

# Product data sheet

Specifications



Contactor, TeSys Deca,  
3P(3NO),AC-3/AC-3e/<=440V 40A,  
240V AC 50/60Hz coil, screw clamp  
terminals

LC1D40U7

## Main

|                                |                                                                                                                                                                             |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                                                                                       |
| 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-2<br>AC-3<br>AC-3e                                                                                                                                       |
| Poles description              | 3P                                                                                                                                                                          |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25...400 Hz                                                                                                                                      |
| [Ie] rated operational current | 40 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>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-3e for power circuit |
| [Uc] control circuit voltage   | 240 V AC 50/60 Hz                                                                                                                                                           |

## Complementary

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW           | 18.5 kW at 380...400 V AC 50 Hz (AC-3)<br>22 kW at 500 V AC 50 Hz (AC-3)<br>30 kW at 660...690 V AC 50 Hz (AC-3)<br>22 kW at 1000 V AC 50 Hz (AC-3)<br>22 kW at 415 V AC 50 Hz (AC-3)<br>22 kW at 440 V AC 50 Hz (AC-3)<br>11 kW at 220...230 V AC 50 Hz (AC-3)<br>9 kW at 400 V AC 50 Hz (AC-4)<br>18.5 kW at 380...400 V AC 50 Hz (AC-3e)<br>22 kW at 500 V AC 50 Hz (AC-3e)<br>30 kW at 660...690 V AC 50 Hz (AC-3e)<br>22 kW at 1000 V AC 50 Hz (AC-3e)<br>22 kW at 415 V AC 50 Hz (AC-3e)<br>22 kW at 440 V AC 50 Hz (AC-3e)<br>11 kW at 220...230 V AC 50 Hz (AC-3e) |
| Motor power hp           | 3 hp at 115 V AC 60 Hz for 1 phase motors<br>5 hp at 230/240 V AC 60 Hz for 1 phase motors<br>10 hp at 200/208 V AC 60 Hz for 3 phases motors<br>10 hp at 230/240 V AC 60 Hz for 3 phases motors<br>30 hp at 460/480 V AC 60 Hz for 3 phases motors<br>30 hp at 575/600 V AC 60 Hz for 3 phases motors                                                                                                                                                                                                                                                                     |
| Compatibility code       | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Pole contact composition | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Protective cover         | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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>[Ith] conventional free air thermal current</b> | 10 A (at 60 °C) for control circuit<br>60 A (at 60 °C) for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Irms rated making capacity</b>                  | 800 A at 440 V for power circuit conforming to IEC 60947<br>140 A AC for control circuit conforming to IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Rated breaking capacity</b>                     | 800 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Associated fuse rating</b>                      | 10 A gG for control 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>Power dissipation per pole</b>                  | 5.4 W AC-1<br>2.4 W AC-3<br>2.4 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>[Ui] rated insulation voltage</b>               | Control circuit: 600 V CSA certified<br>Control circuit: 600 V UL certified<br>Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Control circuit: 690 V conforming to IEC 60947-1<br>Power circuit: 690 V conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Overvoltage category</b>                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>[Uimp] rated impulse withstand voltage</b>      | 8 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>                       | 6000000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Control circuit type</b>                        | AC at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Coil technology</b>                             | Without built-in bidirectional peak limiting diode suppressor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Control circuit voltage limits</b>              | 0.3...0.6 U <sub>c</sub> (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 U <sub>c</sub> (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 U <sub>c</sub> (-40...60 °C):operational AC 60 Hz<br>1...1.1 U <sub>c</sub> (60...70 °C):operational AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Inrush power in VA</b>                          | 140 VA cos phi 0.75 (at 20 °C)<br>160 VA cos phi 0.75 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Hold-in power consumption in VA</b>             | 13 VA 60 Hz cos phi 0.3 (at 20 °C)<br>15 VA 50 Hz cos phi 0.3 (at 20 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Heat dissipation</b>                            | 4...5 W at 50/60 Hz for control circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Operating time</b>                              | 4...19 ms opening<br>12...26 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Maximum operating rate</b>                      | 3600 cyc/h at 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Connections - terminals</b>                     | Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: rigid<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: rigid<br>Control circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 2.5...25 mm <sup>2</sup> - cable stiffness: rigid<br>Power circuit: screw clamp terminals 2 2.5...16 mm <sup>2</sup> - cable stiffness: rigid<br>Power circuit: screw clamp terminals 1 2.5...25 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 2.5...16 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 2.5...25 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 2.5...10 mm <sup>2</sup> - cable stiffness: flexible with cable end |
| <b>Tightening torque</b>                           | Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2<br>Power circuit: 5 N.m - on screw terminal - with screwdriver flat Ø 6 to Ø 8 mm<br>Control circuit: 1.7 N.m - on screw clamp terminal - 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 |
| Minimum switching voltage     | 17 V for control circuit                                                                                                 |
| Minimum switching current     | 5 mA for control circuit                                                                                                 |
| Insulation resistance         | > 10 MOhm for control circuit                                                                                            |
| Non-overlap time              | 1.5 ms on de-energisation between NC and NO contacts<br>1.5 ms on energisation between NC and NO contacts                |
| Mounting support              | Rail<br>Plate                                                                                                            |

