



Main

|                           |                 |
|---------------------------|-----------------|
| Range                     | TeSys           |
| 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-14<br>AC-15                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Pole contact composition                    | 3 NO + 2 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [Ue] rated operational voltage              | <= 690 V AC 25...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Control circuit type                        | DC standard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [Uc] control circuit voltage                | 48 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                            | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connections - terminals                     | Screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid 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                                                                                                                                                                                                                                                                                                                                                                          |
| 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                                                                                                                                                                                                                                                                                                                                                                                 |
| Operating time                              | 53...72 ms coil energisation and NO closing<br>16...24 ms coil de-energisation and NO opening<br>47...63 ms coil energisation and NC opening<br>15...25 ms coil de-energisation and NC closing                                                                                                                                                                                                                                                                                                                   |
| 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

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|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 MΩ                                                                                                                                                                                                                                                                                                              |
| 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                             | BS 4794<br>EN 60947-5<br>IEC 60947-5-1<br>NF C 63-140<br>VDE 0660 |
| Product certifications                | UL<br>CSA                                                         |
| 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 Weight             | 521 g    |
| Package 1 Height             | 5 cm     |
| Package 1 width              | 9.2 cm   |
| Package 1 Length             | 11.2 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 15       |
| Package 2 Weight             | 8.26 kg  |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Unit Type of Package 3       | P06      |
| Number of Units in Package 3 | 120      |
| Package 3 Weight             | 75.62 kg |
| Package 3 Height             | 80 cm    |
| Package 3 width              | 80 cm    |
| Package 3 Length             | 60 cm    |

## Offer Sustainability

|                            |                                                                   |
|----------------------------|-------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                             |
| REACH Regulation           | <input checked="" type="checkbox"/> REACH Declaration             |
| EU RoHS Directive          | Compliant <input checked="" type="checkbox"/> EU RoHS Declaration |
| Mercury free               | Yes                                                               |
| RoHS exemption information | <input checked="" type="checkbox"/> Yes                           |
| China RoHS Regulation      | <input checked="" type="checkbox"/> China RoHS Declaration        |

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|--------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| 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    |

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### **Contractual warranty**

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| Warranty | 18 months |
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