

Contactor, TeSys Deca, 3P(3 NO), AC-3/AC-3e, 0 to 440V, 18A, 230VAC 50/60Hz coil

LC1D18P7

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| Range of product | TeSys Deca |
|--------------------------------|---|
| Product or component type | Contactor |
| Device short name | LC1D |
| Contactor application | Motor control Resistive load |
| Utilisation category | AC-3 AC-1 AC-4 AC-3e |
| Poles description | 3P |
| [Ue] rated operational voltage | Power circuit: <= 690 V AC 25400 Hz Power circuit: <= 300 V DC |
| [le] rated operational current | 18 A (at <60 °C) at <= 440 V AC AC-3 for power circuit 32 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 18 A (at <60 °C) at <= 440 V AC AC-3e for power circuit |
| [Uc] control circuit voltage | 230 V AC 50/60 Hz |

| Complementary | | | | |
|-----------------------------|---|--|--|--|
| Motor power kW | 4 kW at 220230 V AC 50/60 Hz (AC-3) | | | |
| | 7.5 kW at 380400 V AC 50/60 Hz (AC-3) | | | |
| | 9 kW at 415440 V AC 50/60 Hz (AC-3) | | | |
| | 10 kW at 500 V AC 50/60 Hz (AC-3) | | | |
| | 10 kW at 660690 V AC 50/60 Hz (AC-3) | | | |
| | 4 kW at 400 V AC 50/60 Hz (AC-4) | | | |
| | 4 kW at 220230 V AC 50/60 Hz (AC-3e) | | | |
| | 7.5 kW at 380400 V AC 50/60 Hz (AC-3e) | | | |
| | 9 kW at 415440 V AC 50/60 Hz (AC-3e) | | | |
| | 10 kW at 500 V AC 50/60 Hz (AC-3e) | | | |
| | 10 kW at 660690 V AC 50/60 Hz (AC-3e) | | | |
| Motor power hp | 1 hp at 115 V AC 50/60 Hz for 1 phase motors | | | |
| | 3 hp at 230/240 V AC 50/60 Hz for 1 phase motors | | | |
| | 5 hp at 200/208 V AC 50/60 Hz for 3 phases motors | | | |
| | 5 hp at 230/240 V AC 50/60 Hz for 3 phases motors | | | |
| | 10 hp at 460/480 V AC 50/60 Hz for 3 phases motors | | | |
| | 15 hp at 575/600 V AC 50/60 Hz for 3 phases motors | | | |
| Compatibility code | LC1D | | | |
| Pole contact composition | 3 NO | | | |
| Contact compatibility | M2 | | | |
| Protective cover | With | | | |
| [Ith] conventional free air | 10 A (at 60 °C) for signalling circuit | | | |
| thermal current | 32 A (at 60 °C) for power circuit | | | |
| Irms rated making capacity | 140 A AC for signalling circuit conforming to IEC 60947-5-1 | | | |

Disclaimer: 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

| | 300 A at 440 V for power circuit conforming to IEC 60947 | | |
|--|--|--|--|
| Rated breaking capacity | 300 A at 440 V for power circuit conforming to IEC 60947 | | |
| [Icw] rated short-time withstand current | 145 A 40 °C - 10 s for power circuit 240 A 40 °C - 1 s for power circuit 40 A 40 °C - 10 min for power circuit 84 A 40 °C - 1 min for power circuit 100 A - 1 s for signalling circuit 120 A - 500 ms for signalling circuit 140 A - 100 ms for signalling circuit | | |
| Associated fuse rating | 10 A gG for signalling circuit conforming to IEC 60947-5-1 50 A gG at <= 690 V coordination type 1 for power circuit 35 A gG at <= 690 V coordination type 2 for power circuit | | |
| Average impedance | 2.5 mOhm - Ith 32 A 50 Hz for power circuit | | |
| Power dissipation per pole | 2.5 W AC-1 0.8 W AC-3 0.8 W AC-3e | | |
| [Ui] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1 Power circuit: 600 V CSA certified Power circuit: 600 V UL certified Signalling circuit: 690 V conforming to IEC 60947-1 Signalling circuit: 600 V CSA certified Signalling circuit: 600 V UL certified | | |
| Overvoltage category | III | | |
| Pollution degree | 3 | | |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947 | | |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1 | | |
| Mechanical durability | 15 Mcycles | | |
| Electrical durability | 1.65 Mcycles 18 A AC-3 at Ue <= 440 V 1 Mcycles 32 A AC-1 at Ue <= 440 V 1.65 Mcycles 18 A AC-3e at Ue <= 440 V | | |
| Control circuit type | AC at 50/60 Hz standard | | |
| Coil technology | Without built-in suppressor module | | |
| Control circuit voltage limits | 0.30.6 Uc (-4070 °C):drop-out AC 50/60 Hz 0.81.1 Uc (-4060 °C):operational AC 50 Hz 0.851.1 Uc (-4060 °C):operational AC 60 Hz 11.1 Uc (6070 °C):operational AC 50/60 Hz | | |
| Inrush power in VA | 70 VA 60 Hz cos phi 0.75 (at 20 °C) 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) 7 VA 50 Hz cos phi 0.3 (at 20 °C) | | |
| Heat dissipation | 23 W at 50/60 Hz | | |
| Operating time | 1222 ms closing 419 ms opening | | |
| Maximum operating rate | 3600 cyc/h 60 °C | | |
| Connections - terminals | Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible without cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 2 12.5 mm² - cable stiffness: flexible with cable end Control circuit: screw clamp terminals 1 14 mm² - cable stiffness: solid without cable end Control circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.56 mm² - cable stiffness: flexible without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 1 16 mm² - cable stiffness: flexible with cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 1 1.56 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 14 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 16 mm² - cable stiffness: solid without cable end Power circuit: screw clamp terminals 2 1.56 mm² - cable stiffness: solid without cable end | | |
| Tightening torque | Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2 Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 Power circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 | | |

