# Product datasheet

Specifications

Green Premium™

# TeSys F contactor - 3P(3 NO)- AC-3 <= 440V 185A with coil LX9 - 24...600V AC 40/400Hz, LX4 - 24...460V DC, LXE - 100...250V AC 50/60Hz or 100…380V DC

Local distributor code:

2220105 LC1F185

Discontinued

Discontinued on: 11 Jan 2023

**EAN Code: 3389110122381**

## Main

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|---|---|
| **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-3<br>AC-4<br>AC-1 |
| **Poles Description** | 3P |
| **Power Pole Contact Composition** | 3 NO |
| **[Ue] Rated Operational Voltage** | <= 690 V AC 50/60 Hz<br><= 460 V DC |
| **[Ie] Rated Operational Current** | 275 A (at <40 °C) at <= 440 V AC-1<br>185 A (at <55 °C) at <= 440 V AC-3 |
| **Motor Power Kw** | 100 kW at 415 V AC 50/60 Hz (AC-3)<br>100 kW at 440 V AC 50/60 Hz (AC-3)<br>110 kW at 500 V AC 50/60 Hz (AC-3)<br>90 kW at 380...400 V AC 50/60 Hz (AC-3)<br>55 kW at 220...240 V AC 50/60 Hz (AC-3)<br>110 kW at 660...690 V AC 50/60 Hz (AC-3)<br>33 kW at 400 V AC 50/60 Hz (AC-4) |

## Complementary

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| **[Uc] Control Circuit Voltage** | 24...575 V AC 40...400 Hz with 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** | 275 A (at 40 °C) |
| **Irms Rated Making Capacity** | 1850 A conforming to IEC 60947-4-1 |
| **Rated Breaking Capacity** | 1480 A conforming to IEC 60947-4-1 |

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

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| **[Icw] Rated Short-Time Withstand Current** | 1500 A 40 °C - 10 s<br>920 A 40 °C - 30 s<br>740 A 40 °C - 1 min<br>500 A 40 °C - 3 min<br>400 A 40 °C - 10 min |
| **Associated Fuse Rating** | 200 A aM at <= 440 V<br>315 A gG at <= 440 V |
| **Average Impedance** | 0.33 mOhm - Ith 275 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** | 25 W AC-1<br>12 W AC-3 |
| **Control Circuit Voltage Limits** | Operational: 0.85...1.1 Uc AC 40...400 Hz with LX9 coil<br>Drop-out: 0.2...0.55 Uc AC 40...400 Hz with 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** | 8…9.8 W<br>2.2…2.5 W |
| **Operating Time** | 35 ms closing for with LX9 coil<br>130 ms opening for with 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 60947-1<br>JIS C8201-4-1<br>EN 60947-4-1<br>IEC 60947-1 |
| **Product Certifications** | ABS<br>LROS (Lloyds register of shipping)<br>RINA<br>CSA<br>CB<br>UL<br>BV<br>RMRoS<br>DNV<br>UKCA |
| **Connections - Terminals** | Power circuit: bar 2 cable(s) - busbar cross section: 25 x 3 mm<br>Power circuit: lugs-ring terminals 1 cable(s) 150 mm²<br>Power circuit: connector 1 cable(s) 150 mm²<br>Power circuit: bolted connection<br>Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²solid without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1…4 mm²<br>Control circuit: screw clamp terminals 2 cable(s) 1…4 mm²<br>Control circuit: screw clamp terminals 1.0 cable(s) 0.2…2.5 mm²flexible without cable end<br>Control circuit: screw clamp terminals 1.0 cable(s) 0.25…2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1.0 cable(s) 0.2…2.5 mm²solid 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 |

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| **Inrush Power In Va** | 950…1180 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX9 coil<br>737…902 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** | 8.9…10.9 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX9 coil<br>4.13…5.07 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 |
| **Compatibility Code** | LC1F |

## Environment

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|---|---|
| **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** | -5…55 °C |
| **Ambient Air Temperature For Storage** | -60…80 °C |
| **Permissible Ambient Air Temperature Around The Device** | -40…70 °C |
| **Mechanical Robustness** | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Vibrations contactor closed: 5 Gn, 5...300 Hz<br>Shocks contactor open: 7 Gn for 1/2 sine wave (11 ms)<br>Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms) |
| **Height** | 174 mm |
| **Width** | 168.5 mm |
| **Depth** | 181 mm |
| **Net Weight** | 5.45 kg |
| **Colour** | - |

## Packing Units

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|---|---|
| **Unit Type Of Package 1** | PCE |
| **Number Of Units In Package 1** | 1 |
| **Package 1 Height** | 24.000 cm |
| **Package 1 Width** | 27.000 cm |
| **Package 1 Length** | 25.000 cm |
| **Package 1 Weight** | 4.379 kg |
| **Unit Type Of Package 2** | P06 |
| **Number Of Units In Package 2** | 12 |
| **Package 2 Height** | 75.000 cm |
| **Package 2 Width** | 60.000 cm |
| **Package 2 Length** | 80.000 cm |
| **Package 2 Weight** | 61.048 kg |

## Contractual warranty

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|---|---|
| **Warranty** | 18 months |

## Sustainability

**Green Premium™ label** is Schneider Electric's commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-$CO_2$ products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

Learn more about Green Premium >

Guide to assess a product's sustainability >

Transparency RoHS/REACh

## Well-being performance

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|---|---|
| Mercury Free | |
| Rohs Exemption Information | Yes |
| Pvc Free | |

## Certifications & Standards

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|---|---|
| **Reach Regulation** | REACh Declaration |
| **Eu Rohs Directive** | Compliant with Exemptions |
| **China Rohs Regulation** | China RoHS declaration<br>Product out of China RoHS scope. Substance declaration for your information |
| **Environmental Disclosure** | Product Environmental Profile |
| **Weee** | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| **Circularity Profile** | End of Life Information |