

LC1F225

TeSys F contactor - 3P(3 NO)-AC-3 \leq 440V
225A with coil LX9 - 24...600V 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 | Contacteur |
| Device short name | LC1F |
| Contacteur application | Motor control Resistive load |
| Utilisation category | AC-4 AC-1 AC-3 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | \leq 690 V AC 50/60 Hz \leq 460 V DC |
| [Ie] rated operational current | 315 A (at \leq 40 °C) at \leq 440 V AC-1 225 A (at \leq 55 °C) at \leq 440 V AC-3 |
| Motor power kW | 110 kW at 380...400 V AC 50/60 Hz (AC-3) 110 kW at 415 V AC 50/60 Hz (AC-3) 110 kW at 440 V AC 50/60 Hz (AC-3) 129 kW at 500 V AC 50/60 Hz (AC-3) 63 kW at 220...240 V AC 50/60 Hz (AC-3) 129 kW at 660...690 V AC 50/60 Hz (AC-3) 40 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 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 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 315 A (at 40 °C) |
| Irms rated making capacity | 2250 A conforming to IEC 60947-4-1 |
| Rated breaking capacity | 1800 A conforming to IEC 60947-4-1 |
| [Icw] rated short-time withstand current | 1800 A 40 °C - 10 s 1000 A 40 °C - 30 s 850 A 40 °C - 1 min 560 A 40 °C - 3 min 440 A 40 °C - 10 min |
| Associated fuse rating | 315 A gG at \leq 440 V 250 A aM at \leq 440 V |
| Average impedance | 0.32 mOhm - Ith 315 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 | 32 W AC-1 16 W AC-3 |

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| Control circuit voltage limits | Operational: 0.85...1.1 Uc AC 40...400 Hz with LX9 coil Drop-out: 0.2...0.55 Uc AC 40...400 Hz with 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 | 8...9.8 W 2.2...2.5 W |
| Operating time | 35 ms closing for with LX9 coil 130 ms opening for with 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 | JIS C8201-4-1 IEC 60947-4-1 IEC 60947-1 EN 60947-4-1 EN 60947-1 |
| Product certifications | UL LROS (Lloyds register of shipping) BV CB ABS DNV CSA RMRoS RINA UKCA |
| Connections - terminals | Power circuit: lugs-ring terminals 1 cable(s) 185 mm ² Power circuit: connector 1 cable(s) 185 mm ² Power circuit: bar 2 cable(s) - busbar cross section: 32 x 4 mm 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: 35 N.m Control circuit: 1.2 N.m Control circuit: 0.6 N.m |
| Mechanical durability | 10 Mcycles |
| Inrush power in VA | 950...1180 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX9 coil 737...902 VA (at 20 °C)with LX4 coil 280...310 VA, 50/60 Hz cos phi 0.5 (at 20 °C)with LXE coil 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 4.13...5.07 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 | IP20 front face with shrouds conforming to IEC 60529 IP20 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 |
| Operating altitude | 3000 m without derating |
| Mechanical robustness | Vibrations contactor open: 2 Gn, 5...300 Hz Vibrations contactor closed: 5 Gn, 5...300 Hz Shocks contactor open: 7 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms) |
| Height | 197 mm |
| Width | 168.5 mm |
| Depth | 181 mm |
| Net weight | 5.55 kg |

Packing Units

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| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 4.694 kg |
| Package 1 Height | 23 cm |
| Package 1 width | 25 cm |
| Package 1 Length | 29 cm |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 12 |
| Package 2 Weight | 64 kg |
| Package 2 Height | 77 cm |
| Package 2 width | 80 cm |
| Package 2 Length | 60 cm |
| Package 3 Height | 80 cm |

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 |
| 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 |
| PVC free | Yes |

Contractual warranty

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| Warranty | 18 months |
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