



## Main

|                                             |                                                                                                                                                                                                           |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                     |
| Product name                                | TeSys D                                                                                                                                                                                                   |
| Product or component type                   | Contacteur                                                                                                                                                                                                |
| Device short name                           | LC1D                                                                                                                                                                                                      |
| Contacteur application                      | Motor control<br>Resistive load                                                                                                                                                                           |
| Utilisation category                        | AC-1<br>AC-3<br>AC-4                                                                                                                                                                                      |
| Poles description                           | 3P                                                                                                                                                                                                        |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                      |
| [Ue] rated operational voltage              | Power circuit ≤ 690 V AC 50 Hz<br>Power circuit ≤ 300 V DC                                                                                                                                                |
| [Ie] rated operational current              | 40 A 60 °C) ≤ 440 V AC-3 power circuit<br>60 A 60 °C) ≤ 440 V AC-1 power circuit                                                                                                                          |
| Motor power kW                              | 11 kW 220...230 V AC 50 Hz AC-3)<br>18,5 kW 380...400 V AC 50 Hz AC-3)<br>22 kW 415...440 V AC 50 Hz AC-3)<br>22 kW 500 V AC 50 Hz AC-3)<br>30 kW 660...690 V AC 50 Hz AC-3)<br>9 kW 400 V AC 50 Hz AC-4) |
| Control circuit type                        | AC 50 Hz                                                                                                                                                                                                  |
| [Uc] control circuit voltage                | 24 V AC 50 Hz                                                                                                                                                                                             |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                               |
| [Uimp] rated impulse withstand voltage      | 6 kV IEC 60947                                                                                                                                                                                            |
| Overvoltage category                        | III                                                                                                                                                                                                       |
| [Ith] conventional free air thermal current | 10 A 60 °C signalling circuit<br>60 A 60 °C power circuit                                                                                                                                                 |
| Irms rated making capacity                  | 140 A AC signalling circuit IEC 60947-5-1<br>250 A DC signalling circuit IEC 60947-5-1                                                                                                                    |

Izjava: Ovi dokumenti ne mijenjaju niti su namijenjeni utvrđivanju primjerenosti ili pouzdanosti ovih proizvoda u specifičnim korisničkim primjenama.

|                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                          | 800 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Rated breaking capacity                  | 800 A 440 V power circuit IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| [Icw] rated short-time withstand current | 72 A 40 °C - 10 min power circuit<br>165 A 40 °C - 1 min power circuit<br>320 A 40 °C - 10 s power circuit<br>720 A 40 °C - 1 s 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                   | 10 A gG signalling circuit IEC 60947-5-1<br>80 A gG ≤ 690 V type 1 power circuit<br>80 A gG ≤ 690 V type 2 power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Average impedance                        | 1,5 mOhm - Ith 60 A 50 Hz power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| [Ui] rated insulation voltage            | Power circuit 690 V IEC 60947-4-1<br>Power circuit 600 V CSA<br>Power circuit 600 V UL<br>Signalling circuit 690 V IEC 60947-1<br>Signalling circuit 600 V CSA<br>Signalling circuit 600 V UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Electrical durability                    | 1,4 Mcycles 60 A AC-1 ≤ 440 V<br>1,5 Mcycles 40 A AC-3 ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Power dissipation per pole               | 2,4 W AC-3<br>5,4 W AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Front cover                              | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mounting support                         | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Standards                                | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>CSA C22.2 No 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Product certifications                   | UL<br>CSA<br>CCC<br>EAC<br>KC<br>LROS (Lloyds register of shipping)<br>DNV-GL<br>RINA<br>BV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Connections - terminals                  | Control circuit screw clamp terminals 2 1...2,5 mm <sup>2</sup> flexible with cable end<br>Control circuit screw clamp terminals 1 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit screw clamp terminals 2 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit screw clamp terminals 1 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit screw clamp terminals 1 1...4 mm <sup>2</sup> solid without cable end<br>Control circuit screw clamp terminals 2 1...4 mm <sup>2</sup> solid without cable end<br>Power circuit screw connection 1 1...35 mm <sup>2</sup> flexible without cable end<br>Power circuit screw connection 2 1...25 mm <sup>2</sup> flexible without cable end<br>Power circuit screw connection 1 1...35 mm <sup>2</sup> flexible with cable end<br>Power circuit screw connection 2 1...25 mm <sup>2</sup> flexible with cable end<br>Power circuit screw connection 1 1...35 mm <sup>2</sup> solid without cable end<br>Power circuit screw connection 2 1...25 mm <sup>2</sup> solid without cable end |
| Tightening torque                        | Power circuit 8 N.m EverLink BTR screw connectors 25...35 mm <sup>2</sup> hexagonal 4 mm<br>Power circuit 5 N.m EverLink BTR screw connectors 1...25 mm <sup>2</sup> hexagonal 4 mm<br>Control circuit 1,7 N.m screw clamp terminals flat Ø 6 mm<br>Control circuit 1,7 N.m screw clamp terminals Philips No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Operating time                           | 4...19 ms opening<br>12...26 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Safety reliability level                 | B10d = 1369863 cycles contactor with nominal load EN/ISO 13849-1<br>B10d = 20000000 cycles contactor with mechanical load EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Mechanical durability                    | 6 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Maximum operating rate                   | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

## Complementary

|                                 |                                    |
|---------------------------------|------------------------------------|
| Coil technology                 | Without built-in suppressor module |
| Inrush power in VA              | 160 VA 50 Hz 0,75 20 °C)           |
| Hold-in power consumption in VA | 15 VA 50 Hz 0,3 20 °C)             |

|                              |                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------|
| Heat dissipation             | 4...5 W 50 Hz                                                                                           |
| Auxiliary contacts type      | Mechanically linked 1 NO + 1 NC IEC 60947-5-1<br>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                                                                                 |
| 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 signalling circuit                                                                            |
| Contact compatibility        | M2                                                                                                      |
| Compatibility code           | LC1D                                                                                                    |
| Motor power range            | 7...11 kW 200...240 V 3 phases<br>15...25 kW 380...440 V 3 phases<br>15...25 kW 480...500 V 3 phases    |
| Motor starter type           | Direct on-line contactor                                                                                |
| Contactor coil voltage       | 24 V AC standard                                                                                        |

## Environment

|                                     |                                                                                                                                                                            |
|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection             | IP20 front face IEC 60529                                                                                                                                                  |
| Protective treatment                | TH IEC 60068-2-30                                                                                                                                                          |
| Pollution degree                    | 3                                                                                                                                                                          |
| Ambient air temperature for storage | -60...80 °C                                                                                                                                                                |
| Operating altitude                  | 3000 m without derating                                                                                                                                                    |
| Fire resistance                     | 850 °C IEC 60695-2-1                                                                                                                                                       |
| Flame retardance                    | V1 UL 94                                                                                                                                                                   |
| Mechanical robustness               | Vibrations contactor open2 Gn, 5...300 Hz<br>Vibrations contactor closed4 Gn, 5...300 Hz<br>Shocks contactor closed15 Gn for 11 ms<br>Shocks contactor open10 Gn for 11 ms |
| Height                              | 122 mm                                                                                                                                                                     |
| Width                               | 55 mm                                                                                                                                                                      |
| Maksimalna dubina                   | 120 mm                                                                                                                                                                     |
| Net weight                          | 0,85 kg                                                                                                                                                                    |

## Broj pakirnih jedinica

|                                   |          |
|-----------------------------------|----------|
| Vrsta pakirne jedinice Paketa 1   | PCE      |
| Broj pakirnih jedinica u Paketu 1 | 1        |
| Paket 1 Težina                    | 927,67 g |
| Paket 1 Visina                    | 6,2 cm   |
| Paket 1 Širina                    | 13,5 cm  |
| Paket 1 Duljina                   | 15 cm    |

## Offer Sustainability

|                            |                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------|
| Status održive ponude      | Proizvod Green Premium                                                                                           |
| REACH, bez SVHC            | Da                                                                                                               |
| Direktiva EU RoHS          | Sukladno<br><a href="#">Izjava EU RoHS</a>                                                                       |
| Bez otrovnih teških metala | Da                                                                                                               |
| Bez žive                   | Da                                                                                                               |
| Informacije o RoHS izuzeću | <a href="#">Da</a>                                                                                               |
| Propis RoHS za Kinu        | <a href="#">Izjava RoHS za Kinu</a><br>Proaktivna izjava RoHS za Kinu (izvan pravnog doseg propisa RoHS za Kinu) |
| Izjava o očuvanju okoliša  | <a href="#">Ekološki profil proizvoda</a>                                                                        |
| Profil cirkularnosti       | <a href="#">Informacije o kraju vijeka trajanja</a>                                                              |

|           |                                                                                                                                                      |
|-----------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| WEEE      | Proizvod se na tržištima EU mora odlagati u skladu sa specifičnim propisima o prikupljanju otpada; nikako se ne smije odlagati s komunalnim otpadom. |
| Bez PVC-a | Da                                                                                                                                                   |

### Contractual warranty

|         |           |
|---------|-----------|
| Jamstvo | 18 months |
|---------|-----------|