

# LC2D09G7V

IEC contactor, TeSys Deca reversing, 9A,  
5HP at 480VAC, 3 phase, 3P, 3NO, 120VAC  
50/60Hz coil, open style





## 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                       | Resistive load<br>Motor control  |
| 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              | 9 A (at $\leq 140$ °F (60 °C)) at $\leq 440$ V AC AC-3 for power circuit<br>25 A (at $\leq 140$ °F (60 °C)) at $\leq 440$ V AC AC-1 for power circuit  |
| Motor power kW                              | 2.2 kW at 220...230 V AC 50 Hz<br>4 kW at 380...400 V AC 50 Hz<br>4 kW at 415...440 V AC 50 Hz<br>5.5 kW at 500 V AC 50 Hz<br>5.5 kW at 660...690 V AC 50 Hz   |
| Motor power HP (UL / CSA)                   | 0.5 Hp at 115 V AC 60 Hz for 1 phase motors<br>1 Hp at 230/240 V AC 60 Hz for 1 phase motors<br>2 Hp at 200/208 V AC 60 Hz for 3 phase motors<br>2 Hp at 230/240 V AC 60 Hz for 3 phase motors<br>5 Hp at 460/480 V AC 60 Hz for 3 phase motors<br>7.5 hp at 575/600 V AC 60 Hz for 3 phase motors                       |
| Control circuit type                        | AC 50/60 Hz  |
| [Uc] control circuit voltage                | 120 V AC 50/60 Hz  |
| 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>25 A (at 140 °F (60 °C)) for power circuit  |
| Irms rated making capacity                  | 250 A at 440 V for power circuit conforming to IEC 60947<br>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   |
| Rated breaking capacity                     | 250 A at 440 V for power circuit conforming to IEC 60947   |
| [Icw] rated short-time withstand current    | 30 A 104 °F (40 °C) - 10 min for power circuit<br>61 A 104 °F (40 °C) - 1 min for power circuit<br>105 A 104 °F (40 °C) - 10 s for power circuit<br>210 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 |
| Associated fuse rating                      | 25 A gG at $\leq 690$ V coordination type 1 for power circuit<br>20 A gG at $\leq 690$ V coordination type 2 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1   |
| Average impedance                           | 2.5 mOhm - Ith 25 A 50 Hz for power circuit  |

|                               |  |
|-------------------------------|--|
| [Ui] rated insulation voltage | 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  |
| Electrical durability         | 0.6 Mcycles 25 A AC-1 <= 440 V<br>2 Mcycles 9 A AC-3 <= 440 V  |
| Power dissipation per pole    | 0.2 W AC-3<br>1.56 W AC-1  |
| Front cover                   | With   |
| Interlocking type             | Electrical and mechanical  |
| Mounting Support              | Rail<br>Plate  |
| 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        | DNV[RETURN]CSA[RETURN]CCC[RETURN]UL[RETURN]GL[RE<br>(Lloyds register of shipping)<br>[RETURN]BV[RETURN]RINA[RETURN]GOST[RETURN]UKCA  |
| Connections - terminals       | Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Power circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid |
| Tightening torque             | Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Power circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>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>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals pozidriv No 2<br>Power circuit 22.13 lbf.in (2.5 N.m) screw clamp terminals pozidriv No 2   |
| Operating time                | 12...22 ms closing<br>4...19 ms opening  |
| Safety reliability level      | 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         | 15 Mcycles   |
| Maximum operating rate        | 3600 cyc/h 140 °F (60 °C)  |

## Complementary

|                                 |   |
|---------------------------------|---|
| Coil technology                 | Without built-in suppressor module  |
| Control circuit voltage limits  | 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 Uc -40...140 °F (-40...60 °C) operational AC 50 Hz<br>0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC 60 Hz<br>1...1.1 Uc 140...158 °F (60...70 °C) operational AC 50/60 Hz |
| Inrush power in VA              | 70 VA 60 Hz cos phi 0.75 (at 68 °F (20 °C))<br>70 VA 50 Hz cos phi 0.75 (at 68 °F (20 °C))  |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))<br>7 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))  |
| Heat dissipation                | 2...3 W 50/60 Hz  |
| 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  |
| Climatic withstand                    | IACS E10<br>IEC 60947-1 Annex Q category D   |
| 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...9842.52 ft (0...3000 m)  |
| Fire resistance                       | 1562 °F (850 °C) IEC 60695-2-1   |
| Flame retardance                      | V1 conforming to 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                                | 3.03 in (77 mm)  |
| Width                                 | 3.54 in (90 mm)  |
| Depth                                 | 3.39 in (86 mm)  |
| Net Weight                            | 1.51 lb(US) (0.687 kg)   |

## Ordering and shipping details

|                   |                                    |
|-------------------|------------------------------------|
| Category          | 22354-CTR, TESYS D, OPEN, 9-38A AC |
| Discount Schedule | I12                                |
| GTIN              | 3389110408430                      |
| Returnability     | Yes                                |
| Country of origin | FR                                 |

## Packing Units

|                              |                    |
|------------------------------|--------------------|
| Unit Type of Package 1       | PCE                |
| Number of Units in Package 1 | 1                  |
| Package 1 Height             | 3.70 in (9.4 cm)   |
| Package 1 Width              | 4.49 in (11.4 cm)  |
| Package 1 Length             | 4.33 in (11.0 cm)  |
| Package 1 Weight             | 25.75 oz (730.0 g) |

## Offer Sustainability

|                            |   |
|----------------------------|---|
| Sustainable offer status   | Green Premium product   |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| REACH Regulation           | <a href="#">REACH Declaration</a>   |
| REACH free of SVHC         | Yes   |
| EU RoHS Directive          | Compliant <a href="#">EU RoHS Declaration</a>   |
| Toxic heavy metal free     | Yes   |
| Mercury free               | Yes   |
| China RoHS Regulation      | <a href="#">China RoHS Declaration</a>  |
| RoHS exemption information | <a href="#">Yes</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 |
|----------|-----------|