

# Product data sheet

Specifications



## TeSys K contactor , 3P , AC-3 <= 440 V 12 A , 1 NC aux. , 36 V AC coil

LC1K12017C72

⚠ Discontinued on: Jul 24, 2022

⚠ Discontinued

### Main

|                                |                                                                                                                                                             |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product               | TeSys K                                                                                                                                                     |
| Range                          | TeSys                                                                                                                                                       |
| Product name                   | TeSys K                                                                                                                                                     |
| Device application             | Control                                                                                                                                                     |
| Product or component type      | Contactor                                                                                                                                                   |
| Device short name              | LC1K                                                                                                                                                        |
| Utilisation category           | AC-3<br>AC-1<br>AC-4                                                                                                                                        |
| Coil technology                | Built-in bidirectional peak limiting diode suppressor                                                                                                       |
| Poles description              | 3P                                                                                                                                                          |
| Pole contact composition       | 3 NO                                                                                                                                                        |
| [Ie] rated operational current | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit<br>12 A at <= 440 V AC AC-3 for power circuit<br>16 A (at <70 °C) at 690 V AC AC-1 for power circuit |
| [Uc] control circuit voltage   | type instantaneous 1 NC                                                                                                                                     |
| Signalling circuit frequency   | <= 400 Hz                                                                                                                                                   |
| Non overlap distance           | 0.5 mm                                                                                                                                                      |

### Complementary

|                                |                                                                                                                           |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Contactor application          | Resistive load<br>Motor control                                                                                           |
| Auxiliary contact composition  | 1 NC                                                                                                                      |
| Control circuit voltage limits | Operational: 0.8...1.15 Uc (at <50 °C)<br>Drop-out: 0.2...0.75 Uc (at <50 °C)                                             |
| Control circuit type           | AC at 50/60 Hz                                                                                                            |
| [Uc] control circuit voltage   | 36 V AC 50/60 Hz                                                                                                          |
| Connections - terminals        | Faston terminals 2 cable(s) - busbar cross section: 2.8 mm<br>Faston terminals 1 cable(s) - busbar cross section: 6.35 mm |
| Electrical durability          | 0.3 Mcycles 20 A AC-1 at Ue <= 440 V<br>1.3 Mcycles 12 A AC-3 at Ue <= 440 V                                              |

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

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mechanical robustness</b>                       | 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 |
| <b>Standards</b>                                   | EN/IEC 60947-4-1<br>GB/T 14048.4<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1<br>JIS C8201-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>IP degree of protection</b>                     | IP2X conforming to VDE 0106                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protective treatment</b>                        | TC conforming to IEC 60068<br>TC conforming to DIN 50016                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>[Ui] rated insulation voltage</b>               | 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                                                                                                                                                                                                                                                                                            |
| <b>[Uimp] rated impulse withstand voltage</b>      | 8 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Overvoltage category</b>                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Mounting support</b>                            | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Product certifications</b>                      | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Ambient air temperature for storage</b>         | -50...80 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Operating altitude</b>                          | 2000 m without derating                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>[Ue] rated operational voltage</b>              | Power circuit: 690 V AC 50/60 Hz<br>Signalling circuit: <= 690 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>[Ith] conventional free air thermal current</b> | 20 A (at 50 °C) for power circuit<br>10 A (at 50 °C) for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Irms rated making capacity</b>                  | 110 A AC for signalling circuit conforming to IEC 60947<br>144 A AC for power circuit conforming to NF C 63-110<br>144 A AC for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Rated breaking capacity</b>                     | 110 A at 440 V conforming to IEC 60947<br>80 A at 500 V conforming to IEC 60947<br>70 A at 660...690 V conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Associated fuse rating</b>                      | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Average impedance</b>                           | 3 mOhm - Ith 20 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Inrush power in VA</b>                          | 30 VA (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Hold-in power consumption in VA</b>             | 4.5 VA (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Operating time</b>                              | 10...20 ms coil de-energisation and NO opening<br>10...20 ms coil energisation and NO closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Safety reliability level</b>                    | 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     | 10 Mcycles                       |
| Maximum operating rate    | 3600 cyc/h                       |
| Minimum switching current | 5 mA for signalling circuit      |
| Minimum switching voltage | 17 V for signalling circuit      |
| Insulation resistance     | > 10 MOhm for signalling circuit |
| Height                    | 58 mm                            |
| Width                     | 45 mm                            |
| Depth                     | 57 mm                            |
| Net weight                | 0.18 kg                          |
| Compatibility code        | LC1K                             |

## Environment

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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>3 kW at 220...230 V AC 50/60 Hz<br>5.5 kW at 380...415 V AC 50/60 Hz<br>5.5 kW at 440 V AC 50/60 Hz                                                                                                                                                                                                      |
| [Icw] 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 |
| Heat dissipation                         | 1.3 W                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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                                                                                                                                                                                                                                                                                                |

## Packing Units

|                              |     |
|------------------------------|-----|
| Unit Type of Package 1       | PCE |
| Number of Units in Package 1 | 1   |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

### Use Longer

| Lifetime extension |    |
|--------------------|----|
| Repair             | No |