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General Information

Extended Product Type:	MS116-12
Product ID:	1SAM250000R1012
EAN:	4013614348211
Catalog Description:	MS116-12 Manual Motor Starter
Long Description:	The MS116-12 manual motor starter is a compact 45 mm width devices with a rated operational current of $I_e = 12.0$ 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 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.

Additional Information

ABS Certificate:	1SAA963000-0104
Actuator Type:	Rotary Handle
Ambient Air Temperature:	Around the Enclosure 0 ... +40 °C Operation -25 ... +70 °C Operation Compensated -25 ... +55 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation:	Yes
Ampere Rating UL/CSA:	12 A
BV Certificate:	1SAA963000-0204
CB Certificate:	1SAA963000-2003
CCC Certificate:	1SAA963000-3804
Connecting Capacity Main Circuit:	Flexible with Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible with Insulated Ferrule 1/2x 0.75 ... 2.5 mm ² Flexible 1/2x 0.75 ... 2.5 mm ² Rigid 1/2x 1 ... 4 mm ²
Connecting Capacity Main Circuit UL/CSA:	Flexible 1/2x 16-8 AWG Stranded 1/2x 16-8 AWG
Contact Position Indication:	ON / OFF
Conventional Free-air Thermal Current (I_{th}):	Main Circuit 12 A
Country of Origin:	Germany (DE)
Customs Tariff Number:	85362010
DNV Certificate:	1SAA963000-0303
DNV GL Certificate:	1SAA963000-0303
Data Sheet, Technical Information:	2CDC131025D0201
Data Sheet, Technical Information (Part 2):	1SAM200505F0012
Data Sheet, Technical Information (Part 3):	1SAM200507F0001 1SAM200507F0002 1SAM200507F0003 1SAM200508F0001 1SAM200508F0002 1SAM200508F0003
Declaration of Conformity - CE:	1SAD938517-0060

Degree of Protection:	Housing IP20 Main Circuit Terminals IP10
Dimension Diagram:	1SAM200422F0001
E-number:	3111949
EAC Certificate:	1SAA963000-2701
EAN:	4013614348211
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) 12 A
Horsepower Rating UL/CSA:	(220 ... 240 V AC) Three Phase 3 Hp (440 ... 480 V AC) Three Phase 7.5 Hp (550 ... 600 V AC) Three Phase 10 Hp
IIT Publishing Status:	Level 0 - Information enabled
Industrial IT Certification Level:	0
Instructions and Manuals:	2CDC131011M6802
Invoice Description:	MS116-12 Manual Motor Starter Trip class 10A, 8.0 ... 12A
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 EAN:	4013614348211
Package Level 1 Gross Weight:	0.28 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:	4013614408724
Package Level 2 Gross Weight:	11.586 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
Phase Loss Sensitive:	Yes
Pollution Degree:	3
Power Loss:	at Rated Operating Conditions per Pole 1.0 ... 2.3 W

Product Main Type:	MS116
Product Name:	Manual Motor Starter
Product Net Depth:	85.6 mm
Product Net Height:	90 mm
Product Net Weight:	0.265 kg
Product Net Width:	45 mm
RMRS Certificate:	1SAA918000-0704
Rated Current (I_n):	12 A
Rated Frequency (f):	Main Circuit 50 Hz Main Circuit 60 Hz
Rated Impulse Withstand Voltage (U_{imp}):	Main Circuit 6 kV
Rated Instantaneous Short-Circuit Current Setting (I_i):	180 A
Rated Insulation Voltage (U_i):	690 V
Rated Operational Current (I_e):	12 A
Rated Operational Current AC-3 (I_e):	12 A
Rated Operational Power AC-3 (P_e):	(400 V) Three Phase 5.5 kW
Rated Operational Voltage:	Main Circuit 690 V AC
Rated Service Short-Circuit Breaking Capacity (I_{cs}):	(230 V AC) 25 kA (400 V AC) 25 kA (440 V AC) 6 kA (500 V AC) 6 kA (690 V AC) 2 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{cu}):	(230 V AC) 25 kA (400 V AC) 25 kA (440 V AC) 6 kA (500 V AC) 6 kA (690 V AC) 2 kA
Rated Uninterrupted Current (I_u):	12 A
Ratio:	10 ... 150 Hz / 5g
Recommended Screw Driver:	Pozidriv 2
Resistance to Shock acc. to IEC 60068-2-27:	11 ms Pulse 25g
Resistance to Vibrations acc. to IEC 60068-2-6:	5g / 3 ... 150 Hz
RoHS Date:	1105
RoHS Information:	1SAD938517-0060
RoHS Status:	Following EU Directive 2011/65/EU
Selectivity Category:	A
Selling Unit of Measure:	piece
Setting Range:	8 ... 12 A
Short Description:	MS116-12 Manual Motor Starter
Short-Circuit Protective Devices:	gG Type Fuses 50 A, 690 V AC gG Type Fuses 63 A, 440 V AC gG Type Fuses 63 A, 500 V AC gG Type Fuses 80 A, 230 V AC gG Type Fuses 80 A, 400 V AC
Standards:	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-1 UL 60947-4-1
Suitable for Isolation:	Yes
Terminal Type:	Screw Terminals

Terminal type:	Screw terminals
Tightening Torque:	Main Circuit 0.8 ... 1.2 N·m
Tightening Torque UL/CSA:	Main Circuit 10 in·lb
Trip Class:	10A
UL Certificate:	UL_E137861
UNSPSC:	39121521
Utilization:	Motor Protection
WEEE Category:	5. Small Equipment (No External Dimension More Than 50 cm)
Wire Stripping Length:	Main Circuit 9 mm
cUL Certificate:	cUL_E137861
eClass:	7.0 27370401

