# Product data sheet

Specifications




## Control relay, TeSys K, 3 NO + 1 NC, lt or eq to 690V, 24VDC standard coil

CA3KN31BD

**Product availability: Stock - Normally stocked in distribution facility**

## Main

| | |
|---|---|
| **Range** | TeSys |
| **Product name** | TeSys CAK |
| **Product or Component Type** | Control relay |
| **Device short name** | CA3K |
| **Contactor application** | Control circuit |
| **Utilisation category** | AC-15<br>DC-13 |
| **Pole contact composition** | 3 NO + 1 NC |
| **[Ue] rated operational voltage** | <= 690 V <= 400 Hz |
| **Control circuit type** | DC standard |
| **[Uc] control circuit voltage** | 24 V DC |

## Complementary

| | |
|---|---|
| **[Ith] conventional free air thermal current** | 10 A (at 122 °F (50 °C)) |
| **Irms rated making capacity** | 110 A IEC 60947 |
| **Associated fuse rating** | 10 A gG conforming to IEC 60947<br>10 A gG conforming to VDE 0660 |
| **[Ui] rated insulation voltage** | 690 V IEC 60947<br>750 V VDE 0110 group C<br>690 V BS 5424<br>600 V CSA C22.2 No 14 |
| **Mounting Support** | Rail<br>Plate |
| **Connections - terminals** | screw clamp terminals 1 0.002…0.006 in² (1.5…4 mm²)solid<br>screw clamp terminals 2 0.002…0.006 in² (1.5…4 mm²)solid<br>screw clamp terminals 1 0.001…0.006 in² (0.75…4 mm²)flexible with cable end<br>screw clamp terminals 2 0.001…0.006 in² (0.75…4 mm²)flexible without cable end<br>screw clamp terminals 1 0.0005…0.002 in² (0.34…1.5 mm²)flexible with cable end<br>screw clamp terminals 2 0.0005…0.002 in² (0.34…1.5 mm²)flexible without cable end |
| **Tightening torque** | 11.5 lbf.in (1.3 N.m) screw clamp terminals flat Ø 6 mm<br>11.5 lbf.in (1.3 N.m) screw clamp terminals Philips No 2 0.2 in (6 mm)<br>11.5 lbf.in (1.3 N.m) screw clamp terminals pozidriv No 2 |
| **Control circuit voltage limits** | Operational: 0.8...1.15 Uc (at <122 °F (50 °C))<br>Drop-out: 0.1...0.75 Uc (at <122 °F (50 °C)) |
| **Operating time** | 10 ms coil de-energisation and NO opening<br>30...40 ms coil energisation and NO closing<br>15 ms coil de-energisation and NC closing<br>25...35 ms coil energisation and NC opening |
| **Mechanical durability** | 20 Mcycles |
| **Maximum operating rate** | 10000 cyc/h |

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

| | |
|---|---|
| **Immunity to microbreaks** | 2 ms |
| **Inrush power in W** | 3 W 68 °F (20 °C)) |
| **Hold-in power consumption in W** | 3 W 68 °F (20 °C) |
| **Heat dissipation** | 3 W |
| **Minimum switching voltage** | 17 V |
| **Minimum switching current** | 5 mA |
| **Non overlap distance** | 0.02 in (0.5 mm) |
| **Insulation resistance** | > 10 MOhm |
| **Height** | 2.3 in (58 mm) |
| **Width** | 1.8 in (45 mm) |
| **Depth** | 2.2 in (57 mm) |
| **Product Weight** | 0.496 lb(US) (0.225 kg) |

## Environment

| | |
|---|---|
| **Standards** | EN/IEC 60947-5-1<br>GB/T 14048.5<br>UL 60947-5-1<br>CSA C22.2 No 60947-5-1<br>JIS C8201-5-1 |
| **Product Certifications** | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA |
| **IP degree of protection** | IP2X |
| **Protective treatment** | TC IEC 60068 |
| **Ambient Air Temperature for Operation** | -13…122 °F (-25…50 °C) |
| **Ambient Air Temperature for Storage** | -58…176 °F (-50…80 °C) |
| **Operating altitude** | 6561.68 ft (2000 m) without derating |
| **Flame retardance** | V1 conforming to UL 94<br>Requirement 2 conforming to NF F 16-101<br>Requirement 2 conforming to NF F 16-102 |
| **Mechanical robustness** | Vibrations contactor open2 Gn, 5...300 Hz IEC 60068-2-6<br>Vibrations contactor closed4 Gn, 5...300 Hz IEC 60068-2-6<br>Shocks contactor open10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed15 Gn for 11 ms IEC 60068-2-27 |

## Ordering and shipping details

| | |
|---|---|
| **Category** | US10I1222371 |
| **Discount Schedule** | 0I12 |
| **GTIN** | 3389110500196 |
| **Returnability** | Yes |
| **Country of origin** | ID |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Nbr. of units in pkg.** | 1 |

| | |
|---|---|
| **Package 1 Height** | 2.598 in (6.600 cm) |
| **Package 1 Width** | 1.890 in (4.800 cm) |
| **Package 1 Length** | 2.441 in (6.200 cm) |
| **Package weight(Lbs)** | 7.725 oz (219.000 g) |
| **Unit Type of Package 2** | S02 |
| **Number of Units in Package 2** | 40 |
| **Package 2 Height** | 5.906 in (15.000 cm) |
| **Package 2 Width** | 11.811 in (30.000 cm) |
| **Package 2 Length** | 15.748 in (40.000 cm) |
| **Package 2 Weight** | 20.181 lb(US) (9.154 kg) |
| **Unit Type of Package 3** | P06 |
| **Number of Units in Package 3** | 320 |
| **Package 3 Height** | 17.717 in (45.000 cm) |
| **Package 3 Width** | 23.622 in (60.000 cm) |
| **Package 3 Length** | 31.496 in (80.000 cm) |
| **Package 3 Weight** | 182.675 lb(US) (82.860 kg) |

## Contractual warranty

| | |
|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Environmental footprint

| | |
|---|---|
| Total lifecycle Carbon footprint | **59 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **1 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.4 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **57 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **0.3 kg CO2 eq.** |
| Environmental Disclosure | **Product Environmental Profile** |

## Use Better

### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **Yes** |
| EU RoHS Directive | **Compliant** |
| REACh Regulation | **Free of Substances of Very High Concern above the threshold** |
| California proposition 65 | **WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov** |

## Use Longer

### Lifetime extension

| | |
|---|---|
| Repair | **No** |

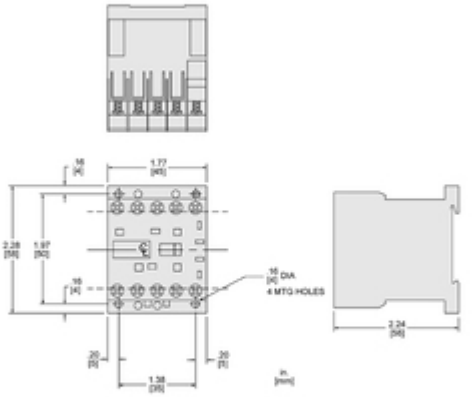
## Use Again

### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **63** |
| Circularity Profile | **End of Life Information** |
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins.** |

Technical Illustration

**Dimensions**




ALL DIMENSIONS ARE APPROXIMATE.
ALSO SEE TECHNICAL DRAWINGS AND DOCUMENTATION.

Offer Marketing Illustration

**Product benefits / Features**



Offer Marketing Illustration

**Product benefits / Features**

