





## Main

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|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys                                                                                                                                                                                                                                                                                         |
| Product name                                | TeSys D                                                                                                                                                                                                                                                                                       |
| Product or component type                   | Contactor                                                                                                                                                                                                                                                                                     |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                                          |
| Contactor application                       | Resistive load<br>Motor control                                                                                                                                                                                                                                                               |
| Utilisation category                        | AC-1<br>AC-4<br>AC-3                                                                                                                                                                                                                                                                          |
| Poles description                           | 3P                                                                                                                                                                                                                                                                                            |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                                          |
| [Ue] rated operational voltage              | Power circuit ≤ 690 V AC 25...400 Hz<br>Power circuit ≤ 300 V DC                                                                                                                                                                                                                              |
| [Ie] rated operational current              | 50 A (at ≤ 60 °C) at ≤ 440 V AC AC-3 for power circuit<br>80 A 140 °F (60 °C)) ≤ 440 V AC AC-1 power circuit                                                                                                                                                                                  |
| Motor power kW                              | 15 kW 220...230 V AC 50/60 Hz AC-3)<br>22 kW 380...400 V AC 50/60 Hz AC-3)<br>30 kW 500 V AC 50/60 Hz AC-3)<br>33 kW 660...690 V AC 50/60 Hz AC-3)<br>25 kW 415 V AC 50/60 Hz AC-3)<br>30 kW 440 V AC 50/60 Hz AC-3)<br>11 kW 400 V AC 50/60 Hz AC-4)                                         |
| Motor power HP (UL / CSA)                   | 3 Hp 115 V AC 50/60 Hz 1 phase<br>7.5 Hp 230/240 V AC 50/60 Hz 1 phase<br>15 Hp 200/208 V AC 50/60 Hz 3 phase<br>15 Hp 230/240 V AC 50/60 Hz 3 phase<br>40 Hp 460/480 V AC 50/60 Hz 3 phase<br>40 hp 575/600 V AC 50/60 Hz 3 phase                                                            |
| Control circuit type                        | AC 50/60 Hz                                                                                                                                                                                                                                                                                   |
| [Uc] control circuit voltage                | 42 V AC 50/60 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 140 °F (60 °C) signalling circuit<br>80 A 140 °F (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<br>900 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                            |
| Rated breaking capacity                     | 900 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                      |
| [Icw] rated short-time withstand current    | 400 A 104 °F (40 °C) - 10 s power circuit<br>810 A 104 °F (40 °C) - 1 s power circuit<br>84 A 104 °F (40 °C) - 10 min power circuit<br>208 A 104 °F (40 °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                      | 10 A gG signalling circuit IEC 60947-5-1<br>100 A gG at ≤ 690 V coordination type 1 for power circuit<br>100 A gG at ≤ 690 V coordination type 2 for power circuit                                                                                                                            |
| Average impedance                           | 1.5 mOhm - Ith 80 A 50 Hz power circuit                                                                                                                                                                                                                                                       |
| [Ui] rated insulation voltage               | 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<br>Power circuit 690 V IEC 60947-4-1                                                                                                 |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Electrical durability      | 1.45 Mcycles 50 A AC-3 <= 440 V<br>1.1 Mcycles 80 A AC-1 <= 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Power dissipation per pole | 3.7 W AC-3<br>9.6 W AC-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Front 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>LROS (Lloyds register of shipping)<br>CCC<br>RINA<br>GL<br>DNV<br>CSA<br>GOST<br>BV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Connections - terminals    | Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...2.5 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible without cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )flexible with cable end<br>Control circuit screw clamp terminals 1 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Control circuit screw clamp terminals 2 0.00...0.01 in <sup>2</sup> (1...4 mm <sup>2</sup> )solid without cable end<br>Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible without cable end<br>Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )flexible with cable end<br>Power circuit screw connection 1 0.00...0.05 in <sup>2</sup> (1...35 mm <sup>2</sup> )solid without cable end<br>Power circuit screw connection 2 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> )solid without cable end |
| Tightening torque          | Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals flat Ø 6 mm<br>Control circuit 15.05 lbf.in (1.7 N.m) screw clamp terminals Philips No 2<br>Power circuit 70.81 lbf.in (8 N.m) EverLink BTR screw connectors 0.04...0.05 in <sup>2</sup> (25...35 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)<br>Power circuit 44.25 lbf.in (5 N.m) EverLink BTR screw connectors 0.00...0.04 in <sup>2</sup> (1...25 mm <sup>2</sup> ) hexagonal 0.16 in (4 mm)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 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 140 °F (60 °C)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Complementary

