# **Product datasheet**





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

LC1D80004E7

## 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<br>AC-3<br>AC-3e<br>AC-4  |  |
| poles description              | 4P   |  |
| [Ue] rated operational voltage | Power circuit: <= 300 V DC 25400 Hz<br>Power circuit: <= 690 V AC  |  |
| [le] rated operational current | ated operational current  125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit  80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit  80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit  55 A (at <60 °C) at <= 400 V AC AC-4 for power circuit |  |
| [Uc] control circuit voltage   | 48 V AC 50/60 Hz   |  |

## Complementary

| •   |  |  |
|---|--|--|
| Motor power kW                              | 22 kW at 220230 V AC 50/60 Hz<br>37 kW at 380400 V AC 50/60 Hz<br>45 kW at 660690 V AC 50/60 Hz<br>55 kW at 500 V AC 50/60 Hz<br>45 kW at 415440 V AC 50/60 Hz |  |
| Compatibility code                          | LC1D   |  |
| Pole contact composition                    | 4 NO   |  |
| Protective cover                            | Without  |  |
| [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  |  |
| [lcw] rated short-time withstand current    | 640 A 40 °C - 10 s for power circuit 990 A 40 °C - 1 s for power circuit 135 A 40 °C - 10 min for power circuit 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  |  |

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| [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   |
| 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 0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4055 °C):operational AC 50 Hz 11.1 Uc (5570 °C):operational AC 50/60 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 1 450 mm² - cable stiffness: flexible with cable end Power circuit: connector 2 416 mm² - cable stiffness: flexible with cable end Power circuit: connector 1 450 mm² - cable stiffness: solid without cable end Power circuit: connector 1 450 mm² - cable stiffness: solid without cable end Power circuit: connector 2 416 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  |
| mounting support                       | Plate<br>Rail   |
| Environment                            |   |

Standards

CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508

| Product certifications        | LROS (Lloyds register of shipping)           |  |
|-------------------------------|--|--|
|                               | RINA   |  |
|                               | BV   |  |
|                               | CSA  |  |
|                               | DNV  |  |
|                               | CCC  |  |
|                               | GOST   |  |
|                               | GL   |  |
|                               | UL   |  |
| IP degree of protection       | IP20 front face conforming to IEC 60529      |  |
| Protective treatment          | t TH conforming to IEC 60068-2-30            |  |
| Climatic withstand            | conforming to IACS E10 exposure to damp heat |  |
| Permissible ambient air       | -4060 °C                                     |  |
| temperature around the device | 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                         | 125 mm                                       |  |
| net weight                    | 1.76 kg                                      |  |

## **Packing Units**

| Unit Type of Package 1       | PCE       |
|------------------------------|-----------|
| Number of Units in Package 1 | 1         |
| Package 1 Height             | 11.000 cm |
| Package 1 Width              | 13.300 cm |
| Package 1 Length             | 15.500 cm |
| Package 1 Weight             | 1.685 kg  |
| Unit Type of Package 2       | S02       |
| Number of Units in Package 2 | 5         |
| Package 2 Height             | 15.000 cm |
| Package 2 Width              | 30.000 cm |
| Package 2 Length             | 40.000 cm |
| Package 2 Weight             | 8.768 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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