# Product data sheet
## Characteristics

# LC1D150M7
## TeSys Deca contactor , 3P(3 NO) , AC-3 , <= 440V, 150 A , 220V AC 50/60 Hz coil

## Main

| | |
|---|---|
| Range | TeSys |
| Product name | TeSys D<br>TeSys Deca |
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Motor control<br>Resistive load |
| Utilisation category | AC-3<br>AC-4<br>AC-1 |
| Poles description | 3P |
| Pole contact composition | 3 NO |
| [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 <60 °C) at <= 440 V AC AC-1 for power circuit<br>150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit |
| Motor power kW | 40 KW at 220...230 V AC 50/60 Hz (AC-3)<br>75 KW at 380...400 V AC 50/60 Hz (AC-3)<br>80 KW at 415...440 V AC 50/60 Hz (AC-3)<br>90 KW at 500 V AC 50/60 Hz (AC-3)<br>100 KW at 660...690 V AC 50/60 Hz (AC-3)<br>75 KW at 1000 V AC 50/60 Hz (AC-3)<br>22 KW at 400 V AC 50/60 Hz (AC-4) |
| Motor power hp | 40 Hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>50 Hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>100 Hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>125 Hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type | AC at 50/60 Hz |
| [Uc] control circuit voltage | 220 V AC 50/60 Hz |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 8 KV conforming to IEC 60947 |
| Overvoltage category | III |
| [Ith] conventional free air thermal current | 200 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>1660 A at 440 V for power circuit conforming to IEC 60947 |
| Rated breaking capacity | 1400 A at 440 V for power circuit conforming to IEC 60947 |

| | |
|---|---|
| [Icw] rated short-time withstand current | 250 A 40 °C - 10 min for power circuit<br>580 A 40 °C - 1 min for power circuit<br>1200 A 40 °C - 10 s for power circuit<br>1400 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>315 A gG at <= 690 V coordination type 1 for power circuit<br>250 A gG at <= 690 V coordination type 2 for power circuit |
| Average impedance | 0.6 MOhm - Ith 200 A 50 Hz for power circuit |
| [Ui] rated insulation voltage | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Power circuit: 1000 V conforming to IEC 60947-4-1<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 | 0.85 Mcycles 150 A AC-3 at Ue <= 440 V<br>1 Mcycles 200 A AC-1 at Ue <= 440 V |
| Power dissipation per pole | 24 W AC-1<br>13.5 W AC-3 |
| Protective cover | With |
| 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 | CCC<br>LROS (Lloyds register of shipping)<br>GL<br>GOST<br>RINA<br>CSA<br>BV<br>UL<br>DNV<br>UKCA |
| Connections - terminals | Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1…2.5 mm²flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1…2.5 mm²flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1…2.5 mm²solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1…2.5 mm²solid without cable end<br>Power circuit: connector 1 cable(s) 10…120 mm²flexible without cable end<br>Power circuit: connector 2 cable(s) 10…50 mm²flexible without cable end<br>Power circuit: connector 1 cable(s) 10…120 mm²flexible with cable end<br>Power circuit: connector 2 cable(s) 10…50 mm²flexible with cable end<br>Power circuit: connector 1 cable(s) 10…120 mm²solid without cable end<br>Power circuit: connector 2 cable(s) 10…50 mm²solid without cable end |
| Tightening torque | Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 12 N.m - on connector hexagonal screw head 4 mm<br>Control circuit: 1.2 N.m - on screw clamp terminals - with screwdriver-pozidriv No 2 |
| Operating time | 20...35 ms closing<br>40...75 ms opening |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming-to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming-to EN/ISO 13849-1 |
| Mechanical durability | 8 Mcycles |
| Maximum operating rate | 1200 Cyc/H 60 °C |

## Complementary

| | |
|---|---|
| Coil technology | Built-in bidirectional peak limiting diode suppressor |
| Control circuit voltage limits | 0.3...0.5 Uc (-40…70 °C):drop-out AC 50/60 Hz<br>0.8...1.15 Uc (-40…55 °C):operational AC 50/60 Hz<br>1...1.15 Uc (55…70 °C):operational AC 50/60 Hz |
| Inrush power in VA | 280…350 VA 60 Hz cos phi 0.9 (at 20 °C)<br>280…350 VA 50 Hz cos phi 0.9 (at 20 °C) |
| Hold-in power consumption in VA | 2…18 VA 60 Hz cos phi 0.9 (at 20 °C)<br>2…18 VA 50 Hz cos phi 0.9 (at 20 °C) |
| Heat dissipation | 3…4.5 W at 50/60 Hz |
| 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

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|---|---|
| IP degree of protection | IP20 front face conforming to IEC 60529 |
| 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 |
| 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 | 158 Mm |
| Width | 120 Mm |
| Depth | 136 Mm |
| Net weight | 2.5 Kg |

## Packing Units

| | |
|---|---|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 2.49 Kg |
| Package 1 Height | 21 Cm |
| Package 1 width | 20 Cm |
| Package 1 Length | 23.5 Cm |
| Unit Type of Package 2 | P06 |
| Number of Units in Package 2 | 27 |
| Package 2 Weight | 79.819 Kg |
| Package 2 Height | 73.5 Cm |
| Package 2 width | 80 Cm |
| Package 2 Length | 60 Cm |
| Package 3 Height | 80 Cm |

## Offer Sustainability

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|---|---|
| Sustainable offer status | Green Premium product |
| EU RoHS Directive | Compliant EU RoHS Declaration |
| 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

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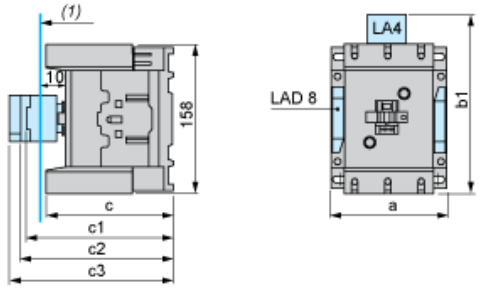
|---|---|
| Warranty | 18 months |

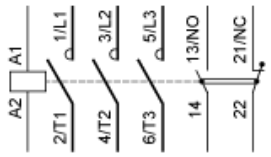
## Dimensions




(1) Minimum electrical clearance

| LC1 | | D115 and D150 (3-pole) |
|---|---|---|
| a | | 120 |
| b1 | with LA4 DA2 | 174 |
| with LA4 DF, DT | 185 | |
| with LA4 DM, DL | 188 | |
| with LA4 DW | 188 | |
| c | without cover or add-on blocks | 132 |
| with cover, without add-on blocks | 136 | |
| c1 | with LAD N or C (2 or 4 contacts) | 150 |
| c2 | with LA6 DK20 | 155 |
| c3 | with LAD T, R, S | 168 |
| with LAD T, R, S and sealing cover | 172 | |

## Wiring




| Product Life Status : | Commercialised |
|---|---|