|                                 |                                                                                                                                                                                                                                                               |
|---------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Without built-in suppressor module                                                                                                                                                                                                                            |
| Control circuit voltage limits  | 0.3...0.6 Uc -40...158 °F (-40...70 °C) drop-out AC 50/60 Hz<br>0.8...1.1 Uc -40...140 °F (-40...60 °C) operational AC 50 Hz<br>0.85...1.1 Uc -40...140 °F (-40...60 °C) operational AC 60 Hz<br>1...1.1 Uc 140...158 °F (60...70 °C) operational AC 50/60 Hz |
| Inrush power in VA              | 140 VA 60 Hz 0.75 68 °F (20 °C))<br>160 VA 50 Hz 0.75 68 °F (20 °C))                                                                                                                                                                                          |
| Hold-in power consumption in VA | 13 VA 60 Hz 0.3 68 °F (20 °C))<br>15 VA 50 Hz 0.3 68 °F (20 °C))                                                                                                                                                                                              |
| Heat dissipation                | 4...5 W 50/60 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                                                                                                                                                                                                                                                          |

## Environment

|                                       |                                                                                                                                                                            |
|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face IEC 60529                                                                                                                                                  |
| Protective treatment                  | TH IEC 60068-2-30                                                                                                                                                          |
| Pollution degree                      | 3                                                                                                                                                                          |
| Ambient air temperature for operation | -40...140 °F (-40...60 °C)<br>140...158 °F (60...70 °C) with derating                                                                                                      |
| Ambient air temperature for storage   | -76...176 °F (-60...80 °C)                                                                                                                                                 |
| Operating altitude                    | 0...9842.52 ft (0...3000 m)                                                                                                                                                |
| Fire resistance                       | 1562 °F (850 °C) IEC 60695-2-1                                                                                                                                             |
| Flame retardance                      | V1 UL 94                                                                                                                                                                   |
| Mechanical robustness                 | Vibrations contactor open2 Gn, 5...300 Hz<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                                | 4.80 in (122 mm)                                                                                                                                                           |
| Maximum Width                         | 2.17 in (55 mm)                                                                                                                                                            |
| Depth                                 | 4.72 in (120 mm)                                                                                                                                                           |
| Net Weight                            | 1.88 lb(US) (0.855 kg)                                                                                                                                                     |

## Ordering and shipping details

|                       |                                       |
|-----------------------|---------------------------------------|
| Category              | 22357 - CTR, TESYS D, OPEN, 40-65A AC |
| Discount Schedule     | I12                                   |
| GTIN                  | 03389119408639                        |
| Nbr. of units in pkg. | 1                                     |
| Package weight(Lbs)   | 2.07 lb(US) (0.94 kg)                 |
| Returnability         | No                                    |
| Country of origin     | FR                                    |

## Packing Units

|                              |                   |
|------------------------------|-------------------|
| Unit Type of Package 1       | PCE               |
| Package 1 Height             | 2.44 in (6.2 cm)  |
| Package 1 width              | 5.39 in (13.7 cm) |
| Package 1 Length             | 5.98 in (15.2 cm) |
| Unit Type of Package 2       | S02               |
| Number of Units in Package 2 | 10                |

|                  |                         |
|------------------|-------------------------|
| Package 2 Weight | 21.28 lb(US) (9.654 kg) |
| Package 2 Height | 5.91 in (15 cm)         |
| Package 2 width  | 11.81 in (30 cm)        |
| Package 2 Length | 15.75 in (40 cm)        |

### Offer Sustainability

|                            |                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                     |
| California proposition 65  | WARNING: This product can expose you to chemicals including: Antimony oxide & Antimony trioxide, which is known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> |
| 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 |
|----------|-----------|