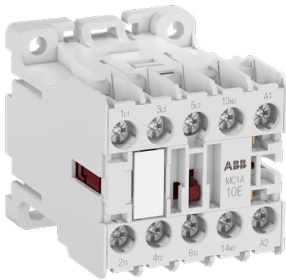




PRODUCT-DETAILS

# MC1A310AT1

## MC1A310AT1 Mini Contactor 24 V AC - 3 NO - 0 NC - Screw Terminals



General Information	
Extended Product Type	MC1A310AT1
Product ID	1SAL102617R9901
EAN	4013614541315
Catalog Description	MC1A310AT1 Mini Contactor 24 V AC - 3 NO - 0 NC - Screw Terminals
Long Description	The MC1A310AT1 mini contactor is a dimension optimized 3 pole contactor with 1 NO auxiliary contact and screw terminals. This product is a great solution when high performances are needed but the space is limited. Mini contactors are used in residential buldings, commercial buildings and industrial applications for the control of single or three-phase loads up to 4 kW (AC-3) and 20 A / 690 V (AC-1) or switching of control signals. The product is suitable for wall or rail mounting.
Ordering	
Minimum Order Quantity	1 piece
Customs Tariff Number	85365080
Popular Downloads	

Data Sheet, Technical Information	1SBC100214C0202 - Chapter 4 (InDesign) - Main catalog Motor Protection and control
Instructions and Manuals	2CDC103061M6801
CAD Dimensional Drawing	2CDC001079B0201

## Dimensions

Product Net Width	45 mm
Product Net Depth / Length	56 mm
Product Net Height	48 mm
Product Net Weight	0.17 kg

## Technical

Number of Main Contacts NO	3
Number of Main Contacts NC	0
Number of Auxiliary Contacts NO	1
Number of Auxiliary Contacts NC	0
Number of Poles	3P
Standards	IEC/EN 60947-1 IEC/EN 60947-4-1 IEC/EN 60947-5-1 UL 60947-1 UL 60947-4-1 UL 60947-5-1
Rated Operational Voltage	Auxiliary Circuit 690 V AC Auxiliary Circuit 440 V DC Main Circuit 690 V AC Main Circuit 440 V DC
Rated Frequency (f)	Auxiliary Circuit 50 Hz Auxiliary Circuit 60 Hz Auxiliary Circuit DC Control Circuit 50 Hz Control Circuit 60 Hz Main Circuit 50 Hz Main Circuit 60 Hz Main Circuit DC
Conventional Free-air Thermal Current ( $I_{th}$ )	Auxiliary Circuit 10 A Main Circuit 20 A
Rated Operational Current AC-1 ( $I_e$ )	(690 V) 55 °C 20 A (690 V) 70 °C 16 A (230 V) 55 °C 20 A (230 V) 70 °C 16 A (400 V) 55 °C 20 A (400 V) 70 °C 16 A (500 V) 55 °C 20 A (500 V) 70 °C 16 A
Rated Operational Current AC-3 ( $I_e$ )	(230 V) 55°C 9 A (400 V) 55 °C 9 A (500 V) 55 °C 8 A (690 V) NO 55°C 5 A
Rated Operational Current AC-15 ( $I_e$ )	(240 V) 6 A (400 V) 4 A (500 V) 2.5 A (690 V) 1.5 A

Rated Operational Current DC-13 ( $I_e$ )	(24 V) 5 A (48 V) 2.5 A (125 V) 0.55 A (250 V) 0.3 A (440 V) 0.15 A
Rated Operational Power AC-3 ( $P_e$ )	(230 V) Three Phase 2.2 kW (400 V) Three Phase 4 kW (500 V) Three Phase 4 kW (690 V) Three Phase, NO 4 kW
Rated Breaking Capacity AC-3	8 x $I_e$ / AC-3
Rated Making Capacity AC-3	10 x $I_e$ / AC-3
Rated Short-time Withstand Current Low Voltage ( $I_{cw}$ )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 72 A
Rated Insulation Voltage ( $U_i$ )	750 V
Rated Impulse Withstand Voltage ( $U_{imp}$ )	Auxiliary Circuit 6 kV Main Circuit 6 kV
Maximum Electrical Switching Frequency	(AC-1) 300 cycles per hour (AC-15) 360 cycles per hour (AC-3) 1200 cycles per hour (DC-1) 600 cycles per hour (DC-13) 360 cycles per hour (DC-3) 600 cycles per hour
Mechanical Durability	10000000 cycle
Minimum Switching Capacity	Auxiliary Circuit 17 V Auxiliary Circuit 5 mA
Coil Operating Limits	(acc. to IEC 60947-4-1) for AC supply 0.85 ... 1.1 x $U_c$ (at $\theta \leq 55$ °C)
Rated Control Circuit Voltage ( $U_c$ )	24 V AC
Coil Consumption	Average Holding Value 50 Hz 5.3 V·A Average Pull-in Value 50 Hz 5.3 V·A
Power Loss	at Rated Operating Conditions AC-1 per Pole 0.7 W
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
Connecting Capacity Main Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1x 0.75 ... 4 mm <sup>2</sup> Rigid 2x 0.75 ... 2.5 mm <sup>2</sup>
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1x 0.75 ... 4 mm <sup>2</sup> Rigid 2x 0.75 ... 2.5 mm <sup>2</sup>
Connecting Capacity Control Circuit	Flexible with Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible with Insulated Ferrule 1x 0.75 ... 2.5 mm <sup>2</sup> Flexible with Insulated Ferrule 2x 0.75 ... 1.5 mm <sup>2</sup> Flexible 1/2x 0.75 ... 2.5 mm <sup>2</sup> Rigid 1/2x 0.75 ... 2.5 mm <sup>2</sup>
Wire Stripping Length	Auxiliary Circuit 9 mm Control Circuit 9 mm Main Circuit 9 mm
Degree of Protection	Auxiliary Circuit Terminals IP20 Control Circuit Terminals IP20 Main Circuit Terminals IP20
Recommended Screw	Pozidriv 2

