

# Product data sheet

Specifications



## TeSys D contactor - 4P(2 NO + 2 NC) - AC-1 <= 440 V 125 A 48 V AC 50/60 Hz coil

LC1D80008E7

### Main

|   |  |
|---|--|
| Range                                       | TeSys  |
| Product name                                | TeSys D  |
| Product or component type                   | Contactors   |
| Device short name                           | LC1D   |
| Contactors application                      | Resistive load   |
| Utilisation category                        | AC-1   |
| Poles description                           | 4P   |
| Power pole contact composition              | 2 NO + 2 NC  |
| [Ue] rated operational voltage              | Power circuit: <= 300 V DC 25...400 Hz<br>Power circuit: <= 690 V AC   |
| [Ie] rated operational current              | 125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit  |
| Control circuit type                        | AC at 50/60 Hz   |
| [Uc] control circuit voltage                | 48 V AC 50/60 Hz   |
| [Uimp] rated impulse withstand voltage      | 8 kV conforming to IEC 60947   |
| Overvoltage category                        | III  |
| [Ith] conventional free air thermal current | 125 A (at 60 °C) for power circuit   |
| Irms rated making capacity                  | 1100 A at 440 V for power circuit conforming to IEC 60947  |
| Rated breaking capacity                     | 1100 A at 440 V for power circuit conforming to IEC 60947  |
| [Icw] rated short-time withstand current    | 640 A 40 °C - 10 s for power circuit<br>990 A 40 °C - 1 s for power circuit<br>135 A 40 °C - 10 min for power circuit<br>320 A 40 °C - 1 min for power circuit |
| Associated fuse rating                      | 200 A gG at <= 690 V coordination type 1 for power circuit<br>160 A gG at <= 690 V coordination type 2 for power circuit                                       |
| Average impedance                           | 0.8 mOhm - Ith 125 A 50 Hz for power circuit   |
| [Ui] rated insulation voltage               | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Power circuit: 1000 V conforming to IEC 60947-4-1                                   |
| Electrical durability                       | 0.8 Mcycles 125 A AC-1 at Ue <= 440 V  |
| Power dissipation per pole                  | 12.5 W AC-1  |
| Front cover                                 | Without  |
| Mounting support                            | Plate  |

|                                 |  |
|---------------------------------|--|
| <b>Standards</b>                | 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 508  |
| <b>Product certifications</b>   | CSA<br>BV<br>DNV<br>GOST<br>UL<br>GL<br>LROS (Lloyds register of shipping)<br>RINA<br>CCC  |
| <b>Connections - terminals</b>  | Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Power circuit: connector 1 cable(s) 4...50 mm <sup>2</sup> flexible without cable end<br>Power circuit: connector 2 cable(s) 4...25 mm <sup>2</sup> flexible without cable end<br>Power circuit: connector 1 cable(s) 4...50 mm <sup>2</sup> flexible with cable end<br>Power circuit: connector 2 cable(s) 4...16 mm <sup>2</sup> flexible with cable end<br>Power circuit: connector 1 cable(s) 4...50 mm <sup>2</sup> solid without cable end<br>Power circuit: connector 2 cable(s) 4...25 mm <sup>2</sup> solid without cable end |
| <b>Tightening torque</b>        | Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm<br>Power circuit: 12 N.m - on connector hexagonal screw head 4 mm  |
| <b>Operating time</b>           | 20...35 ms closing<br>6...20 ms opening  |
| <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>    | 4 Mcycles  |
| <b>Maximum operating rate</b>   | 3600 cyc/h 60 °C   |

## Complementary

|  |   |
|--|---|
| <b>Coil technology</b>                 | Without built-in suppressor module  |
| <b>Control circuit voltage limits</b>  | 0.85...1.1 U <sub>c</sub> (-40...55 °C):operational AC 60 Hz<br>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...55 °C):operational AC 50 Hz<br>1...1.1 U <sub>c</sub> (55...70 °C):operational AC 50/60 Hz |
| <b>Inrush power in VA</b>              | 245 VA 60 Hz cos phi 0.75 (at 20 °C)<br>245 VA 50 Hz cos phi 0.75 (at 20 °C)  |
| <b>Hold-in power consumption in VA</b> | 26 VA 60 Hz cos phi 0.3 (at 20 °C)<br>26 VA 50 Hz cos phi 0.3 (at 20 °C)  |
| <b>Heat dissipation</b>                | 6...10 W at 50/60 Hz  |

## Environment

|  |   |
|--|---|
| <b>IP degree of protection</b>               | IP20 front face conforming to IEC 60529   |
| <b>Protective treatment</b>                  | TH conforming to IEC 60068-2-30   |
| <b>Pollution degree</b>                      | 3   |
| <b>Ambient air temperature for operation</b> | -40...60 °C<br>60...70 °C with derating   |
| <b>Ambient air temperature for storage</b>   | -60...80 °C   |
| <b>Operating altitude</b>                    | 0...3000 m  |
| <b>Fire resistance</b>                       | 850 °C conforming to IEC 60695-2-1  |
| <b>Mechanical robustness</b>                 | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Shocks contactor open: 8 Gn for 11 ms<br>Vibrations contactor closed: 3 Gn, 5...300 Hz<br>Shocks contactor closed: 10 Gn for 11 ms |

|            |         |
|------------|---------|
| Height     | 127 mm  |
| Width      | 96 mm   |
| Depth      | 140 mm  |
| Net weight | 1.84 kg |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 1.772 kg |
| Package 1 Height             | 11 cm    |
| Package 1 width              | 13.5 cm  |
| Package 1 Length             | 15.5 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 5        |
| Package 2 Weight             | 9.191 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| RoHS exemption information | <a href="#">Yes</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   |
| PVC free                   | Yes   |
| 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="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |

## Contractual warranty

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