

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 25 A - 48 V AC coil

Local distributor code: 381803829 LC1D25E7

EAN Code : 3389110349689

### Main

|                                |   |
|--------------------------------|---|
| Range                          | TeSys<br>TeSys Deca   |
| Range of product               | TeSys D<br>TeSys Deca   |
| Product or component type      | Contacteur  |
| Device short name              | LC1D  |
| Contacteur application         | Resistive load<br>Motor control   |
| Utilisation category           | AC-1<br>AC-4<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 | 25 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>40 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>25 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |

### Complementary

|                               |   |
|-------------------------------|---|
| Motor power kW                | 5.5 kW at 220...230 V AC 50/60 Hz (AC-3)<br>11 kW at 380...400 V AC 50/60 Hz (AC-3)<br>11 kW at 415...440 V AC 50/60 Hz (AC-3)<br>15 kW at 500 V AC 50/60 Hz (AC-3)<br>15 kW at 660...690 V AC 50/60 Hz (AC-3)<br>5.5 kW at 400 V AC 50/60 Hz (AC-4)<br>5.5 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>11 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>11 kW at 415...440 V AC 50/60 Hz (AC-3e)<br>15 kW at 500 V AC 50/60 Hz (AC-3e)<br>15 kW at 660...690 V AC 50/60 Hz (AC-3e) |
| Motor power hp                | 3 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 hp at 115 V AC 50/60 Hz for 1 phase motors<br>7.5 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>15 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>20 hp at 575/600 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 200/208 V AC 50/60 Hz for 3 phases motors  |
| Pole contact composition      | 3 NO  |
| Contact compatibility         | M2  |
| Protective cover              | With  |
| 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  |
| Auxiliary contact composition | 1 NO + 1 NC   |

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|--|--|
| <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>[Uimp] rated impulse withstand voltage</b>      | 6 kV conforming to IEC 60947   |
| <b>Overvoltage category</b>                        | III  |
| <b>[Ith] conventional free air thermal current</b> | 10 A (at 60 °C) for signalling circuit<br>40 A (at 60 °C) for power circuit  |
| <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>450 A at 440 V for power circuit conforming to IEC 60947   |
| <b>Rated breaking capacity</b>                     | 450 A at 440 V for power circuit conforming to IEC 60947   |
| <b>Associated fuse rating</b>                      | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>63 A gG at <= 690 V coordination type 1 for power circuit<br>40 A gG at <= 690 V coordination type 2 for power circuit   |
| <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 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>Average impedance</b>                           | 2 mOhm - I <sub>th</sub> 40 A 50 Hz for power circuit  |
| <b>Power dissipation per pole</b>                  | 3.2 W AC-1<br>1.25 W AC-3<br>1.25 W AC-3e  |
| <b>Minimum switching current</b>                   | 5 mA for signalling circuit  |
| <b>Minimum switching voltage</b>                   | 17 V for signalling circuit  |
| <b>Non-overlap time</b>                            | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact  |
| <b>Maximum operating rate</b>                      | 3600 cyc/h 60 °C   |
| <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>Insulation resistance</b>                       | > 10 MOhm for signalling circuit   |
| <b>Tightening torque</b>                           | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2<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 |
| <b>Mounting support</b>                            | Rail<br>Plate  |
| <b>Electrical durability</b>                       | 1.65 Mcycles 25 A AC-3 at U <sub>e</sub> <= 440 V<br>1.4 Mcycles 40 A AC-1 at U <sub>e</sub> <= 440 V<br>1.65 Mcycles 25 A AC-3e at U <sub>e</sub> <= 440 V  |
| <b>Mechanical durability</b>                       | 15 Mcycles   |
| <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>Operating altitude</b>                          | 0...3000 m   |
| <b>Compatibility code</b>                          | LC1D   |
| <b>Product certifications</b>                      | RINA<br>GOST<br>BV<br>CCC<br>DNV<br>UL<br>GL<br>CSA<br>LROS (Lloyds register of shipping)  |

