

# MO165-42



## MO165-42 Manual Motor Starter Magnetic Only

### General Information

Extended Product Type	MO165-42
Product ID	1SAM461000R1015
EAN	4013614486166
Catalog Description	MO165-42 Manual Motor Starter Magnetic Only
Long Description	<p>The MO165 manual motor starter magnetic only is a compact and powerful range for motor protection up to 45 kW (400 V) in width of 45 mm. The devices are used to manually switch on and off loads/motors and to protect them reliably and without the need for a fuse from short-circuits. The manual motor starter offers a rated service short-circuit breaking capacity up to 30 kA at 400 V AC. A combination together with overload relays or motor controllers allows the protection of motors. Further features are the built-in disconnect function, trip-free mechanism and a rotary handle with a clear switch position indication. The manual motor starters magnetic only are suitable for three- and single-phase applications. The handle is lockable to protect against unauthorized changes. Auxiliary contacts, signaling contacts, undervoltage releases, shunt trips, 3-phase bus bars and power in-feed blocks are available as accessory.</p>

### Ordering

Minimum Order Quantity	1 piece
Customs Tariff Number	85362010

### Popular Downloads

Data Sheet, Technical Information	2CDC131084D0201
Data Sheet, Technical Information (Part 2)	1SAM400506F0001 1SAM400507F0001
Instructions and Manuals	2CDC131082M6801
Instructions and Manuals (Part 2)	2CDC131085M0201
Dimension Diagram	1SAM400402F0001

### Dimensions

Product Net Width	55 mm
Product Net Height	142.65 mm
Product Net Depth / Length	122.1 mm
Product Net Weight	0.97 kg

### Technical

Rated Service Short-Circuit Breaking Capacity ( $I_{cs}$ )	(230 V AC) 50 kA (250 V DC) 3 Poles in Series 100 kA
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	(400 V AC) 50 kA (440 V AC) 50 kA (500 V AC) 30 kA (690 V AC) 10 kA
Rated Ultimate Short-Circuit Breaking Capacity ( $I_{cu}$ )	(230 V AC) 50 kA (250 V DC) 100 kA (400 V AC) 50 kA (440 V AC) 50 kA (500 V AC) 30 kA (690 V AC) 10 kA
Rated Instantaneous Short-Circuit Current Setting ( $I_t$ )	630 A
Setting Range	None
Rated Operational Power AC-3 ( $P_e$ )	(400 V) Three Phase 22 kW
Rated Operational Voltage	Main Circuit 690 V AC Main Circuit 250 V DC
Rated Operational Current ( $I_e$ )	42 A
Rated Operational Current AC-3 ( $I_e$ )	42 A
Rated Operational Current DC-5 ( $I_e$ )	42 A
Rated Frequency (f)	Main Circuit 50 Hz Main Circuit 60 Hz
Rated Impulse Withstand Voltage ( $U_{imp}$ )	Main Circuit 8 kV
Rated Insulation Voltage ( $U_i$ )	1000 V
Power Loss	5.47 W
Number of Poles	3
Conventional Free-air Thermal Current ( $I_{th}$ )	Main Circuit 42 A
Degree of Protection	Housing IP20 Main Circuit Terminals IP10
Pollution Degree	3
Electrical Durability	25000 cycle
Mechanical Durability	50000 cycle
Terminal Type	Screw Terminals
Connecting Capacity Main Circuit	Flexible with Ferrule 1/2x 1 ... 35 mm <sup>2</sup> Flexible with Insulated Ferrule 1/2x 1 ... 35 mm <sup>2</sup> Flexible 1/2x 1 ... 35 mm <sup>2</sup> Rigid 1/2x 1 ... 4 mm <sup>2</sup> Solid 1/2x 1 ... 4 mm <sup>2</sup> Stranded 1/2x 1 ... 50 mm <sup>2</sup>
Tightening Torque	Main Circuit 4 N·m
Wire Stripping Length	Main Circuit 16 mm
Recommended Screw Driver	Pozidriv 2
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
Minimum Mounting Distance	Electrical Conductive Board, Horizontal - Up to 1000 V 1.5 mm Electrical Conductive Board, Horizontal - Up to 400 V 0 mm Electrical Conductive Board, Horizontal - Up to 690 V 1.5 mm Electrical Conductive Board, Vertical 75 mm Other Device Same Type, Horizontal 0 mm Other Device Same Type, Vertical 150 mm
Actuator Type	Rotary Handle
Contact Position Indication	ON / OFF / TRIP
Standards	IEC/EN 60947-1 IEC/EN 60947-2 IEC/EN 60947-4-1 UL 60947-4-1 CSA 22.2 No. 14
Remarks	For overload protection of the motors, an appropriate thermal or electronic overload relays must be used

