



## Main

|                                |                                                                                                                                                                                                                                          |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range of product               | TeSys D                                                                                                                                                                                                                                  |
| Range                          | TeSys                                                                                                                                                                                                                                    |
| Product or component type      | Contacteur                                                                                                                                                                                                                               |
| Device short name              | LC1D                                                                                                                                                                                                                                     |
| Contacteur application         | Resistive load<br>Motor control                                                                                                                                                                                                          |
| Utilisation category           | AC-1<br>AC-3                                                                                                                                                                                                                             |
| Control circuit type           | DC low consumption                                                                                                                                                                                                                       |
| Poles description              | 3P                                                                                                                                                                                                                                       |
| Pole contact composition       | 3 NO                                                                                                                                                                                                                                     |
| [Ie] rated operational current | 50 A (at <60 °C) at <= 440 V AC AC-1 for power circuit<br>38 A (at <60 °C) at <= 440 V AC AC-3 for power circuit                                                                                                                         |
| Motor power kW                 | 18.5 kW at 380...400 V AC 50 Hz (AC-3)<br>18.5 kW at 500 V AC 50 Hz (AC-3)<br>18.5 kW at 660...690 V AC 50 Hz (AC-3)<br>18.5 kW at 415...440 V AC 50 Hz (AC-3)<br>9 kW at 220...230 V AC 50 Hz (AC-3)<br>7.5 kW at 400 V AC 50 Hz (AC-4) |

## Complementary

|                                        |                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                        | Built-in bidirectional peak limiting diode suppressor                                                                                                                                                                                                                                                                                                                            |
| Front cover                            | With                                                                                                                                                                                                                                                                                                                                                                             |
| Motor power hp                         | 2 Hp at 115 V AC 60 Hz for 1 phase motors<br>5 Hp at 230/240 V AC 60 Hz for 1 phase motors<br>10 Hp at 200/208 V AC 60 Hz for 3 phases motors<br>10 Hp at 230/240 V AC 60 Hz for 3 phases motors<br>20 Hp at 460/480 V AC 60 Hz for 3 phases motors<br>25 hp at 575/600 V AC 60 Hz for 3 phases motors                                                                           |
| Auxiliary contact composition          | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                      |
| [Uc] control circuit voltage           | 24 V DC                                                                                                                                                                                                                                                                                                                                                                          |
| Control circuit voltage limits         | 0.1...0.3 Uc (-40...70 °C):drop-out DC<br>0.8...1.25 Uc (-40...60 °C):operational DC<br>1...1.25 Uc (60...70 °C):operational DC                                                                                                                                                                                                                                                  |
| Time constant                          | 28 ms                                                                                                                                                                                                                                                                                                                                                                            |
| [Ui] rated insulation voltage          | Control circuit: 600 V CSA certified<br>Control circuit: 600 V UL certified<br>Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Control circuit: 690 V conforming to IEC 60947-4-1<br>Power circuit: 690 V conforming to IEC 60947-4-1                                                                                                                 |
| [Uimp] rated impulse withstand voltage | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                     |
| Overvoltage category                   | III                                                                                                                                                                                                                                                                                                                                                                              |
| Mounting support                       | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                    |
| Flame retardance                       | V1 conforming to UL 94                                                                                                                                                                                                                                                                                                                                                           |
| Connections - terminals                | Control circuit: spring terminals 1 cable(s) 2.5 mm <sup>2</sup> flexible without cable end<br>Control circuit: spring terminals 2 cable(s) 2.5 mm <sup>2</sup> flexible without cable end<br>Power circuit: spring terminals 1 cable(s) 4 mm <sup>2</sup> flexible without cable end<br>Power circuit: spring terminals 2 cable(s) 4 mm <sup>2</sup> flexible without cable end |
| [Ue] rated operational voltage         | Power circuit: <= 690 V AC 25...400 Hz                                                                                                                                                                                                                                                                                                                                           |

|                                             |                                                                                                                                                                           |
|---------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for control circuit<br>50 A (at 60 °C) for power circuit                                                                                                  |
| Irms rated making capacity                  | 250 A DC for control circuit conforming to IEC 60947-5-1<br>450 A at 440 V for power circuit conforming to IEC 60947                                                      |
| Rated breaking capacity                     | 450 kA at 440 V for power circuit conforming to IEC 60947                                                                                                                 |
| Associated fuse rating                      | 10 A gG for control circuit conforming to IEC 60947-5-1<br>63 A at ≤ 690 V coordination type 1 for power circuit<br>63 A at ≤ 690 V coordination type 2 for power circuit |
| Average impedance                           | 2 mOhm - Ith 50 A 50 Hz for power circuit                                                                                                                                 |
| Power dissipation per pole                  | 3 W AC-3<br>5 W AC-1                                                                                                                                                      |
| Inrush power in W                           | 2.4 W (at 20 °C)                                                                                                                                                          |
| Hold-in power consumption in W              | 2.4 W at 20 °C                                                                                                                                                            |
| Operating time                              | 25 ms closing<br>77 ms opening                                                                                                                                            |
| Safety reliability level                    | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1      |
| Mechanical durability                       | 30000000 cycles                                                                                                                                                           |
| Maximum operating rate                      | 3600 cyc/h 60 °C                                                                                                                                                          |
| Minimum switching current                   | 5 mA for control circuit                                                                                                                                                  |
| Minimum switching voltage                   | 17 V for control circuit                                                                                                                                                  |
| Non-overlap time                            | 1.5 Ms on de-energisation between NC and NO contacts<br>1.5 ms on energisation between NC and NO contacts                                                                 |
| Insulation resistance                       | > 10 MOhm for control circuit                                                                                                                                             |
| Height                                      | 85 mm                                                                                                                                                                     |
| Width                                       | 45 mm                                                                                                                                                                     |
| Depth                                       | 101 mm                                                                                                                                                                    |
| Net weight                                  | 0.54 kg                                                                                                                                                                   |

## Environment

|                                       |                                                                                           |
|---------------------------------------|-------------------------------------------------------------------------------------------|
| Standards                             | UL 508<br>EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>CSA C22.2 No 14                         |
| Product certifications                | LROS (Lloyds register of shipping)<br>GOST<br>CCC<br>RINA<br>BV<br>CSA<br>DNV<br>GL<br>UL |
| IP degree of protection               | IP2x conforming to IEC 60529<br>IP2x conforming to VDE 0106                               |
| Ambient air temperature for operation | -40...60 °C<br>60...70 °C with derating                                                   |
| Ambient air temperature for storage   | -60...80 °C                                                                               |
| Operating altitude                    | 0...3000 m                                                                                |
| Fire resistance                       | 850 °C conforming to IEC 60695-2-1                                                        |
| Shock resistance                      | 15 gn contactor closed<br>8 gn contactor opened                                           |
| Vibration resistance                  | 2 gn 5...300 Hz contactor opened<br>4 gn 5...300 Hz contactor closed                      |

## Packing Units

|                              |        |
|------------------------------|--------|
| Unit Type of Package 1       | PCE    |
| Number of Units in Package 1 | 1      |
| Package 1 Weight             | 604 g  |
| Package 1 Height             | 5.5 cm |
| Package 1 width              | 11 cm  |

|                              |          |
|------------------------------|----------|
| Package 1 Length             | 11.4 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 15       |
| Package 2 Weight             | 9.434 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

### Offer Sustainability

|                            |                                                                                                                                 |
|----------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                           |
| REACH Regulation           | <a href="#"> REACH Declaration</a>             |
| REACH free of SVHC         | Yes                                                                                                                             |
| EU RoHS Directive          | Compliant <a href="#"> EU RoHS Declaration</a> |
| Toxic heavy metal free     | Yes                                                                                                                             |
| Mercury free               | Yes                                                                                                                             |
| RoHS exemption information | <a href="#"> Yes</a>                           |
| China RoHS Regulation      | <a href="#"> China RoHS Declaration</a>        |
| 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     |
| PVC free                   | Yes                                                                                                                             |

### Contractual warranty

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