# Product datasheet

Specifications




## TeSys D control relay - 5 NO - <= 690 V - 220 V DC standard coil

CAD50MD

## Main

| | |
|---|---|
| **Range** | TeSys<br>TeSys Deca |
| **Product name** | TeSys CAD |
| **Product or component type** | Control relay |
| **Device short name** | CAD |
| **Contactor application** | Control circuit |

## Complementary

| | |
|---|---|
| **Utilisation category** | DC-13<br>AC-15<br>AC-14 |
| **Pole contact composition** | 5 NO |
| **[Ue] rated operational voltage** | <= 690 V AC 25...400 Hz |
| **Control circuit type** | DC standard |
| **[Uc] control circuit voltage** | 220 V DC |
| **[Uimp] rated impulse withstand voltage** | 6 kV conforming to IEC 60947 |
| **[Ith] conventional free air thermal current** | 10 A (at 60 °C) |
| **Irms rated making capacity** | 140 A AC conforming to IEC 60947-5-1<br>250 A DC conforming to IEC 60947-5-1 |
| **[Icw] rated short-time withstand current** | 100 A - 1 s<br>120 A - 500 ms<br>140 A - 100 ms |
| **Associated fuse rating** | 10 A gG conforming to IEC 60947-5-1 |
| **[Ui] rated insulation voltage** | 600 V UL certified<br>600 V CSA certified<br>690 V conforming to IEC 60947-5-1 |
| **Mounting support** | Rail<br>Plate |
| **Connections - terminals** | Screw clamp terminals 1 cable(s) 1…4 mm²flexible without cable end<br>Screw clamp terminals 2 cable(s) 1…4 mm²flexible without cable end<br>Screw clamp terminals 1 cable(s) 1…4 mm²flexible with cable end<br>Screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end<br>Screw clamp terminals 1 cable(s) 1…4 mm²solid without cable end<br>Screw clamp terminals 2 cable(s) 1…4 mm²solid without cable end |
| **Tightening torque** | 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 |
| **Control circuit voltage limits** | 0.1...0.25 Uc (-40…70 °C):drop-out DC<br>0.7...1.25 Uc (-40…60 °C):operational DC<br>1...1.25 Uc (60…70 °C):operational DC |

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

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

| | |
|---|---|
| **Operating time** | 53...72 ms coil energisation and NO closing<br>16...24 ms coil de-energisation and NO opening |
| **Mechanical durability** | 30 Mcycles |
| **Maximum operating rate** | 180 cyc/mn |
| **Time constant** | 28 ms |
| **Inrush power in W** | 5.4 W (at 20 °C) |
| **Hold-in power consumption in W** | 5.4 W at 20 °C |
| **Minimum switching voltage** | 17 V |
| **Minimum switching current** | 5 mA |
| **Non-overlap time** | 1.5 ms on energisation between NC and NO contact<br>1.5 ms on de-energisation between NC and NO contact |
| **Insulation resistance** | > 10 MOhm |
| **Mechanical robustness** | Shocks control relay open: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks control relay closed: 15 Gn for 11 ms conforming to IEC 60068-2-27<br>Vibrations control relay open: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Vibrations control relay closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6 |
| **Height** | 77 mm |
| **Width** | 45 mm |
| **Depth** | 93 mm |
| **Net weight** | 0.58 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<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA |
| **IP degree of protection** | IP2X front face conforming to VDE 0106 |
| **Protective treatment** | TH conforming to IEC 60068 |
| **Ambient air temperature for operation** | -40…60 °C<br>60…70 °C with derating |
| **Ambient air temperature for storage** | -60…80 °C |
| **Operating altitude** | 0...3000 m |

## Packing Units

| | |
|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 11.2 cm |
| **Package 1 Width** | 9.1 cm |
| **Package 1 Length** | 5 cm |
| **Package 1 Weight** | 501 g |
| **Unit Type of Package 2** | S02 |

| | |
|---|---|
| **Number of Units in Package 2** | 15 |
| **Package 2 Height** | 15.000 cm |
| **Package 2 Width** | 30.000 cm |
| **Package 2 Length** | 40.000 cm |
| **Package 2 Weight** | 7.709 kg |
| **Unit Type of Package 3** | P06 |
| **Number of Units in Package 3** | 120 |
| **Package 3 Height** | 45.000 cm |
| **Package 3 Width** | 60.000 cm |
| **Package 3 Length** | 80.000 cm |
| **Package 3 Weight** | 69.888 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 | **38 kg CO2 eq.** |
| Carbon footprint of the manufacturing phase [A1 to A3] | **3 kg CO2 eq.** |
| Carbon footprint of the distribution phase [A4] | **0.2 kg CO2 eq.** |
| Carbon footprint of the installation phase [A5] | **0 kg CO2 eq.** |
| Carbon footprint of the use phase [B2, B3, B4, B6] | **33 kg CO2 eq.** |
| Carbon footprint of the end-of-life phase [C1 to C4] | **2 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** |
| SCIP Number | **B67ac941-f42f-4afd-894a-0b6f9cefde62** |
| EU RoHS Directive | **Compliant By Exemption** |
| REACh Regulation | **Reference contains Substances of Very High Concern above the threshold** |

## Use Again

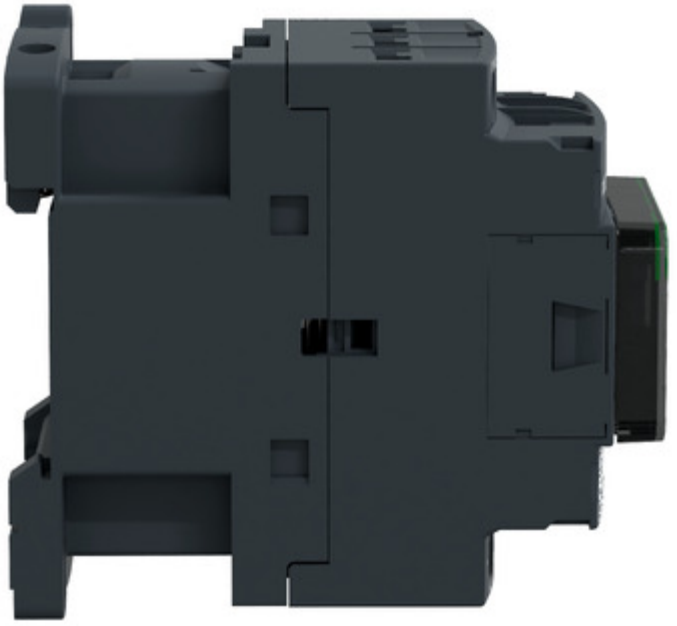
### Repack and remanufacture

| | |
|---|---|
| Recyclability potential, in % | **75** |
| End of life manual availability | **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** |

Image of product / Alternate images

**Alternative**





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