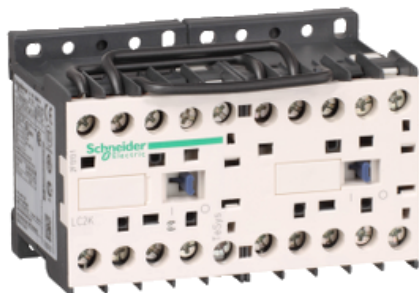


# LC2K1601F7

TeSys K reversing contactor - 3P - AC-3  $\leq$  440 V  
16 A - 1 NC - 110 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                                                                                                                                                                                          |
| Utilisation category                        | AC-4<br>AC-3                                                                                                                                                                                           |
| Device presentation                         | Preamsembled 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              | 16 A at $\leq$ 440 V AC AC-3 for power circuit                                                                                                                                                         |
| Motor power kW                              | 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<br>5.5 kW at 440 V AC 50/60 Hz<br>4 kW at 220...230 V AC 50/60 Hz<br>7.5 kW at 380...415 V AC 50/60 Hz |
| Control circuit type                        | AC at 50/60 Hz                                                                                                                                                                                         |
| [Uc] control circuit voltage                | 110 V AC 50/60 Hz                                                                                                                                                                                      |
| Auxiliary contact composition               | 1 NC                                                                                                                                                                                                   |
| [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                                                                                                                            |
| Irms rated making capacity                  | 160 A at 690 V AC for power circuit conforming to NF C 63-110<br>160 A at 690 V 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 440 V conforming to IEC 60947                                                                                                                                                                 |

80 A at 500 V conforming to IEC 60947  
70 A at 660...690 V conforming to IEC 60947

|                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [I <sub>cw</sub> ] rated short-time withstand current | 115 A 50 °C - 1 s for power circuit<br>105 A 50 °C - 5 s for power circuit<br>100 A 50 °C - 10 s for power circuit<br>75 A 50 °C - 30 s for power circuit<br>55 A 50 °C - 1 min for power circuit<br>50 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>25 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                                 | 1.3 Mcycles 16 A AC-3 at U <sub>e</sub> ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Interlocking type                                     | Mechanical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mounting support                                      | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Standards                                             | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Product certifications                                | CB Scheme                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 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 = 2000000 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  | Drop-out: 0.2...0.75 U <sub>c</sub> (at <50 °C)<br>Operational: 0.85...1.15 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 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

|                         |                             |
|-------------------------|-----------------------------|
| 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 |
|----------|-----------|