



### Main

|                           |               |
|---------------------------|---------------|
| Range                     | TeSys         |
| Product or component type | Contactors    |
| Product name              | TeSys K       |
| Device short name         | LC1K          |
| Device application        | Control       |
| Contactors application    | Motor control |

### Complementary

|   |  |
|---|--|
| Utilisation category                        | AC-3<br>AC-4   |
| Poles description                           | 3P   |
| Power pole contact composition              | 3 NO   |
| [Ue] rated operational voltage              | Power circuit: 690 V AC 50/60 Hz<br>Signalling circuit: $\leq$ 690 V AC 50/60 Hz   |
| [Ie] rated operational current              | 6 A at $\leq$ 440 V AC AC-3 for power circuit  |
| Control circuit type                        | AC at 50/60 Hz   |
| [Uc] control circuit voltage                | 230 V AC 50/60 Hz  |
| Motor power kW                              | 1.5 kW at 220...230 V AC 50/60 Hz AC-3<br>2.2 kW at 380...415 V AC 50/60 Hz AC-3<br>3 kW at 440 V AC 50/60 Hz AC-3<br>3 kW at 480 V AC 50/60 Hz AC-3<br>3 kW at 500...600 V AC 50/60 Hz AC-3<br>3 kW at 660...690 V AC 50/60 Hz AC-3<br>1.5 kW at 400 V AC 50/60 Hz AC-4 |
| Auxiliary contact composition               | 1 NO   |
| [Uimp] rated impulse withstand voltage      | 8 kV   |
| 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  |

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

|  |   |
|--|---|
| 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<br>110 A AC for signalling 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<br>80 A - 1 s for signalling circuit<br>90 A - 500 ms for signalling circuit<br>110 A - 100 ms for signalling circuit  |
| 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 - Ith 20 A 50 Hz for power circuit   |
| [Ui] rated insulation voltage            | Power circuit: 600 V conforming to UL 508<br>Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-5-1<br>Signalling circuit: 600 V conforming to UL 508<br>Power circuit: 600 V conforming to CSA C22.2 No 14<br>Signalling circuit: 600 V conforming to CSA C22.2 No 14  |
| 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)   |
| Connections - terminals                  | 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                      |
| Maximum operating rate                   | 3600 cyc/h  |
| Auxiliary contacts type                  | type instantaneous 1 NO   |
| Signalling circuit frequency             | <= 400 Hz   |
| Minimum switching current                | 5 mA for signalling circuit   |
| Minimum switching voltage                | 17 V for signalling circuit   |
| Mounting support                         | Rail<br>Plate   |
| Tightening torque                        | 1.3 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>1.3 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm   |
| 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 durability                    | 10 Mcycles  |
| Electrical durability                    | 1.3 Mcycles 6 A AC-3 at Ue <= 440 V   |
| 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 |

Vibrations contactor closed: 4 Gn, 5...300 Hz conforming to IEC 60068-2-6  
Vibrations contactor opened: 2 Gn, 5...300 Hz conforming to IEC 60068-2-6

|            |         |
|------------|---------|
| Height     | 58 mm   |
| Width      | 45 mm   |
| Depth      | 57 mm   |
| Net weight | 0.18 kg |

## Environment

|                                     |  |
|-------------------------------------|--|
| Standards                           | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660  |
| Product certifications              | UL<br>CSA  |
| IP degree of protection             | IP2x conforming to VDE 0106  |
| Protective treatment                | TC conforming to IEC 60068<br>TC conforming to DIN 50016   |
| Ambient air temperature for storage | -50...80 °C  |
| 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

|                  |          |
|------------------|----------|
| Package 1 Weight | 177 g    |
| Package 2 Weight | 9.305 kg |
| Package 3 Weight | 82.94 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   |
| 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 |
|----------|-----------|