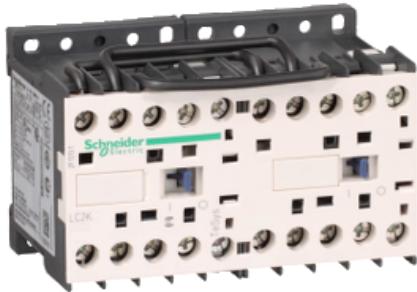


# Product datasheet

## Characteristics

# LC2K0910B7

## TeSys K reversing contactor - 3P - AC-3 $\leq$ 440 V 9 A - 1 NO - 24 V AC coil



### Main

|  |  |
|--|--|
| Range                                  | TeSys  |
| Product name                           | TeSys K  |
| Product or component type              | Reversing contactor  |
| Device short name                      | LC2K   |
| Device application                     | Control  |
| Contactor application                  | Motor control<br>Resistive load  |
| Utilisation category                   | AC-4<br>AC-3<br>AC-1   |
| Device presentation                    | Preassembled with reversing power busbar   |
| 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         | 20 A (at $\leq$ 50 °C) at $\leq$ 440 V AC AC-1 for power circuit<br>16 A (at $\leq$ 70 °C) at 690 V AC AC-1 for power circuit<br>9 A at $\leq$ 440 V AC AC-3 for power circuit                       |
| Motor power kW                         | 2.2 kW at 220...230 V AC 50/60 Hz<br>4 kW at 380...415 V AC 50/60 Hz<br>4 kW at 440 V AC 50/60 Hz<br>4 kW at 480 V AC 50/60 Hz<br>4 kW at 500...600 V AC 50/60 Hz<br>4 kW at 660...690 V AC 50/60 Hz |
| Control circuit type                   | AC at 50/60 Hz   |
| [Uc] control circuit voltage           | 24 V AC 50/60 Hz   |
| Auxiliary contact composition          | 1 NO   |
| [Uimp] rated impulse withstand voltage | 8 kV   |
| Overvoltage category                   | III  |

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

|  |  |
|--|--|
| [I <sub>th</sub> ] conventional free air thermal current | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit  |
| I <sub>rms</sub> 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   |
| [I <sub>cw</sub> ] 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>80 A - 1 s for signalling circuit<br>90 A - 500 ms for signalling circuit<br>110 A - 100 ms for signalling 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<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 - I <sub>th</sub> 20 A 50 Hz for power circuit  |
| [U <sub>i</sub> ] 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   |
| Electrical durability                                    | 0.18 Mcycles 20 A AC-1 at U <sub>e</sub> <= 440 V<br>1.3 Mcycles 9 A AC-3 at U <sub>e</sub> <= 440 V   |
| Interlocking type  | Mechanical   |
| Mounting support   | Rail<br>Plate  |
| Standards  | NF C 63-110<br>IEC 60947<br>BS 5424<br>VDE 0660  |
| Product certifications                                   | UL<br>CSA  |
| 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 |
| 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 energisation and NO closing<br>10...20 ms coil de-energisation and NO opening  |
| 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   |
| Mechanical durability                                    | 5 Mcycles  |
| Maximum operating rate                                   | 3600 cyc/h   |

### Complementary

|                                 |   |
|---------------------------------|---|
| Control circuit voltage limits  | Operational: 0.8...1.15 U <sub>c</sub> (at <50 °C)<br>Drop-out: 0.2...0.75 U <sub>c</sub> (at <50 °C) |
| 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 NO          |
| 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

|                                       |   |
|---------------------------------------|---|
| IP degree of protection               | IP20 conforming to VDE 0106   |
| Protective treatment                  | TC conforming to IEC 60068<br>TC conforming to DIN 50016  |
| Ambient air temperature for operation | -25...50 °C   |
| Ambient air temperature for storage   | -50...80 °C   |
| Operating altitude                    | 2000 m without  |
| 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  |
| 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<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 |
| Height                                | 58 mm   |
| Width                                 | 90 mm   |
| Depth                                 | 57 mm   |
| Net weight                            | 0.39 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>  |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</a>   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| 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 |
|----------|-----------|



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