| Auxiliary contacts type | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1 type mirror contact 1 NC conforming to IEC 60947-4-1 | | | |
|---|---|--|--|--|
| Signalling circuit frequency | 25400 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 1.5 ms on energisation between NC and NO contact | | | |
| Mounting support | Rail Plate | | | |
| Environment | | | | |
| Standards | CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 IEC 60335-1 | | | |
| Product certifications | UL LROS (Lloyds register of shipping) BV CSA GOST GL CCC DNV RINA UKCA | | | |
| IP degree of protection | IP20 front face conforming to IEC 60529 | | | |
| Protective treatment | TH conforming to IEC 60068-2-30 | | | |
| Climatic withstand | conforming to IACS E10 exposure to damp heat conforming to IEC 60947-1 Annex Q category D exposure to damp heat | | | |
| Permissible ambient air temperature around the device | -4060 °C 6070 °C with derating | | | |
| Operating altitude | 03000 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, 5300 Hz) Vibrations contactor closed (4 Gn, 5300 Hz) Shocks contactor open (10 Gn for 11 ms) Shocks contactor closed (15 Gn for 11 ms) | | | |
| Height | 77 mm | | | |
| Width | 45 mm | | | |
| Depth | 86 mm | | | |
| Net weight | 0.33 kg | | | |
| Packing Units | | | | |
| Unit Type of Package 1 | PCE | | | |
| Number of Units in Package 1 | 1 | | | |
| | 5.000 cm | | | |
| Package 1 Height | 5.000 cm | | | |
| Package 1 Height Package 1 Width | 5.000 cm 9.000 cm | | | |
| | | | | |
| Package 1 Width | 9.000 cm | | | |
| Package 1 Width Package 1 Length | 9.000 cm 11.000 cm | | | |

| Package 2 Height | 15.000 cm |
|------------------------------|------------|
| Package 2 Width | 30.000 cm |
| Package 2 Length | 40.000 cm |
| Package 2 Weight | 7.307 kg |
| Unit Type of Package 3 | P06 |
| Number of Units in Package 3 | 320 |
| Package 3 Height | 75.000 cm |
| Package 3 Width | 80.000 cm |
| Package 3 Length | 60.000 cm |
| Package 3 Weight | 124.912 kg |
| | |

Offer Sustainability

| Sustainable offer status | Green Premium product | | |
|----------------------------|---|--|--|
| REACh Regulation | REACh Declaration | | |
| REACh free of SVHC | Yes | | |
| EU RoHS Directive | Compliant EU RoHS Declaration | | |
| Toxic heavy metal free | Yes | | |
| Mercury free | Yes | | |
| China RoHS Regulation | China RoHS declaration Pro-active China RoHS declaration (out of China RoHS legal scope) | | |
| RoHS exemption information | Yes | | |
| 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 | | |
| 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 | | |

Contractual warranty

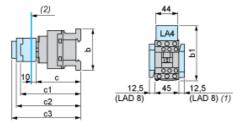
Warranty 18 months

Product data sheet

LC1D18P7

Dimensions Drawings

Dimensions



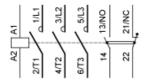
(1) (2)

Including LAD 4BB Minimum electrical clearance

| LC1 | | D09D18 | D093D123 | D099D129 |
|-----|------------------------------------|--------------------|--------------------|----------------------|
| b | without add-on blocks | 77 | 99 | 80 |
| b1 | with LAD 4BB | 94 | 107 | 95.5 |
| | with LA4 D●2 | 110 ⁽¹⁾ | 123 ⁽¹⁾ | 111.5 ⁽¹⁾ |
| | with LA4 DF, DT | 119 ⁽¹⁾ | 132 ⁽¹⁾ | 120.5 ⁽¹⁾ |
| | with LA4 DW, DL | 126 ⁽¹⁾ | 139 ⁽¹⁾ | 127.5 ⁽¹⁾ |
| С | without cover or add-on blocks | 84 | 84 | 84 |
| | with cover, without add-on blocks | 86 | 86 | 86 |
| с1 | with LAD N or C (2 or 4 contacts) | 117 | 117 | 117 |
| с2 | with LA6 DK10, LAD 6K10 | 129 | 129 | 129 |
| с3 | with LAD T, R, S | 137 | 137 | 137 |
| | with LAD T, R, S and sealing cover | 141 | 141 | 141 |
| (1) | Including LAD 4BB. | | | · |

Connections and Schema

Wiring



Recommended replacement(s)