

# CA3KN31BD

TeSys K control relay - 3 NO + 1 NC - ≤ 690 V - 24 V DC standard coil



## Main

|                                |                  |
|--------------------------------|------------------|
| Range                          | TeSys            |
| Product name                   | TeSys CAK        |
| Product or component type      | Control relay    |
| Device short name              | CA3K             |
| Contact 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      |
| Control circuit voltage        | 24 V DC          |

## Complementary

|   |  |
|---|--|
| [Ith] conventional free air thermal current | 10 A at ≤ 50 °C  |
| Irms rated making capacity                  | 110 A conforming to 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 conforming to BS 5424<br>690 V conforming to IEC 60947<br>750 V conforming to VDE 0110 group C<br>600 V conforming to CSA C22.2 No 14  |
| Mounting support                            | Plate<br>Rail  |
| Connections - terminals                     | Screw clamp terminals 1 cable(s) 1.5...4 mm <sup>2</sup> - cable stiffness: solid<br>Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> - cable stiffness: solid<br>Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Screw clamp terminals 1 cable(s) 0.34...1.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end |
| Tightening torque                           | 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2 6 mm<br>1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm   |
| Control circuit voltage limits              | 0.8...1.15 U <sub>c</sub> at 50 °C operational<br>0.1...0.75 U <sub>c</sub> at 50 °C drop-out  |
| Operating time                              | 10 ms coil de-energisation and NO opening<br>15 ms coil de-energisation and NC closing<br>25...35 ms coil energisation and NC opening<br>30...40 ms coil energisation and NO closing   |
| Mechanical durability                       | 20 Mcycles   |
| Operating rate                              | 10000 cyc/h  |
| Immunity to microbreaks                     | 2 ms   |
| Inrush power in W                           | 3 W at 20 °C   |
| Hold-in power consumption in W              | 3 W at 20 °C   |
| Heat dissipation                            | 3 W  |
| Minimum switching voltage                   | 17 V   |
| Minimum switching current                   | 5 mA   |
| Non overlap distance                        | 0.5 mm   |
| Insulation resistance                       | > 10 MOhm  |

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|                |          |
|----------------|----------|
| Height         | 58 mm    |
| Width          | 45 mm    |
| Depth          | 57 mm    |
| Product weight | 0.225 kg |

## Environment

|                                       |  |
|---------------------------------------|--|
| Standards                             | BS 5424<br>IEC 60947<br>NF C 63-140<br>VDE 0660  |
| Product certifications                | CSA<br>UL  |
| IP degree of protection               | IP2x   |
| Protective treatment                  | TC conforming to IEC 60068   |
| Ambient air temperature for operation | -25...50 °C  |
| Ambient air temperature for storage   | -50...80 °C  |
| Operating altitude                    | 2000 m without derating in temperature   |
| 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 closed 4 Gn, 5...300 Hz IEC 60068-2-6<br>Vibrations contactor open 2 Gn, 5...300 Hz IEC 60068-2-6<br>Shocks contactor open 10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed 15 Gn for 11 ms IEC 60068-2-27 |

## Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS                             | Compliant - since 0633 - Schneider Electric declaration of conformity |
| Product environmental profile    | Available   |
| Product end of life instructions | Need no specific recycling operations                                 |