

Product datasheet

Specifications



TeSys D contactor - 3P(3 NO) - AC-3 - ≤ 440 V 50 A - 220 V AC 50/60 Hz coil

LC1D50AM7

Main

| | |
|--------------------------------|---|
| Range | TeSys TeSys Deca |
| Range Of Product | TeSys Deca |
| Product Or Component Type | Contactors |
| Device Short Name | LC1D |
| Contactors Application | Resistive load Motor control |
| Utilisation Category | AC-4 AC-1 AC-3 AC-3e |
| Poles Description | 3P |
| [Ue] Rated Operational Voltage | Power circuit: ≤ 690 V AC 25...400 Hz Power circuit: ≤ 300 V DC |
| [Ie] Rated Operational Current | 50 A (at ≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit 80 A (at ≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit 50 A (at ≤ 60 °C) at ≤ 440 V AC AC-3e for power circuit |
| [Uc] Control Circuit Voltage | 220 V AC 50/60 Hz |

Complementary

| | |
|--------------------------|---|
| Motor Power Kw | 15 kW at 220...230 V AC 50/60 Hz (AC-3) 22 kW at 380...400 V AC 50/60 Hz (AC-3) 30 kW at 500 V AC 50/60 Hz (AC-3) 33 kW at 660...690 V AC 50/60 Hz (AC-3) 25 kW at 415 V AC 50/60 Hz (AC-3) 30 kW at 440 V AC 50/60 Hz (AC-3) 11 kW at 400 V AC 50/60 Hz (AC-4) 15 kW at 220...230 V AC 50/60 Hz (AC-3e) 22 kW at 380...400 V AC 50/60 Hz (AC-3e) 30 kW at 500 V AC 50/60 Hz (AC-3e) 33 kW at 660...690 V AC 50/60 Hz (AC-3e) 25 kW at 415 V AC 50/60 Hz (AC-3e) 30 kW at 440 V AC 50/60 Hz (AC-3e) |
| Motor Power Hp | 3 hp at 115 V AC 50/60 Hz for 1 phase motors 7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Compatibility Code | LC1D |
| Pole Contact Composition | 3 NO |
| Contact Compatibility | M2 |
| Protective Cover | With |

Price is "List Price" and may be subject to a trade discount – check with your local distributor or retailer for actual price.

| | |
|---|---|
| [I_{th}] Conventional Free Air Thermal Current | 10 A (at 60 °C) for signalling circuit 80 A (at 60 °C) for power circuit |
| Irms Rated Making Capacity | 140 A AC for signalling circuit conforming to IEC 60947-5-1 250 A DC for signalling circuit conforming to IEC 60947-5-1 900 A at 440 V for power circuit conforming to IEC 60947 |
| Rated Breaking Capacity | 900 A at 440 V for power circuit conforming to IEC 60947 |
| [I_{cw}] Rated Short-Time Withstand Current | 400 A 40 °C - 10 s for power circuit 810 A 40 °C - 1 s for power circuit 84 A 40 °C - 10 min for power circuit 208 A 40 °C - 1 min 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 | 10 A gG for signalling circuit conforming to IEC 60947-5-1 100 A gG at ≤ 690 V coordination type 1 for power circuit 100 A gG at ≤ 690 V coordination type 2 for power circuit |
| Average Impedance | 1.5 mOhm - I _{th} 80 A 50 Hz for power circuit |
| Power Dissipation Per Pole | 3.7 W AC-3 9.6 W AC-1 3.7 W AC-3e |
| [U_i] Rated Insulation Voltage | Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified Power circuit: 690 V conforming to IEC 60947-4-1 |
| Overvoltage Category | III |
| Pollution Degree | 3 |
| [U_{imp}] Rated Impulse Withstand Voltage | 6 kV conforming to IEC 60947 |
| Safety Reliability Level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |
| Mechanical Durability | 6 Mcycles |
| Electrical Durability | 1.45 Mcycles 50 A AC-3 at U _e ≤ 440 V 1.1 Mcycles 80 A AC-1 at U _e ≤ 440 V 1.45 Mcycles 50 A AC-3e at U _e ≤ 440 V |
| Control Circuit Type | AC at 50/60 Hz standard |
| Coil Technology | Without built-in suppressor module |
| Control Circuit Voltage Limits | 0.3...0.6 U _c (-40...70 °C):drop-out AC 50/60 Hz 0.8...1.1 U _c (-40...60 °C):operational AC 50 Hz 0.85...1.1 U _c (-40...60 °C):operational AC 60 Hz 1...1.1 U _c (60...70 °C):operational AC 50/60 Hz |
| Inrush Power In Va | 140 VA 60 Hz cos phi 0.75 (at 20 °C) 160 VA 50 Hz cos phi 0.75 (at 20 °C) |
| Hold-In Power Consumption In Va | 13 VA 60 Hz cos phi 0.3 (at 20 °C) 15 VA 50 Hz cos phi 0.3 (at 20 °C) |
| Heat Dissipation | 4...5 W at 50/60 Hz |
| Operating Time | 4...19 ms opening 12...26 ms closing |
| Maximum Operating Rate | 3600 cyc/h 60 °C |

