

Product datasheet

Characteristics

LC1F150

TeSys F contactor - 3P(3 NO)-AC-3 \leq 440V
 150A with coil LX9 - 24...575V AC 40/400Hz, LX4
 - 24...460V DC, LXE - 100...250V AC 50/60Hz or
 100...380V DC



Main

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|--------------------------------|--|
| Range | TeSys |
| Product name | TeSys F |
| Product or component type | Contactor |
| Device short name | LC1F |
| Contactor application | Resistive load Motor control |
| Utilisation category | AC-1 AC-4 AC-3 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | \leq 690 V AC 50/60 Hz |
| [Ie] rated operational current | 250 A (at <40 °C) at \leq 440 V AC-1 150 A (at <55 °C) at \leq 440 V AC-3 |
| Motor power kW | 75 kW at 380...400 V AC 50/60 Hz (AC-3) 80 kW at 415 V AC 50/60 Hz (AC-3) 80 kW at 440 V AC 50/60 Hz (AC-3) 90 kW at 500 V AC 50/60 Hz (AC-3) 40 kW at 220...240 V AC 50/60 Hz (AC-3) 100 kW at 660...690 V AC 50/60 Hz (AC-3) 22 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 LX1/LX9 coil 24...460 V DC with LX4 coil 100...250 V AC 50/60 Hz with LXE coil 100...380 V DC with LXE coil |
| [Uimp] rated impulse withstand voltage | 8 kV |

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| 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 700 A 40 °C - 30 s 600 A 40 °C - 1 min 450 A 40 °C - 3 min 350 A 40 °C - 10 min |
| Associated fuse rating | 160 A aM at ≤ 440 V 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 1500 V conforming to VDE 0110 group C |
| Power dissipation per pole | 22 W AC-1 8 W AC-3 |
| Control circuit voltage limits | Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.2...0.55 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.15...0.2 Uc DC with LX4 coil Operational: 85...275 V AC 50/60 Hz with LXE coil Drop-out: 0...60 V AC 50/60 Hz with LXE coil Operational: 85...418 V DC with LXE coil Drop-out: 0...45 V DC with LXE coil |
| Heat dissipation | 5.9...7.2 W 2.2...2.5 W |
| Operating time | 35 ms closing for with LX1/LX9 coil 130 ms opening for with LX1/LX9 coil 30...40 ms closing for with LX4 coil 30...50 ms opening for with LX4 coil 40...80 ms closing for with LXE coil 6...54 ms opening for with LXE coil |
| Mounting support | Plate |
| Standards | IEC 60947-4-1 EN 60947-4-1 IEC 60947-1 EN 60947-1 JIS C8201-4-1 |
| Product certifications | RINA CSA BV RMRoS LROS (Lloyds register of shipping) DNV ABS UL CB |
| Connections - terminals | Power circuit: lugs-ring terminals 1 cable(s) 120 mm ² - busbar cross section: 25 x 3 mm Power circuit: connector 1 cable(s) 120 mm ² Power circuit: bar 2 cable(s) Power circuit: bolted connection Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² flexible with cable end Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm ² solid without cable end Control circuit: screw clamp terminals 1 cable(s) 1...4 mm ² Control circuit: screw clamp terminals 2 cable(s) 1...4 mm ² Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm ² flexible without cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.25...2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1.0 cable(s) 0.2...2.5 mm ² solid without cable end |
| Tightening torque | Power circuit: 18 N.m Control circuit: 1.2 N.m 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 543...665 VA (at 20 °C)with LX4 coil 280...310 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil |

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| | 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 3.94...4.83 VA (at 20 °C)with LX4 coil 4.5...7.0 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 2.5...4.0 VA (at 20 °C)with LXE coil |
| Maximum operating rate | 2400 cyc/h 55 °C |
| Compatibility code | LC1F |

Environment

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|---|---|
| IP degree of protection | IP2x front face with shrouds conforming to IEC 60529 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 Vibrations contactor closed: 6 Gn, 5...300 Hz Shocks contactor open: 9 Gn for 1/2 sine wave (11 ms) 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 |

Offer Sustainability

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|----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS declaration Product out of China RoHS scope. Substance declaration for your information |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End of Life Information |
| WEEE | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Contractual warranty

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| Warranty | 18 months |
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