

# LC1D115L7

IEC contactor, TeSys Deca, nonreversing, 115A, 75HP at 480VAC, up to 100kA SCCR, 3 phase, 3 NO, 200VAC 50/60Hz coil, open



## Main

|                                |                                                                                                                                                                                                           |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                          | TeSys                                                                                                                                                                                                     |
| Range of Product               | TeSys Deca                                                                                                                                                                                                |
| Product or Component Type      | Contacteur                                                                                                                                                                                                |
| Device short name              | LC1D                                                                                                                                                                                                      |
| Contactor application          | Resistive load<br>Motor control                                                                                                                                                                           |
| Utilisation category           | AC-1<br>AC-4<br>AC-3<br>AC-3e                                                                                                                                                                             |
| Poles description              | 3P                                                                                                                                                                                                        |
| [Ue] rated operational voltage | Power circuit <= 1000 V AC 25...400 Hz<br>Power circuit <= 300 V DC                                                                                                                                       |
| [Ie] rated operational current | 200 A (at <140 °F (60 °C)) at <= 440 V AC AC-1 for power circuit<br>115 A (at <140 °F (60 °C)) at <= 440 V AC AC-3 for power circuit<br>115 A (at <140 °F (60 °C)) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage   | 200 V AC 50/60 Hz                                                                                                                                                                                         |

## Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Motor power kW                              | 30 KW at 220...230 V AC 50/60 Hz (AC-3)<br>55 KW at 380...400 V AC 50/60 Hz (AC-3)<br>59 KW at 415...440 V AC 50/60 Hz (AC-3)<br>75 KW at 500 V AC 50/60 Hz (AC-3)<br>80 KW at 660...690 V AC 50/60 Hz (AC-3)<br>65 KW at 1000 V AC 50/60 Hz (AC-3)<br>18.5 KW at 400 V AC 50/60 Hz (AC-4)<br>30 KW at 220...230 V AC 50/60 Hz (AC-3e)<br>55 KW at 380...400 V AC 50/60 Hz (AC-3e)<br>59 KW at 415...440 V AC 50/60 Hz (AC-3e)<br>75 KW at 500 V AC 50/60 Hz (AC-3e)<br>80 KW at 660...690 V AC 50/60 Hz (AC-3e)<br>65 kW at 1000 V AC 50/60 Hz (AC-3e) |
| Maximum Horse Power Rating                  | 30 Hp at 200/208 V AC 50/60 Hz for 3 phase motors<br>40 Hp at 230/240 V AC 50/60 Hz for 3 phase motors<br>75 Hp at 460/480 V AC 50/60 Hz for 3 phase motors<br>100 hp at 575/600 V AC 50/60 Hz for 3 phase motors                                                                                                                                                                                                                                                                                                                                       |
| Compatibility code                          | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Pole contact composition                    | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| [Ith] conventional free air thermal current | 200 A (at 140 °F (60 °C)) for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Irms rated making capacity                  | 1260 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                     | 1100 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

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|------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Icw] rated short-time withstand current | 250 A 104 °F (40 °C) - 10 min for power circuit<br>550 A 104 °F (40 °C) - 1 min for power circuit<br>950 A 104 °F (40 °C) - 10 s for power circuit<br>1100 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                   | 250 A gG at ≤ 690 V coordination type 1 for power circuit<br>200 A gG at ≤ 690 V coordination type 2 for power circuit<br>10 A gG for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Average impedance                        | 0.6 mOhm - Ith 200 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power dissipation per pole               | 24 W AC-1<br>7.9 W AC-3<br>7.9 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| [Ui] rated insulation voltage            | Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Power circuit 1000 V IEC 60947-4-1<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Overvoltage category                     | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Pollution degree                         | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Uimp] rated impulse withstand voltage   | 8 kV IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Safety reliability level                 | B10d = 684932 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 1000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Mechanical durability                    | 8 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Electrical durability                    | 0.8 Mcycles 200 A AC-1 ≤ 440 V<br>0.95 Mcycles 115 A AC-3 ≤ 440 V<br>0.95 Mcycles 115 A AC-3e ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Control circuit type                     | AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Coil technology                          | Built-in bidirectional peak limiting diode suppressor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Control circuit voltage limits           | 0.3...0.5 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.15 Uc -40...131 °F (-40...55 °C) operational AC 50/60 Hz<br>1...1.15 Uc 131...158 °F (55...70 °C) operational AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Inrush power in VA                       | 280...350 VA 60 Hz cos phi 0.8 (at 68 °F (20 °C))<br>280...350 VA 50 Hz cos phi 0.8 (at 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Hold-in power consumption in VA          | 2...18 VA 60 Hz cos phi 0.3 (at 68 °F (20 °C))<br>2...18 VA 50 Hz cos phi 0.3 (at 68 °F (20 °C))                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Heat dissipation                         | 3...8 W at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Operating time                           | 6...20 ms opening<br>20...50 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Maximum operating rate                   | 2400 cyc/h 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Connections - terminals                  | Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Control circuit: screw clamp terminals 1 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Control circuit: screw clamp terminals 2 0.00...0.00 in <sup>2</sup> (1...2.5 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: flexible without cable end<br>Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: flexible with cable end<br>Power circuit: connector 1 0.02...0.19 in <sup>2</sup> (10...120 mm <sup>2</sup> ) - cable stiffness: solid without cable end<br>Power circuit: connector 2 0.02...0.08 in <sup>2</sup> (10...50 mm <sup>2</sup> ) - cable stiffness: solid without cable end |
| Tightening torque                        | Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2<br>Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm)<br>Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Auxiliary contact composition            | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

