

# Product datasheet

Specifications



## TeSys D contactor - 3P(3 NO) - AC-3 - <= 440 V 38 A - 230 V AC 50/60 Hz coil

Local distributor code: 386079674 LC1D38P7

EAN Code : 3389110352610

### Main

|                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Range</b>                                  | TeSys<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Product name</b>                           | TeSys D<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Product or component type</b>              | Contacteur                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Device short name</b>                      | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Contacteur application</b>                 | Resistive load<br>Motor control                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Utilisation category</b>                   | AC-4<br>AC-1<br>AC-3<br>AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Poles description</b>                      | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Power pole contact composition</b>         | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>[Ue] rated operational voltage</b>         | Power circuit: <= 690 V AC 25...400 Hz<br>Power circuit: <= 300 V DC                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>[Ie] rated operational current</b>         | 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<br>38 A (at <60 °C) at <= 440 V AC AC-3e for power circuit                                                                                                                                                                                                                                                                                                             |
| <b>Motor power kW</b>                         | 18.5 kW at 500 V AC 50/60 Hz (AC-3)<br>18.5 kW at 660...690 V AC 50/60 Hz (AC-3)<br>7.5 kW at 400 V AC 50/60 Hz (AC-4)<br>18.5 kW at 380...400 V AC 50/60 Hz (AC-3)<br>9 kW at 220...230 V AC 50/60 Hz (AC-3)<br>18.5 kW at 415...440 V AC 50/60 Hz (AC-3)<br>18.5 kW at 500 V AC 50/60 Hz (AC-3e)<br>18.5 kW at 660...690 V AC 50/60 Hz (AC-3e)<br>18.5 kW at 380...400 V AC 50/60 Hz (AC-3e)<br>9 kW at 220...230 V AC 50/60 Hz (AC-3e)<br>18.5 kW at 415...440 V AC 50/60 Hz (AC-3e) |
| <b>Motor power HP (UL / CSA)</b>              | 10 hp at 230/240 V AC 50/60 Hz for 3 phases motors<br>10 hp at 200/208 V AC 50/60 Hz for 3 phases motors<br>5 hp at 240 V AC 50/60 Hz for 1 phase motors<br>20 hp at 480 V AC 50/60 Hz for 3 phases motors<br>25 hp at 600 V AC 50/60 Hz for 3 phases motors                                                                                                                                                                                                                            |
| <b>Control circuit type</b>                   | AC at 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>[Uc] control circuit voltage</b>           | 230 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Auxiliary contact composition</b>          | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>[Uimp] rated impulse withstand voltage</b> | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Overvoltage category</b>                   | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

Disclaimer: This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications

|                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>[Ith] conventional free air thermal current</b> | 10 A (at 60 °C) for signalling circuit<br>50 A (at 60 °C) for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Irms rated making capacity</b>                  | 140 A AC for signalling circuit conforming to IEC 60947-5-1<br>250 A DC for signalling circuit conforming to IEC 60947-5-1<br>550 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Rated breaking capacity</b>                     | 550 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>[Icw] rated short-time withstand current</b>    | 60 A 40 °C - 10 min for power circuit<br>430 A 40 °C - 1 s for power circuit<br>150 A 40 °C - 1 min for power circuit<br>310 A 40 °C - 10 s for power circuit<br>100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Associated fuse rating</b>                      | 10 A gG for signalling circuit conforming to IEC 60947-5-1<br>63 A gG at ≤ 690 V coordination type 1 for power circuit<br>63 A gG at ≤ 690 V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Average impedance</b>                           | 2 mOhm - Ith 50 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>[Ui] rated insulation voltage</b>               | Power circuit: 600 V CSA certified<br>Power circuit: 600 V UL certified<br>Signalling circuit: 690 V conforming to IEC 60947-1<br>Signalling circuit: 600 V CSA certified<br>Signalling circuit: 600 V UL certified<br>Power circuit: 690 V conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Electrical durability</b>                       | 1.4 Mcycles 50 A AC-1 at Ue ≤ 440 V<br>1.4 Mcycles 38 A AC-3 at Ue ≤ 440 V<br>1.4 Mcycles 38 A AC-3e at Ue ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Power dissipation per pole</b>                  | 5 W AC-1<br>3 W AC-3<br>3 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Front cover</b>                                 | With                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Mounting support</b>                            | Plate<br>Rail                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Standards</b>                                   | 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<br>IEC 60335-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Product certifications</b>                      | GOST<br>DNV<br>RINA<br>GL<br>LROS (Lloyds register of shipping)<br>BV<br>CSA<br>CCC<br>UL                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Connections - terminals</b>                     | Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> flexible without cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> flexible with cable end<br>Control circuit: screw clamp terminals 1 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...4 mm <sup>2</sup> solid without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...10 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 2 cable(s) 1.5...6 mm <sup>2</sup> flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1.5...10 mm <sup>2</sup> solid without cable end<br>Power circuit: screw clamp terminals 2 cable(s) 2.5...10 mm <sup>2</sup> solid without cable end |
| <b>Tightening torque</b>                           | Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver flat Ø 6 mm<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver Philips No 2<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2<br>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Operating time</b>                              | 4...19 ms opening<br>12...22 ms closing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Safety reliability level</b>                    | 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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Mechanical durability</b>                       | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Maximum operating rate</b>                      | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Complementary

