

# Product data sheet

Specifications



## TeSys D reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 40 A - 72 V DC coil

LC2D40ASD

⚠ Discontinued on: Jan 18, 2021

⚠ Discontinued

### Main

|                                             |                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                                  |
| Product name                                | TeSys D                                                                                                                                                                                                                                                                                                |
| Product or component type                   | Reversing contactor                                                                                                                                                                                                                                                                                    |
| Device short name                           | LC2D                                                                                                                                                                                                                                                                                                   |
| Contactor application                       | Motor control<br>Resistive load                                                                                                                                                                                                                                                                        |
| Utilisation category                        | AC-1<br>AC-3                                                                                                                                                                                                                                                                                           |
| 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              | 40 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>60 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit                                                                                                                                                                     |
| Motor power kW                              | 18.5 kW at 380...400 V AC 50 Hz<br>11 kW at 220...230 V AC 50 Hz<br>22 kW at 415...440 V AC 50 Hz<br>22 kW at 500 V AC 50 Hz<br>30 kW at 660...690 V AC 50 Hz                                                                                                                                          |
| Motor power hp                              | 5 hp at 230/240 V AC 60 Hz for 1 phase motors<br>10 hp at 230/240 V AC 60 Hz for 3 phases motors<br>30 hp at 575/600 V AC 60 Hz for 3 phases motors<br>10 hp at 200/208 V AC 60 Hz for 3 phases motors<br>3 hp at 115 V AC 60 Hz for 1 phase motors<br>30 hp at 460/480 V AC 60 Hz for 3 phases motors |
| Control circuit type                        | DC standard                                                                                                                                                                                                                                                                                            |
| [Uc] control circuit voltage                | 72 V DC                                                                                                                                                                                                                                                                                                |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                            |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947                                                                                                                                                                                                                                                                                         |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                    |
| [Ith] conventional free air thermal current | 10 A (at 140 °F (60 °C)) for signalling circuit<br>60 A (at 140 °F (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>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                                                                                                                                                                                                                                               |

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> | 72 A 104 °F (40 °C) - 10 min for power circuit<br>165 A 104 °F (40 °C) - 1 min for power circuit<br>320 A 104 °F (40 °C) - 10 s for power circuit<br>720 A 104 °F (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>80 A gG at <= 690 V coordination type 1 for power circuit<br>80 A gG at <= 690 V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Average impedance</b>                        | 1.5 mOhm - lth 60 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>[Ui] rated insulation voltage</b>            | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Electrical durability</b>                    | 1.5 Mcycles 40 A AC-3 <= 440 V<br>0.7 Mcycles 60 A AC-1 <= 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Power dissipation per pole</b>               | 2.4 W AC-3<br>5.4 W AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <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>GOST<br>CCC<br>CSA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Connections - terminals</b>                  | Control circuit screw clamp terminals 1 0.002...0.006 in² (1...4 mm²)flexible without cable end<br>Control circuit screw clamp terminals 2 0.002...0.006 in² (1...4 mm²)flexible without cable end<br>Control circuit screw clamp terminals 1 0.002...0.006 in² (1...4 mm²)flexible with cable end<br>Control circuit screw clamp terminals 2 0.002...0.004 in² (1...2.5 mm²)flexible with cable end<br>Control circuit screw clamp terminals 1 0.002...0.006 in² (1...4 mm²)solid<br>Control circuit screw clamp terminals 2 0.002...0.006 in² (1...4 mm²)solid<br>Power circuit EverLink BTR screw connectors 1 0.002...0.05 in² (1...35 mm²)flexible without cable end<br>Power circuit EverLink BTR screw connectors 2 0.002...0.04 in² (1...25 mm²)flexible without cable end<br>Power circuit EverLink BTR screw connectors 1 0.002...0.05 in² (1...35 mm²)flexible with cable end<br>Power circuit EverLink BTR screw connectors 2 0.002...0.04 in² (1...25 mm²)flexible with cable end<br>Power circuit EverLink BTR screw connectors 1 0.002...0.05 in² (1...35 mm²)solid<br>Power circuit EverLink BTR screw connectors 2 0.002...0.04 in² (1...25 mm²)solid |
| <b>Tightening torque</b>                        | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Power circuit 70.8 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in² (25...35 mm²) hexagonal 0.2 in (4 mm)<br>Power circuit 44.3 lbf.in (5 N.m) EverLink BTR screw connectors 0.002...0.04 in² (1...25 mm²) hexagonal 0.2 in (4 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Operating time</b>                           | 16...24 ms opening<br>42.5...57.5 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Safety reliability level</b>                 | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

|                        |                           |
|------------------------|---------------------------|
| Mechanical durability  | 10 Mcycles                |
| Maximum operating rate | 3600 cyc/h 140 °F (60 °C) |

## Complementary

|                                |                                                                                                                                                                               |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor                                                                                                                         |
| Control circuit voltage limits | 0.1...0.3 Uc (-40...158 °F (-40...70 °C));drop-out DC<br>0.75...1.25 Uc (-40...140 °F (-40...60 °C));operational DC<br>1...1.25 Uc (140...158 °F (60...70 °C));operational DC |
| Time constant                  | 34 ms                                                                                                                                                                         |
| Inrush power in W              | 19 W 68 °F (20 °C))                                                                                                                                                           |
| Hold-in power consumption in W | 7.4 W 68 °F (20 °C)                                                                                                                                                           |
| Auxiliary contacts type        | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>Mirror contact 1 NC 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 IEC 60529                                                                                                                                                  |
| Protective treatment                  | TH IEC 60068-2-30                                                                                                                                                          |
| Pollution degree                      | 3                                                                                                                                                                          |
| Ambient air temperature for operation | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating                                                                                                      |
| Ambient air temperature for storage   | -76...176 °F (-60...80 °C)                                                                                                                                                 |
| Operating altitude                    | 0...3000 m                                                                                                                                                                 |
| Fire resistance                       | 1562 °F (850 °C) IEC 60695-2-1                                                                                                                                             |
| Flame retardance                      | V1 UL 94                                                                                                                                                                   |
| Mechanical robustness                 | Vibrations contactor open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor open10 Gn for 11 ms<br>Shocks contactor closed15 Gn for 11 ms |
| Height                                | 4.8 in (122 mm)                                                                                                                                                            |
| Width                                 | 4.7 in (119 mm)                                                                                                                                                            |
| Depth                                 | 4.7 in (120 mm)                                                                                                                                                            |
| Net weight                            | 4.45 lb(US) (2.02 kg)                                                                                                                                                      |

## Contractual warranty

|                      |    |
|----------------------|----|
| Warranty (in months) | 18 |
|----------------------|----|



## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

[Environmental Data explained >](#)

[How we assess product sustainability >](#)



### Environmental footprint

Environmental Disclosure

[Product Environmental Profile](#)

## Use Better



### Materials and Substances

EU RoHS Directive

[Compliant](#)

PVC free

Yes

## Use Longer



### Lifetime extension

Repair

No

## Use Again



### Repack and remanufacture

Circularity Profile

[End of Life Information](#)

WEEE Label



The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins