

# Product datasheet

Specifications



## TeSys K contactor - 3P - AC-3 <= 440 V 12 A - 1 NC aux. - 42 V AC coil

Local distributor code: 402893831    LC1K1201D7

### Main

|                           |                                 |
|---------------------------|---------------------------------|
| Range                     | TeSys                           |
| Product or component type | Contactor                       |
| Product name              | TeSys K                         |
| Device short name         | LC1K                            |
| Device application        | Control                         |
| Contactor application     | Motor control<br>Resistive load |

### Complementary

|                                             |                                                                                                                                                                                                                                                                          |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Utilisation category                        | AC-3<br>AC-1<br>AC-4                                                                                                                                                                                                                                                     |
| Poles description                           | 3P                                                                                                                                                                                                                                                                       |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                     |
| [Ie] rated operational current              | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit<br>12 A at <= 440 V AC AC-3 for power circuit<br>16 A (at <70 °C) at 690 V AC AC-1 for power circuit                                                                                                              |
| Control circuit type                        | AC at 50/60 Hz                                                                                                                                                                                                                                                           |
| [Uc] control circuit voltage                | 42 V AC 50/60 Hz                                                                                                                                                                                                                                                         |
| Motor power kW                              | 4 kW at 480 V AC 50/60 Hz AC-3<br>4 kW at 500...600 V AC 50/60 Hz AC-3<br>4 kW at 660...690 V AC 50/60 Hz AC-3<br>2.2 kW at 400 V AC 50/60 Hz AC-4<br>3 kW at 220...230 V AC 50/60 Hz AC-3<br>5.5 kW at 380...415 V AC 50/60 Hz AC-3<br>5.5 kW at 440 V AC 50/60 Hz AC-3 |
| Auxiliary contact composition               | 1 NC                                                                                                                                                                                                                                                                     |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                      |
| [Ith] conventional free air thermal current | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit                                                                                                                                                                                              |
| Irms rated making capacity                  | 110 A AC for signalling circuit conforming to IEC 60947<br>144 A AC for power circuit conforming to NF C 63-110<br>144 A AC for power circuit conforming to IEC 60947                                                                                                    |
| Rated breaking capacity                     | 110 A at 440 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>70 A at 660...690 V conforming to IEC 60947                                                                                                                                           |
| Associated fuse rating                      | 25 A gG at <= 440 V for power circuit<br>25 A aM for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947<br>10 A gG for signalling circuit conforming to VDE 0660                                                                                    |

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Average impedance               | 3 mOhm - lth 20 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Insulation resistance           | > 10 MOhm for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Inrush power in VA              | 30 VA (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Hold-in power consumption in VA | 4.5 VA (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Heat dissipation                | 1.3 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Control circuit voltage limits  | Operational: 0.8...1.15 Uc (at <50 °C)<br>Drop-out: 0.2...0.75 Uc (at <50 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Maximum operating rate          | 3600 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Auxiliary contacts type         | type instantaneous 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Signalling circuit frequency    | <= 400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Minimum switching current       | 5 mA for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Minimum switching voltage       | 17 V for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Operating time                  | 10...20 ms coil de-energisation and NO opening<br>10...20 ms coil energisation and NO closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Safety reliability level        | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Non overlap distance            | 0.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Mechanical robustness           | Shocks contactor closed, on X axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor closed, on Y axis: 15 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor closed, on Z axis: 15 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor opened, on X axis: 6 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor opened, on Y axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Shocks contactor opened, on Z axis: 10 Gn for 11 ms conforming to IEC 60068-2-27<br>Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6<br>Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6 |

## Environment

|                        |                                                                                                              |
|------------------------|--------------------------------------------------------------------------------------------------------------|
| Product certifications | CSA<br>UL<br>UKCA                                                                                            |
| Protective treatment   | TC conforming to IEC 60068<br>TC conforming to DIN 50016                                                     |
| 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 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Weight             | 180.0 g |
| Package 1 Height             | 6.6 cm  |
| Package 1 width              | 4.8 cm  |
| Package 1 Length             | 6.2 cm  |
| Unit Type of Package 2       | S02     |
| Number of Units in Package 2 | 1       |
| Package 2 Weight             | 635.0 g |
| Package 2 Height             | 15 cm   |
| Package 2 width              | 30 cm   |
| Package 2 Length             | 40 cm   |

Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| REACH free of SVHC         | Yes                                                                                                                         |
| EU RoHS Directive          | Compliant<br><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><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                 |
| 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 |
|----------|-----------|