|                                        |                                                                                                                                                                                                           |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Coil technology</b>                 | Without built-in suppressor module                                                                                                                                                                        |
| <b>Control circuit voltage limits</b>  | 0.3...0.6 Uc (-40...70 °C):drop-out AC 50/60 Hz<br>0.8...1.1 Uc (-40...60 °C):operational AC 50 Hz<br>0.85...1.1 Uc (-40...60 °C):operational AC 60 Hz<br>1...1.1 Uc (60...70 °C):operational AC 50/60 Hz |
| <b>Inrush power in VA</b>              | 70 VA 60 Hz cos phi 0.75 (at 20 °C)<br>70 VA 50 Hz cos phi 0.75 (at 20 °C)                                                                                                                                |
| <b>Hold-in power consumption in VA</b> | 7.5 VA 60 Hz cos phi 0.3 (at 20 °C)<br>7 VA 50 Hz cos phi 0.3 (at 20 °C)                                                                                                                                  |
| <b>Heat dissipation</b>                | 2...3 W at 50/60 Hz                                                                                                                                                                                       |
| <b>Auxiliary contacts type</b>         | type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1<br>type mirror contact 1 NC conforming to IEC 60947-4-1                                                                                  |
| <b>Signalling circuit frequency</b>    | 25...400 Hz                                                                                                                                                                                               |
| <b>Minimum switching current</b>       | 5 mA for signalling circuit                                                                                                                                                                               |
| <b>Minimum switching voltage</b>       | 17 V for signalling circuit                                                                                                                                                                               |
| <b>Non-overlap time</b>                | 1.5 ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact                                                                                                   |
| <b>Insulation resistance</b>           | > 10 MOhm for signalling circuit                                                                                                                                                                          |

## Environment

|                                              |                                                                                                                                                                                   |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>IP degree of protection</b>               | IP20 front face conforming to IEC 60529                                                                                                                                           |
| <b>Climatic withstand</b>                    | conforming to IACS E10<br>conforming to IEC 60947-1 Annex Q category D                                                                                                            |
| <b>Protective treatment</b>                  | TH conforming to IEC 60068-2-30                                                                                                                                                   |
| <b>Pollution degree</b>                      | 3                                                                                                                                                                                 |
| <b>Ambient air temperature for operation</b> | -40...60 °C<br>60...70 °C with derating                                                                                                                                           |
| <b>Ambient air temperature for storage</b>   | -60...80 °C                                                                                                                                                                       |
| <b>Operating altitude</b>                    | 0...3000 m                                                                                                                                                                        |
| <b>Fire resistance</b>                       | 850 °C conforming to IEC 60695-2-1                                                                                                                                                |
| <b>Mechanical robustness</b>                 | Vibrations contactor open: 2 Gn, 5...300 Hz<br>Vibrations contactor closed: 4 Gn, 5...300 Hz<br>Shocks contactor closed: 15 Gn for 11 ms<br>Shocks contactor open: 8 Gn for 11 ms |
| <b>Height</b>                                | 85 mm                                                                                                                                                                             |
| <b>Width</b>                                 | 45 mm                                                                                                                                                                             |
| <b>Depth</b>                                 | 92 mm                                                                                                                                                                             |
| <b>Net weight</b>                            | 0.38 kg                                                                                                                                                                           |

## Packing Units

|                                     |         |
|-------------------------------------|---------|
| <b>Unit Type of Package 1</b>       | PCE     |
| <b>Number of Units in Package 1</b> | 1       |
| <b>Package 1 Weight</b>             | 414 g   |
| <b>Package 1 Height</b>             | 5 cm    |
| <b>Package 1 width</b>              | 9.2 cm  |
| <b>Package 1 Length</b>             | 11.2 cm |
| <b>Unit Type of Package 2</b>       | S02     |
| <b>Number of Units in Package 2</b> | 20      |

|                              |          |
|------------------------------|----------|
| Package 2 Weight             | 8.603 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Unit Type of Package 3       | P06      |
| Number of Units in Package 3 | 320      |
| Package 3 Weight             | 142.5 kg |
| Package 3 Height             | 75 cm    |
| Package 3 width              | 60 cm    |
| Package 3 Length             | 80 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<br><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><br>Pro-active China RoHS declaration (out of China RoHS legal scope)                 |
| 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 |
|----------|-----------|