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## Environmental

Ambient Air Temperature	Operation -25 ... +60 °C Operation Compensated -25 ... +60 °C Storage -50 ... +80 °C
Ambient Air Temperature Compensation	No
Maximum Operating Altitude Permissible	2000 m
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 Status	Following EU Directive 2011/65/EU

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## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Ampere Rating UL/CSA	42 A
Horsepower Rating UL/CSA	(200 V AC) Three Phase 10 Hp (208 V AC) Three Phase 10 Hp (220 ... 240 V AC) Three Phase 15 Hp (440 ... 480 V AC) Three Phase 30 Hp (550 ... 600 V AC) Three Phase 40 Hp
Full Load Amps Motor Use	(200 V AC) Three Phase 32.2 A (208 V AC) Three Phase 30.8 A (220 ... 240 V AC) Three Phase 42 A (440 ... 480 V AC) Three Phase 40 A (550 ... 600 V AC) Three Phase 41 A
Locked Rotor Amps	(200 V AC) Three Phase 186.3 A (208 V AC) Three Phase 179 A (220 ... 240 V AC) Three Phase 232 A (440 ... 480 V AC) Three Phase 218 A (550 ... 600 V AC) Three Phase 232 A
General Use Rating UL/CSA	(600 V AC) 42 A
Connecting Capacity Main Circuit UL/CSA	Flexible 1/2x 16-0 AWG Stranded 1/2x 16-0 AWG
Tightening Torque UL/CSA	Main Circuit 35 in-lb

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## Certificates and Declarations (Document Number)

ABS Certificate	1SAA963002-0101
BV Certificate	1SAA963002-0201
CB Certificate	1SAA918002-2002
CCC Certificate	1SAA918004-3801
Declaration of Conformity - CE	1SAD938502-0191
DNV GL Certificate	1SAA963002-0301
EAC Certificate	1SAA963002-2701
Instructions and Manuals	2CDC131082M6801
LR Certificate	1SAA918001-0501
RMRS Certificate	1SAA918000-0704
RoHS Information	1SAD938502-0191
UL Certificate	cUL_E137861 UL_E137861 cUL_E345003 UL_345003

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## Container Information

Package Level 1 Units	1 piece
Package Level 1 Width	78 mm
Package Level 1 Depth / Length	155 mm
Package Level 1 Height	155 mm
Package Level 1 Gross Weight	1.1 kg
Package Level 1 EAN	4013614486166
Package Level 2 Units	12 piece
Package Level 2 Width	330 mm
Package Level 2 Depth / Length	400 mm
Package Level 2 Height	320 mm
Package Level 2 Gross Weight	13 kg
Package Level 2 EAN	4013614504020

## Classifications

Object Classification Code	F
E-nummer	3110142
ETIM 5	EC000074 - Motor protective circuit-breaker
ETIM 6	EC000074 - Motor protection circuit-breaker
ETIM 7	EC000074 - Motor protection circuit-breaker
eClass	7.0 27370401
UNSPSC	39121521

## Categories

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

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

