

## LC1K1610FE7

TeSys K contactor - 3P(3 NO) - AC-3 - <= 440 V 16 A - 115 V AC coil



### Main

|   |  |
|---|--|
| Range                                       | TeSys  |
| Product name                                | TeSys K  |
| Device short name                           | LC1K   |
| Contacteur application                      | Motor control  |
| Utilisation category                        | AC-3   |
| Poles description                           | 3P   |
| Pole contact composition                    | 3 NO   |
| [Ue] rated operational voltage              | 690 V AC 50/60 Hz for power circuit<br><= 690 V AC 50/60 Hz for signalling circuit   |
| [Ie] rated operational current              | 16 A at <= 440 V AC AC-3 for power circuit   |
| Motor power kW                              | 4 kW at 220...230 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<br>7.5 kW at 380...415 V AC 50/60 Hz<br>5.5 kW at 440 V AC 50/60 Hz   |
| Control circuit type                        | AC 50/60 Hz  |
| Control circuit voltage                     | 115 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 at <= 50 °C for power circuit<br>10 A at <= 50 °C for signalling circuit  |
| Irms rated making capacity                  | 110 A AC for signalling circuit conforming to IEC 60947<br>160 A AC for power circuit conforming to NF C 63-110<br>160 A AC for power circuit conforming to IEC 60947  |
| Rated breaking capacity                     | 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   |
| [Icw] rated short-time withstand current    | 80 A 1 s signalling circuit<br>90 A 500 ms signalling circuit<br>110 A 100 ms signalling circuit<br>115 A <= 50 °C 1 s power circuit<br>105 A <= 50 °C 5 s power circuit<br>100 A <= 50 °C 10 s power circuit<br>75 A <= 50 °C 30 s power circuit<br>55 A <= 50 °C 1 min power circuit<br>50 A <= 50 °C 3 min power circuit<br>25 A <= 50 °C >= 15 s 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 at 50 Hz - Ith 20 A for power circuit   |
| [Ui] rated insulation voltage               | 690 V for power circuit conforming to IEC 60947-4-1<br>600 V for power circuit conforming to UL 508<br>690 V for signalling circuit conforming to IEC 60947-4-1<br>690 V for signalling circuit conforming to IEC 60947-5-1  |

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600 V for signalling circuit conforming to UL 508  
 600 V for power circuit conforming to CSA C22.2  
 No 14  
 600 V for signalling circuit conforming to CSA  
 C22.2 No 14

|                          |  |
|--------------------------|--|
| Electrical durability    | 1.3 Mcycles 16 A AC-3 at $U_e \leq 440$ V  |
| Mounting support         | Plate<br>Rail  |
| Standards                | BS 5424<br>IEC 60947<br>NF C 63-110<br>VDE 0660  |
| Product certifications   | CSA<br>UL  |
| Connections - terminals  | Screw clamp terminals 1 cable(s) 1.5...4 mm <sup>2</sup> -<br>cable stiffness: solid<br>Screw clamp terminals 1 cable(s) 0.75...4 mm <sup>2</sup> -<br>cable stiffness: flexible - without cable end<br>Screw clamp terminals 1 cable(s) 0.34...2.5 mm <sup>2</sup> -<br>cable stiffness: flexible - with cable end<br>Screw clamp terminals 2 cable(s) 1.5...4 mm <sup>2</sup> -<br>cable stiffness: solid<br>Screw clamp terminals 2 cable(s) 0.75...4 mm <sup>2</sup> -<br>cable stiffness: flexible - without cable end<br>Screw clamp terminals 2 cable(s) 0.34...1.5 mm <sup>2</sup> -<br>cable stiffness: flexible - with cable end |
| Tightening torque        | 1.3 N.m - on screw clamp terminals - with<br>screwdriver Philips No 2<br>1.3 N.m - on screw clamp terminals - with<br>screwdriver 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<br>load conforming to EN/ISO 13849-1<br>B10d = 2000000 cycles contactor with<br>mechanical load conforming to EN/ISO 13849-1  |
| Mechanical durability    | 10 Mcycles   |
| Operating rate           | 3600 cyc/h   |

## Complementary

|                                 |   |
|---------------------------------|---|
| Control circuit voltage limits  | 0.2...0.75 $U_c$ at $\leq 50$ °C drop-out<br>0.8...1.15 $U_c$ at $\leq 50$ °C operational |
| 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    | $\leq 400$ 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             | IP2x conforming to VDE 0106   |
| 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 in temperature  |
| 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 IEC 60068-2-27<br>Shocks contactor closed, on Y axis 15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor closed, on Z axis 15 Gn for 11 ms IEC 60068-2-27<br>Shocks contactor opened, on X axis 6 Gn for 11 ms IEC 60068-2-27 |

Shocks contactor opened, on Y axis 10 Gn for 11 ms IEC 60068-2-27  
Shocks contactor opened, on Z axis 10 Gn for 11 ms IEC 60068-2-27  
Vibrations contactor closed 4 Gn, 5...300 Hz IEC 60068-2-6  
Vibrations contactor opened 2 Gn, 5...300 Hz IEC 60068-2-6

|                |         |
|----------------|---------|
| Depth          | 57 mm   |
| Product weight | 0.18 kg |

### Offer Sustainability

|                                  |   |
|----------------------------------|---|
| Sustainable offer status         | Green Premium product   |
| RoHS                             | Compliant - since 0640 - Schneider Electric declaration of conformity |
| REACH                            | Reference not containing SVHC above the threshold                     |
| Product environmental profile    | Available   |
| Product end of life instructions | Need no specific recycling operations                                 |