PRODUCT-DETAILS

# K6-31Z-03

## K6-31Z-03Mini Contactor Relay48 V AC3NO1NCScrew Terminals




### General Information

| | |
|---|---|
| Extended Product Type | K6-31Z-03 |
| Product ID | GJH1211001R0313 |
| EAN | 4013614049019 |
| Catalog Description | K6-31Z-03Mini Contactor Relay48 V AC3NO1NCScrew Terminals |
| Long Description | The K6-31Z 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 buldings, commercial buildings and industrial applications for switching of control signals up to 3 A / 400 V (AC-15). Further features are the silent coil, a switch position indication and the integrated possibility for rail or wall mounting. |

### Ordering

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

### Popular Downloads

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|---|---|
| EPLAN Data | 9AAC202719_EPLAN |
| Data Sheet, Technical Information | 1SBC100214C0202 |
| Instructions and Manuals | 2CDC102047M6801 |
| CAD Dimensional Drawing | 2CDC001079B0201 |

## Dimensions

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|---|---|
| Product Net Width | 52.5 mm |
| Product Net Depth / Length | 46.5 mm |
| Product Net Height | 57.5 mm |
| Product Net Weight | 0.175 kg |
| Dimension Diagram | GJL1200436F0001 |

## Technical

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|---|---|
| Number of Main Contacts NO | 0 |
| Number of Main Contacts NC | 0 |
| Number of Auxiliary Contacts NO | 3 |
| Number of Auxiliary Contacts NC | 1 |
| Number of Poles | 4P |
| Standards | IEC/EN 60947-1<br>IEC/EN 60947-4-1<br>IEC/EN 60947-5-1<br>UL 60947-1<br>UL 60947-4-1<br>IEC 60335-2-40 A2L |
| Rated Operational Voltage | Auxiliary Circuit 690 V AC<br>Auxiliary Circuit 250 V DC |
| Rated Frequency (f) | Auxiliary Circuit 50 Hz<br>Auxiliary Circuit 60 Hz<br>Auxiliary Circuit DC<br>Control Circuit 400 Hz<br>Control Circuit 50 Hz<br>Control Circuit 60 Hz<br>Main Circuit 60 Hz<br>Main Circuit 50 Hz<br>Main Circuit DC |
| Conventional Free-air Thermal Current ($I_{th}$) | Auxiliary Circuit 6 A |
| Rated Operational Current AC-15 ($I_e$) | (24 V) 4 A<br>(120 V) 4 A<br>(240 V) 4 A<br>(400 V) 3 A<br>(500 V) 2 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 |
| Short-Circuit Protective Devices | gG Type Fuses 6 A |
| Rated Insulation Voltage ($U_i$) | 690 V<br>acc. to UL/CSA 600 V |
| Rated Impulse Withstand Voltage ($U_{imp}$ | Auxiliary Circuit 6 kV |

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|---|---|
| Maximum Electrical Switching Frequency | (AC-15) 600 cycles per hour<br>(DC-13) 600 cycles per hour |
| Mechanical Durability | Nr. Operations 10000000 cycle |
| Minimum Switching Capacity | 17 V<br>5 mA |
| Coil Operating Limits | (acc. to IEC 60947-5-1) for AC supply 0.85 ... 1.1 x Uc (at θ ≤ 55 °C) |
| Rated Control Circuit Voltage ($U_c$) | 48 V AC |
| Coil Consumption | Average Holding Value 50 Hz 3.5 V·A<br>Average Pull-in Value 50 Hz 3.5 V·A |
| Power Loss | at Rated Operating Conditions per Pole 0.32 W |
| Mounting on DIN Rail | TH35-15 (35 x 15 mm Mounting Rail) acc. to IEC 60715<br>TH35-7.5 (35 x 7.5 mm Mounting Rail) acc. to IEC 60715 |
| Connecting Capacity Auxiliary Circuit | Flexible with Ferrule 1/2x 1 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm²<br>Flexible 1/2x 1 ... 2.5 mm²<br>Rigid 1/2x 1 ... 4 mm² |
| Connecting Capacity Control Circuit | Flexible with Ferrule 1/2x 1 ... 2.5 mm²<br>Flexible with Insulated Ferrule 1/2x 1 ... 2.5 mm²<br>Flexible 1/2x 1 ... 2.5 mm²<br>Rigid 1/2x 1 ... 4 mm² |
| Wire Stripping Length | Auxiliary Circuit 9 mm |
| Degree of Protection | Auxiliary Circuit Terminals IP20<br>Control Circuit Terminals IP20 |
| Recommended Screw Driver | M3<br>Pozidriv 1 |
| Tightening Torque | Auxiliary Circuit 0.8 ... 1.1 N·m<br>Control Circuit 0.8 ... 1.1 N·m<br>Main Circuit 0.8 ... 1.1 N·m |
| Terminal Type | Screw Terminals |
| Mini Contactor Type | Mini Contactor Relay |
| Product Name | Mini Contactor Relay |

## Technical UL/CSA

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

## Environmental

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

## Material Compliance

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|---|---|
| Conflict Minerals Reporting Template (CMRT) | 9AKK108467A5658 |
| REACH Declaration | 2CMT2021-006202 |
| RoHS Declaration | 2CMT2021-006277 |
| RoHS Information | 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) |

## ABB EcoSolutions

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|---|---|
| End Of Life Disassembling Instructions | 1SBC100156C0269 |
| Environmental Product Declaration - EPD | 1SAC200409H0001 |

## Certificates and Declarations

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|---|---|
| A2L Certificate – IEC | 1SAA938000-4601 |
| CB Certificate | 1SAA938001-2001 |
| CQC Certificate | CQC2003010304064035 |
| Declaration of Conformity - CCC | 2020980304001309 |
| Declaration of Conformity - CE | 1SAD101100-3101 |
| Declaration of Conformity - UKCA | 1SAD201100-3101 |
| EAC Certificate | 1SAA938001-2701 |
| RMRS Certificate | 1SAA938001-0704 |
| UL Certificate | E48139-19881214 |

## Container Information

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|---|---|
| Package Level 1 Units | box 10 piece |
| Package Level 1 Width | 115 mm |
| Package Level 1 Depth / Length | 280 mm |
| Package Level 1 Height | 54 mm |
| Package Level 1 Gross Weight | 1.82 kg |
| Package Level 1 EAN | 4013614410161 |

## External Classifications and Standards

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|---|---|
| Object Classification Code | K |
| ETIM 7 | EC000196 - Contactor relay |
| ETIM 8 | EC000196 - Contactor relay |
| ETIM 9 | EC000196 - Contactor relay |
| eClass | V11.0 : 27371001 |
| UNSPSC | 39121500 |

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## Categories

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




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