

# Product datasheet

Specifications



## TeSys D reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 80 A - 48 V AC coil

LC2D80E7

Price: 18,326.59 ZAR

### Main

|                                             |                                                                                                                                                                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                                     |
| Product Name                                | TeSys Deca                                                                                                                                                                                                                                                                                                |
| Product Or Component Type                   | Reversing contactor                                                                                                                                                                                                                                                                                       |
| Device Short Name                           | LC2D                                                                                                                                                                                                                                                                                                      |
| Contactor Application                       | Resistive load<br>Motor control                                                                                                                                                                                                                                                                           |
| Utilisation Category                        | AC-1<br>AC-3<br>AC-3e<br>AC-4                                                                                                                                                                                                                                                                             |
| Device Presentation                         | Preassembled with reversing power busbar                                                                                                                                                                                                                                                                  |
| Poles Description                           | 3P                                                                                                                                                                                                                                                                                                        |
| Power Pole Contact Composition              | 3 NO                                                                                                                                                                                                                                                                                                      |
| [Ue] Rated Operational Voltage              | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                                                                                                                                                                                                                      |
| [Ie] Rated Operational Current              | 125 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>80 A (at <60 °C) at <= 440 V AC AC-3 for power circuit<br>80 A (at <60 °C) at <= 440 V AC AC-3e for power circuit<br>55 A (at <60 °C) at <= 400 V AC AC-4 for power circuit                                                                    |
| Motor Power Kw                              | 22 kW at 220...230 V AC 50 Hz<br>37 kW at 380...400 V AC 50 Hz<br>45 kW at 415...440 V AC 50 Hz<br>55 kW at 500 V AC 50 Hz<br>45 kW at 660...690 V AC 50 Hz                                                                                                                                               |
| Motor Power Hp (UI / Csa)                   | 20 hp at 200/208 V AC 60 Hz for 3 phases motors<br>7.5 hp at 115 V AC 60 Hz for 1 phase motors<br>15 hp at 230/240 V AC 60 Hz for 1 phase motors<br>25 hp at 230/240 V AC 60 Hz for 3 phases motors<br>60 hp at 460/480 V AC 60 Hz for 3 phases motors<br>60 hp at 575/600 V AC 60 Hz for 3 phases motors |
| Control Circuit Type                        | AC at 50/60 Hz                                                                                                                                                                                                                                                                                            |
| [Uc] Control Circuit Voltage                | 48 V AC 50/60 Hz                                                                                                                                                                                                                                                                                          |
| Auxiliary Contact Composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                               |
| [Uimp] Rated Impulse Withstand Voltage      | 8 kV conforming to IEC 60947                                                                                                                                                                                                                                                                              |
| Overvoltage Category                        | III                                                                                                                                                                                                                                                                                                       |
| [Ith] Conventional Free Air Thermal Current | 10 A (at 60 °C) for signalling circuit<br>125 A (at 60 °C) for power circuit                                                                                                                                                                                                                              |
| Irms Rated Making Capacity                  | 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>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                                                                                                                                                                                                                                                 |

Excluding VAT and subject to change. Please check with your local distributor through "Where to buy"

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

|                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Icw] Rated Short-Time Withstand Current</b> | 135 A 40 °C - 10 min for power circuit<br>320 A 40 °C - 1 min for power circuit<br>640 A 40 °C - 10 s for power circuit<br>990 A 40 °C - 1 s for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Associated Fuse Rating</b>                   | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>200 A gG at <= 690 V coordination type 1 for power circuit<br>160 A gG at <= 690 V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Average Impedance</b>                        | 0.8 mOhm - lth 125 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>[Ui] Rated Insulation Voltage</b>            | 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<br>Power circuit: 1000 V conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Electrical Durability</b>                    | 0.8 Mcycles 125 A AC-1 at Ue <= 440 V<br>1.5 Mcycles 80 A AC-3 at Ue <= 440 V<br>1.5 Mcycles 80 A AC-3e at Ue <= 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Power Dissipation Per Pole</b>               | 12.5 W AC-1<br>5.1 W AC-3<br>5.1 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Front Cover</b>                              | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Interlocking Type</b>                        | Mechanical                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Mounting Support</b>                         | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Standards</b>                                | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Product Certifications</b>                   | UL<br>CSA<br>RINA<br>GOST<br>CCC<br>DNV<br>LROS (Lloyds register of shipping)<br>GL<br>BV<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Connections - Terminals</b>                  | Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm²solid<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm²solid<br>Control circuit: screw clamp terminals 1 cable(s) 1...2.5 mm²flexible with cable end<br>Power circuit: connector 1 cable(s) 4...50 mm²flexible without cable end<br>Power circuit: connector 2 cable(s) 4...25 mm²flexible without cable end<br>Power circuit: connector 1 cable(s) 4...50 mm²flexible with cable end<br>Power circuit: connector 2 cable(s) 4...16 mm²flexible with cable end<br>Power circuit: connector 1 cable(s) 4...50 mm²solid<br>Power circuit: connector 2 cable(s) 4...25 mm²solid |
| <b>Tightening Torque</b>                        | Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 12 N.m - on connector - with screwdriver flat Ø 6 to Ø 8 mm<br>Power circuit: 12 N.m - on connector hexagonal screw head 4 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Operating Time</b>                           | 20...35 ms closing<br>6...20 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

|                        |                  |
|------------------------|------------------|
| Mechanical Durability  | 4 Mcycles        |
| Maximum Operating Rate | 3600 cyc/h 60 °C |

