chanhvinh.com

# Product data sheet
## Characteristics

# LC2D09F7
## TeSys D reversing contactor - 3P(3 NO) - AC-3 - <= 440 V 9 A - 110 V AC coil

chanhvinh.com

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein.
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.
It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof.
Neither Schneider Electric Industries SAS nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.



## Main

| | |
|---|---|
| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Reversing contactor |
| Device short name | LC2D |
| Contactor application | Resistive load<br>Motor control |
| 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 | 9 A 140 °F (60 °C)) <= 440 V AC AC-3 power circuit<br>25 A (at <60 °C) at <= 440 V AC AC-1 for power circuit |
| Motor power kW | 2.2 KW 220...230 V AC 50 Hz<br>4 KW 380...400 V AC 50 Hz<br>4 KW 415...440 V AC 50 Hz<br>5.5 KW 500 V AC 50 Hz<br>5.5 kW 660...690 V AC 50 Hz |
| Motor power HP (UL / CSA) | 0.5 Hp 115 V AC 60 Hz 1 phase<br>1 Hp 230/240 V AC 60 Hz 1 phase<br>2 Hp 200/208 V AC 60 Hz 3 phase<br>2 Hp 230/240 V AC 60 Hz 3 phase<br>5 Hp 460/480 V AC 60 Hz 3 phase<br>7.5 hp 575/600 V AC 60 Hz 3 phase |
| Control circuit type | AC 50/60 Hz |
| [Uc] control circuit voltage | 110 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 140 °F (60 °C) signalling circuit<br>25 A 140 °F (60 °C) power circuit |
| Irms rated making capacity | 250 A 440 V power circuit IEC 60947<br>140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1 |
| Rated breaking capacity | 250 A 440 V power circuit IEC 60947 |
| [Icw] rated short-time withstand current | 30 A 104 °F (40 °C) - 10 min power circuit<br>61 A 104 °F (40 °C) - 1 min power circuit<br>105 A 104 °F (40 °C) - 10 s power circuit<br>210 A 104 °F (40 °C) - 1 s power circuit<br>100 A - 1 s signalling circuit<br>120 A - 500 ms signalling circuit<br>140 A - 100 ms signalling circuit |
| Associated fuse rating | 25 A gG <= 690 V type 1 power circuit<br>20 A gG <= 690 V type 2 power circuit<br>10 A gG signalling circuit 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 |

chanhvinh.com

| | |
|---|---|
| Front cover | With |
| Interlocking type | 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 |
| Product certifications | GOST<br>UL<br>RINA<br>BV<br>CSA<br>LROS (Lloyds register of shipping)<br>DNV<br>GL<br>CCC |
| Connections - terminals | Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end<br>Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end<br>Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end<br>Power circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end<br>Power circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid<br>Power circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)solid<br>Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible without cable end<br>Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)flexible without cable end<br>Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)flexible with cable end<br>Control circuit screw clamp terminals 2 0.00…0.00 in² (1…2.5 mm²)flexible with cable end<br>Control circuit screw clamp terminals 1 0.00…0.01 in² (1…4 mm²)solid<br>Control circuit screw clamp terminals 2 0.00…0.01 in² (1…4 mm²)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 |
| 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 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C) |
| Hold-in power consumption in VA | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C) |
| Heat dissipation | 2…3 W at 50/60 Hz |

chanhvinh.com

| | |
|---|---|
| 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 signalling circuit |
| Minimum switching voltage | 17 V 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 signalling circuit |
| Contact compatibility | M2 |
| Compatibility code | LC2D |
| Motor power range | 1.1…2 KW 200…240 V 3 phase<br>2.2…3 KW 380…440 V 3 phase<br>4…6 KW 380…440 V 3 phase<br>4…6 kW 480…500 V 3 phase |
| Motor starter type | Reversing contactor |
| Contactor coil voltage | 110 V AC standard |

