# **Product datasheet**





Contactor, TeSys Deca, 4P(2NO+2NC), AC-1, <=440V, 125A, 48V AC 50/60Hz coil, screw clamp terminal

LC1D80008E7

### Main

| Range                          | TeSys   |  |
|--------------------------------|---|--|
| Range of product               | TeSys Deca  |  |
| product or component type      | Contactor   |  |
| Device short name              | LC1D  |  |
| contactor application          | Resistive load  |  |
| Utilisation category           | AC-1  |  |
| poles description              | 4P  |  |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25400 Hz                     |  |
| [le] rated operational current | 125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit |  |
| [Uc] control circuit voltage   | 48 V AC 50/60 Hz  |  |

### Complementary

| Compatibility code                          | LC1D  |  |
|---|---|--|
| Pole contact composition                    | 2 NO + 2 NC   |  |
| Protective cover                            | Without   |  |
| [Ith] conventional free air thermal current | ee air thermal 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   |  |
| [lcw] 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 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  |  |
| Power dissipation per pole                  | 12.5 W AC-1   |  |
| [Ui] rated insulation voltage               | Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Power circuit: 1000 V conforming to IEC 60947-4-1  |  |
| Overvoltage category                        | III   |  |
| Pollution degree                            | 3   |  |
| [Uimp] rated impulse withstand voltage      | 8 kV conforming to IEC 60947  |  |
| Safety reliability level                    | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 |  |

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| Mechanical durability           | 4 Mcycles   |
|---------------------------------|---|
| Electrical durability           | 0.8 Mcycles 125 A AC-1 at Ue <= 440 V   |
| Control circuit type            | AC at 50/60 Hz  |
| Coil technology                 | Without built-in suppressor module  |
| Control circuit voltage limits  | 0.851.1 Uc (-4055 °C):operational AC 60 Hz<br>0.30.6 Uc (-4055 °C):drop-out AC 50/60 Hz<br>0.81.1 Uc (-4055 °C):operational AC 50 Hz  |
| Inrush power in VA              | 245 VA 60 Hz cos phi 0.75 (at 20 °C)<br>245 VA 50 Hz cos phi 0.75 (at 20 °C)  |
| Hold-in power consumption in VA | 26 VA 60 Hz cos phi 0.3 (at 20 °C)<br>26 VA 50 Hz cos phi 0.3 (at 20 °C)  |
| Heat dissipation                | 610 W at 50/60 Hz   |
| Operating time                  | 2035 ms closing<br>620 ms opening   |
| Maximum operating rate          | 3600 cyc/h 60 °C  |
| Connections - terminals         | Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: connector 1 450 mm² - cable stiffness: flexible without cable end Power circuit: connector 2 425 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 416 mm² - cable stiffness: solid without cable end Power circuit: connector 1 450 mm² - cable stiffness: solid without cable end Power circuit: connector 2 425 mm² - cable stiffness: solid without cable end |
| Tightening torque               | Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2 Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm Power circuit: 12 N.m - on connector hexagonal screw head 4 mm Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2   |
| mounting support                | Plate<br>Rail   |
| Environment                     |   |
| Standards                       | EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 60947-4-1 UL 60947-5-1 CSA C22.2 No 60947-4-1 CSA C22.2 No 60947-5-1 GB/T 14048.4  |
| Product certifications          | UL CSA CCC EAC UKCA CB EU-RO-MR by DNV-GL   |

conforming to IACS E10 exposure to damp heat

IP20 front face conforming to IEC 60529

TH conforming to IEC 60068-2-30

IP degree of protection

Protective treatment

Climatic withstand

| Permissible ambient air temperature around the device | -4060 °C<br>6070 °C with derating  |  |
|---|--|--|
| Operating altitude                                    | 03000 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, 5300 Hz) Shocks contactor open (8 Gn for 11 ms) Vibrations contactor closed (3 Gn, 5300 Hz) 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 Height             | 11.0 cm  |
| Package 1 Width              | 13.5 cm  |
| Package 1 Length             | 15.5 cm  |
| Package 1 Weight             | 1.772 kg |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 5        |
| Package 2 Height             | 15.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 9.191 kg |

### **Contractual warranty**

Warranty 18 months

## Sustainability Green Premium

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Transparency RoHS/REACh

#### Well-being performance

| <b>⊘</b> | Reach Free Of Svhc             |
|----------|--------------------------------|
| <b>⊘</b> | Toxic Heavy Metal Free         |
| <b>⊘</b> | Mercury Free                   |
| <b>⊘</b> | Rohs Exemption Information Yes |
| <b>Ø</b> | Pvc Free                       |

#### **Certifications & Standards**

| Reach Regulation         | REACh Declaration   |
|--------------------------|---|
| Eu Rohs Directive        | Compliant EU RoHS Declaration   |
| China Rohs Regulation    | China RoHS declaration  Pro-active China RoHS declaration (out of China RoHS legal scope)                                   |
| Environmental Disclosure | Product Environmental Profile   |
| Weee                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| Circularity Profile      | No need of specific recycling operations  |

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