

# Product data sheet

Specifications



contactor, TeSys K, 4P(4NO), AC-1, 440V 20A, 220...230V AC coil

LC1K09004M7

## Main

|                           |                |
|---------------------------|----------------|
| Range                     | TeSys          |
| Product or component type | Contacteur     |
| Product name              | TeSys K        |
| Device short name         | LC1K           |
| Device application        | Control        |
| Contacteur application    | Resistive load |

## Complementary

|   |  |
|---|--|
| Utilisation category                        | AC-1   |
| Poles description                           | 4P   |
| Power pole contact composition              | 4 NO   |
| [Ue] rated operational voltage              | Power circuit: 690 V AC 50/60 Hz   |
| [Ie] rated operational current              | 20 A (at <= 50 °C) at <= 440 V AC AC-1 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                | 220...230 V AC 50/60 Hz  |
| [Uimp] rated impulse withstand voltage      | 8 kV   |
| Overtoltage category                        | III  |
| [Ith] conventional free air thermal current | 20 A (at 50 °C) for power circuit  |
| Irms rated making capacity                  | 110 A AC for power circuit conforming to NF C 63-110<br>110 A AC for power circuit conforming to IEC 60947   |
| Rated breaking capacity                     | 110 A at 415 V conforming to IEC 60947<br>110 A at 440 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>110 A at 220...230 V conforming to IEC 60947<br>110 A at 380...400 V conforming to IEC 60947<br>70 A at 660...690 V conforming to IEC 60947           |
| [Icw] rated short-time withstand current    | 90 A 50 °C - 1 s for power circuit<br>85 A 50 °C - 5 s for power circuit<br>80 A 50 °C - 10 s for power circuit<br>60 A 50 °C - 30 s for power circuit<br>45 A 50 °C - 1 min for power circuit<br>40 A 50 °C - 3 min for power circuit<br>20 A 50 °C - >= 15 min for power circuit |
| Associated fuse rating                      | 25 A gG at <= 440 V for power circuit<br>25 A aM for power circuit   |

|  |   |
|--|---|
| <b>Average impedance</b>                   | 3 mOhm - lth 20 A 50 Hz for power circuit   |
| <b>[Ui] rated insulation voltage</b>       | Power circuit: 600 V conforming to UL 508<br>Power circuit: 690 V conforming to IEC 60947-4-1<br>Power circuit: 600 V conforming to CSA C22.2 No 14   |
| <b>Inrush power in VA</b>                  | 30 VA (at 20 °C)  |
| <b>Hold-in power consumption in VA</b>     | 4.5 VA (at 20 °C)   |
| <b>Heat dissipation</b>                    | 1.3 W   |
| <b>Control circuit voltage limits</b>      | Operational: 0.85...1.1 U <sub>c</sub> (at <50 °C)<br>Drop-out: 0.2...0.75 U <sub>c</sub> (at <50 °C)   |
| <b>Connections - terminals</b>             | Screw clamp terminals 1 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 without cable end<br>Screw clamp terminals 1 cable(s) 0.34...2.5 mm <sup>2</sup> flexible with cable end<br>Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> solid<br>Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> flexible without cable end<br>Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> flexible with cable end  |
| <b>Maximum operating rate</b>              | 3600 cyc/h  |
| <b>Signalling circuit frequency</b>        | <= 400 Hz   |
| <b>Mounting support</b>                    | Rail<br>Plate   |
| <b>Tightening torque</b>                   | 0.8...1.3 N.m - on screw clamp terminals Philips No 2<br>0.8...1.3 N.m - on screw clamp terminals flat Ø 6 mm<br>0.8...1.3 N.m - on screw clamp terminals pozidriv No 2   |
| <b>Operating time</b>                      | 10...20 ms coil de-energisation and NO opening<br>10...20 ms coil energisation and NO closing   |
| <b>Safety reliability level</b>            | 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  |
| <b>Mechanical durability</b>               | 10 Mcycles  |
| <b>Electrical durability</b>               | 0.18 Mcycles 20 A AC-1 at U <sub>e</sub> <= 440 V   |
| <b>Mechanical robustness</b>               | 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 |
| <b>Height</b>                              | 58 mm   |
| <b>Width</b>                               | 45 mm   |
| <b>Depth</b>                               | 57 mm   |
| <b>Net weight</b>                          | 0.18 kg   |
| <b>Environment</b>                         |   |
| <b>Standards</b>                           | EN/IEC 60947-4-1<br>GB/T 14048.4<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>JIS C8201-4-1   |
| <b>Product certifications</b>              | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA  |
| <b>IP degree of protection</b>             | IP2X conforming to VDE 0106   |
| <b>Protective treatment</b>                | TC conforming to IEC 60068<br>TC conforming to DIN 50016  |
| <b>Ambient air temperature for storage</b> | -50...80 °C   |
| <b>Operating altitude</b>                  | 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 Height             | 4.8 cm   |
| Package 1 Width              | 6.2 cm   |
| Package 1 Length             | 6.6 cm   |
| Package 1 Weight             | 178.0 g  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 50       |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 9.355 kg |

## 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   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)   |
| RoHS exemption information | <a href="#">Yes</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   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

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

## Recommended replacement(s)