

MS165-16



Products Low Voltage Products and Systems Circuit Breakers Manual Motor Starters

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General Information

Extended Product Type:	MS165-16
Product ID:	1SAM451000R1011
EAN:	4013614486050
Catalog Description:	MS165-16 Manual Motor Starter
Long Description:	MS165 is a compact and powerful range for motor protection up to 30 kW (400 V) / 60 A in width of 55 mm. They offer a reliable protection for motors in the event of overload or phase failure. The devices have trip class 10. This type has also a clear and reliable indication of fault in a separate window in the event of short-circuit tripping. 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, signaling contacts, undervoltage releases, shunt trips, power in-feed blocks are available as accessory. These are suitable throughout the MS116/MS132/MS165 range.

Additional Information

ABS Certificate:	1SAA963002-0101
ATEX Certificate:	1SAA918001-3901
Actuator Type:	Rotary Handle
Ambient Air Temperature:	Operation -25 ... +60 °C Operation Compensated -25 ... +60 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation:	Yes
Ampere Rating UL/CSA:	16 A
BV Certificate:	1SAA963002-0201
CB Certificate:	1SAA918002-2001
CCC Certificate:	1SAA918004-3801
Connecting Capacity Main Circuit UL/CSA:	Flexible 1/2x 16-0 AWG Stranded 1/2x 16-0 AWG
Connecting Capacity Main Circuit:	Flexible with Ferrule 1/2x 1 ... 35 mm ² Flexible with Insulated Ferrule 1/2x 1 ... 35 mm ² Flexible 1/2x 1 ... 35 mm ² Rigid 1/2x 1 ... 50 mm ² Solid 1/2x 1 ... 50 mm ²
Contact Position Indication:	ON / OFF / TRIP
Conventional Free-air Thermal Current (I_{th}):	Main Circuit 16 A
Country of Origin:	China (CN)
Customs Tariff Number:	85362010
Data Sheet, Technical Information:	2CDC131083D0201
Data Sheet, Technical Information (Part 2):	1SAM400506F0001 1SAM400507F0001
Data Sheet, Technical Information (Part 3):	1SAM400505F0001
Declaration of Conformity - CE:	1SAD938502-0190
Degree of Protection:	Housing IP20 Main Circuit Terminals IP10
Dimension Diagram:	1SAM400401F0001
E-number:	3110051
ESD Certificate:	1SAA963002-0701

EAC Certificate:	1SAA963002-2/01
EAN:	4013614486050
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 5:	EC000074 - Motor protective circuit-breaker
ETIM 6:	EC000074 - Motor protection circuit-breaker
Electrical Durability:	25000 cycle
Frequency (f):	0 ... 400 Hz
General Use Rating UL/CSA:	(600 V AC) 16 A
Horsepower Rating UL/CSA:	(200 V AC) Three Phase 3 Hp (208 V AC) Three Phase 3 Hp (220 ... 240 V AC) Three Phase 5 Hp (440 ... 480 V AC) Three Phase 10 Hp (550 ... 600 V AC) Three Phase 10 Hp
Instructions and Manuals:	2CDC131081M6801
Instructions and Manuals (Part 2):	2CDC131087M6801
Invoice Description:	MS165-16 Manual motor starter Trip class 10; 10 - 16 A
LR Certificate:	1SAA918001-0501
Maximum Operating Altitude Permissible:	2000 m
Maximum Operating Voltage UL/CSA:	Main Circuit 600 V AC
Mechanical Durability:	50000 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
Object Classification Code:	F
Package Level 1 EAN:	4013614486050
Package Level 1 Gross Weight:	1.1 kg
Package Level 1 Height:	155 mm
Package Level 1 Length:	155 mm
Package Level 1 Units:	1 piece
Package Level 1 Width:	78 mm
Package Level 2 EAN:	4013614503917
Package Level 2 Gross Weight:	13 kg
Package Level 2 Height:	320 mm
Package Level 2 Length:	400 mm
Package Level 2 Units:	12 piece
Package Level 2 Width:	330 mm
Phase Loss Sensitive:	Yes
Pollution Degree:	3
Power Loss:	1.49 ... 3.81 W
Product Main Type:	MS165
Product Name:	Manual Motor Starter
Product Net Depth:	122.1 mm
Product Net Height:	142.65 mm
Product Net Weight:	0.95 kg
Product Net Width:	55 mm
RMRS Certificate:	1SAA918000-0704
Product Name # 1:	16 A

Rated Current (I_n):	16 A
Rated Frequency (f):	Main Circuit 50 Hz Main Circuit 60 Hz
Rated Impulse Withstand Voltage (U_{imp}):	Main Circuit 8 kV
Rated Instantaneous Short-Circuit Current Setting (I_i):	240 A
Rated Insulation Voltage (U_i):	1000 V
Rated Operational Current (I_e):	16 A
Rated Operational Current AC-3 (I_e):	16 A
Rated Operational Current DC-5 (I_e):	16 A
Rated Operational Power AC-3 (P_e):	(400 V) Three Phase 7.5 kW
Rated Operational Voltage:	Main Circuit 690 V AC Main Circuit 250 V DC
Rated Service Short-Circuit Breaking Capacity (I_{cs}):	(230 V AC) 100 kA (250 V DC) 3 Poles in Series 100 kA (400 V AC) 100 kA (440 V AC) 75 kA (500 V AC) 20 kA (690 V AC) 8 kA
Rated Ultimate Short-Circuit Breaking Capacity (I_{cu}):	(230 V AC) 100 kA (250 V DC) 100 kA (400 V AC) 100 kA (440 V AC) 75 kA (500 V AC) 20 kA (690 V AC) 8 kA
Rated Uninterrupted Current (I_u):	16 A
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 Information:	1SAA918003-4401
RoHS Status:	Following EU Directive 2011/65/EC
Selectivity Category:	A
Selling Unit of Measure:	piece
Setting Range:	10 ... 16 A
Standards:	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-4-1 CSA 22.2 No. 14
Terminal Type:	Screw Terminals
Tightening Torque:	Auxiliary Circuit 0.6 ... 0.8 N·m Control Circuit 4 N·m Main Circuit 4 N·m
Tightening Torque UL/CSA:	35 in·lb Main Circuit 35 in·lb
Trip Class:	10
UL Certificate:	cUL_E137861 UL_E137861 cUL_E345003 UL_345003
UNSPSC:	39121521
Utilization:	Motor Protection
Wire Stripping Length:	Main Circuit 16 mm

cUL Certificate:	cUL_E345003
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eClass:	7.0 27370401
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DNV GL Certificate:	1SAA963002-0301
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