## 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...9842.52 ft (0...3000 m) |
| Fire resistance | 1562 °F (850 °C) IEC 60695-2-1 |
| Flame retardance | V1 UL 94 |
| Mechanical robustness | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor open: 10 Gn for 11 ms<br>Shocks contactor closed: 15 Gn for 11 ms |
| Height | 3.03 in (77 mm) |
| Maximum 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 | 00785901207375 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 1.81 lb(US) (0.82 kg) |
| Returnability | Yes |
| Country of origin | ID |

## Packing Units

| | |
|---|---|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 3.74 in (9.5 cm) |
| Package 1 width | 4.45 in (11.3 cm) |
| Package 1 Length | 5.31 in (13.5 cm) |
| Unit Type of Package 2 | S02 |
| Number of Units in Package 2 | 6 |
| Package 2 Weight | 11.42 lb(US) (5.181 kg) |
| Package 2 Height | 5.91 in (15 cm) |
| Package 2 width | 11.81 in (30 cm) |
| Package 2 Length | 15.75 in (40 cm) |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 96 |

| | |
|---|---|
| Package 3 Weight | 205.37 lb(US) (93.156 kg) |
| Package 3 Height | 31.50 in (80 cm) |
| Package 3 width | 31.50 in (80 cm) |
| Package 3 Length | 23.62 in (60 cm) |

## 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 www.P65Warnings.ca.gov |
| REACh Regulation | REACh Declaration |
| REACh free of SVHC | Yes |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| Toxic heavy metal free | Yes |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |
| Environmental Disclosure | Product Environmental Profile |
| Circularity Profile | End Of Life Information |
| 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 |

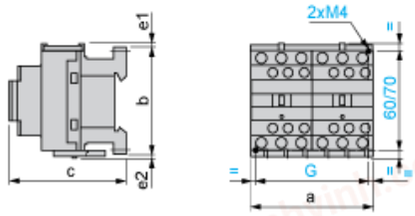
chanhvinh.com

chanhvinh.com

# Product data sheet
## Dimensions Drawings

# LC2D09F7

## Dimensions




| LC2 or 2 x LC1 | a | b | c(1) | e1 | e2 | G |
|---|---|---|---|---|---|---|
| D09 to D18 (AC) | 90 | 77 | 86 | 4 | 1.5 | 80 |
| D093 to D123 (AC) | 90 | 99 | 86 | – | – | 80 |
| D09 to D18 (DC) | 90 | 77 | 95 | 4 | 1.5 | 80 |
| D093 to D123 (DC) | 90 | 99 | 95 | – | – | 80 |
| D25 to D38 (AC) | 90 | 85 | 92 | 9 | 5 | 80 |
| D183 to D383 (AC) | 90 | 99 | 92 | – | – | 80 |
| D25 to D32 (DC) | 90 | 85 | 101 | 9 | 5 | 80 |
| D183 to D383 (DC) | 90 | 99 | 101 | – | – | 80 |
| e1 and e2: including cabling. | | | | | | |
| (1) With safety cover, without add-on block. | | | | | | |

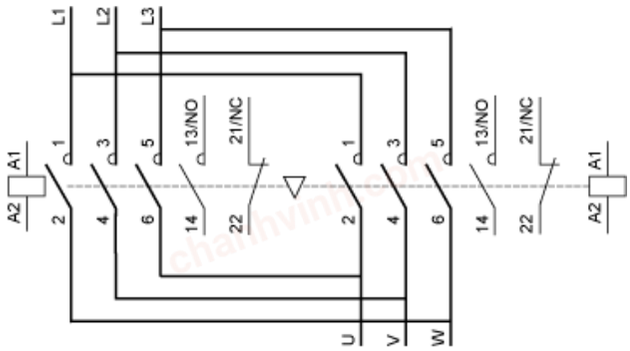

Life Is On Schneider Electric

chanhvinh.com

# Product data sheet
## Connections and Schema

LC2D09F7

## Wiring




chanhvinh.com