

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 40 A - 24 V DC standard coil

Local distributor code:

393395820

LC1D40A3BD

EAN Code: 3389119408608

### Main

|                                |                                                                                                                                                                             |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys<br>TeSys Deca                                                                                                                                                         |
| Range of product               | TeSys Deca                                                                                                                                                                  |
| Product or component type      | Contactor                                                                                                                                                                   |
| Device short name              | LC1D                                                                                                                                                                        |
| contactor application          | Motor control<br>Resistive load                                                                                                                                             |
| Utilisation category           | AC-4<br>AC-1<br>AC-3<br>AC-3e                                                                                                                                               |
| poles description              | 3P                                                                                                                                                                          |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                                                                                        |
| [Ie] rated operational current | 60 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>40 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 24 V DC                                                                                                                                                                     |

### Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 18.5 kW at 380...400 V AC 50/60 Hz (AC-3)<br>11 kW at 220...230 V AC 50/60 Hz (AC-3)<br>22 kW at 415...440 V AC 50/60 Hz (AC-3)<br>22 kW at 500 V AC 50/60 Hz (AC-3)<br>30 kW at 660...690 V AC 50/60 Hz (AC-3)<br>9 kW at 400 V AC 50/60 Hz (AC-4)<br>18.5 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>11 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>22 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>22 kW at 500 V AC 50/60 Hz (AC-3e)<br>30 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Motor power hp                              | 5 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>10 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>30 hp at 575/600 V AC 50/60 Hz for 3 phases motors<br>10 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>3 hp at 115 V AC 50/60 Hz for 1 phase motors<br>30 hp at 460/480 V AC 50/60 Hz for 3 phases motors                                                                                                                                                    |
| Compatibility code                          | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit<br>60 A (at 60 °C) for power circuit                                                                                                                                                                                                                                                                                                                                                                                                 |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                                 |                                                                                                                                                                                                                                                                                       |
|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Irms rated making capacity</b>               | 140 A AC for signalling circuit conforming to IEC 60947-5-1<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>800 A at 440 V for power circuit conforming to IEC 60947                                                                                                |
| <b>Rated breaking capacity</b>                  | 800 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                              |
| <b>[Icw] rated short-time withstand current</b> | 320 A 40 °C - 10 s for power circuit<br>720 A 40 °C - 1 s for power circuit<br>72 A 40 °C - 10 min for power circuit<br>165 A 40 °C - 1 min for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit |
| <b>Associated fuse rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>80 A gG at <= 690 V coordination type 1 for power circuit<br>80 A gG at <= 690 V coordination type 2 for power circuit                                                                                                  |
| <b>Average impedance</b>                        | 1.5 mOhm - Ith 60 A 50 Hz for power circuit                                                                                                                                                                                                                                           |
| <b>Power dissipation per pole</b>               | 2.4 W AC-3<br>5.4 W AC-1<br>2.4 W AC-3e                                                                                                                                                                                                                                               |
| <b>[Ui] rated insulation voltage</b>            | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified<br>Power circuit: 690 V conforming to IEC 60947-4-1               |
| <b>Overvoltage category</b>                     | III                                                                                                                                                                                                                                                                                   |
| <b>Pollution degree</b>                         | 3                                                                                                                                                                                                                                                                                     |
| <b>[Uimp] rated impulse withstand voltage</b>   | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                          |
| <b>Safety reliability level</b>                 | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                  |
| <b>Mechanical durability</b>                    | 10 Mcycles                                                                                                                                                                                                                                                                            |
| <b>Electrical durability</b>                    | 0.7 Mcycles 60 A AC-1 at Ue <= 440 V<br>1.5 Mcycles 40 A AC-3 at Ue <= 440 V<br>1.5 Mcycles 40 A AC-3e at Ue <= 440 V                                                                                                                                                                 |
| <b>Control circuit type</b>                     | DC standard                                                                                                                                                                                                                                                                           |
| <b>Coil technology</b>                          | Built-in bidirectional peak limiting diode suppressor                                                                                                                                                                                                                                 |
| <b>Control circuit voltage limits</b>           | 0.1...0.3 Uc (-40...70 °C):drop-out DC<br>0.75...1.25 Uc (-40...60 °C):operational DC<br>1...1.25 Uc (60...70 °C):operational DC                                                                                                                                                      |
| <b>Inrush power in W</b>                        | 19 W (at 20 °C)                                                                                                                                                                                                                                                                       |
| <b>Hold-in power consumption in W</b>           | 7.4 W at 20 °C                                                                                                                                                                                                                                                                        |
| <b>Operating time</b>                           | 50 ±15 % ms closing<br>20 ±20 % ms opening                                                                                                                                                                                                                                            |
| <b>Time constant</b>                            | 34 ms                                                                                                                                                                                                                                                                                 |
| <b>Maximum operating rate</b>                   | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                      |
| <b>Maximum operating rate</b>                   | 3600 cyc/h at 60 °C                                                                                                                                                                                                                                                                   |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connections - terminals       | Control circuit: spring terminals 1 0.75...2.5 mm² - cable stiffness: flexible without cable end<br>Control circuit: spring terminals 2 0.75...2.5 mm² - cable stiffness: flexible without cable end<br>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible without cable end<br>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible without cable end<br>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: flexible with cable end<br>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: flexible with cable end<br>Power circuit: EverLink BTR screw connectors 1 1...35 mm² - cable stiffness: solid without cable end<br>Power circuit: EverLink BTR screw connectors 2 1...25 mm² - cable stiffness: solid without cable end |
| Tightening torque             | Power circuit: 8 N.m - on EverLink BTR screw connectors - cable 25...35 mm² hexagonal screw head 4 mm<br>Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 0.75...25 mm² hexagonal screw head 4 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals - 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<br>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<br>1.5 ms on energisation between NC and NO contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mounting support              | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |

## Environment

|                                                       |                                                                                                                                                                                   |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards                                             | EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>CSA C22.2 No 14<br>UL 60947-4-1<br>IEC 60335-2-40:Annex JJ<br>UL 60335-2-40:Annex JJ<br>IEC 60335-1:Clause 30.2 |
| Product certifications                                | CCC<br>UL<br>CB Scheme<br>CSA<br>CE<br>UKCA<br>Marine<br>EAC                                                                                                                      |
| 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<br>conforming to IEC 60947-1 Annex Q category D exposure to damp heat                                                                |
| Permissible ambient air temperature around the device | -40...60 °C<br>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)<br>Vibrations contactor closed (4 Gn, 5...300 Hz)<br>Shocks contactor closed (15 Gn for 11 ms)<br>Shocks contactor open (10 Gn for 11 ms) |
| Height                | 122 mm                                                                                                                                                                                 |
| Width                 | 55 mm                                                                                                                                                                                  |
| Depth                 | 120 mm                                                                                                                                                                                 |
| Net weight            | 0.925 kg                                                                                                                                                                               |

## Packing Units

|                              |           |
|------------------------------|-----------|
| Unit Type of Package 1       | PCE       |
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 6.200 cm  |
| Package 1 Width              | 13.700 cm |
| Package 1 Length             | 15.200 cm |
| Package 1 Weight             | 975.000 g |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 10        |
| Package 2 Height             | 15.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 10.076 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-CO<sub>2</sub> 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 >](#)



Sustainable Packaging   Transparency   RoHS/REACH

Resource performance

 Sustainable Packaging

Well-being performance

 Reach Free Of Svhc

 Mercury Free

 Rohs Exemption Information   [Yes](#)

Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                 |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | <a href="#">End of Life Information</a>                                                                                     |