

# Product data sheet

Specifications



TeSys Deca contactor , 4P(2 NO + 2 NC) , AC-1 <= 440V, 80 A , 21V AC 50/60 Hz coil

LC1D65008Z7

ⓘ Discontinued

## Main

|                                |                                                                      |
|--------------------------------|----------------------------------------------------------------------|
| Range                          | TeSys                                                                |
| Range Of Product               | TeSys D                                                              |
| Product Or Component Type      | Contactors                                                           |
| Device Short Name              | LC1D                                                                 |
| Contactors Application         | Resistive load                                                       |
| Utilisation Category           | AC-1                                                                 |
| Poles Description              | 4P                                                                   |
| [Ue] Rated Operational Voltage | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC |
| [Ie] Rated Operational Current | 80 A (at <60 °C) at <= 440 V AC AC-1 for power circuit               |
| [Uc] Control Circuit Voltage   | 21 V AC 50/60 Hz                                                     |

## Complementary

|                                             |                                                                                                                                                                |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compatibility Code                          | LC1D                                                                                                                                                           |
| Pole Contact Composition                    | 2 NO + 2 NC                                                                                                                                                    |
| Contact Compatibility                       | M1                                                                                                                                                             |
| Protective Cover                            | Without                                                                                                                                                        |
| [Ith] Conventional Free Air Thermal Current | 80 A (at 60 °C) for power circuit                                                                                                                              |
| Irms Rated Making Capacity                  | 1000 A at 440 V for power circuit conforming to IEC 60947                                                                                                      |
| Rated Breaking Capacity                     | 1000 A at 440 V for power circuit conforming to IEC 60947                                                                                                      |
| [Icw] Rated Short-Time Withstand Current    | 520 A 40 °C - 10 s for power circuit<br>900 A 40 °C - 1 s for power circuit<br>110 A 40 °C - 10 min for power circuit<br>260 A 40 °C - 1 min for power circuit |
| Associated Fuse Rating                      | 125 A gG at <= 690 V coordination type 1 for power circuit<br>125 A gG at <= 690 V coordination type 2 for power circuit                                       |
| Average Impedance                           | 1.5 mOhm - Ith 80 A 50 Hz for power circuit                                                                                                                    |
| Power Dissipation Per Pole                  | 9.6 W AC-1                                                                                                                                                     |
| [Ui] Rated Insulation Voltage               | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Power circuit: 690 V conforming to IEC 60947-4-1                                    |
| Overvoltage Category                        | III                                                                                                                                                            |
| Pollution Degree                            | 3                                                                                                                                                              |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [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<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Mechanical Durability                  | 6 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Electrical Durability                  | 1.4 Mcycles 80 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         | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Inrush Power In Va                     | 140 VA 60 Hz cos phi 0.75 (at 20 °C)<br>160 VA 50 Hz 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                       | 4...5 W at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Operating Time                         | 4...19 ms opening<br>12...26 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Maximum Operating Rate                 | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Connections - Terminals                | Control circuit: screw clamp terminals 2 1...2.5 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 1...4 mm² - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 1...4 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 1 1...35 mm² - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 2 1...25 mm² - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 1...35 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 2 1...25 mm² - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 1...35 mm² - cable stiffness: solid without cable end<br>Power circuit: screw clamp terminals 2 1...25 mm² - cable stiffness: solid without cable end |
| Tightening Torque                      | 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: 8 N.m - on screw clamp terminals - cable 25...35 mm² hexagonal screw head 4 mm<br>Power circuit: 5 N.m - on screw clamp terminals - cable 1...25 mm² hexagonal screw head 4 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mounting Support                       | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

## Environment

|           |                                                                                             |
|-----------|---------------------------------------------------------------------------------------------|
| Standards | 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 |
|-----------|---------------------------------------------------------------------------------------------|

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|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Certifications                                | CSA<br>CCC<br>LROS (Lloyds register of shipping)<br>GL<br>BV<br>UL<br>GOST<br>DNV<br>RINA                                                                                              |
| Ip Degree Of Protection                               | IP20 front face conforming to IEC 60529                                                                                                                                                |
| Protective Treatment                                  | TH conforming to IEC 60068-2-30                                                                                                                                                        |
| Climatic Withstand                                    | conforming to IACS E10 exposure to damp heat                                                                                                                                           |
| Permissible Ambient Air Temperature Around The Device | -60...80 °C storage<br>-40...60 °C operation<br>60...70 °C with derating                                                                                                               |
| Operating Altitude                                    | 0...3000 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, 5...300 Hz)<br>Vibrations contactor closed (4 Gn, 5...300 Hz)<br>Shocks contactor closed (15 Gn for 11 ms)<br>Shocks contactor open (10 Gn for 11 ms) |
| Height                                                | 127 mm                                                                                                                                                                                 |
| Width                                                 | 85 mm                                                                                                                                                                                  |
| Depth                                                 | 125 mm                                                                                                                                                                                 |
| Net Weight                                            | 1.45 kg                                                                                                                                                                                |

## Packing Units

|                              |     |
|------------------------------|-----|
| Unit Type Of Package 1       | PCE |
| Number Of Units In Package 1 | 1   |

## Contractual warranty

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