

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 12 A - 220 V AC coil

LC1D123M7

### Main

|                                |                                                                                                                                                                             |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| range of product               | TeSys Deca                                                                                                                                                                  |
| product or component type      | Contacteur                                                                                                                                                                  |
| 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 | 16 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>12 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>12 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                              | 3 kW at 220...230 V AC 50/60 Hz (AC-3)<br>5.5 kW at 380...400 V AC 50/60 Hz (AC-3)<br>5.5 kW at 415 V AC 50/60 Hz (AC-3)<br>5.5 kW at 440 V AC 50/60 Hz (AC-3)<br>7.5 kW at 500 V AC 50/60 Hz (AC-3)<br>7.5 kW at 660...690 V AC 50/60 Hz (AC-3)<br>3 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 415 V AC 50/60 Hz (AC-3e)<br>5.5 kW at 440 V AC 50/60 Hz (AC-3e)<br>7.5 kW at 500 V AC 50/60 Hz (AC-3e)<br>7.5 kW at 660...690 V AC 50/60 Hz (AC-3e)<br>3.7 kW at 400 V AC 50/60 Hz (AC-4) |
| Motor power hp                              | 0.5 hp at 115 V AC 50/60 Hz for 1 phase motors<br>2 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>3 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>3 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>10 hp at 575/600 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>16 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>               | 250 A at 440 V for power circuit conforming to IEC 60947<br>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                                                                                                                                                                                       |
| <b>Rated breaking capacity</b>                  | 250 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                     |
| <b>[Icw] rated short-time withstand current</b> | 105 A 40 °C - 10 s for power circuit<br>210 A 40 °C - 1 s for power circuit<br>30 A 40 °C - 10 min for power circuit<br>61 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>40 A gG at <= 690 V coordination type 1 for power circuit<br>25 A gG at <= 690 V coordination type 2 for power circuit                                                                                                                                                                                         |
| <b>Average impedance</b>                        | 2.5 mOhm - Ith 16 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                  |
| <b>Power dissipation per pole</b>               | 0.36 W AC-3<br>1.56 W AC-1<br>0.36 W AC-3e                                                                                                                                                                                                                                                                                                                                   |
| <b>[UI] rated insulation voltage</b>            | Power circuit: 690 V conforming to IEC 60947-4-1<br>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                                                                                                      |
| <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>                    | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Electrical durability</b>                    | 2 Mcycles 12 A AC-3 at Ue <= 440 V<br>0.8 Mcycles 25 A AC-1 at Ue <= 440 V<br>2 Mcycles 12 A AC-3e at Ue <= 440 V                                                                                                                                                                                                                                                            |
| <b>Control circuit type</b>                     | AC at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                               |
| <b>Coil technology</b>                          | Without built-in suppressor module                                                                                                                                                                                                                                                                                                                                           |
| <b>Control circuit voltage limits</b>           | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz                                                                                                                                                                    |
| <b>Inrush power in VA</b>                       | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)                                                                                                                                                                                                                                                                                                   |
| <b>Hold-in power consumption in VA</b>          | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C)                                                                                                                                                                                                                                                                                                     |
| <b>Heat dissipation</b>                         | 2...3 W at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                          |
| <b>Operating time</b>                           | 12...22 ms closing<br>4...19 ms opening                                                                                                                                                                                                                                                                                                                                      |
| <b>Maximum operating rate</b>                   | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                                                             |
| <b>Maximum operating rate</b>                   | 3600 cyc/h at 60 °C                                                                                                                                                                                                                                                                                                                                                          |
| <b>Connections - terminals</b>                  | Power circuit: spring terminals 1 2.5 mm² - cable stiffness: flexible without cable end<br>Power circuit: spring terminals 2 2.5 mm² - cable stiffness: flexible without cable end<br>Control circuit: spring terminals 1 2.5 mm² - cable stiffness: flexible without cable end<br>Control circuit: spring terminals 2 2.5 mm² - cable stiffness: flexible without cable end |
| <b>Auxiliary contact composition</b>            | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Auxiliary contacts type</b>                  | 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                                             | CSA C22.2 No 14<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 60947-4-1<br>IEC 60335-1:Clause 30.2<br>IEC 60335-2-40:Annex JJ<br>UL 60335-2-40:Annex JJ<br>CSA C22.2 No 60947-4-1 |
| Product certifications                                | UL<br>CCC<br>CSA<br>Marine<br>UKCA<br>EAC<br>CB Scheme                                                                                                                                                      |
| 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 open (10 Gn for 11 ms)<br>Shocks contactor closed (15 Gn for 11 ms)                      |
| Height                                                | 99 mm                                                                                                                                                                                                       |
| Width                                                 | 45 mm                                                                                                                                                                                                       |
| Depth                                                 | 86 mm                                                                                                                                                                                                       |
| net weight                                            | 0.325 kg                                                                                                                                                                                                    |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 5.5 cm  |
| Package 1 Width              | 10.5 cm |
| Package 1 Length             | 10.5 cm |
| Package 1 Weight             | 375.0 g |

|                              |         |
|------------------------------|---------|
| Unit Type of Package 2       | S02     |
| Number of Units in Package 2 | 15      |
| Package 2 Height             | 15.0 cm |
| Package 2 Width              | 30.0 cm |
| Package 2 Length             | 40.0 cm |
| Package 2 Weight             | 6.08 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

 Toxic Heavy Metal Free

 Mercury Free

 Rohs Exemption Information   [Yes](#)

 Pvc Free

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>                                                                                     |



Image of product / Alternate images

Alternative

---



