

45 mm

PRODUCT-DETAILS

Dimensions
Product Net Width

## MC2A310AR1 MC2A310AR1 Mini Contactor 3NO AUX 1NO 24V 50/60Hz



Extended Product Type	MC2A310AR1
Product ID	1SAL103412R9902
EAN	4013614545672
Catalog Description	MC2A310AR1 Mini Contactor 3NO AUX 1NO 24V 50/60Hz
Long Description	The MC2A310AR1 mini contactor is a dimension optimized 3 pole contactor with 1 NO auxiliary contact and special screw terminals for a connection with ring tongue ferrules. This device 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 5.5 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	
Ordering Minimum Order Quantity	1 piece
	1 piece 85365080
Minimum Order Quantity	·
Minimum Order Quantity	·

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

Technical	
Number of Poles	3
Mini Contactor Type	Mini Contactor
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 50 Hz Main Circuit 60 Hz
Rated Impulse Withstand Voltage (U <sub>imp</sub> )	Auxiliary Circuit 6 kV Main Circuit 6 kV
Rated Insulation Voltage $(U_i)$	750 V
Number of Main Contacts NC	0
Number of Main Contacts NO	3
Rated Operational Current AC-1 (I <sub>e</sub> )	(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 (690 V) 55 °C 20 A (690 V) 70 °C 16 A
Rated Operational Power AC-3 (P <sub>e</sub> )	(230 V) Single Phase 2 kW (230 V) Three Phase 3 kW (400 V) Three Phase 5.5 kW (500 V) Three Phase 5.5 kW (690 V) Three Phase, NC 3 kW (690 V) Three Phase, NO 4 kW
Rated Short-time Withstand Current (I <sub>cw</sub> )	at 40 °C Ambient Temp, in Free Air, from a Cold State 10 s 96 A
Number of Auxiliary Contacts NC	0
Number of Auxiliary Contacts NO	1
Rated Operational Current AC-15 (I <sub>e</sub> )	(240 V) 6 A (400 V) 4 A (500 V) 2.5 A (690 V) 1.5 A
Rated Operational Current DC-13 ( $I_{\rm e}$ )	(125 V) 0.7 A (24 V) 5 A (250 V) 0.3 A (440 V) 0.15 A (48 V) 2.5 A
Conventional Free-air Thermal Current (I <sub>th</sub> )	Auxiliary Circuit 16 A Main Circuit 20 A
Rated Control Circuit Voltage (U <sub>c</sub> )	24 V AC
Coil Operating Limits	(acc. to IEC 60947-4-1) for AC supply 0.85 1.1 x Uc (at $\theta \leq$ 55 °C)
Degree of Protection	Auxiliary Circuit Terminals IP20 Control Circuit Terminals IP20 Main Circuit Terminals IP20
Mechanical Durability	10000000 cycle

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Minimum Switching Capacity	Auxiliary Circuit 17 V Auxiliary Circuit 5 mA
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
Connecting Capacity Main Circuit	Flexible with Ferrule 1x 0.75 2.5 mm² Flexible with Ferrule 2x 0.75 1.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Flexible 1/2x 0.75 2.5 mm² Rigid 1x 0.75 4 mm² Rigid 2x 0.75 2.5 mm²
Connecting Capacity Auxiliary Circuit	Flexible with Ferrule 1x 0.75 2.5 mm² Flexible with Ferrule 2x 0.75 1.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Flexible 1/2x 0.75 2.5 mm² Rigid 1x 0.75 4 mm² Rigid 2x 0.75 2.5 mm²
Connecting Capacity Control Circuit	Flexible with Ferrule 1x 0.75 2.5 mm² Flexible with Ferrule 2x 0.75 1.5 mm² Flexible with Insulated Ferrule 1x 0.75 2.5 mm² Flexible with Insulated Ferrule 2x 0.75 1.5 mm² Flexible 1/2x 0.75 2.5 mm² Rigid 1/2x 0.75 2.5 mm²
Wire Stripping Length	Auxiliary Circuit 9 mm Control Circuit 9 mm Main Circuit 9 mm
Tightening Torque	Auxiliary Circuit 0.8 1.0 N·m Control Circuit 0.8 N·m Main Circuit 0.8 1.0 N·m
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
Power Loss	at Rated Operating Conditions AC-1 per Pole 0.7 W
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

Technical UL/CSA	
Maximum Operating Voltage UL/CSA	Main Circuit 600 V AC
Full Load Amps Motor Use	(115 V AC) Single Phase 9.8 A (200 V AC) Three Phase 11 A (230 V AC) Single Phase 12 A (240 V AC) Three Phase 9.6 A (380 415 V AC) Three Phase 9.7 A (440 480 V AC) Three Phase 11 A (550 600 V AC) Three Phase 11 A
Horsepower Rating UL/CSA	(115 V AC) Single Phase 0.5 Hp (200 V AC) Three Phase 3 Hp (230 V AC) Single Phase 2 Hp (240 V AC) Three Phase 3 Hp (380 415 V AC) Three Phase 7.5 Hp (440 480 V AC) Three Phase 7.5 Hp (550 600 V AC) Three Phase 10 Hp
General Use Rating UL/CSA	(600 V AC) 20 A
Connecting Capacity Main Circuit UL/CSA	Stranded 1/2x 18-12 AWG
Connecting Capacity Auxiliary Circuit UL/CSA	Stranded 1/2x 18-12 AWG
Tightening Torque UL/CSA	Auxiliary Circuit 7 in·lb Control Circuit 7 in·lb Main Circuit 7 in·lb

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Environmental	
Ambient Air Temperature	Operation -40 +55 °C Storage -55 +80 °C
Maximum Operating Altitude Permissible	3000 n
Resistance to Shock acc. to IEC 60068-2-27	11 ms Pulse 25
Resistance to Vibrations acc. to IEC 60068-2-6	5g / 3 150 H
RoHS Status	Following EU Directive 2011/65/EU
Certificates and Declarations (Document Number)	
BV Certificate	BV_M_Rang
CB Certificate	1SAA971000-200
CCC Certificate	CCC_MC1_MC2
cULus Certificate	cUL_E191658
Declaration of Conformity - CE	1SAD938502-030
EAC Certificate	1SAA971000-270
Instructions and Manuals	2CDC103061M680
RINA Certificate	1SAA971001-020
RoHS Information	1SAD038501-0309
Package Level 1 Units	box 1 piec
Package Level 1 Width	46 mr
Package Level 1 Height	58 mn
Package Level 1 Depth /	
Length	
	49 mn
Length Package Level 1 Gross	49 mn
Length Package Level 1 Gross Weight	49 mn 0.175 kg 4013614545672
Length Package Level 1 Gross Weight Package Level 1 EAN	49 mn 0.175 kg 4013614545672 box 20 piece
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units	49 mm 0.175 kg 4013614545672 box 20 piece 237 mm
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width	49 mm 0.175 kg 401361454567: box 20 piece 237 mm 120 mm
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth /	49 mm 0.175 kg 4013614545672 box 20 piece 237 mm 120 mm
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross	49 mm 0.175 kg 401361454567: box 20 piece 237 mm 120 mm 102 mm 3.55 kg
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight	49 mm 0.175 kg 401361454567: box 20 piece 237 mm 120 mm 102 mm 3.55 kg
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight Package Level 2 EAN	49 mm  0.175 kg  4013614545672  box 20 piece  237 mm  120 mm  102 mm  3.55 kg
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight	49 mm  0.175 kg  4013614545672  box 20 piece  237 mm  120 mm  102 mm  3.55 kg  4013614545733
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight Package Level 2 EAN  Classifications	49 mm  0.175 kg  401361454567: box 20 piece 237 mm  120 mm  102 mm  3.55 kg  401361454573:
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight Package Level 2 EAN  Classifications Object Classification Code	49 mm  0.175 kg  4013614545672  box 20 piece  237 mm  120 mm  102 mm  3.55 kg  4013614545733
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight Package Level 2 EAN  Classifications Object Classification Code ETIM 5	49 mm  0.175 kg  4013614545672  box 20 piece  237 mm  120 mm  102 mm  3.55 kg  4013614545732
Length Package Level 1 Gross Weight Package Level 1 EAN Package Level 2 Units Package Level 2 Width Package Level 2 Height Package Level 2 Depth / Length Package Level 2 Gross Weight Package Level 2 EAN  Classifications Object Classification Code ETIM 5 ETIM 6	49 mm  0.175 kg  401361454567: box 20 piece 237 mm  120 mm  102 mm  3.55 kg  401361454573:  CEC000066 - Magnet contactor, AC-switching EC000066 - Power contactor, AC switching EC000066 - Power contactor, AC switching 7.0 2737100:

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## Categories

 $\text{Low Voltage Products and Systems} \rightarrow \text{Control Products} \rightarrow \text{Contactors} \rightarrow \text{Mini Contactors}$ 

