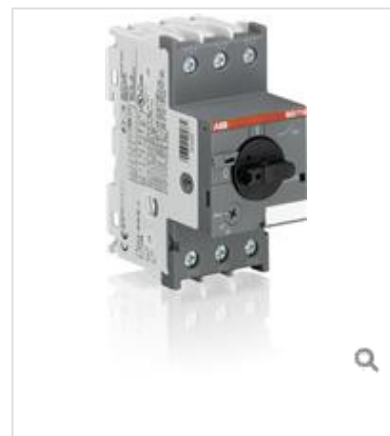


MS116-20

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General Information

Extended Product Type:	MS116-20
Product ID:	1SAM250000R1013
EAN:	4013614405655
Catalog Description:	MS116-20 Manual Motor Starter
Long Description:	The MS116-20 manual motor starter is a compact 45 mm width devices with a rated operational current of $I_e = 20.0$ 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 $I_{cs} = 10$ 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.



Categories

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

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

Accessories [Show accessory images](#)

Ordering

EAN:	4013614405655
Minimum Order Quantity:	1 piece
Customs Tariff Number:	85362010

Container Information

Package Level 1 Units:	1 piece
Package Level 1 Width:	92.0 mm
Package Level 1 Length:	102.0 mm
Package Level 1 Height:	50.0 mm
Package Level 1 Gross Weight:	0.325 kg
Package Level 2 Units:	40 piece
Package Level 2 Width:	280.0 mm
Package Level 2 Length:	395.0 mm
Package Level 2 Height:	210.0 mm
Package Level 2 Gross Weight:	13.386 kg
Package Level 2 EAN:	4013614408731

Dimensions

Product Net Width:	45.0 mm
Product Net Height:	97.8 mm
Product Net Depth:	86.6 mm
Product Net Weight:	0.310 kg

Technical

Rated Service Short-Circuit Breaking Capacity (I_{CS}):	(230V AC) 10.0 kA (400V AC) 10.0 kA (440V AC) 3.0 kA (500V AC) 3.0 kA (690V AC) 2.0 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{CU}):	(230V AC) 15.0 kA (400V AC) 15.0 kA (440V AC) 6.0 kA (500V AC) 4.0 kA (690V AC) 2.0 kA
Rated Instantaneous Short-Circuit Current Setting (I_i):	300.0 A
Setting Range:	18 ... 25 A
Rated Operational Power AC-3 (P_g):	(400V) Three Phase 9.00 kW
Rated Operational Voltage:	Main Circuit 690 V AC
Rated Operational Current (I_g):	20 A
Rated Operational Current AC-3 (I_g):	20.00 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:	Per Pole 1.5 ... 2.3 W
Number of Poles:	3
Mounted Auxiliary Contacts:	1 NO, 1 NC
Conventional Free-air Thermal Current (I_{th}):	Main Circuit 20.00 A
Degree of Protection:	IP20
Pollution Degree:	3
Electrical Durability:	50000 cycle
Mechanical Durability:	100000 cycle
Connecting Capacity-Main Circuit:	Flexible with Ferrule 1/2x 0.75 ... 6 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 6 mm ² Flexible 1/2x 1 ... 2.5 mm ² Flexible 1/2x 2.5 ... 6 mm ² Rigid 1/2x 1 ... 2.5 mm ² Rigid 1/2x 2.5 ... 6 mm ²
Connecting Capacity-Auxiliary Circuit:	Flexible with Ferrule 1/2x 0.75 ... 1.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 1.5 mm ² Flexible 1/2x 0.75 ... 1.5 mm ² Rigid 1/2x 1 ... 1.5 mm ²
Tightening Torque:	Auxiliary Circuit 0.9 N·m Control Circuit 0.9 N·m Main Circuit 28 N·m
Wire Stripping Length:	Auxiliary Circuit 8 mm Main Circuit 10 mm
Recommended Screw Driver:	Pozidriv 2

Mounting Position:	Position 1 to 6
Actuator Type:	Rotary Handle
Contact Position Indication:	ON / OFF / TRIP
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
Standards:	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1

Environmental

Ambient Air Temperature:	Around the Enclosure 0 ... +40 °C Operation -25 ... +75 °C Operation Compensated -25 ... +55 °C Storage -50 ... +85 °C
Ambient Air Temperature Compensation:	Yes
Maximum Operating Altitude Permissible:	2000 m
Resistance to Shock acc. to IEC 60068-2-27:	11 ms Pulse 12g
Resistance to Vibrations acc. to IEC 60068-2-6:	2g / 5 ... 150 Hz
RoHS Status:	Following EU Directive 2002/95/EC August 18, 2005 and amendment

Technical UL/CSA

Maximum Operating Voltage UL/CSA:	Auxiliary Circuit 250 V AC/DC Main Circuit 600 V AC/DC
Horse Power Rating UL/CSA:	220 ... 240V AC Three Phase 5.00 Hp 440 ... 480V AC Three Phase 10.00 Hp 550 ... 600V AC Three Phase 15.00 Hp
Ampere Rating UL/CSA:	20.00 A
General Use Rating UL/CSA:	600V AC 20.00 A
Connecting Capacity-Main Circuit UL/CSA:	Flexible 1/2x 16 ... 8 AWG Stranded 1/2x 16 ... 8 AWG
Connecting Capacity-Auxiliary Circuit UL/CSA:	Flexible 1/2x 16 ... 14 AWG Stranded 1/2x 16 ... 14 AWG
Tightening Torque UL/CSA:	Auxiliary Circuit 7 ... 1 in·lb Main Circuit 40 in·lb
Contact Rating UL/CSA:	B300 R300

Certificates and Declarations (Document Number)

ABS Certificate:	1SAA963000-0102
CB Certificate:	1SAA963000-2002
CCC Certificate:	1SAA963000-3803
cUL Certificate:	cUL_E137861
Declaration of Conformity - CE:	1SAD938515-0060
DNV Certificate:	1SAA963000-0302
EAC Certificate:	1SAA963000-2701
GL Certificate:	1SAA963000-0402
GOST Certificate:	1SAA937000-2703
LR Certificate:	1SAA963000-0504
RMRS Certificate:	1SAA918000-0703
RoHS Information:	1SAA963001-4407

UL Certificate: UL_E137861

Classifications

Object Classification Code: F
E-nummer: 3111951
