

# CA3KN22MD

TeSys K control relay - 2 NO + 2 NC - ≤ 690 V - 220 V DC standard coil



## Main

|                                |                  |
|--------------------------------|------------------|
| Range                          | TeSys            |
| Product name                   | TeSys CAK        |
| Product or component type      | Control relay    |
| Device short name              | CA3K             |
| Contactor application          | Control circuit  |
| Utilisation category           | DC-13<br>AC-15   |
| Pole contact composition       | 2 NO + 2 NC      |
| [Ue] rated operational voltage | ≤ 690 V ≤ 400 Hz |
| Control circuit type           | DC standard      |
| [Uc] control circuit voltage   | 220 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 IEC 60947<br>750 V conforming to VDE 0110 group C<br>690 V conforming to BS 5424<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> solid<br>Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> solid<br>Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> flexible with cable end<br>Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 1 cable(s) 0.34...1.5 mm <sup>2</sup> flexible with cable end<br>Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> flexible without cable end |
| Tightening torque                           | 1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>1.3 N.m - on screw clamp terminals - with screwdriver Philips No 26 mm                                                                                                                                                                                                                                                                                                                                                    |
| Control circuit voltage limits              | Operational: 0.8...1.15 Uc (at <50 °C)<br>Drop-out: 0.1...0.75 Uc (at <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Height                                      | 58 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|            |          |
|------------|----------|
| Width      | 45 mm    |
| Depth      | 57 mm    |
| Net 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                                                                                                                                                                                                                                                                              |
| 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 open: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Shocks contactor open: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor closed: 15 Gn for 11 ms conforming to IEC 60068-2-27 |

## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| REACH free of SVHC         | Yes                                                                                                                         |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>                                                                               |
| Toxic heavy metal free     | Yes                                                                                                                         |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>                                                                                      |
| Environmental Disclosure   | <a href="#">Product Environmental Profile</a>                                                                               |
| Circularity Profile        | <a href="#">End Of Life Information</a>                                                                                     |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

|          |           |
|----------|-----------|
| Warranty | 18 months |
|----------|-----------|