

## PRODUCT-DETAILS

# KC6-31Z-2.4-51

## KC6-31Z-2.4-51 Mini Contactor Relay 17-32VDC, 2.4W



### General Information

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Extended Product Type | KC6-31Z-2.4-51                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Product ID            | GJH1213001R5311                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| EAN                   | 4013614049941                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Catalog Description   | KC6-31Z-2.4-51 Mini Contactor Relay 17-32VDC, 2.4W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Long Description      | <p>The KC6-31Z mini contactor relay is a compact 4 pole contactor relay with screw terminals. They are ideally suited for applications where reliability is a must and space is at a premium. Mini contactors relays are used in residential buildings, commercial buildings and industrial applications for switching of control signals up to 3 A / 400 V (AC-15). Due to the low coil consumption, this device can be directly controlled by a PLC. Further features are the noiseless and hum-free coil and a switch position indication.</p> |

### Ordering

|                        |               |
|------------------------|---------------|
| EAN                    | 4013614049941 |
| Minimum Order Quantity | 1 piece       |
| Customs Tariff Number  | 85365080      |

### Dimensions

|                    |         |
|--------------------|---------|
| Product Net Width  | 52.5 mm |
| Product Net Height | 57.5 mm |

|                            |          |
|----------------------------|----------|
| Product Net Depth / Length | 46.5 mm  |
| Product Net Weight         | 0.175 kg |

## Container Information

|                                |               |
|--------------------------------|---------------|
| Package Level 1 Units          | 10 piece      |
| Package Level 1 Width          | 115 mm        |
| Package Level 1 Height         | 54 mm         |
| Package Level 1 Depth / Length | 280 mm        |
| Package Level 1 Gross Weight   | 1.82 kg       |
| Package Level 1 EAN            | 4013614411175 |

## Environmental

|                                                |                                                    |
|------------------------------------------------|----------------------------------------------------|
| Ambient Air Temperature                        | Operation -25 ... +55 °C<br>Storage -40 ... +80 °C |
| Maximum Operating Altitude Permissible         | 2000 m                                             |
| Resistance to Vibrations acc. to IEC 60068-2-6 | 3g / 3 ... 150 Hz                                  |
| Resistance to Shock acc. to IEC 60068-2-27     | 11 ms Pulse 15g                                    |
| RoHS Status                                    | Following EU Directive 2011/65/EU                  |

## Technical UL/CSA

|                                              |                                                      |
|----------------------------------------------|------------------------------------------------------|
| Maximum Operating Voltage UL/CSA             | Auxiliary Circuit 600 V AC/DC                        |
| Contact Rating UL/CSA                        | A600                                                 |
| General Use Rating UL/CSA                    | (600 V AC) 5 A                                       |
| Connecting Capacity Auxiliary Circuit UL/CSA | Stranded 1/2x 22-10 AWG                              |
| Tightening Torque UL/CSA                     | Auxiliary Circuit 7 in-lb<br>Control Circuit 7 in-lb |
| Pilot Duty of Contact Elements acc. UL508    | A600                                                 |

## Additional Information

|                                       |                                                                                                                                                                                                                         |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil Consumption                      | Average Holding Value DC 2.4 W<br>Average Pull-in Value DC 2.4 W                                                                                                                                                        |
| Coil Operating Limits                 | (acc. to IEC 60947-4-1) for DC supply $U_c \text{ Min.} \dots U_c \text{ Max.}$ (at $\theta \leq 55^\circ\text{C}$ )<br>(acc. to IEC 60947-5-1) for DC supply 0.85 ... 1.1 x $U_c$ (at $\theta \leq 55^\circ\text{C}$ ) |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible 1/2x 1 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup>                 |
| Connecting Capacity Control Circuit   | Flexible with Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup><br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm <sup>2</sup>                                                                                                  |