Driver

Tightening Torque	Auxiliary Circuit 0.8 ... 1.0 N-m Control Circuit 0.8 N-m Main Circuit 0.8 ... 1.0 N-m
Terminal Type	Screw Terminals
Mini Contactor Type	Mini Contactor
Product Name	Mini Contactor

## Technical UL/CSA

Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
General Use Rating UL/CSA	(600 V AC) 20 A
Horsepower Rating UL/CSA	(115 V AC) Single Phase 0.5 Hp (200 V AC) Three Phase 3 Hp (220 ... 240 V AC) Three Phase 3 Hp (230 V AC) Single Phase 1.5 Hp (440 ... 480 V AC) Three Phase 5 Hp (550 ... 600 V AC) Three Phase 5 Hp
Connecting Capacity Main Circuit UL/CSA	Stranded 1/2x 18-12 AWG
Connecting Capacity Auxiliary Circuit UL/CSA	Stranded 1/2x 18-12 AWG
Contact Rating UL/CSA	A600 Q600
Tightening Torque UL/CSA	Auxiliary Circuit 7 in-lb Control Circuit 7 in-lb Main Circuit 7 in-lb
Full Load Amps Motor Use	(115 V AC) Single Phase 9.8 A (200 V AC) Three Phase 11 A (220 ... 240 V AC) Three Phase 9.6 A (230 V AC) Single Phase 10 A (440 ... 480 V AC) Three Phase 7.6 A (550 ... 600 V AC) Three Phase 6.1 A

## Environmental

Ambient Air Temperature	Operation -40 ... +70 °C Storage -55 ... +80 °C
Maximum Operating Altitude Permissible	3000 m
Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 25g
Resistance to Vibrations	5g 3 ... 150 Hz

## Material Compliance

Conflict Minerals Reporting Template (CMRT)	9AKK108467A5658
REACH Declaration	2CMT2021-006202
RoHS Information	2CMT2021-006277
RoHS Status	Following EU Directive 2011/65/EU and Amendment 2015/863 July 22, 2019
WEEE B2C / B2B	Business To Business
WEEE Category	5. Small Equipment (No External Dimension More Than 50 cm)

## Certificates and Declarations

A2L Certificate – IEC	1SAA971000-4601
BV Certificate	1SAA971000-0201
CB Certificate	1SAA971000-2001
CQC Certificate	CQC2019010304197131
Declaration of Conformity - CCC	2020980304001602
Declaration of Conformity - CE	1SAD101100-3201
Declaration of Conformity - UKCA	1SAD201100-3201
RINA Certificate	1SAA971000-0801
UL Certificate	E191658-19880826

## Container Information

Package Level 1 Units	box 1 piece
Package Level 1 Width	46 mm
Package Level 1 Depth / Length	49 mm
Package Level 1 Height	58 mm
Package Level 1 Gross Weight	0.175 kg
Package Level 1 EAN	4013614541315
Package Level 2 Units	box 20 piece
Package Level 2 Width	237 mm
Package Level 2 Depth / Length	102 mm
Package Level 2 Height	120 mm
Package Level 2 Gross Weight	3.55 kg
Package Level 2 EAN	4013614541971

## External Classifications and Standards

Object Classification Code	Q
ETIM 7	EC000066 - Power contactor, AC switching
ETIM 8	EC000066 - Power contactor, AC switching
ETIM 9	EC000066 - Power contactor, AC switching
eClass	V11.0 : 27371003
UNSPSC	39121529
E-Number (Finland)	3709583

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## Categories

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Low Voltage Products and Systems → Control Products → Contactors → Mini Contactors

