

Product data sheet

Specifications



TeSys F contactor - 3P(3 NO)-AC-3 <= 440V 780 A with coil LX1/ LX9 - 110...500V AC 40/400Hz, LX4 - 110...440V DC

LC1F780

Main

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|--------------------------------|---|
| Range | TeSys |
| Product name | TeSys F |
| Product or component type | Contacteur |
| Device short name | LC1F |
| Contacteur application | Resistive load Motor control |
| Utilisation category | AC-4 AC-3 AC-1 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | <= 1000 V AC 50/60 Hz <= 460 V DC |
| [Ie] rated operational current | 780 A (at <55 °C) at <= 440 V AC AC-3 1600 A (at <40 °C) at <= 440 V AC AC-1 |
| Motor power kW | 450 kW at 1000 V AC 50/60 Hz (AC-3) 400 kW at 380...400 V AC 50/60 Hz (AC-3) 425 kW at 415 V AC 50/60 Hz (AC-3) 425 kW at 440 V AC 50/60 Hz (AC-3) 450 kW at 500 V AC 50/60 Hz (AC-3) 220 kW at 220...240 V AC 50/60 Hz (AC-3) 475 kW at 660...690 V AC 50/60 Hz (AC-3) 110 kW at 400 V AC 50/60 Hz (AC-4) |

Complementary

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| [Uc] control circuit voltage | 110...500 V AC 40...400 Hz with LX1/LX9 coil 48...440 V DC with LX4 coil |
| [Uimp] rated impulse withstand voltage | 8 kV |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 1600 A (at 40 °C) |
| Irms rated making capacity | 7800 A AC conforming to IEC 60947-4-1 |
| Rated breaking capacity | 6240 A conforming to IEC 60947-4-1 |
| [Icw] rated short-time withstand current | 3000 A 40 °C - 3 min 6250 A 40 °C - 10 s 5600 A 40 °C - 30 s 4600 A 40 °C - 1 min 2200 A 40 °C - 10 min |
| Associated fuse rating | 800 A aM at <= 440 V |

1600 A gG at <= 440 V

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| Average impedance | 0.1 mOhm - lth 1600 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 | 60 W AC-3 250 W AC-1 |
| Control circuit voltage limits | Operational: 0.85...1.1 Uc AC 40...400 Hz with LX1/LX9 coil Drop-out: 0.2...0.4 Uc AC 40...400 Hz with LX1/LX9 coil Operational: 0.85...1.1 Uc DC with LX4 coil Drop-out: 0.2...0.4 Uc DC with LX4 coil |
| Heat dissipation | 22 W |
| Operating time | 40...80 ms closing for with LX1/LX9 coil 130...230 ms opening for with LX1/LX9 coil 70...80 ms closing for with LX4 coil 100...130 ms opening for with LX4 coil |
| Mounting support | Plate |
| Standards | IEC 60947-1 IEC 60947-4-1 EN 60947-1 JIS C8201-4-1 EN 60947-4-1 |
| Product certifications | UL LROS (Lloyds register of shipping) RINA DNV CCC BV CB ABS UKCA |
| Connections - terminals | Power circuit: bar 2 cable(s) - busbar cross section: 100 x 5 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 |
| Tightening torque | Power circuit: 58 N.m Control circuit: 1.2 N.m |
| Mechanical durability | 5 Mcycles |
| Inrush power in VA | 1900...2300 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 1960...2420 VA (at 20 °C)with LX4 coil |
| Hold-in power consumption in VA | 44...55 VA, 40...400 Hz cos phi 0.9 (at 20 °C)with LX1/LX9 coil 42...52 VA (at 20 °C)with LX4 coil |
| Maximum operating rate | 600 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: 2.5 Gn, 5...300 Hz Vibrations contactor closed: 5.5 Gn, 5...300 Hz Shocks contactor open: 5 Gn for 1/2 sine wave (11 ms) Shocks contactor closed: 15 Gn for 1/2 sine wave (11 ms) |

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| Height | 434 mm |
| Width | 702 mm |
| Depth | 255 mm |
| Net weight | 48 kg |

Packing Units

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| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 41.0 kg |
| Package 1 Height | 90.5 cm |
| Package 1 width | 41 cm |
| Package 1 Length | 31.5 cm |
| Unit Type of Package 2 | P12 |
| Number of Units in Package 2 | 2 |
| Package 2 Weight | 100.0 kg |
| Package 2 Height | 76 cm |
| Package 2 width | 120 cm |
| Package 2 Length | 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 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 |
| California proposition 65 | WARNING: This product can expose you to chemicals including: Lead and lead compounds, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov |

Contractual warranty

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| Warranty | 18 months |
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