



## Main

|                                |  |
|--------------------------------|--|
| Range                          | TeSys  |
| Product name                   | TeSys F  |
| Product or component type      | Contactor  |
| Device short name              | LC1F   |
| Contactor application          | Resistive load<br>Motor control  |
| Utilisation category           | AC-1<br>AC-4<br>AC-3   |
| Poles description              | 3P   |
| Pole contact composition       | 3 NO   |
| [Ue] rated operational voltage | $\leq$ 690 V AC 50/60 Hz   |
| [Ie] rated operational current | 250 A (at $\leq$ 40 °C) at $\leq$ 440 V AC-1<br>150 A (at $\leq$ 55 °C) at $\leq$ 440 V AC-3   |
| Motor power kW                 | 75 KW at 380...400 V AC 50/60 Hz (AC-3)<br>80 KW at 415 V AC 50/60 Hz (AC-3)<br>80 KW at 440 V AC 50/60 Hz (AC-3)<br>90 KW at 500 V AC 50/60 Hz (AC-3)<br>40 KW at 220...240 V AC 50/60 Hz (AC-3)<br>100 KW at 660...690 V AC 50/60 Hz (AC-3)<br>22 KW at 400 V AC 50/60 Hz (AC-4) |

## Complementary

|   |   |
|---|---|
| [Uc] control circuit voltage                | 24...575 V AC 40...400 Hz with LX1/LX9 coil<br>24...460 V DC with LX4 coil<br>100...250 V AC 50/60 Hz with LXE coil<br>100...380 V DC with LXE coil |
| [Uimp] rated impulse withstand voltage      | 8 KV  |
| Overvoltage category                        | III   |
| [Ith] conventional free air thermal current | 250 A (at 40 °C)  |
| Irms rated making capacity                  | 1500 A conforming to IEC 60947-4-1  |
| Rated breaking capacity                     | 1200 A conforming to IEC 60947-4-1  |
| [Icw] rated short-time withstand current    | 1200 A 40 °C - 10 s<br>700 A 40 °C - 30 s<br>600 A 40 °C - 1 min<br>450 A 40 °C - 3 min<br>350 A 40 °C - 10 min                                     |

|                                 |   |
|---------------------------------|---|
| Associated fuse rating          | 160 A aM at ≤ 440 V<br>250 A gG at ≤ 440 V  |
| Average impedance               | 0.35 MOhm - Ith 250 A 50 Hz   |
| [Ui] rated insulation voltage   | 1000 V conforming to IEC 60947-4-1<br>1500 V conforming to VDE 0110 group C   |
| Power dissipation per pole      | 22 W AC-1<br>8 W AC-3   |
| Control circuit voltage limits  | Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil<br>Drop-out: 0.2...0.55 Uc AC 40...400 Hz with LX1/LX9 coil<br>Operational: 0.85...1.1 Uc DC with LX4 coil<br>Drop-out: 0.15...0.2 Uc DC with LX4 coil<br>Operational: 85...275 V AC 50/60 Hz with LXE coil<br>Drop-out: 0...60 V AC 50/60 Hz with LXE coil<br>Operational: 85...418 V DC with LXE coil<br>Drop-out: 0...45 V DC with LXE coil  |
| Heat dissipation                | 5.9...7.2 W<br>2.2...2.5 W  |
| Operating time                  | 35 ms closing for with LX1/LX9 coil<br>130 ms opening for with LX1/LX9 coil<br>30...40 ms closing for with LX4 coil<br>30...50 ms opening for with LX4 coil<br>40...80 ms closing for with LXE coil<br>6...54 ms opening for with LXE coil  |
| Mounting support                | Plate   |
| Standards                       | IEC 60947-4-1<br>EN 60947-4-1<br>IEC 60947-1<br>EN 60947-1<br>JIS C8201-4-1   |
| Product certifications          | RINA<br>CSA<br>BV<br>RMRoS<br>LROS (Lloyds register of shipping)<br>DNV<br>ABS<br>UL<br>CB  |
| Connections - terminals         | Power circuit: lugs-ring terminals 1 cable(s) 120 mm <sup>2</sup> - busbar cross section: 25 x 3 mm<br>Power circuit: connector 1 cable(s) 120 mm <sup>2</sup><br>Power circuit: bar 2 cable(s)<br>Power circuit: bolted connection<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup><br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup><br>Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm <sup>2</sup> solid without cable end |
| Tightening torque               | Power circuit: 18 N.m<br>Control circuit: 1.2 N.m<br>Control circuit: 0.6 N.m   |
| Mechanical durability           | 10 Mcycles  |
| Inrush power in VA              | 690...855 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil<br>543...665 VA (at 20 °C)with LX4 coil<br>280...310 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil<br>270...320 VA (at 20 °C)with LXE coil   |
| Hold-in power consumption in VA | 6.6...8.1 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil<br>3.94...4.83 VA (at 20 °C)with LX4 coil<br>4.5...7.0 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil<br>2.5...4.0 VA (at 20 °C)with LXE coil   |
| Maximum operating rate          | 2400 Cyc/H 55 °C  |
| Compatibility code              | LC1F  |

## Environment

|   |   |
|---|---|
| IP degree of protection                               | IP2x front face with shrouds conforming to IEC 60529<br>IP2x front face with shrouds conforming to VDE 0106   |
| Protective treatment                                  | TH  |
| Ambient air temperature for operation                 | -40...60 °C   |
| Ambient air temperature for storage                   | -60...80 °C   |
| Permissible ambient air temperature around the device | 60...70 °C at Uc  |
| Operating altitude                                    | 3000 m without derating   |
| Mechanical robustness                                 | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Vibrations contactor closed: 6 Gn, 5...300 Hz<br>Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms)<br>Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms) |
| Height  | 170 Mm  |
| Width   | 163.5 Mm  |
| Depth   | 171 Mm  |
| Net weight  | 3.83 Kg   |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Weight             | 3.588 Kg  |
| Package 1 Height             | 18.2 Cm   |
| Package 1 width              | 20 Cm     |
| Package 1 Length             | 22.4 Cm   |
| Package 2 Weight             | 3.588 Kg  |
| Package 3 Weight             | 73.552 Kg |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| 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>  |
| 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 |
|----------|-----------|

Product Life Status : **Commercialised**