

# LC1K090045F7

TeSys K contactor - 4P(4 NO) - AC-1 - ≤ 440 V 20 A - 110 V AC coil



## Main

|                                             |                                                                                                                                                                                                                                                                          |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                    |
| Product name                                | TeSys K                                                                                                                                                                                                                                                                  |
| Product or component type                   | Contactor                                                                                                                                                                                                                                                                |
| Device short name                           | LC1K                                                                                                                                                                                                                                                                     |
| Contactor application                       | Resistive load                                                                                                                                                                                                                                                           |
| Utilisation category                        | AC-1                                                                                                                                                                                                                                                                     |
| Poles description                           | 4P                                                                                                                                                                                                                                                                       |
| Power pole contact composition              | 4 NO                                                                                                                                                                                                                                                                     |
| [Ue] rated operational voltage              | 690 V AC 50/60 Hz for power circuit                                                                                                                                                                                                                                      |
| [Ie] rated operational current              | 16 A (≤ 70 °C) at 690 V AC AC-1 for power circuit<br>20 A (≤ 50 °C) at ≤ 440 V AC AC-1 for power circuit                                                                                                                                                                 |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                                                                                              |
| Control circuit voltage                     | 110 V AC 50/60 Hz                                                                                                                                                                                                                                                        |
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                                                                                                                                                                                                     |
| Overvoltage 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 IEC 60947<br>110 A AC for power circuit conforming to NF C 63-110                                                                                                                                                               |
| Rated breaking capacity                     | 70 A at 660...690 V conforming to IEC 60947<br>110 A at 380...400 V conforming to IEC 60947<br>110 A at 220...230 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>110 A at 440 V conforming to IEC 60947<br>110 A at 415 V conforming to IEC 60947 |
| [Icw] rated short-time withstand current    | 20 A ≤ 50 °C ≥ 15 s power circuit<br>40 A ≤ 50 °C 3 min power circuit<br>45 A ≤ 50 °C 1 min power circuit<br>60 A ≤ 50 °C 30 s power circuit<br>80 A ≤ 50 °C 10 s power circuit<br>85 A ≤ 50 °C 5 s power circuit<br>90 A ≤ 50 °C 1 s power circuit                      |
| Associated fuse rating                      | 25 A aM for power circuit<br>25 A gG at ≤ 440 V for power circuit                                                                                                                                                                                                        |
| Average impedance                           | 3 mOhm at 50 Hz - Ith 20 A for power circuit                                                                                                                                                                                                                             |
| [Ui] rated insulation voltage               | 600 V for power circuit conforming to CSA C22.2 No 14<br>690 V for power circuit conforming to IEC 60947-4-1<br>600 V for power circuit conforming to UL 508                                                                                                             |
| Electrical durability                       | 0.18 Mcycles 20 A AC-1 at Ue ≤ 440 V                                                                                                                                                                                                                                     |
| Mounting support                            | Printed circuit boards                                                                                                                                                                                                                                                   |
| Standards                                   | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660                                                                                                                                                                                                                          |
| Product certifications                      | CSA<br>UL                                                                                                                                                                                                                                                                |
| Connections - terminals                     | Solder pins 1.5 x 0.9 mm                                                                                                                                                                                                                                                 |
| Operating time                              | 10...20 ms coil energisation and NO closing<br>10...20 ms coil de-energisation and NO opening                                                                                                                                                                            |

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                          |                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety reliability level | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1<br>B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 |
| Mechanical durability    | 10 Mcycles                                                                                                                                                           |
| Operating rate           | 3600 cyc/h                                                                                                                                                           |

## Complementary

|                                 |                                                                             |
|---------------------------------|-----------------------------------------------------------------------------|
| Control circuit voltage limits  | 0.2...0.75 Uc at <= 50 °C drop-out<br>0.8...1.15 Uc at <= 50 °C operational |
| 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                                                                       |
| Signalling circuit frequency    | <= 400 Hz                                                                   |

## Environment

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP2x conforming to VDE 0106                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Protective treatment                  | TC conforming to DIN 50016<br>TC conforming to IEC 60068                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Ambient air temperature for operation | -25...50 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Ambient air temperature for storage   | -50...80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Operating altitude                    | 2000 m without derating in temperature                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Flame retardance                      | Requirement 2 conforming to NF F 16-102<br>Requirement 2 conforming to NF F 16-101<br>V1 conforming to UL 94                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mechanical robustness                 | Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6<br>Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6<br>Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on Y axis 10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on X axis 6 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on Z axis 15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on Y axis 15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on X axis 10 Gn for 11 ms IEC 60068-2-27 |
| Height                                | 58 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Width                                 | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Depth                                 | 57 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Product weight                        | 0.18 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

## Offer Sustainability

|                                  |                                                                                       |
|----------------------------------|---------------------------------------------------------------------------------------|
| Sustainable offer status         | Not Green Premium product                                                             |
| RoHS                             | Compliant - since 0640 - <a href="#">Schneider Electric declaration of conformity</a> |
| Product end of life instructions | Need no specific recycling operations                                                 |