## Environment

|                         |                                                                                                                                                                                            |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Standards               | IEC 60947-5-1<br>IEC 60947-4-1<br>UL 60947-4-1<br>EN 60947-4-1<br>EN 60947-5-1<br>CSA C22.2 No 14                                                                                          |
| Product certifications  | GL<br>BV<br>DNV<br>LROS (Lloyds register of shipping)<br>RINA<br>UL<br>CCC<br>CSA<br>GOST<br>UKCA<br>CB                                                                                    |
| IP degree of protection | IP2X conforming to IEC 60529<br>IP2X conforming to VDE 0106                                                                                                                                |
| Climatic withstand      | conforming to IACS E10 exposure to damp heat                                                                                                                                               |
| Operating altitude      | 0...3000 m                                                                                                                                                                                 |
| Fire resistance         | 850 °C conforming to IEC 60695-2-1                                                                                                                                                         |
| Flame retardance        | V1 conforming to UL 94                                                                                                                                                                     |
| Mechanical robustness   | Shocks contactor opened (10 Gn for 11 ms)<br>Shocks contactor closed (15 Gn for 11 ms)<br>Vibrations contactor opened (2 Gn, 5...300 Hz)<br>Vibrations contactor closed (4 Gn, 5...300 Hz) |
| Height                  | 127 mm                                                                                                                                                                                     |
| Width                   | 75 mm                                                                                                                                                                                      |
| Depth                   | 119 mm                                                                                                                                                                                     |
| Net weight              | 1.4 kg                                                                                                                                                                                     |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 9.5 cm   |
| Package 1 Width              | 13.1 cm  |
| Package 1 Length             | 14.0 cm  |
| Package 1 Weight             | 1.439 kg |
| Unit Type of Package 2       | S02      |

|                              |          |
|------------------------------|----------|
| Number of Units in Package 2 | 5        |
| Package 2 Height             | 15 cm    |
| Package 2 Width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Package 2 Weight             | 7.514 kg |

## Contractual warranty

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

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)

| Environmental footprint          |    |
|----------------------------------|----|
| Total lifecycle Carbon footprint | 66 |

Use Better

| Materials and Substances               |                                                                                                                                                                                                                               |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Packaging made with recycled cardboard | Yes                                                                                                                                                                                                                           |
| Packaging without single use plastic   | Yes                                                                                                                                                                                                                           |
| <a href="#">EU RoHS Directive</a>      | Compliant                                                                                                                                                                                                                     |
| REACH Regulation                       | <a href="#">REACH Declaration</a>                                                                                                                                                                                             |
| California proposition 65              | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="#">www.P65Warnings.ca.gov</a> |
| PVC free                               | Yes                                                                                                                                                                                                                           |

Use Again

| Repack and remanufacture        |                                                                                                                                                                                                                 |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| End of life manual availability | No need of specific recycling operations                                                                                                                                                                        |
| Take-back                       | No                                                                                                                                                                                                              |
| WEEE Label                      |  The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

Technical Illustration

Assembly's dimensions

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