## Complementary

|                                 |                                                                                                                                                                                                           |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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...55 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...55 °C):operational AC 60 Hz<br>1...1.1 Uc (55...70 °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                | 6...10 W at 50/60 Hz                                                                                                                                                                                      |
| 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                                                                                  |
| Signalling Circuit Frequency    | 25...400 Hz                                                                                                                                                                                               |
| Minimum Switching Current       | 5 mA for signalling circuit                                                                                                                                                                               |
| Minimum Switching Voltage       | 17 V for signalling circuit                                                                                                                                                                               |
| Non-Overlap Time                | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact                                                                                                   |
| Insulation Resistance           | > 10 MOhm for signalling circuit                                                                                                                                                                          |

## Environment

|                                       |                                                                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ip Degree Of Protection               | IP20 front face conforming to IEC 60529                                                                                                                                           |
| Climatic Withstand                    | conforming to IACS E10                                                                                                                                                            |
| Protective Treatment                  | TH conforming to IEC 60068-2-30                                                                                                                                                   |
| Pollution Degree                      | 3                                                                                                                                                                                 |
| Ambient Air Temperature For Operation | -40...60 °C<br>60...70 °C with derating                                                                                                                                           |
| Ambient Air Temperature For Storage   | -60...80 °C                                                                                                                                                                       |
| 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>Shocks contactor open: 8 Gn for 11 ms<br>Vibrations contactor closed: 3 Gn, 5...300 Hz<br>Shocks contactor closed: 10 Gn for 11 ms |
| Height                                | 127 mm                                                                                                                                                                            |
| Width                                 | 182 mm                                                                                                                                                                            |
| Depth                                 | 158 mm                                                                                                                                                                            |
| Net Weight                            | 3.2 kg                                                                                                                                                                            |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type Of Package 1       | PCE     |
| Number Of Units In Package 1 | 1       |
| Package 1 Height             | 19.5 cm |

|                              |          |
|------------------------------|----------|
| Package 1 Width              | 19.5 cm  |
| Package 1 Length             | 26.0 cm  |
| Package 1 Weight             | 3.724 kg |
| Unit Type Of Package 2       | S03      |
| Number Of Units In Package 2 | 2        |
| Package 2 Height             | 30.0 cm  |
| Package 2 Width              | 30.0 cm  |
| Package 2 Length             | 40.0 cm  |
| Package 2 Weight             | 7.958 kg |

## Contractual warranty

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

Sustainability



**Green Premium™ label** is Schneider Electric’s commitment to delivering products with best-in-class environmental performance. Green Premium promises compliance with the latest regulations, transparency on environmental impacts, as well as circular and low-CO<sub>2</sub> products.

**Guide to assessing product sustainability** is a white paper that clarifies global eco-label standards and how to interpret environmental declarations.

[Learn more about Green Premium >](#)

[Guide to assess a product’s sustainability >](#)



Transparency   RoHS/REACH

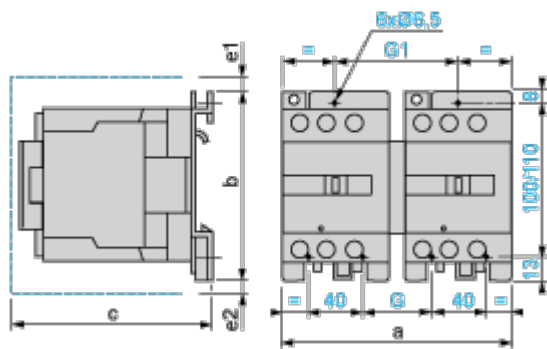
## Well-being performance

|   |                            |     |
|---|----------------------------|-----|
| ✓ | Reach Free Of Svhc         |     |
| ✓ | Toxic Heavy Metal Free     |     |
| ✓ | Mercury Free               |     |
| ✓ | Rohs Exemption Information | Yes |
| ✓ | Pvc Free                   |     |

## Certifications & Standards

|                          |                                                                                                                             |
|--------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Reach Regulation         | <a href="#">REACH Declaration</a>                                                                                           |
| Eu Rohs Directive        | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| China Rohs Regulation    | <a href="#">China RoHS declaration</a><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                 |
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>                                                                               |
| 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                                                                                    |

Dimensions



|                                  |     |     |     |    |    |    |    |
|----------------------------------|-----|-----|-----|----|----|----|----|
| LC2 or 2 x LC1                   | a   | b   | c   | e1 | e2 | G  | G1 |
| D80 and D95 (AC)                 | 182 | 127 | 158 | 13 | –  | 57 | 96 |
| c, e1 and e2: including cabling. |     |     |     |    |    |    |    |

Connections and Schema

Wiring