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|------------------------------|---------------------------------------------------------------------------------------------------------|
| 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 voltage    | 17 V for signalling circuit                                                                             |
| Minimum switching current    | 5 mA for signalling circuit                                                                             |
| Insulation resistance        | > 10 MOhm 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 |
| Mounting Support             | Plate<br>Rail                                                                                           |

## Environment

|                                                       |                                                                                                                                                                                   |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                | CCC[RETURN]RINA[RETURN]GL[RETURN]BV[RETURN]GOST[RETURN]UL[RETURN]DNV[RETURN]<br>(Lloyds register of shipping)[RETURN]CSA[RETURN]UKCA[RETURN]CE                                    |
| IP degree of protection                               | IP20 front face IEC 60529                                                                                                                                                         |
| Protective treatment                                  | THIEC 60068-2-30                                                                                                                                                                  |
| Climatic withstand                                    | IACS E10 exposure to damp heat<br>IEC 60947-1 Annex Q category D exposure to damp heat                                                                                            |
| Permissible ambient air temperature around the device | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating                                                                                                             |
| 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 open 2 Gn, 5...300 Hz)<br>Vibrations contactor closed 4 Gn, 5...300 Hz)<br>Shocks contactor closed 15 Gn for 11 ms)<br>Shocks contactor open 6 Gn for 11 ms) |
| Height                                                | 6.22 in (158 mm)                                                                                                                                                                  |
| Width                                                 | 4.72 in (120 mm)                                                                                                                                                                  |
| Depth                                                 | 5.35 in (136 mm)                                                                                                                                                                  |
| Net Weight                                            | 5.51 lb(US) (2.5 kg)                                                                                                                                                              |

## Ordering and shipping details

|                   |               |
|-------------------|---------------|
| Category          | US10I1222359  |
| Discount Schedule | 0I12          |
| GTIN              | 3389110526783 |
| Returnability     | No            |
| Country of origin | CZ            |

## Packing Units

|                              |                         |
|------------------------------|-------------------------|
| Unit Type of Package 1       | PCE                     |
| Number of Units in Package 1 | 1                       |
| Package 1 Height             | 6.61 in (16.800 cm)     |
| Package 1 Width              | 8.19 in (20.800 cm)     |
| Package 1 Length             | 7.28 in (18.500 cm)     |
| Package 1 Weight             | 5.34 lb(US) (2.420 kg)  |
| Unit Type of Package 2       | S03                     |
| Number of Units in Package 2 | 2                       |
| Package 2 Height             | 11.81 in (30 cm)        |
| Package 2 Width              | 11.81 in (30 cm)        |
| Package 2 Length             | 15.75 in (40 cm)        |
| Package 2 Weight             | 11.60 lb(US) (5.260 kg) |
| Unit Type of Package 3       | P06                     |

|                              |                           |
|------------------------------|---------------------------|
| Number of Units in Package 3 | 16                        |
| Package 3 Height             | 29.53 in (75.000 cm)      |
| Package 3 Width              | 31.50 in (80.000 cm)      |
| Package 3 Length             | 23.62 in (60.000 cm)      |
| Package 3 Weight             | 110.41 lb(US) (50.080 kg) |

## 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>                                                                                                                                                                                                                         |
| EU RoHS Directive          | Compliant with Exemptions                                                                                                                                                                                                                                 |
| 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 |
|----------|-----------|