

# Product data sheet

Specifications



Contactor, TeSys K, 3P, AC-3/  
AC-3e, <=440V 9A, aux. 1NO,  
400...415V AC coil

LC1K0910N7

## Main

|                           |                                 |
|---------------------------|---------------------------------|
| Range                     | TeSys                           |
| Product or component type | Contactor                       |
| Product name              | TeSys K                         |
| Device application        | Control                         |
| Contactor application     | Resistive load<br>Motor control |

## Complementary

|   |  |
|---|--|
| Utilisation category                        | AC-3<br>AC-4<br>AC-1<br>AC-3e  |
| Poles description                           | 3P   |
| Power pole contact composition              | 3 NO   |
| [Ie] rated operational current              | 20 A (at <50 °C) at <= 440 V AC AC-1 for power circuit<br>9 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<br>9 A at <= 440 V AC AC-3e for power circuit   |
| Control circuit type                        | AC at 50/60 Hz   |
| [Uc] control circuit voltage                | 400...415 V AC 50/60 Hz  |
| Motor power kW                              | 2.2 kW at 220...230 V AC 50/60 Hz AC-3<br>4 kW at 380...415 V AC 50/60 Hz AC-3<br>4 kW at 440 V AC 50/60 Hz AC-3<br>4 kW at 480 V AC 50/60 Hz AC-3<br>4 kW at 500...600 V AC 50/60 Hz AC-3<br>4 kW at 660...690 V AC 50/60 Hz AC-3<br>2.2 kW at 400 V AC 50/60 Hz AC-4<br>2.2 kW at 220...230 V AC 50/60 Hz AC-3e<br>4 kW at 380...415 V AC 50/60 Hz AC-3e<br>4 kW at 440 V AC 50/60 Hz AC-3e<br>4 kW at 480 V AC 50/60 Hz AC-3e<br>4 kW at 500...600 V AC 50/60 Hz AC-3e<br>4 kW at 660...690 V AC 50/60 Hz AC-3e |
| Auxiliary contact composition               | 1 NO   |
| 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                  | 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   |

|                                 |   |
|---------------------------------|---|
|                                 | 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  |
| 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 - lth 20 A 50 Hz for power circuit   |
| Insulation resistance           | > 10 MOhm for signalling circuit  |
| 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   |
| Control circuit voltage limits  | Operational: 0.85...1.1 Uc (at <50 °C)<br>Drop-out: 0.2...0.75 Uc (at <50 °C)   |
| Maximum operating rate          | 3600 cyc/h  |
| 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   |
| Operating time                  | 10...20 ms coil de-energisation and NO opening<br>10...20 ms coil energisation and NO closing   |
| 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  |
| Non overlap distance            | 0.5 mm  |
| 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 |
| Width                           | 45 mm   |
| Net weight                      | 0.18 kg   |

## Environment

|                                     |  |
|-------------------------------------|--|
| Standards                           | 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                  |
| Product certifications              | CB Scheme<br>CCC<br>UL<br>CSA<br>EAC<br>CE<br>UKCA   |
| Protective treatment                | TC conforming to IEC 60068<br>TC conforming to DIN 50016   |
| Ambient air temperature for storage | -50...80 °C  |
| Operating altitude                  | 2000 m without derating  |
| 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          |
| Package 1 Height             | 6.500 cm   |
| Package 1 Width              | 6.000 cm   |
| Package 1 Length             | 4.800 cm   |
| Package 1 Weight             | 178.000 g  |
| Unit Type of Package 2       | S02        |
| Number of Units in Package 2 | 50         |
| Package 2 Height             | 15.000 cm  |
| Package 2 Width              | 30.000 cm  |
| Package 2 Length             | 40.000 cm  |
| Package 2 Weight             | 9.355 kg   |
| Unit Type of Package 3       | P06        |
| Number of Units in Package 3 | 800        |
| Package 3 Height             | 75.000 cm  |
| Package 3 Width              | 80.000 cm  |
| Package 3 Length             | 60.000 cm  |
| Package 3 Weight             | 164.700 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>  |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                 |
| RoHS exemption information | <a href="#">Yes</a>   |
| 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 |
|----------|-----------|

### Recommended replacement(s)