

# Product data sheet

## Characteristics

# LC1K1610T7

TeSys K contactor - 3P - AC-3  $\leq$  440 V 16 A -  
1 NO aux. - 480 V AC coil

Product availability: Non-Stock - Not normally stocked in distribution facility



## Main

|                           |               |
|---------------------------|---------------|
| Range                     | TeSys         |
| Product or component type | Contactor     |
| Product name              | TeSys K       |
| Device short name         | LC1K          |
| Device application        | Control       |
| Contactor application     | Motor control |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Utilisation category                        | AC-3                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| 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 400 V AC AC-1 power circuit                                                                                                                                                                                                                                                                                                                                                                                                       |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                            |
| [Uc] control circuit voltage                | 480 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Motor power kW                              | 4 kW 480 V AC 50/60 Hz<br>4 kW 500...600 V AC 50/60 Hz<br>4 kW 660...690 V AC 50/60 Hz<br>5.5 kW 440 V AC 50/60 Hz<br>4 kW 220...230 V AC 50/60 Hz<br>7.5 kW 380...415 V AC 50/60 Hz                                                                                                                                                                                                                                                   |
| Auxiliary contact composition               | 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| [Uimp] rated impulse withstand voltage      | 8 kV                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| [Ith] conventional free air thermal current | 20 A 122 °F (50 °C) power circuit<br>10 A 122 °F (50 °C) signalling circuit                                                                                                                                                                                                                                                                                                                                                            |
| Irms rated making capacity                  | 110 A AC signalling circuit IEC 60947<br>160 A AC power circuit NF C 63-110<br>160 A AC power circuit IEC 60947                                                                                                                                                                                                                                                                                                                        |
| Rated breaking capacity                     | 110 A 440 V IEC 60947<br>80 A 500 V IEC 60947<br>70 A 660...690 V IEC 60947                                                                                                                                                                                                                                                                                                                                                            |
| [Icw] rated short-time withstand current    | 115 A 122 °F (50 °C) - 1 s power circuit<br>105 A 122 °F (50 °C) - 5 s power circuit<br>100 A 122 °F (50 °C) - 10 s power circuit<br>75 A 122 °F (50 °C) - 30 s power circuit<br>55 A 122 °F (50 °C) - 1 min power circuit<br>50 A 122 °F (50 °C) - 3 min power circuit<br>80 A - 1 s signalling circuit<br>90 A - 500 ms signalling circuit<br>110 A - 100 ms signalling circuit<br>25 A 122 °F (50 °C) - $\geq$ 15 min power circuit |
| Associated fuse rating                      | 25 A gG $\leq$ 440 V power circuit<br>25 A aM power circuit<br>10 A gG signalling circuit IEC 60947<br>10 A gG signalling circuit VDE 0660                                                                                                                                                                                                                                                                                             |
| Average impedance                           | 3 mOhm - Ith 20 A 50 Hz power circuit                                                                                                                                                                                                                                                                                                                                                                                                  |

The information provided in this documentation contains general descriptions and/or technical characteristics of the products of the performance of the products contained herein. 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. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Ui] rated insulation voltage   | Power circuit 600 V UL 508<br>Power circuit 690 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-5-1<br>Signalling circuit 600 V UL 508<br>Power circuit 600 V CSA C22.2 No 14<br>Signalling circuit 600 V CSA C22.2 No 14                                                                                                                                                                                                                                                                                                                                                    |
| Insulation resistance           | > 10 MOhm signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Inrush power in VA              | 30 VA 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hold-in power consumption in VA | 4.5 VA 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Heat dissipation                | 1.3 W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Control circuit voltage limits  | Operational 0.8...1.15 U <sub>c</sub> 122 °F (50 °C))<br>Drop-out 0.2...0.75 U <sub>c</sub> 122 °F (50 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Connections - terminals         | Screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1.5...4 mm <sup>2</sup> )solid<br>Screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (0.75...4 mm <sup>2</sup> )flexible without cable end<br>Screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (0.34...2.5 mm <sup>2</sup> )flexible with cable end<br>Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1.5...4 mm <sup>2</sup> )solid<br>Screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (0.75...4 mm <sup>2</sup> )flexible without cable end<br>Screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (0.34...1.5 mm <sup>2</sup> )flexible with cable end |
| Maximum operating rate          | 3600 cyc/h                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Auxiliary contacts type         | Instantaneous 1 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Signalling circuit frequency    | <= 400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Minimum switching current       | 5 mA signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Minimum switching voltage       | 17 V signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mounting support                | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Tightening torque               | 11.51 Lbf.in (1.3 N.m) screw clamp terminals Philips No 2<br>11.51 lbf.in (1.3 N.m) screw clamp terminals flat Ø 6 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 = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Non overlap distance            | 0.02 in (0.5 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mechanical durability           | 10 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Electrical durability           | 1.3 Mcycles 16 A AC-3 <= 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mechanical robustness           | Shocks contactor closed, on X axis10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on Y axis15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on Z axis15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on X axis6 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on Y axis10 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on Z axis10 Gn for 11 ms IEC 60068-2-27<br>Vibrations contactor closed4 Gn, 5...300 Hz IEC 60068-2-6<br>Vibrations contactor opened2 Gn, 5...300 Hz IEC 60068-2-6                                                                                |
| Depth                           | 2.24 in (57 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product weight                  | 0.40 lb(US) (0.18 kg)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

## Environment

|                                     |                                                                    |
|-------------------------------------|--------------------------------------------------------------------|
| Standards                           | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660                    |
| Product certifications              | CSA<br>UL                                                          |
| IP degree of protection             | IP2x VDE 0106                                                      |
| Protective treatment                | TC IEC 60068<br>TC DIN 50016                                       |
| Ambient air temperature for storage | -58...176 °F (-50...80 °C)                                         |
| Operating altitude                  | 6561.68 ft (2000 m) without                                        |
| Flame retardance                    | V1 UL 94<br>Requirement 2 NF F 16-101<br>Requirement 2 NF F 16-102 |

## Ordering and shipping details

|                     |                                   |
|---------------------|-----------------------------------|
| Category            | 22326 - CTR,K-LINE,AC,OPEN,NONREV |
| Discount Schedule   | I12                               |
| GTIN                | 03389118319110                    |
| Package weight(Lbs) | 0.18 kg (0.4 lb(US))              |
| Returnability       | No                                |
| Country of origin   | FR                                |

## Offer Sustainability

|                            |                                                                                                                                                                                                                                                                   |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide which is known to the State of California to cause Carcinogen harm. For more information go to <a href="http://www.p65warnings.ca.gov">www.p65warnings.ca.gov</a> |
| REACH Regulation           |  <a href="#">REACH Declaration</a>                                                                                                                                               |
| EU RoHS Directive          | Compliant  <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>                                                                                                                                          |
| Circularity Profile        | No need of specific recycling operations                                                                                                                                                                                                                          |
| 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 |
|----------|-----------|