| | |
|--------------------------------|---|
| Connections - Terminals | Control circuit: screw clamp terminals 2 1...2.5 mm ² - cable stiffness: flexible with cable end |
| | Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible without cable end |
| | Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: flexible without cable end |
| | Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: flexible with cable end |
| | Control circuit: screw clamp terminals 1 1...4 mm ² - cable stiffness: solid without cable end |
| | Control circuit: screw clamp terminals 2 1...4 mm ² - cable stiffness: solid without cable end |
| | Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - cable stiffness: flexible without cable end |
| | Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - cable stiffness: flexible without cable end |
| | Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - cable stiffness: flexible with cable end |
| | Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - cable stiffness: flexible with cable end |
| | Power circuit: EverLink BTR screw connectors 1 1...35 mm ² - cable stiffness: solid without cable end |
| | Power circuit: EverLink BTR screw connectors 2 1...25 mm ² - cable stiffness: solid without cable end |

| | |
|--------------------------|---|
| Tightening Torque | Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver flat Ø 6 mm |
| | Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver Philips No 2 |
| | Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm ² hexagonal screw head 4 mm |
| | Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm ² hexagonal screw head 4 mm |
| | Control circuit: 1.7 N.m - on EverLink BTR screw connectors - with screwdriver pozidriv No 2 |
| | Power circuit: 2.5 N.m - on EverLink BTR screw connectors - with screwdriver pozidriv No 2 |

| | |
|--------------------------------------|-------------|
| Auxiliary Contact Composition | 1 NO + 1 NC |
|--------------------------------------|-------------|

| | |
|--------------------------------|--|
| Auxiliary Contacts Type | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to 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 | CSA C22.2 No 14 |
| | EN 60947-4-1 |
| | EN 60947-5-1 |
| | IEC 60947-4-1 |
| | IEC 60947-5-1 |
| | UL 508 |
| | IEC 60335-1 |

| | |
|-------------------------------|------------------------------------|
| Product Certifications | RINA |
| | DNV |
| | CSA |
| | GOST |
| | BV |
| | GL |
| | UL |
| | CCC |
| | LROS (Lloyds register of shipping) |

| | |
|--------------------------------|---|
| Ip Degree Of Protection | IP20 front face conforming to IEC 60529 |
|--------------------------------|---|

| | |
|--|--|
| Protective Treatment | TH conforming to IEC 60068-2-30 |
| Climatic Withstand | conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat |
| Permissible Ambient Air Temperature Around The Device | -40...60 °C 60...70 °C with derating |
| Operating Altitude | 0...3000 m |
| Fire Resistance | 850 °C conforming to 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 closed (15 Gn for 11 ms) Shocks contactor open (10 Gn for 11 ms) |
| Height | 122 mm |
| Width | 55 mm |
| Depth | 120 mm |
| Net Weight | 0.855 kg |

Packing Units

| | |
|-------------------------------------|------------|
| Unit Type Of Package 1 | PCE |
| Number Of Units In Package 1 | 1 |
| Package 1 Height | 6.2 cm |
| Package 1 Width | 13.5 cm |
| Package 1 Length | 15.2 cm |
| Package 1 Weight | 916.0 g |
| Unit Type Of Package 2 | S02 |
| Number Of Units In Package 2 | 10 |
| Package 2 Height | 15.0 cm |
| Package 2 Width | 30.0 cm |
| Package 2 Length | 40.0 cm |
| Package 2 Weight | 9.93 kg |
| Unit Type Of Package 3 | P06 |
| Number Of Units In Package 3 | 160 |
| Package 3 Height | 77.0 cm |
| Package 3 Width | 80.0 cm |
| Package 3 Length | 60.0 cm |
| Package 3 Weight | 165.698 kg |

Contractual warranty

| | |
|-----------------|-----------|
| 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-CO₂ 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

✓ Reach Free Of Svhc

✓ Toxic Heavy Metal Free

✓ Mercury Free

✓ Rohs Exemption Information [Yes](#)

✓ Pvc Free

Certifications & Standards

Reach Regulation

[REACH Declaration](#)

Eu Rohs Directive

Compliant

[EU RoHS Declaration](#)

China Rohs Regulation

[China RoHS declaration](#)

Pro-active China RoHS declaration (out of China RoHS legal scope)

Environmental Disclosure

[Product Environmental Profile](#)

Weee

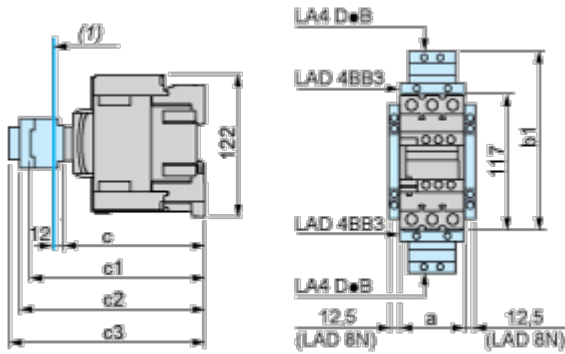
The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins

Circularity Profile

[End of Life Information](#)

Dimensions Drawings

Dimensions



(1) Minimum electrical clearance

| LC1 | | D40A...D65A |
|-----|------------------------------------|-------------|
| a | | 55 |
| b1 | with LA4 D•2 | – |
| | with LA4 DB3 or LAD 4BB3 | 136 |
| | with LA4 DF, DT | 157 |
| | with LA4 DM, DW, DL | 166 |
| c | without cover or add-on blocks | 118 |
| | with cover, without add-on blocks | 120 |
| c1 | with LAD N (1 contact) | – |
| | with LAD N or C (2 or 4 contacts) | 150 |
| c2 | with LA6 DK10, LAD 6DK | 163 |
| c3 | with LAD T, R, S | 171 |
| | with LAD T, R, S and sealing cover | 175 |

Connections and Schema

Wiring