## Environment

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| <b>Climatic withstand</b>                  | conforming to IACS E10<br>conforming to IEC 60947-1 Annex Q category D |
| <b>Ambient air temperature for storage</b> | -60...80 °C  |
| <b>Fire resistance</b>                     | 850 °C conforming to IEC 60695-2-1                                     |
| <b>Height</b>                              | 85 mm  |
| <b>Width</b>                               | 45 mm  |
| <b>Depth</b>                               | 92 mm  |
| <b>Net weight</b>                          | 0.37 kg  |

## Packing Units

|                                     |           |
|-------------------------------------|-----------|
| <b>Unit Type of Package 1</b>       | PCE       |
| <b>Number of Units in Package 1</b> | 1         |
| <b>Package 1 Weight</b>             | 418.0 g   |
| <b>Package 1 Height</b>             | 5.0 cm    |
| <b>Package 1 width</b>              | 9.0 cm    |
| <b>Package 1 Length</b>             | 11.0 cm   |
| <b>Unit Type of Package 2</b>       | S02       |
| <b>Number of Units in Package 2</b> | 20        |
| <b>Package 2 Weight</b>             | 8.605 kg  |
| <b>Package 2 Height</b>             | 15.0 cm   |
| <b>Package 2 width</b>              | 30.0 cm   |
| <b>Package 2 Length</b>             | 40.0 cm   |
| <b>Unit Type of Package 3</b>       | P06       |
| <b>Number of Units in Package 3</b> | 320       |
| <b>Package 3 Weight</b>             | 145.68 kg |
| <b>Package 3 Height</b>             | 75.0 cm   |
| <b>Package 3 width</b>              | 80.0 cm   |
| <b>Package 3 Length</b>             | 60.0 cm   |

## Offer Sustainability

|                                   |   |
|-----------------------------------|---|
| <b>Sustainable offer status</b>   | Green Premium product   |
| <b>REACH Regulation</b>           | <a href="#">REACH Declaration</a>   |
| <b>REACH free of SVHC</b>         | Yes   |
| <b>EU RoHS Directive</b>          | Compliant<br><a href="#">EU RoHS Declaration</a>  |
| <b>Toxic heavy metal free</b>     | Yes   |
| <b>Mercury free</b>               | Yes   |
| <b>RoHS exemption information</b> | <a href="#">Yes</a>   |
| <b>China RoHS Regulation</b>      | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope) |
| <b>Environmental Disclosure</b>   | <a href="#">Product Environmental Profile</a>   |
| <b>Circularity Profile</b>        | <a href="#">End of Life Information</a>   |

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|-------------|---|
| <b>WEEE</b> | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
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|-----------------|-----|
| <b>PVC free</b> | Yes |
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### **Contractual warranty**

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|-----------------|-----------|
| <b>Warranty</b> | 18 months |
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**Dimensions**



- (1) Including LAD 4BB
- (2) Minimum electrical clearance

| LC1        |                                    | D25...D38 (3-pole) |
|------------|------------------------------------|--------------------|
| <b>b</b>   | without add-on blocks              | 85                 |
| <b>b1</b>  | with LAD 4BB                       | 98                 |
|            | with LA4 D•2                       | 114 <sup>(1)</sup> |
|            | with LA4 DF, DT                    | 123 <sup>(1)</sup> |
|            | with LA4 DW, DL                    | 130 <sup>(1)</sup> |
| <b>c</b>   | without cover or add-on blocks     | 90                 |
|            | with cover, without add-on blocks  | 92                 |
| <b>c1</b>  | with LAD N or C (2 or 4 contacts)  | 123                |
| <b>c2</b>  | with LA6 DK10, LAD 6K10            | 135                |
| <b>c3</b>  | with LAD T, R, S                   | 143                |
|            | with LAD T, R, S and sealing cover | 147                |
| <b>(1)</b> | Including LAD 4BB.                 |                    |

Wiring

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