

# Product datasheet

Specifications



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

CAD50M7

### 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                        | AC-15<br>AC-14<br>DC-13                                                                                                                                                                                                                                                                                                                                                                                                            |
| Pole contact composition                    | 5 NO                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ue] rated operational voltage              | <= 690 V AC 25...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                            |
| Control circuit type                        | AC at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [Uc] control circuit voltage                | 220 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                  |
| [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                            | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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                           | 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2                                                                                                                                                                                                                     |

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

|                                 |                                                                                                                                                                                                                                                                                                                      |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control circuit voltage limits  | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz                                                                                                            |
| Operating time                  | 12...22 ms coil energisation and NO closing<br>4...12 ms coil de-energisation and NO opening                                                                                                                                                                                                                         |
| Mechanical durability           | 30 Mcycles                                                                                                                                                                                                                                                                                                           |
| Maximum operating rate          | 180 cyc/mn                                                                                                                                                                                                                                                                                                           |
| Inrush power in VA              | 70 VA 50 Hz (at 20 °C)                                                                                                                                                                                                                                                                                               |
| Hold-in power consumption in VA | 8 VA 50 Hz (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                           | 84 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             | 5.500 cm |
| Package 1 Width              | 8.200 cm |
| Package 1 Length             | 9.500 cm |

|                              |           |
|------------------------------|-----------|
| Package 1 Weight             | 352.000 g |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 20        |
| Package 2 Height             | 15.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 7.359 kg  |

## Contractual warranty

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

Sustainability



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Transparency   RoHS/REACH

Well-being performance

 Mercury Free

 RoHS Exemption Information   [Yes](#)

Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant with Exemptions                                                                                                   |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |

Image of product / Alternate images

Alternative

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