

# LC2D40ABD

TeSys Deca reversing contactor - 3P(3 NO) -  
AC-3 -  $\leq 440$  V 40 A - 24 V DC coil



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## Main

|   |  |
|---|--|
| Range                                       | TeSys<br>TeSys Deca  |
| Product name                                | TeSys D<br>TeSys Deca  |
| Product or component type                   | Reversing contactor  |
| Device short name                           | LC2D   |
| Contactor application                       | Motor control<br>Resistive load  |
| Utilisation category                        | AC-3<br>AC-1   |
| Device presentation                         | Preassembled with reversing power busbar   |
| Poles description                           | 3P   |
| Power pole contact composition              | 3 NO   |
| [Ue] rated operational voltage              | Power circuit: $\leq 690$ V AC 25...400 Hz<br>Power circuit: $\leq 300$ V DC   |
| [Ie] rated operational current              | 40 A (at $<60$ °C) at $\leq 440$ V AC AC-3 for power circuit<br>60 A (at $<60$ °C) at $\leq 440$ 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 (UL / CSA)                   | 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                | 24 V DC  |
| Auxiliary contact composition               | 1 NO + 1 NC  |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947   |
| Overvoltage category                        | III  |
| [Ith] conventional free air thermal current | 10 A (at $60$ °C) for signalling circuit<br>60 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>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   |
| [Icw] rated short-time withstand current    | 72 A $40$ °C - 10 min for power circuit<br>165 A $40$ °C - 1 min for power circuit<br>320 A $40$ °C - 10 s for power circuit<br>720 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          |
| Associated fuse rating                      | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>80 A gG at $\leq 690$ V coordination type 1 for power circuit<br>80 A gG at $\leq 690$ V coordination type 2 for power circuit   |
| Average impedance                           | 1.5 mOhm - Ith 60 A 50 Hz for power circuit  |

|                               |  |
|-------------------------------|--|
| [Ui] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1<br>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  |
| Electrical durability         | 1.5 Mcycles 40 A AC-3 at $U_e \leq 440$ V<br>0.7 Mcycles 60 A AC-1 at $U_e \leq 440$ V   |
| Power dissipation per pole    | 2.4 W AC-3<br>5.4 W AC-1   |
| Front cover                   | With   |
| Interlocking type             | Mechanical   |
| Mounting support              | Plate<br>Rail  |
| 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<br>IEC 60335-1   |
| Product certifications        | UL<br>CSA<br>RINA<br>GOST<br>CCC<br>DNV<br>LROS (Lloyds register of shipping)<br>GL<br>BV<br>UKCA  |
| Connections - terminals       | Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1... 4 mm <sup>2</sup> solid<br>Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid<br>Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm <sup>2</sup> flexible without cable end<br>Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm <sup>2</sup> flexible without cable end<br>Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm <sup>2</sup> flexible with cable end<br>Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm <sup>2</sup> flexible with cable end<br>Power circuit: EverLink BTR screw connectors 1 cable(s) 1...35 mm <sup>2</sup> solid<br>Power circuit: EverLink BTR screw connectors 2 cable(s) 1...25 mm <sup>2</sup> solid |
| 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 EverLink BTR screw connectors - cable 25...35 mm <sup>2</sup> hexagonal screw head 4 mm<br>Power circuit: 5 N.m - on EverLink BTR screw connectors - cable 1...25 mm <sup>2</sup> hexagonal screw head 4 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2   |
| Operating time                | 16...24 ms opening<br>42.5...57.5 ms closing   |
| Safety reliability level      | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1  |

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

## Complementary

|                                |  |
|--------------------------------|--|
| Coil technology                | Built-in bidirectional peak limiting diode suppressor  |
| Control circuit voltage limits | 0.1...0.3 Uc (-40...70 °C):drop-out DC<br>0.75...1.25 Uc (-40...60 °C):operational DC<br>1...1.25 Uc (60...70 °C):operational DC |
| Time constant                  | 34 ms  |
| Inrush power in W              | 19 W (at 20 °C)  |
| Hold-in power consumption in W | 7.4 W at 20 °C   |
| 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<br>Conforming to IEC 60947-1 Annex Q category D   |
| 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>Vibrations contactor closed: 4 Gn, 5...300 Hz<br>Shocks contactor open: 10 Gn for 11 ms<br>Shocks contactor closed: 15 Gn for 11 ms |
| Height                                | 122 mm   |
| Width                                 | 119 mm   |
| Depth                                 | 120 mm   |
| Net weight                            | 2.02 kg  |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 2.168 kg |
| Package 1 Height             | 14 cm    |
| Package 1 width              | 16.2 cm  |
| Package 1 Length             | 19.8 cm  |

## Offer Sustainability

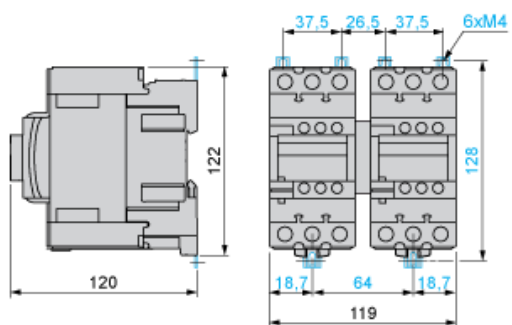
|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| REACH Regulation           |  <a href="#">REACH Declaration</a>             |
| EU RoHS Directive          | Compliant  <a href="#">EU RoHS Declaration</a> |
| Mercury free               | Yes   |
| RoHS exemption information |  Yes   |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>        |

|                          |   |
|--------------------------|---|
| Environmental Disclosure | <a href="#">Product Environmental Profile</a>   |
| Circularity Profile      | <a href="#">End Of Life Information</a>   |
| WEEE                     | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |
| PVC free                 | Yes   |

### Contractual warranty

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

Dimensions



Wiring

