



PRODUCT-DETAILS

# UA110-30-00RA-84

## UA110-30-00RA 110V 50Hz Contactor



| General Information   |                                                                                                                                                                                                      |
|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | UA110-30-00RA-84                                                                                                                                                                                     |
| Product ID            | 1SFL451024R8400                                                                                                                                                                                      |
| EAN                   | 7320500260555                                                                                                                                                                                        |
| Catalog Description   | UA110-30-00RA 110V 50Hz Contactor                                                                                                                                                                    |
| Long Description      | A 3-phase Contactor suitable for Capacitor switching application. Maximum permissible peak current 100 times the nominal RMS current. Operated with a control voltage, versions from 24â€V to 690 V |

| Ordering               |          |
|------------------------|----------|
| Minimum Order Quantity | 1 piece  |
| Customs Tariff Number  | 85364900 |

| Popular Downloads                 |                 |
|-----------------------------------|-----------------|
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals          | 5309660-60      |
| CAD Dimensional                   | 2CDC001079B0201 |

## Drawing

## Dimensions

|                            |          |
|----------------------------|----------|
| Product Net Width          | 90 mm    |
| Product Net Depth / Length | 155.6 mm |
| Product Net Height         | 170 mm   |
| Product Net Weight         | 1.8 kg   |

## Technical

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Number of Main Contacts NO                         | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Number of Main Contacts NC                         | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Number of Auxiliary Contacts NO                    | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Number of Auxiliary Contacts NC                    | 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Number of Poles                                    | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Rated Operational Voltage                          | Main Circuit 1000 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Rated Frequency (f)                                | Main Circuit 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | acc. to IEC 60947-4-1, Open Contactors $\Theta = 40\text{ °C}$ 160 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Rated Operational Current AC-1 ( $I_e$ )           | (690 V) 40 °C 160 A<br>(690 V) 55 °C 145 A<br>(690 V) 60 °C 145 A<br>(690 V) 70 °C 130 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Rated Operational Current AC-3 ( $I_e$ )           | (415 V) 55 °C 110 A<br>(440 V) 55 °C 100 A<br>(500 V) 55 °C 100 A<br>(690 V) 55 °C 82 A<br>(1000 V) 55 °C 30 A<br>(380 / 400 V) 55 °C 110 A<br>(220 / 230 / 240 V) 55 °C 110 A                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Rated Operational Power AC-6b ( $P_e$ )            | (230 / 240 V) 40 °C, 50 / 60 Hz 45 kvar<br>(230 / 240 V) 55 °C, 50 / 60 Hz 40 kvar<br>(230 / 240 V) 70 °C, 50 / 60 Hz 35 kvar<br>(400 / 415 V) 40 °C, 50 / 60 Hz 80 kvar<br>(400 / 415 V) 70 °C, 50 / 60 Hz 60 kvar<br>(400 / 415 V) 55 °C, 50 / 60 Hz 70 kvar<br>(440 V) 40 °C, 50 / 60 Hz 85 kvar<br>(440 V) 55 °C, 50 / 60 Hz 75 kvar<br>(440 V) 70 °C, 50 / 60 Hz 70 kvar<br>(500 / 550 V), 40 °C, 50 / 60 Hz 95 kvar<br>(500 / 550 V) 55 °C, 50 / 60 Hz 82 kvar<br>(500 / 550 V) 70 °C, 50 / 60 Hz 78 kvar<br>(690 V) 40 °C, 50 / 60 Hz 130 kvar<br>(690 V) 55 °C, 50 / 60 Hz 110 kvar<br>(690 V) 70 °C, 50 / 60 Hz 100 kvar |
| Rated Breaking Capacity AC-3                       | 8 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Rated Making Capacity AC-3                         | 10 x $I_e$ AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Maximum Breaking Capacity                          | $\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100\text{ A}$ ) at 440 V 1160 A<br>$\cos \phi = 0.45$ ( $\cos \phi = 0.35$ for $I_e > 100\text{ A}$ ) at 690 V 800 A                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Rated Insulation Voltage ( $U_i$ )                 | acc. to IEC 60947-4-1 and VDE 0110 (Gr. C) 1000 V<br>acc. to UL/CSA 600 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )      | Main Circuit 8 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Maximum Electrical Switching Frequency             | (AC-1) 300 cycles per hour<br>(AC-2 / AC-4) 150 cycles per hour<br>(AC-3) 300 cycles per hour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mechanical Durability                              | 10 million                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum Mechanical Switching Frequency             | 3600 cycles per hour                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

