



## Main

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| Range                                  | TeSys                                                                                                                                                                                                                                                                                      |
| Product name                           | TeSys D                                                                                                                                                                                                                                                                                    |
| Product or component type              | Contactor                                                                                                                                                                                                                                                                                  |
| Device short name                      | LC1D                                                                                                                                                                                                                                                                                       |
| Contactor application                  | Resistive load<br>Motor control                                                                                                                                                                                                                                                            |
| Utilisation category                   | AC-4<br>AC-1<br>AC-3                                                                                                                                                                                                                                                                       |
| Poles description                      | 3P                                                                                                                                                                                                                                                                                         |
| Power pole contact composition         | 3 NO                                                                                                                                                                                                                                                                                       |
| [Ue] rated operational voltage         | Power circuit: $\leq 1000$ V AC 25...400 Hz<br>Power circuit: $\leq 300$ V DC                                                                                                                                                                                                              |
| [Ie] rated operational current         | 200 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-1 for power circuit<br>115 A (at $\leq 60$ °C) at $\leq 440$ V AC AC-3 for power circuit                                                                                                                                                     |
| 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) |
| Motor power HP (UL / CSA)              | 30 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>40 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>75 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>100 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           | 415 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                                                                                                                                                                                                                                                                                        |

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| [I <sub>th</sub> ] conventional free air thermal current | 200 A (at 60 °C) for power circuit                                                                                                                                                                                                                                                                                               |
| I <sub>rms</sub> 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                                                                                                                                                                                                                                                                        |
| [I <sub>cw</sub> ] rated short-time withstand current    | 250 A 40 °C - 10 min for power circuit<br>550 A 40 °C - 1 min for power circuit<br>950 A 40 °C - 10 s for power circuit<br>1100 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                                   | 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 - I <sub>th</sub> 200 A 50 Hz for power circuit                                                                                                                                                                                                                                                                         |
| [U <sub>i</sub> ] 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                                    | 0.8 Mcycles 200 A AC-1 at U <sub>e</sub> ≤ 440 V<br>0.95 Mcycles 115 A AC-3 at U <sub>e</sub> ≤ 440 V                                                                                                                                                                                                                            |
| Power dissipation per pole                               | 24 W AC-1<br>7.9 W AC-3                                                                                                                                                                                                                                                                                                          |
| Safety 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                                   | GOST<br>GL<br>BV<br>RINA<br>UL<br>CCC<br>DNV<br>CSA<br>LROS (Lloyds register of shipping)                                                                                                                                                                                                                                        |
| Connections - terminals                                  | Control circuit: lugs-ring terminals (external diameter: 8 mm)<br>Power circuit: lugs-ring terminals (external diameter: 25 mm)<br>Power circuit: bars 1 cable(s) - busbar cross section: 5 x 25 mm                                                                                                                              |
| Tightening torque                                        | Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver flat Ø 6 mm M3.5<br>Control circuit: 1.2 N.m - on lugs-ring terminals - with screwdriver Philips No 2 M3.5<br>Power circuit: 12 N.m - on lugs-ring terminals hexagonal screw head 13 mm M8<br>Power circuit: 12 N.m - on bars hexagonal screw head 13 mm M8 |
| Operating time                                           | 6...20 ms opening<br>20...50 ms closing                                                                                                                                                                                                                                                                                          |
| 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                                   | 2400 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                 |

## Complementary

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| Coil technology                | Built-in bidirectional peak limiting diode suppressor                                                                      |
| Control circuit voltage limits | Drop-out: 0.3...0.5 U <sub>c</sub> AC 50/60 Hz (at 55 °C)<br>Operational: 0.8...1.15 U <sub>c</sub> AC 50/60 Hz (at 55 °C) |
| Inrush power in VA             | 280...350 VA 60 Hz cos phi 0.8 (at 20 °C)<br>280...350 VA 50 Hz cos phi 0.8 (at 20 °C)                                     |

|                                 |                                                                                                                          |
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| Hold-in power consumption in VA | 2...18 VA 60 Hz cos phi 0.3 (at 20 °C)<br>2...18 VA 50 Hz cos phi 0.3 (at 20 °C)                                         |
| Heat dissipation                | 3...8 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

|                                                       |                                                                                                                                                                                   |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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                 | -5...60 °C                                                                                                                                                                        |
| Ambient air temperature for storage                   | -60...80 °C                                                                                                                                                                       |
| Permissible ambient air temperature around the device | -40...70 °C at Uc                                                                                                                                                                 |
| Operating altitude                                    | 3000 m without                                                                                                                                                                    |
| Fire resistance                                       | 850 °C conforming to 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                                                | 158 mm                                                                                                                                                                            |
| Width                                                 | 120 mm                                                                                                                                                                            |
| Depth                                                 | 136 mm                                                                                                                                                                            |
| Net weight                                            | 2.5 kg                                                                                                                                                                            |

## Offer Sustainability

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| Sustainable offer status   | Green Premium product                                                                                                       |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive          | Compliant<br><a href="#">EU RoHS Declaration</a>                                                                            |
| Mercury free               | Yes                                                                                                                         |
| RoHS exemption information | <a href="#">Yes</a>                                                                                                         |
| China RoHS Regulation      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| 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 |

## Contractual warranty

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| Warranty | 18 months |
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