

LC1D40AKUE

IEC contactor, TeSys Deca Green, nonreversing, 40A, 30HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 100/250VAC/VDC coil



Main

| | |
|--------------------------------|---|
| Range | TeSys TeSys Deca |
| Range of Product | TeSys Deca |
| Product or Component Type | Contactor |
| Device short name | LC1D |
| Contactor application | Resistive load Motor control |
| Utilisation category | AC-1 AC-3 AC-3e |
| Poles description | 3P |
| [Ue] rated operational voltage | Power circuit <= 690 V AC 25...400 Hz |
| [Ie] rated operational current | 60 A (at <140 °F (60 °C)) at <= 440 V AC-1 for power circuit 40 A (at <140 °F (60 °C)) at <= 440 V AC-3 for power circuit 40 A (at <140 °F (60 °C)) at <= 440 V AC-3e for power circuit |
| [Uc] control circuit voltage | 100...250 V AC 50/60 Hz 100...250 V DC |

Complementary

| | |
|---|--|
| Motor power kW | 11 kW at 220...230 V AC 50 Hz (AC-3) 18.5 kW at 380...400 V AC 50 Hz (AC-3) 22 kW at 415 V AC 50 Hz (AC-3) 22 kW at 440 V AC 50 Hz (AC-3) 22 kW at 500 V AC 50 Hz (AC-3) 30 kW at 660...690 V AC 50 Hz (AC-3) 11 kW at 220...230 V AC 50 Hz (AC-3e) 18.5 kW at 380...400 V AC 50 Hz (AC-3e) 22 kW at 415 V AC 50 Hz (AC-3e) 22 kW at 440 V AC 50 Hz (AC-3e) 22 kW at 500 V AC 50 Hz (AC-3e) 30 kW at 660...690 V AC 50 Hz (AC-3e) |
| Maximum Horse Power Rating | 3 Hp at 115 V AC 60 Hz for 1 phase motors 5 Hp at 230/240 V AC 60 Hz for 1 phase motors 10 Hp at 200/208 V AC 60 Hz for 3 phase motors 10 Hp at 230/240 V AC 60 Hz for 3 phase motors 30 Hp at 460/480 V AC 60 Hz for 3 phase motors 30 hp at 575/600 V AC 60 Hz for 3 phase motors |
| Compatibility code | LC1D |
| Pole contact composition | 3 NO |
| Protective cover | With |
| [Ith] conventional free air thermal current | 60 A (at 140 °F (60 °C)) for power circuit 10 A (at 140 °F (60 °C)) for signalling circuit |
| Irms rated making capacity | 800 A at 440 V for power circuit conforming to IEC 60947 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 |
| Rated breaking capacity | 800 A at 440 V for power circuit conforming to IEC 60947 |

| | |
|--|--|
| [Icw] rated short-time withstand current | 72 A 104 °F (40 °C) - 10 min for power circuit 165 A 104 °F (40 °C) - 1 min for power circuit 320 A 104 °F (40 °C) - 10 s for power circuit 720 A 104 °F (40 °C) - 1 s for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit |
| Associated fuse rating | 80 A gG at ≤ 690 V coordination type 1 for power circuit 80 A gG at ≤ 690 V coordination type 2 for power circuit 10 A gG for signalling circuit conforming to IEC 60947-5-1 |
| Average impedance | 1.5 mOhm - Ith 60 A 50 Hz for power circuit |
| Power dissipation per pole | 5.4 W AC-1 2.4 W AC-3 2.4 W AC-3e |
| [Ui] rated insulation voltage | Power circuit 690 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 |
| Overvoltage category | III |
| Pollution degree | 3 |
| [Uimp] rated impulse withstand voltage | 6 kV IEC 60947 |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1 |
| Mechanical durability | 6 Mcycles |
| Electrical durability | 2 Mcycles 35 A AC-3 ≤ 440 V 0.7 Mcycles 60 A AC-1 ≤ 440 V 2 Mcycles 35 A AC-3e ≤ 440 V |
| Control circuit type | AC/DC 50/60 Hz AC/DC electronic |
| Coil technology | Built-in bidirectional peak limiting |
| Control circuit voltage limits | ≤ 0.1 Uc -40...158 °F (-40...70 °C) drop-out AC/DC 0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC/DC 1...1.1 Uc 140...158 °F (60...70 °C) operational AC/DC |
| Inrush power in VA | 18 VA 50/60 Hz (at 68 °F (20 °C)) |
| Inrush power in W | 14 W 68 °F (20 °C)) |
| Hold-in power consumption in VA | 1.8 VA 50/60 Hz (at 68 °F (20 °C)) |
| Hold-in power consumption in W | 1.2 W 68 °F (20 °C) |
| Heat dissipation | 1.2 W at 50/60 Hz |
| Operating time | 55...65 ms closing 20...120 ms opening ≥ 17221) 20...80 ms opening ≥ 18011) |
| Maximum operating rate | 3600 cyc/h 140 °F (60 °C) |
| Connections - terminals | Control circuit: screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 0.00...0.00 in ² (1...2.5 mm ²) - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: solid Control circuit: screw clamp terminals 2 0.00...0.01 in ² (1...4 mm ²) - cable stiffness: solid Power circuit: EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 1 0.00...0.05 in ² (1...35 mm ²) - cable stiffness: solid Power circuit: EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) - cable stiffness: flexible without cable end Power circuit: EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) - cable stiffness: flexible with cable end Power circuit: EverLink BTR screw connectors 2 0.00...0.04 in ² (1...25 mm ²) - cable stiffness: solid |
| Tightening torque | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2 Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in ² (25...35 mm ²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in ² (1...25 mm ²) hexagonal 0.16 in (4 mm) Power circuit 44.25 lbf.in (5 N.m) pozidriv No 2 Control circuit 15.05 lbf.in (1.7 N.m) pozidriv No 2 |

