	Manual Motor Starter

<b>Product Name:</b>	Manual Motor Starter
<b>Product Net Depth:</b>	85.6 mm
<b>Product Net Height:</b>	90 mm
<b>Product Net Weight:</b>	0.225 kg
<b>Product Net Width:</b>	45 mm
<b>RMRS Certificate:</b>	1SAA918000-0703
<b>Rated Current (I<sub>n</sub>):</b>	1 A
<b>Rated Frequency (f):</b>	Main Circuit 50 Hz Main Circuit 60 Hz
<b>Rated Impulse Withstand Voltage (U<sub>imp</sub>):</b>	Main Circuit 6 kV
<b>Rated Instantaneous Short-Circuit Current Setting (I<sub>i</sub>):</b>	12.5 A
<b>Rated Insulation Voltage (U<sub>i</sub>):</b>	690 V
<b>Rated Operational Current (I<sub>e</sub>):</b>	1 A
<b>Rated Operational Current AC-3 (I<sub>e</sub>):</b>	1 A
<b>Rated Operational Power AC-3 (P<sub>e</sub>):</b>	(400 V) Three Phase 0.25 kW
<b>Rated Operational Voltage:</b>	Main Circuit 690 V AC
<b>Rated Service Short-Circuit Breaking Capacity (I<sub>cs</sub>):</b>	(230 V AC) 50 kA (400 V AC) 50 kA (440 V AC) 30 kA (500 V AC) 30 kA (690 V AC) 30 kA
<b>Rated Service Short-Circuit Breaking Capacity, in % of I<sub>cu</sub> (I<sub>cs</sub>):</b>	100 %
<b>Rated Ultimate Short-Circuit Breaking Capacity (I<sub>cu</sub>):</b>	(230 V AC) 50 kA (400 V AC) 50 kA (440 V AC) 30 kA (500 V AC) 30 kA (690 V AC) 30 kA
<b>Rated Uninterrupted Current (I<sub>u</sub>):</b>	1 A
<b>Recommended Screw Driver:</b>	Pozidriv 2
<b>Resistance to Shock acc. to IEC 60068-2-27:</b>	11 ms Pulse 25g
<b>Resistance to Vibrations acc. to IEC 60068-2-6:</b>	5g / 3 ... 150 Hz
<b>RoHS Date:</b>	1105
<b>RoHS Information:</b>	1SAA963001-4409
<b>RoHS Status:</b>	Planned to follow EU Directive 2002/95/EC August 18, 2005 and amendment after 2008 Q1
<b>Selectivity Category:</b>	A
<b>Selling Unit of Measure:</b>	piece
<b>Setting Range:</b>	0.63 ... 1 A
<b>Short Description:</b>	MS116-1.0 Manual Motor Starter
<b>Standards:</b>	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1
<b>Suitable for Isolation:</b>	Yes
<b>Terminal Type:</b>	Screw Terminals
<b>Tightening Torque:</b>	Main Circuit 0.8 ... 1.2 N·m
<b>Tightening Torque UL/CSA:</b>	Main Circuit 10 in·lb
<b>Trip Class:</b>	10A
<b>UL Certificate:</b>	UL_E137861

**UNSPSC:** 39121521

**Utilization:** Motor Protection

**Wire Stripping Length:** Main Circuit 9 mm

**cUL Certificate:** cUL\_E137861

**eClass:** 7.0 27370401

**DNV GL Certificate:** 1SAA963000-0303

