



## Main

|                                        |                                                                                                                                                                                                                                                                                                                           |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product                       | TeSys D                                                                                                                                                                                                                                                                                                                   |
| Range                                  | TeSys                                                                                                                                                                                                                                                                                                                     |
| Product name                           | TeSys D                                                                                                                                                                                                                                                                                                                   |
| Product or component type              | Contactor                                                                                                                                                                                                                                                                                                                 |
| Device short name                      | LC1D                                                                                                                                                                                                                                                                                                                      |
| Contactor application                  | Motor control<br>Resistive load                                                                                                                                                                                                                                                                                           |
| Utilisation category                   | AC-1<br>AC-3<br>AC-4                                                                                                                                                                                                                                                                                                      |
| Poles description                      | 3P                                                                                                                                                                                                                                                                                                                        |
| Pole contact composition               | 3 NO                                                                                                                                                                                                                                                                                                                      |
| [Ue] rated operational voltage         | ≤ 300 V DC for power circuit<br>≤ 690 V AC 25...400 Hz for power circuit                                                                                                                                                                                                                                                  |
| [Ie] rated operational current         | 25 A (≤ 60 °C) at ≤ 440 V AC AC-1 for power circuit<br>9 A (≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit                                                                                                                                                                                                                 |
| Motor power kW                         | 2.2 kW at 400 V AC 50/60 Hz AC-4<br>2.2 kW at 220...230 V AC 50/60 Hz AC-3<br>4 kW at 380...400 V AC 50/60 Hz AC-3<br>5.5 kW at 500 V AC 50/60 Hz AC-3<br>5.5 kW at 660...690 V AC 50/60 Hz AC-3<br>4 kW at 415...440 V AC 50/60 Hz AC-3                                                                                  |
| Motor power hp                         | 0.33 hp at 115 V AC 50/60 Hz for 1 phase motors<br>1 hp at 230/240 V AC 50/60 Hz for 1 phase motors<br>2 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>2 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>5 hp at 460/480 V AC 50/60 Hz for 3 phases motors<br>7.5 hp at 575/600 V AC 50/60 Hz for 3 phases motors |
| Control circuit type                   | AC 50/60 Hz                                                                                                                                                                                                                                                                                                               |
| [Uc] control circuit voltage           | 120 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                         |
| Auxiliary contact composition          | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                               |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                                              |

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| [Ith] conventional free air thermal current | 25 A at $\leq 60^\circ\text{C}$ for power circuit<br>10 A at $\leq 60^\circ\text{C}$ for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Irms rated making capacity                  | 250 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                     | 250 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| [Icw] rated short-time withstand current    | 105 A $\leq 40^\circ\text{C}$ 10 s power circuit<br>210 A $\leq 40^\circ\text{C}$ 1 s power circuit<br>30 A $\leq 40^\circ\text{C}$ 10 min power circuit<br>61 A $\leq 40^\circ\text{C}$ 1 min power circuit<br>100 A 1 s signalling circuit<br>120 A 500 ms signalling circuit<br>140 A 100 ms signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Associated fuse rating                      | 20 A gG at $\leq 690\text{ V}$ coordination type 2 for power circuit<br>25 A gG at $\leq 690\text{ V}$ coordination type 1 for power circuit<br>10 A gG for signalling circuit conforming to IEC 60947-5-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Average impedance                           | 2.5 mOhm at 50 Hz - Ith 25 A for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| [Ui] rated insulation voltage               | 600 V for power circuit certifications CSA<br>600 V for power circuit certifications UL<br>690 V for power circuit conforming to IEC 60947-4-1<br>690 V for signalling circuit conforming to IEC 60947-1<br>600 V for signalling circuit certifications CSA<br>600 V for signalling circuit certifications UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Electrical durability                       | 0.6 Mcycles 25 A AC-1 at $U_e \leq 440\text{ V}$<br>2 Mcycles 9 A AC-3 at $U_e \leq 440\text{ V}$                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Power dissipation per pole                  | 0.2 W AC-3<br>1.56 W AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Protective cover                            | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Mounting support                            | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 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                      | UL<br>DNV<br>BV<br>CCC<br>GL<br>RINA<br>CSA<br>GOST<br>LROS (Lloyds register of shipping)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Connections - terminals                     | Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Power circuit : screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> - cable stiffness: solid - without cable end |
| Tightening torque                           | Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit : 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Operating time                              | 4...19 ms opening<br>12...22 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    | 15 Mcycles                                                                                                                                                           |
| Operating rate           | 3600 cyc/h at ≤ 60 °C                                                                                                                                                |

## Complementary

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Control circuit voltage limits  | 0.3...0.6 Uc drop-out at 60 °C, AC 50/60 Hz<br>0.8...1.1 Uc operational at 60 °C, AC 50 Hz<br>0.85...1.1 Uc operational at 60 °C, AC 60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Inrush power in VA              | 70 VA at 20 °C (cos φ 0.75) 60 Hz<br>70 VA at 20 °C (cos φ 0.75) 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Hold-in power consumption in VA | 7.5 VA at 20 °C (cos φ 0.3) 60 Hz<br>7 VA at 20 °C (cos φ 0.3) 50 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Heat dissipation                | 2...3 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 energisation between NC and NO contact<br>1.5 ms on de-energisation between NC and NO contact                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Insulation resistance           | > 10 MOhm for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Power range                     | 0.55...1 kW 200...240 V 3 phases<br>0.55...1 kW 380...440 V 3 phases<br>0.55...1 kW 480...500 V 3 phases<br>1.1...2 kW 200...240 V 3 phases<br>1.1...2 kW 380...440 V 3 phases<br>2.2...3 kW 380...440 V 3 phases<br>2.2...3 kW 480...500 V 3 phases<br>4...6 kW 380...440 V 3 phases<br>4...6 kW 480...500 V 3 phases<br>0...0.5 kW 200...240 V 3 phases<br>0...0.5 kW 380...440 V 3 phases<br>0...0.5 kW 480...500 V 3 phases<br>1.1...2 kW 480...500 V 3 phases<br>0...0.5 kW 525...690 V 3 phases<br>0.55...1 kW 525...690 V 3 phases<br>1.1...2 kW 525...690 V 3 phases<br>2.2...3 kW 525...690 V 3 phases<br>0...0.5 kW 100...120 V 3 phases<br>4...6 kW 525...690 V 3 phases<br>0.55...1 kW 100...120 V 3 phases |
| Motor starter type              | Direct on-line contactor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

## 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 derating in temperature                                                                                                                                         |
| 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 open 10 Gn for 11 ms<br>Shocks contactor closed 15 Gn for 11 ms |
| Height                                                | 77 mm                                                                                                                                                                          |

|                |         |
|----------------|---------|
| Width          | 45 mm   |
| Depth          | 86 mm   |
| Product weight | 0.32 kg |

## Offer Sustainability

|                                  |                                                                                                                                                                                                                         |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status         | Green Premium product                                                                                                                                                                                                   |
| RoHS (date code: YYWW)           | Compliant - since 0627 - Schneider Electric declaration of conformity<br> <a href="#">Schneider Electric declaration of conformity</a> |
| REACH                            | Reference not containing SVHC above the threshold<br><a href="#">Reference not containing SVHC above the threshold</a>                                                                                                  |
| Product environmental profile    | Available<br> <a href="#">Product environmental</a>                                                                                    |
| Product end of life instructions | Available<br> <a href="#">End of life manual</a>                                                                                       |

## Contractual warranty

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