| | |
|-------------------------------|---|
| Auxiliary contact composition | 1 NO + 1 NC |
| Auxiliary contacts type | Mechanically linked 1 NO + 1 NC IEC 60947-5-1 Mirror contact 1 NC IEC 60947-4-1 |
| Signalling circuit frequency | 25...400 Hz |
| Minimum switching voltage | 17 V for signalling circuit |
| Minimum switching current | 5 mA for signalling circuit |
| Insulation resistance | > 10 MOhm for signalling circuit |
| Non-overlap time | 1.5 Ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact |
| Mounting Support | Plate Rail |

Environment

| | |
|---|--|
| Standards | EN/IEC 60947-4-1 EN/IEC 60947-5-1 UL 60947-4-1 CSA C22.2 No 60947-4-1 IEC 60335-1 |
| Product Certifications | CCC[RETURN]CSA[RETURN]EAC[RETURN]UL[RETURN]KC[RETURN]DNV-GL[RETURN]LROS (Lloyds register of shipping)[RETURN]UKCA |
| IP degree of protection | IP20 front face IEC 60529 |
| Climatic withstand | IACS E10 exposure to damp heat IEC 60947-1 Annex Q category D exposure to damp heat |
| Permissible ambient air temperature around the device | -40...140 °F (-40...60 °C) 140...158 °F (60...70 °C) with derating |
| Operating altitude | 0...9842.52 ft (0...3000 m) |
| Fire resistance | 1562 °F (850 °C) IEC 60695-2-1 |
| Flame retardance | V1 conforming to UL 94 |
| Mechanical robustness | Vibrations contactor open 2 Gn, 5...300 Hz) Vibrations contactor closed 4 Gn, 5...300 Hz) Shocks contactor open 10 Gn for 11 ms) Shocks contactor closed 15 Gn for 11 ms) |
| Height | 4.80 in (122 mm) |
| Width | 2.17 in (55 mm) |
| Depth | 4.72 in (120 mm) |
| Net Weight | 2.19 lb(US) (0.992 kg) |



Ordering and shipping details

| | |
|-------------------|---------------|
| Category | US10I1222356 |
| Discount Schedule | 0I12 |
| GTIN | 3606480988226 |
| Returnability | Yes |
| Country of origin | FR |

Packing Units

| | |
|------------------------------|-------------------------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Height | 2.44 in (6.2 cm) |
| Package 1 Width | 5.39 in (13.7 cm) |
| Package 1 Length | 5.98 in (15.2 cm) |
| Package 1 Weight | 2.32 lb(US) (1.052 kg) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 9 |
| Package 2 Height | 5.91 in (15.0 cm) |
| Package 2 Width | 11.81 in (30.0 cm) |
| Package 2 Length | 15.75 in (40.0 cm) |
| Package 2 Weight | 21.55 lb(US) (9.774 kg) |

Offer Sustainability

| | |
|-----------------------------|---|
| Sustainable offer status | Green Premium product |
| REACH Regulation |  REACH Declaration |
| EU RoHS Directive | Compliant with Exemptions |
| Mercury free | Yes |
| China RoHS Regulation |  China RoHS Declaration |
| RoHS exemption information |  Yes |
| 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. |
| Halogen content performance | Halogen free plastic parts & cables product |

Contractual warranty

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