|                                                    |                                                                                                                                                                 |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                    | Flexible 1/2x 1 ... 2.5 mm <sup>2</sup><br>Rigid 1/2x 1 ... 4 mm <sup>2</sup>                                                                                   |
| Conventional Free-air Thermal Current ( $I_{th}$ ) | Auxiliary Circuit 6 A                                                                                                                                           |
| Degree of Protection                               | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20<br>Main Circuit Terminals IP20                                                               |
| Maximum Electrical Switching Frequency             | (AC-15) 600 cycles per hour<br>(DC-13) 600 cycles per hour                                                                                                      |
| Mechanical Durability                              | 10000000 cycle                                                                                                                                                  |
| Mini Contactor Type                                | Interface Mini Contactor Relay                                                                                                                                  |
| Minimum Switching Capacity                         | 17 V<br>5 mA                                                                                                                                                    |
| Mounting on DIN Rail                               | TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715<br>TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715                                                  |
| Mounting Position                                  | Any, Position 1-6                                                                                                                                               |
| Mounting Type                                      | DIN-rail<br>Screw                                                                                                                                               |
| Number of Auxiliary Contacts NC                    | 1                                                                                                                                                               |
| Number of Auxiliary Contacts NO                    | 3                                                                                                                                                               |
| Number of Poles                                    | 4                                                                                                                                                               |
| Number of Main Contacts NC                         | 0                                                                                                                                                               |
| Number of Main Contacts NO                         | 0                                                                                                                                                               |
| Power Loss                                         | at Rated Operating Conditions per Pole 2 W                                                                                                                      |
| Product Main Type                                  | KC6                                                                                                                                                             |
| Product Name                                       | Mini Contactor Relay                                                                                                                                            |
| Rated Control Circuit Voltage ( $U_c$ )            | 17 ... 32 V DC                                                                                                                                                  |
| Rated Frequency (f)                                | Auxiliary Circuit 50 Hz<br>Auxiliary Circuit 60 Hz<br>Auxiliary Circuit DC<br>Control Circuit DC<br>Main Circuit 60 Hz<br>Main Circuit 50 Hz<br>Main Circuit DC |
| Rated Impulse Withstand Voltage ( $U_{imp}$ )      | Auxiliary Circuit 6 kV                                                                                                                                          |
| Rated Insulation Voltage ( $U_i$ )                 | 690 V<br>acc. to UL/CSA 600 V                                                                                                                                   |
| Rated Operational Current AC-15 ( $I_e$ )          | (24 V) 4 A<br>(120 V) 4 A<br>(240 V) 4 A<br>(500 V) 2 A<br>(220 / 240 V) 4 A<br>(380 / 400 V) 3 A                                                               |
| Rated Operational Current DC-13 ( $I_e$ )          | (24 V) 2.5 A<br>(110 V) 0.7 A<br>(220 / 240 V) 0.4 A                                                                                                            |
| Rated Operational Voltage                          | Auxiliary Circuit 690 V AC<br>Auxiliary Circuit 250 V DC                                                                                                        |
| Remarks                                            | No CA6 or CAF6 mountable                                                                                                                                        |
| RoHS Date                                          | 0056                                                                                                                                                            |
| Standards                                          | IEC/EN 60947-1                                                                                                                                                  |

|                       |                                                                      |
|-----------------------|----------------------------------------------------------------------|
|                       | IEC/EN 60947-4-1<br>IEC/EN 60947-5-1<br>UL 60947-1<br>UL 60947-4-1   |
| Terminal Type         | Screw Terminals                                                      |
| Tightening Torque     | Auxiliary Circuit 0.8 ... 1.1 N·m<br>Control Circuit 0.8 ... 1.1 N·m |
| Wire Stripping Length | Auxiliary Circuit 9 mm                                               |

## Certificates and Declarations (Document Number)

|                                   |                     |
|-----------------------------------|---------------------|
| CB Certificate                    | 1SAA938001-2001     |
| CQC Certificate                   | CQC2003010304064035 |
| cULus Certificate                 | 1SAA938002-1701     |
| Data Sheet, Technical Information | 1SBC100214C0201     |
| Declaration of Conformity - CCC   | 2020980304001309    |
| Declaration of Conformity - CE    | 1SAD938516-0001     |
| EAC Certificate                   | 1SAA938001-2701     |
| Environmental Information         | 1SAC200069H0009     |
| Instructions and Manuals          | 2CDC102047M6801     |
| RMRS Certificate                  | 1SAA938001-0704     |
| RoHS Information                  | 1SAD938516-0001     |
| UL Certificate                    | 1SAA938002-1601     |
| Dimension Diagram                 | GJL1200436F0001     |

## Classifications

|                            |                                                            |
|----------------------------|------------------------------------------------------------|
| ETIM 4                     | EC000196 - Contactor relay                                 |
| ETIM 5                     | EC000196 - Contactor relay                                 |
| ETIM 6                     | EC000196 - Contactor relay                                 |
| ETIM 7                     | EC000196 - Contactor relay                                 |
| Object Classification Code | K                                                          |
| UNSPSC                     | 39121500                                                   |
| WEEE Category              | 5. Small Equipment (No External Dimension More Than 50 cm) |
| eClass                     | V11.0 : 27371001                                           |

## Categories

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

