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Main

| | |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range | TeSys |
| Product name | TeSys D |
| Product or component type | Contactors |
| Device short name | LC1D |
| Contactors application | Resistive load Motor control |
| Utilisation category | AC-3 AC-4 AC-1 |
| Poles description | 3P |
| Power pole contact composition | 3 NO |
| [Ue] rated operational voltage | Power circuit <= 1000 V AC 25...400 Hz Power circuit <= 300 V DC |
| [Ie] rated operational current | 200 A (at <60 °C) at <= 440 V AC AC-1 for power circuit 150 A (at <60 °C) at <= 440 V AC AC-3 for power circuit |
| Motor power kW | 40 kW 220...230 V AC 50/60 Hz AC-3) 75 kW 380...400 V AC 50/60 Hz AC-3) 80 kW 415...440 V AC 50/60 Hz AC-3) 90 kW 500 V AC 50/60 Hz AC-3) 100 kW 660...690 V AC 50/60 Hz AC-3) 75 kW 1000 V AC 50/60 Hz AC-3) 22 kW 400 V AC 50/60 Hz AC-4) |
| Motor power HP (UL / CSA) | 40 Hp 200/208 V AC 50/60 Hz 3 phase 50 Hp 230/240 V AC 50/60 Hz 3 phase 100 Hp 460/480 V AC 50/60 Hz 3 phase 125 hp 575/600 V AC 50/60 Hz 3 phase |
| Control circuit type | DC standard |
| [Uc] control circuit voltage | 24 V DC |
| Auxiliary contact composition | 1 NO + 1 NC |
| [Uimp] rated impulse withstand voltage | 8 kV 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 signalling circuit IEC 60947-5-1 250 A DC signalling circuit IEC 60947-5-1 1660 A 440 V power circuit IEC 60947 |
| Rated breaking capacity | 1400 A 440 V power circuit IEC 60947 |
| [Icw] rated short-time withstand current | 250 A 40 °C - 10 min for power circuit 580 A 104 °F (40 °C) - 1 min power circuit 1200 A 104 °F (40 °C) - 10 s power circuit 1400 A 104 °F (40 °C) - 1 s power circuit 100 A - 1 s signalling circuit 120 A - 500 ms signalling circuit 140 A - 100 ms signalling circuit |
| Associated fuse rating | 10 A gG signalling circuit IEC 60947-5-1 315 A gG <= 690 V type 1 power circuit 250 A gG <= 690 V type 2 power circuit |
| Average impedance | 0.6 mOhm - Ith 200 A 50 Hz for power circuit |
| [Ui] rated insulation voltage | Power circuit 600 V CSA Power circuit 600 V UL Power circuit 1000 V IEC 60947-4-1 Signalling circuit 690 V IEC 60947-1 Signalling circuit 600 V CSA Signalling circuit 600 V UL |
| Electrical durability | 0.85 Mcycles 150 A AC-3 at Ue <= 440 V 1 Mcycles 200 A AC-1 <= 440 V |
| Power dissipation per pole | 24 W AC-1 13.5 W AC-3 |

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|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Front cover | With |
| Mounting support | Rail Plate |
| Standards | CSA C22.2 No 14 EN 60947-4-1 EN 60947-5-1 IEC 60947-4-1 IEC 60947-5-1 UL 508 |
| Product certifications | UL BV GL GOST CSA CCC LROS (Lloyds register of shipping) RINA DNV |
| Connections - terminals | Control circuit screw clamp terminals 2 0.00... 0.00 in ² (1...2.5 mm ²)flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1... 2.5 mm ² flexible with cable end Control circuit: screw clamp terminals 1 cable(s) 1... 2.5 mm ² flexible without cable end Control circuit: screw clamp terminals 2 cable(s) 1... 2.5 mm ² flexible without cable end Control circuit: screw clamp terminals 1 cable(s) 1... 2.5 mm ² solid without cable end Control circuit screw clamp terminals 2 0.00... 0.00 in ² (1...2.5 mm ²)solid without cable end Power circuit: connector 1 cable(s) 10... 120 mm ² flexible without cable end Power circuit: connector 2 cable(s) 10... 50 mm ² flexible without cable end Power circuit: connector 1 cable(s) 10... 120 mm ² flexible with cable end Power circuit: connector 2 cable(s) 10... 50 mm ² flexible with cable end Power circuit: connector 1 cable(s) 10... 120 mm ² solid without cable end Power circuit: connector 2 cable(s) 10...50 mm ² solid without cable end |
| Tightening torque | Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals flat Ø 6 mm Control circuit 10.62 lbf.in (1.2 N.m) screw clamp terminals Philips No 2 Power circuit 106.21 lbf.in (12 N.m) connector hexagonal 0.16 in (4 mm) |
| Operating time | 20...35 ms closing 40...75 ms opening |
| Safety reliability level | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1 B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1 |
| Mechanical durability | 8 Mcycles |
| Maximum operating rate | 1200 cyc/h 140 °F (60 °C) |

Complementary

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|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology | With integral suppression device |
| Control circuit voltage limits | 0.75...1.2 Uc -40...131 °F (-40...55 °C) operational DC 0.15...0.4 Uc -40...158 °F (-40...70 °C) drop-out DC 1...1.2 Uc 131...158 °F (55...70 °C) operational DC |
| Time constant | 25 ms |
| Inrush power in W | 270...365 W 68 °F (20 °C)) |
| Hold-in power consumption in W | 2.4...5.1 W 68 °F (20 °C) |
| Auxiliary contacts type | Mechanically linked 1 NO + 1 NC IEC 60947-5-1 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 |

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|-----------------------|---------------------------------------------------------------------------------------------------------|
| Non-overlap time | 1.5 Ms on de-energisation between NC and NO contact 1.5 ms on energisation between NC and NO contact |
| Insulation resistance | > 10 MOhm signalling circuit |
| Contact compatibility | M10 |
| Compatibility code | LC1D |
| Motor power range | 30...50 KW 200...240 V 3 phase 55...100 KW 380...440 V 3 phase 55...100 kW 480...500 V 3 phase |
| Motor starter type | Direct on-line contactor |
| Contact coil voltage | 24 V DC standard |

Environment

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|---------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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) 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 open2 Gn, 5...300 Hz Vibrations contactor closed4 Gn, 5...300 Hz Shocks contactor closed15 Gn for 11 ms Shocks contactor open6 Gn for 11 ms |
| Height | 6.22 in (158 mm) |
| Maximum 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 | 22359 - CTR, TESYS D, OPEN, 80-150A AC&DC |
| Discount Schedule | I12 |
| GTIN | 00785901696445 |
| Nbr. of units in pkg. | 1 |
| Package weight(Lbs) | 5.32 lb(US) (2.41 kg) |
| Returnability | Yes |
| Country of origin | CZ |

Packing Units

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|------------------------|-------------------|
| Unit Type of Package 1 | PCE |
| Package 1 Height | 6.89 in (17.5 cm) |
| Package 1 width | 7.48 in (19 cm) |
| Package 1 Length | 8.46 in (21.5 cm) |

Offer Sustainability

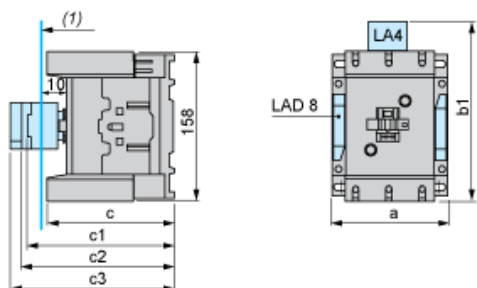
| | |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable 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 |
| 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

