

# LC2K090045B72

TeSys K changeover contactor - 4P(4 NO) -  
AC-1 -  $\leq 440$  V 20 A - 24 V AC coil



## Main

|                                             |                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                       |
| Product name                                | TeSys K                                                                                                                                                                                                                                                                                     |
| Product or component type                   | Changeover contactor                                                                                                                                                                                                                                                                        |
| Device short name                           | LC2K                                                                                                                                                                                                                                                                                        |
| Contactor application                       | Resistive load                                                                                                                                                                                                                                                                              |
| Utilisation category                        | AC-1                                                                                                                                                                                                                                                                                        |
| Device presentation                         | Preamsembled with reversing power busbar                                                                                                                                                                                                                                                    |
| 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 ( $\leq 70$ °C) at 690 V AC AC-1 for power circuit<br>20 A ( $\leq 50$ °C) at $\leq 440$ V AC AC-1 for power circuit                                                                                                                                                                   |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                                                                                                                 |
| Control circuit voltage                     | 24 V AC 50/60 Hz                                                                                                                                                                                                                                                                            |
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                                                                                                                                                                                                                        |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                         |
| [Ith] conventional free air thermal current | 20 A at $\leq 50$ °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 $\leq 50$ °C $\geq 15$ s power circuit<br>40 A $\leq 50$ °C 3 min power circuit<br>45 A $\leq 50$ °C 1 min power circuit<br>60 A $\leq 50$ °C 30 s power circuit<br>80 A $\leq 50$ °C 10 s power circuit<br>85 A $\leq 50$ °C 5 s power circuit<br>90 A $\leq 50$ °C 1 s power circuit |
| Associated fuse rating                      | 25 A aM for power circuit<br>25 A gG at $\leq 440$ 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 $\leq 440$ V                                                                                                                                                                                                                                                   |
| Interlocking type                           | Mechanical                                                                                                                                                                                                                                                                                  |
| Mounting support                            | Plate<br>Rail                                                                                                                                                                                                                                                                               |
| Standards                                   | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660                                                                                                                                                                                                                                             |
| Product certifications                      | CSA<br>UL                                                                                                                                                                                                                                                                                   |

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|                          |                                                                                                                                                                      |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connections - terminals  | Solder pins 1.5 x 0.9 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 = 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    | 5 Mcycles                                                                                                                                                            |
| Operating rate           | 3600 cyc/h                                                                                                                                                           |

## Complementary

|                                 |                                                                           |
|---------------------------------|---------------------------------------------------------------------------|
| Coil technology                 | Built-in bidirectional peak limiting diode suppressor                     |
| 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                                                                     |

## 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 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                                 | 90 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Depth                                 | 57 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Product weight                        | 0.38 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |