

# LC1K1201D72

TeSys K contactor - 3P(3 NO) - AC-3 - ≤ 440 V 12 A - 42 V AC coil



## Main

|                                             |                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                  |
| Product name                                | TeSys K                                                                                                                                                                                                |
| Device short name                           | LC1K                                                                                                                                                                                                   |
| Contactor application                       | Motor control<br>Resistive load                                                                                                                                                                        |
| Utilisation category                        | AC-1<br>AC-3<br>AC-4                                                                                                                                                                                   |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                   |
| [Ie] rated operational current              | 12 A at ≤ 440 V AC AC-3 for power circuit<br>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                                                  |
| Motor power kW                              | 5.5 kW at 440 V AC 50/60 Hz<br>5.5 kW at 380...415 V AC 50/60 Hz<br>3 kW at 220...230 V AC 50/60 Hz<br>4 kW at 660...690 V AC 50/60 Hz<br>4 kW at 500...600 V AC 50/60 Hz<br>4 kW at 480 V AC 50/60 Hz |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                            |
| Control circuit voltage                     | 42 V AC 50/60 Hz                                                                                                                                                                                       |
| Auxiliary contact composition               | 1 NC                                                                                                                                                                                                   |
| Overvoltage category                        | III                                                                                                                                                                                                    |
| [Ith] conventional free air thermal current | 10 A at ≤ 50 °C for signalling circuit<br>20 A at ≤ 50 °C for power circuit                                                                                                                            |
| Irms rated making capacity                  | 144 A AC for power circuit conforming to IEC 60947<br>144 A AC for power circuit conforming to NF C 63-110<br>110 A AC for signalling circuit conforming to IEC 60947                                  |
| Rated breaking capacity                     | 70 A at 660...690 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                                                                         |
| Associated fuse rating                      | 10 A gG for signalling circuit conforming to VDE 0660<br>10 A gG for signalling circuit conforming to IEC 60947<br>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                                                                                                                                                           |
| Product certifications                      | CSA<br>UL                                                                                                                                                                                              |
| Operating time                              | 10...20 ms coil energisation and NO closing<br>10...20 ms coil de-energisation and NO opening                                                                                                          |
| Safety reliability level                    | B10d = 2000000 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                                    |
| Operating rate                              | 3600 cyc/h                                                                                                                                                                                             |

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## Complementary

|                                 |                                                                                                   |
|---------------------------------|---------------------------------------------------------------------------------------------------|
| Coil technology                 | Built-in bidirectional peak limiting diode suppressor                                             |
| Control circuit voltage limits  | 0.2...0.75 U <sub>c</sub> at ≤ 50 °C drop-out<br>0.8...1.15 U <sub>c</sub> 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                                                                                             |
| 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                                                                       |
| Non overlap distance            | 0.5 mm                                                                                            |
| Insulation resistance           | > 10 MOhm for signalling circuit                                                                  |

## Environment

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective treatment  | TC conforming to DIN 50016<br>TC conforming to IEC 60068                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| 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 |