LC1D50AMD
TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 50 A - 220 V DC standard coil
### Main

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<th>Range</th>
<th>TeSys</th>
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<tr>
<td>Product name</td>
<td>TeSys D</td>
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<tr>
<td>Product or component type</td>
<td>Contactor</td>
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<tr>
<td>Device short name</td>
<td>LC1D</td>
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<tr>
<td>Contactor application</td>
<td>Motor control, Resistive load</td>
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<tr>
<td>Utilisation category</td>
<td>AC-1, AC-3</td>
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<td>Poles description</td>
<td>3P</td>
</tr>
<tr>
<td>Power pole contact composition</td>
<td>3 NO</td>
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</table>

- **[Ue]** rated operational voltage:
  - <= 300 V DC for power circuit
  - <= 690 V AC 25...400 Hz for power circuit
- **[le]** rated operational current:
  - 80 A (<= 60 °C) at <= 440 V AC AC-1 for power circuit
  - 50 A (<= 60 °C) at <= 440 V AC AC-3 for power circuit

### Motors

- **Motor power kW**
  - 30 kW at 440 V AC 50/60 Hz
  - 25 kW at 415 V AC 50/60 Hz
  - 33 kW at 660...690 V AC 50/60 Hz
  - 30 kW at 500 V AC 50/60 Hz
  - 22 kW at 380...400 V AC 50/60 Hz
  - 15 kW at 220...230 V AC 50/60 Hz

- **Motor power HP (UL / CSA)**
  - 40 hp at 575/600 V AC 50/60 Hz for 3 phases motors
  - 40 hp at 460/480 V AC 50/60 Hz for 3 phases motors
  - 15 hp at 230/240 V AC 50/60 Hz for 3 phases motors
  - 15 hp at 200/208 V AC 50/60 Hz for 3 phases motors
  - 7.5 hp at 230/240 V AC 50/60 Hz for 1 phase motors
  - 3 hp at 115 V AC 50/60 Hz for 1 phase motors

### Control circuit

- **Control circuit type** | DC standard |
- **Control circuit voltage** | 220 V DC |
- **Auxiliary contact composition** | 1 NO + 1 NC |
- **[Uimp]** rated impulse withstand voltage | 6 kV conforming to IEC 60947 |
- **Overvoltage category** | III |
- **[Ith]** conventional free air thermal current |
  - 80 A at <= 60 °C for power circuit
  - 10 A at <= 60 °C for signalling circuit
- **Irms rated making capacity**
  - 900 A at 440 V for power circuit conforming to IEC 60947
  - 250 A DC for signalling circuit conforming to IEC 60947-5-1
  - 140 A AC for signalling circuit conforming to IEC 60947-5-1
- **Rated breaking capacity**
  - 900 A at 440 V for power circuit conforming to IEC 60947
- **[Icw]** rated short-time withstand current
  - 140 A 100 ms signalling circuit
  - 120 A 500 ms signalling circuit
  - 100 A 1 s signalling circuit
  - 208 A <= 40 °C 1 min power circuit
  - 84 A <= 40 °C 10 min power circuit
  - 810 A <= 40 °C 1 s power circuit
  - 400 A <= 40 °C 10 s power circuit
- **Associated fuse rating**
  - 100 A gG at <= 690 V coordination type 2 for power circuit
  - 100 A gG at <= 690 V coordination type 1 for power circuit
  - 10 A gG for signalling circuit conforming to IEC 60947-5-1
- **Average impedance** | 1.5 mOhm at 50 Hz - Ith 80 A for power circuit |
| **[U] rated insulation voltage** | 690 V for power circuit conforming to IEC 60947-4-1  
600 V for signalling circuit certifications UL  
600 V for signalling circuit certifications CSA  
600 V for power circuit conforming to IEC 60947-1  
600 V for power circuit certifications UL  
600 V for power circuit certifications CSA |
|---------------------------------|---------------------------------------------------------------|
| **Electrical durability**       | 1.1 Mcycles 80 A AC-1 at $U_e <= 440$ V  
1.45 Mcycles 50 A AC-3 at $U_e <= 440$ V |
| **Power dissipation per pole**  | 9.6 W AC-1  
3.7 W AC-3 |
| **Safety cover**                | With |
| **Mounting support**            | Plate  
Rail |
| **Standards**                   | EN 60947-4-1  
EN 60947-5-1  
IEC 60947-4-1  
IEC 60947-5-1  
UL 908  
CSA C22.2 No 14 |
| **Product certifications**      | BV  
CCC  
CSA  
DNV  
GL  
GOST  
RINA  
UL  
LROS |
| **Connections - terminals**     | Power circuit : EverLink BTR screw connectors 2  
cable(s) 1...25 mm² - cable stiffness: solid - without cable end  
Power circuit : EverLink BTR screw connectors 1  
cable(s) 1...35 mm² - cable stiffness: solid - without cable end  
Power circuit : EverLink BTR screw connectors 2  
cable(s) 1...25 mm² - cable stiffness: flexible - with cable end  
Power circuit : EverLink BTR screw connectors 1  
cable(s) 1...35 mm² - cable stiffness: flexible - with cable end  
Power circuit : EverLink BTR screw connectors 2  
cable(s) 1...25 mm² - cable stiffness: flexible - without cable end  
Power circuit : EverLink BTR screw connectors 1  
cable(s) 1...35 mm² - cable stiffness: flexible - without cable end  
Control circuit : screw clamp terminals 2 cable(s)  
1...4 mm² - cable stiffness: solid - without cable end  
Control circuit : screw clamp terminals 1 cable(s)  
1...4 mm² - cable stiffness: solid - without cable end  
Control circuit : screw clamp terminals 1 cable(s)  
1...4 mm² - cable stiffness: flexible - with cable end  
Control circuit : screw clamp terminals 2 cable(s)  
1...4 mm² - cable stiffness: flexible - without cable end  
Control circuit : screw clamp terminals 1 cable(s)  
1...4 mm² - cable stiffness: flexible - without cable end  
Control circuit : screw clamp terminals 2 cable(s)  
1...2.5 mm² - cable stiffness: flexible - with cable end |
| **Tightening torque**           | Power circuit : 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm² hexagonal 4 mm  
Power circuit : 5 N.m - on EverLink BTR screw connectors - cable <= 25 mm² hexagonal 4 mm  
Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2  
Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm |
| **Operating time**              | 16...24 ms opening  
42.5...57.5 ms closing |
| **Safety reliability level**    | B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1  
B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 |
### Mechanical durability
10 Mcycles

### Operating rate
3600 cyc/h at \( \leq 60 \, ^\circ\text{C} \)

### Complementary

<table>
<thead>
<tr>
<th><strong>Coil technology</strong></th>
<th>Built-in bidirectional peak limiting diode suppressor</th>
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| **Control circuit voltage limits** | 0.75...1.25 Uc at 60 °C operational  
0.1...0.3 Uc at 60 °C drop-out |
| **Time constant** | 34 ms |
| **Inrush power in W** | 19 W at 20 °C |
| **Hold-in power consumption in W** | 7.4 W at 20 °C |
| **Auxiliary contacts type** | Type mirror contact (1 NC) conforming to IEC 60947-4-1  
Type mechanically linked (1 NO + 1 NC) conforming to IEC 60947-5-1 |
| **Signalling circuit frequency** | 25...400 Hz |
| **Minimum switching current** | 5 mA for signalling circuit |
| **Minimum switching voltage** | 17 V for signalling circuit |
| **Non-overlap time** | 1.5 ms on energisation (between NC and NO contact)  
1.5 ms on de-energisation (between NC and NO contact) |
| **Insulation resistance** | > 10 MOhm for signalling circuit |

### Environment

| **IP degree of protection** | IP2x front face conforming to IEC 60529 |
| **Protective treatment** | TH conforming to IEC 60068-2-30 |
| **Pollution degree** | 3 |
| **Ambient air temperature for operation** | -5...60 °C |
| **Ambient air temperature for storage** | -60...80 °C |
| **Permissible ambient air temperature around the device** | -40...70 °C at Uc |
| **Operating altitude** | 3000 m without derating in temperature |
| **Fire resistance** | 850 °C conforming to IEC 60695-2-1 |
| **Flame retardance** | V1 conforming to UL 94 |
| **Mechanical robustness** | Shocks contactor open 10 G for 11 ms  
Shocks contactor closed 15 G for 11 ms  
Vibrations contactor closed 4 G, 5...300 Hz  
Vibrations contactor open 2 G, 5...300 Hz |
| **Height** | 122 mm |
| **Width** | 55 mm |
| **Depth** | 120 mm |
| **Product weight** | 0.93 kg |

### Offer Sustainability

| **Sustainable offer status** | Green Premium product |
| **RoHS (date code: YYWW)** | Compliant - since 0001 - [Schneider Electric declaration of conformity](#) |
| **REACH** | Reference not containing SVHC above the threshold |
| **Product environmental profile** | Available |
| **Product end of life instructions** | Need no specific recycling operations |

### Contractual warranty

| **Period** | 18 months |