

# Product data sheet Characteristics

# LC1D40004M7

# Contactor, TeSys Deca, 4P(4NO),AC-1 440V 60A,coil 220V AC, screw clamp terminal





#### Main

| 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: <= 690 V AC 25400 Hz        |
| [le] rated operational current | 60 A (at <60 °C) AC AC-1 for power circuit |
| [Uc] control circuit voltage   | 220 V AC 50/60 Hz                          |

#### Complementary

| Compatibility code                          | LC1D  |
|---|---|
| Pole contact composition                    | 4 NO  |
| Protective cover                            | With  |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for control circuit<br>60 A (at 60 °C) for power circuit  |
| Irms rated making capacity                  | 140 A AC for control circuit conforming to IEC 60947-5-1<br>800 A at 440 V for power circuit conforming to IEC 60947  |
| Rated breaking capacity                     | 800 A at 440 V for power circuit conforming to IEC 60947  |
| Associated fuse rating                      | 10 A gG for control circuit conforming to IEC 60947-5-1 80 A gG at <= 690 V coordination type 1 for power circuit 80 A gG at <= 690 V coordination type 2 for power circuit   |
| Average impedance                           | 1.5 mOhm - Ith 60 A 50 Hz for power circuit   |
| Power dissipation per pole                  | 5.4 W AC-1  |
| [Ui] rated insulation voltage               | Control circuit: 600 V CSA certified Control circuit: 600 V UL certified Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Control circuit: 690 V conforming to IEC 60947-1 Power circuit: 690 V conforming to IEC 60947-1 |
| Overvoltage category                        | III   |
| [Uimp] rated impulse withstand voltage      | 6 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                       | 6000000 cycles  |
| Control circuit type                        | AC at 50/60 Hz standard   |
| Coil technology                             | Without built-in bidirectional peak limiting diode suppressor   |
| Control circuit voltage limits              | 0.30.6 Uc (60 °C):drop-out AC 50/60 Hz<br>0.81.1 Uc (60 °C):operational AC 50 Hz<br>0.851.1 Uc (60 °C):operational AC 60 Hz   |

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| Inrush power in VA                                    | 140 VA cos phi 0.75 (at 20 °C)<br>160 VA cos phi 0.75 (at 20 °C)   |
|---|--|
| Hold-in power consumption in VA                       | 13 VA 60 Hz cos phi 0.3 (at 20 °C)<br>15 VA 50 Hz cos phi 0.3 (at 20 °C)   |
| Heat dissipation                                      | 45 W at 50/60 Hz for control circuit   |
| Operating time  | 1226 ms closing<br>419 ms opening  |
| Maximum operating rate                                | 3600 cyc/h 60 °C   |
| Connections - terminals                               | Control circuit: screw clamp terminal 1 14 mm² - cable stiffness: solid without cable end  |
|   | Control circuit: screw clamp terminal 2 12.5 mm² - cable stiffness: flexible with cable end  |
|   | Control circuit: screw clamp terminal 2 14 mm² - cable stiffness: flexible without cable end  Control circuit: screw clamp terminal 2 14 mm² - cable stiffness: solid without  |
|   | cable end  |
|   | Power circuit: screw clamp terminal 1 135 mm <sup>2</sup> - cable stiffness: solid without   |
|   | cable end Power circuit: screw clamp terminal 2 125 mm² - cable stiffness: solid without   |
|   | cable end Power circuit: screw clamp terminal 2 135 mm² - cable stiffness: solid without   |
| T 14 10 10 10 10 10 10 10 10 10 10 10 10 10           | cable end  |
| Tightening torque                                     | Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminal - with screwdriver Philips No 2 Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 6 mm Power circuit: 5 N.m - on screw clamp terminal - with screwdriver flat Ø 8 mm |
| Auxiliary contacts type                               | Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 Type mirror contact 1 NC conforming to IEC 60947-4-1  |
| Minimum switching voltage                             | 17 V for control circuit   |
| Minimum switching current                             | 5 mA for control circuit   |
| Insulation resistance                                 | > 10 MOhm for control circuit  |
| Non-overlap time                                      | 1.5 Ms on de-energisation between NC and NO contacts 1.5 ms on energisation between NC and NO contacts   |
| Mounting support                                      | Rail<br>Plate  |
|   |  |
| Environment Standards                                 | IEC 60947-4-1  |
| Standards   | EC 60947-4-1<br>EN 60947-5-1<br>EN 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>CSA C22.2 No 14   |
| Product certifications                                | CSA[RETURN]UL[RETURN]CCC[RETURN]BV[RETURN]DNV[RETURN]GOST[RETURN]RINA (Lloyds register of shipping)[RETURN]GL[RETURN]UKCA  |
| IP degree of protection                               | IP2X conforming to IEC 60529 IP2X conforming to VDE 0106   |
| Protective treatment                                  | TH (pollution degree 3) conforming to IEC 60068  |
| Permissible ambient air temperature around the device | -560 °C<br>-4070 °C at Uc  |
| Operating altitude                                    | 3000 m without derating  |
| Fire resistance                                       | 850 °C conforming to IEC 60695-2-1   |
| Flame retardance                                      | V1 conforming to UL 94   |
| Mechanical robustness                                 |  |
|   | Shocks contactor open (8 Gn for 11 ms) Shocks contactor closed (10 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz)   |
| Height  | Shocks contactor closed (10 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5300 Hz)  |
|   | Shocks contactor closed (10 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz)  |
| Height  | Shocks contactor closed (10 Gn for 11 ms) Vibrations contactor opened (2 Gn, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz)  127 mm  |

## Packing Units

| Unit Type of Package 1       | PCE      |
|------------------------------|----------|
| Number of Units in Package 1 | 1        |
| Package 1 Height             | 11.0 cm  |
| Package 1 Width              | 13.2 cm  |
| Package 1 Length             | 15.0 cm  |
| Package 1 Weight             | 1.47 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             | 7.679 kg |
|                              |          |

## Offer Sustainability

| Sustainable offer status   | Green Premium product   |
|----------------------------|---|
| REACh Regulation           | ☑REACh Declaration  |
| REACh free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant   |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <sup>™</sup> China RoHS Declaration   |
| RoHS exemption information | ₫Yes  |
| Environmental Disclosure   | Product Environmental Profile   |
| Circularity Profile        | No need of specific recycling operations  |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

#### Contractual warranty

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