|                                                              |                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil Operating Limits                                        | (acc. to IEC 60947-4-1) 0.85 x Uc Min. ... 1.1 x Uc Max. (at $\theta \leq 70\text{ }^{\circ}\text{C}$ )                                                                                                                                                |
| Rated Control Circuit Voltage (U <sub>c</sub> )              | 50 Hz 110 V<br>60 Hz 110 ... 120 V                                                                                                                                                                                                                     |
| Coil Consumption                                             | Holding at Max. Rated Control Circuit Voltage 50 Hz 22 V·A<br>Holding at Max. Rated Control Circuit Voltage 60 Hz 26 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 50 Hz 350 V·A<br>Pull-in at Max. Rated Control Circuit Voltage 60 Hz 450 V·A |
| Power Loss                                                   | at Rated Operating Conditions per Pole 7.5 W                                                                                                                                                                                                           |
| Operate Time                                                 | Between Coil De-energization and NC Contact Closing 7 ... 15 ms<br>Between Coil Energization and NO Contact Closing 10 ... 25 ms                                                                                                                       |
| Connecting Capacity Main Circuit                             | Bar 30 mm <sup>2</sup><br>Flexible with Cable End 2 x 6 ... 35 mm <sup>2</sup><br>Rigid 1 x 10 ... 95 mm <sup>2</sup>                                                                                                                                  |
| Connecting Capacity Auxiliary Circuit                        | Flexible with Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 2x 0.75 ... 2.5 mm <sup>2</sup><br>Flexible 2x0.75 ... 2.5 mm <sup>2</sup><br>Solid 2 x 1 ... 4 mm <sup>2</sup><br>Stranded 2 x 1 .... 4 mm <sup>2</sup>      |
| Connecting Capacity                                          | Bar 30 mm <sup>2</sup><br>Flexible with Cable End 1 x 10 ... 70 mm <sup>2</sup><br>Rigid 1 x 10 ... 95 mm <sup>2</sup>                                                                                                                                 |
| Degree of Protection                                         | acc. to IEC 60529, IEC 60947-1, EN 60529 Coil Terminals IP20<br>acc. to IEC 60529, IEC 60947-1, EN 60529 Main Terminals IP10                                                                                                                           |
| Connecting Terminals (delivered in open position) Main Poles | M8 hexagon socket screw with single connector                                                                                                                                                                                                          |
| Tightening Torque                                            | Main Circuit 8 N·m                                                                                                                                                                                                                                     |
| Terminal Type                                                | Cable Clamp                                                                                                                                                                                                                                            |
| Product Name                                                 | Block Contactor                                                                                                                                                                                                                                        |

Technical UL/CSA

|                                  |                    |
|----------------------------------|--------------------|
| Maximum Operating Voltage UL/CSA | Main Circuit 600 V |
|----------------------------------|--------------------|

Environmental

|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ambient Air Temperature                    | Close to Contactor Fitted with Thermal O/L Relay (0.85 ... 1.1 Uc) -25 ... 50 °C<br>Close to Contactor without Thermal O/L Relay (0.85 ... 1.1 Uc) -40 ... 70 °C<br>Close to Contactor for Storage -60 ... +80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum Operating Altitude Permissible     | Without Derating 3000 m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Resistance to Shock acc. to IEC 60068-2-27 | Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock<br>Direction: A 20 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock<br>Direction: A 20 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock<br>Direction: B1 15 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock<br>Direction: C1 20 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Closed, Shock<br>Direction: C2 20 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock<br>Direction: B1 5 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock<br>Direction: B2 15 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock<br>Direction: C1 20 g<br>Half-sine Pulse for 11 ms, No Change in Contact Position, Open, Shock<br>Direction: C2 20 g |

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 |
| Toxic Substances Control Act - TSCA | 2CMT2023-006525                                                        |
| WEEE B2C / B2B                      | Business To Business                                                   |
| WEEE Category                       | 5. Small Equipment (No External Dimension More Than 50 cm)             |

## Certificates and Declarations

|                                  |                  |
|----------------------------------|------------------|
| CB Certificate                   | CB_CN64637       |
| cULus Certificate                | 20160916- E36588 |
| Declaration of Conformity - CE   | 2CMT2015-005436  |
| Declaration of Conformity - UKCA | 2CMT2020-006118  |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | box 1 piece   |
| Package Level 1 Width          | 170 mm        |
| Package Level 1 Depth / Length | 140 mm        |
| Package Level 1 Height         | 170 mm        |
| Package Level 1 Gross Weight   | 2 kg          |
| Package Level 1 EAN            | 7320500260555 |

## External Classifications and Standards

|                                    |                                    |
|------------------------------------|------------------------------------|
| Object Classification Code         | Q                                  |
| ETIM 7                             | EC001079 - Capacitor contactor     |
| ETIM 8                             | EC001079 - Capacitor contactor     |
| ETIM 9                             | EC001079 - Capacitor contactor     |
| eClass                             | V11.0 : 27371006                   |
| UNSPSC                             | 39121529                           |
| IDEA Granular Category Code (IGCC) | 4756 >> Capacitor magnet contactor |

## Categories

Low Voltage Products and Systems → Control Products → Contactors → Block Contactors → UA and UA..RA Contactors → UA110RA

