

## Product data sheet

### Characteristics

# LC1D25KUE

## TeSys Deca contactor 3P 25A AC-3/AC-3e up to 440V coil 100-250V AC/DC





## Main

|                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|---------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Range                                       | TeSys<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Product name                                | TeSys D Green<br>TeSys Deca                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Product or component type                   | Contacteur                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Device short name                           | LC1D                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Contacteur application                      | Motor control<br>Resistive load                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Utilisation category                        | AC-3<br>AC-1<br>AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Poles description                           | 3P                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Power pole contact composition              | 3 NO                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| [Ue] rated operational voltage              | Power circuit: $\leq 690$ V AC 25...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                       |
| [Ie] rated operational current              | 25 A (at $\leq 60$ °C) at $\leq 440$ V AC-3 for power circuit<br>40 A (at $\leq 60$ °C) at $\leq 440$ V AC-1 for power circuit<br>25 A (at $\leq 60$ °C) at $\leq 440$ V AC-3e for power circuit                                                                                                                                                                                                                                                                 |
| Motor power kW                              | 5.5 kW at 220...230 V AC 50 Hz (AC-3)<br>11 kW at 380...400 V AC 50 Hz (AC-3)<br>11 kW at 415 V AC 50 Hz (AC-3)<br>11 kW at 440 V AC 50 Hz (AC-3)<br>15 kW at 500 V AC 50 Hz (AC-3)<br>15 kW at 660...690 V AC 50 Hz (AC-3)<br>5.5 kW at 220...230 V AC 50 Hz (AC-3e)<br>11 kW at 380...400 V AC 50 Hz (AC-3e)<br>11 kW at 415 V AC 50 Hz (AC-3e)<br>11 kW at 440 V AC 50 Hz (AC-3e)<br>15 kW at 500 V AC 50 Hz (AC-3e)<br>15 kW at 660...690 V AC 50 Hz (AC-3e) |
| Motor power HP (UL / CSA)                   | 2 Hp at 115 V AC 60 Hz for 1 phase motors<br>3 Hp at 230/240 V AC 60 Hz for 1 phase motors<br>7.5 Hp at 200/208 V AC 60 Hz for 3 phases motors<br>7.5 Hp at 230/240 V AC 60 Hz for 3 phases motors<br>15 Hp at 460/480 V AC 60 Hz for 3 phases motors<br>20 hp at 575/600 V AC 60 Hz for 3 phases motors                                                                                                                                                         |
| [Uc] control circuit voltage                | 100...250 V AC 50/60 Hz<br>100...250 V DC                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Coil type                                   | AC/DC electronic                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Auxiliary contact composition               | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [Uimp] rated impulse withstand voltage      | 6 kV conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Overvoltage category                        | III                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| [Ith] conventional free air thermal current | 10 A (at 60 °C) for signalling circuit<br>40 A (at 60 °C) for power circuit                                                                                                                                                                                                                                                                                                                                                                                      |
| Irms rated making capacity                  | 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>450 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                           |
| Rated breaking capacity                     | 450 A at 440 V for power circuit conforming to IEC 60947                                                                                                                                                                                                                                                                                                                                                                                                         |
| [Icw] rated short-time withstand current    | 100 A - 1 s for signalling circuit<br>120 A - 500 ms for signalling circuit<br>140 A - 100 ms for signalling circuit<br>50 A 40 °C - 10 min for power circuit<br>120 A 40 °C - 1 min for power circuit<br>240 A 40 °C - 10 s for power circuit<br>380 A 40 °C - 1 s for power circuit                                                                                                                                                                            |

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|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Associated fuse rating                     | 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>40 A gG at ≤ 690 V coordination type 2 for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Average impedance                          | 2 mOhm - Ith 40 A 50 Hz for power circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| [U <sub>i</sub> ] rated insulation voltage | Power circuit: 690 V conforming to IEC 60947-4-1<br>Signalling circuit: 690 V conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Electrical durability                      | 2 Mcycles 21 A AC-3 at U <sub>e</sub> ≤ 440 V<br>0.9 Mcycles 40 A AC-1 at U <sub>e</sub> ≤ 440 V<br>2 Mcycles 21 A AC-3e at U <sub>e</sub> ≤ 440 V                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Power dissipation per pole                 | 3.2 W AC-1<br>1.25 W AC-3<br>1.25 W AC-3e                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 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<br>IEC 60335-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Product certifications                     | CCC<br>CSA<br>EAC<br>UL<br>KC<br>DNV-GL<br>LROS (Lloyds register of shipping)<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connections - terminals                    | 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 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> solid<br>Control circuit: screw clamp terminals 2 cable(s) 1... 4 mm <sup>2</sup> solid<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<br>Power circuit: screw clamp terminals 2 cable(s) 2.5... 10 mm <sup>2</sup> solid |
| Tightening torque                          | 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>Power circuit: 2.5 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M4<br>Control circuit: 1.7 N.m - on screw clamp terminals - with screwdriver pozidriv No 2 M3.5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Operating time                             | 45...55 ms closing<br>20...90 ms opening                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Safety reliability level                   | B10d = 1369863 cycles contactor with nominal load conforming to EN/ISO 13849-1<br>B10d = 2000000 cycles contactor with mechanical load conforming to EN/ISO 13849-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Mechanical durability                      | 15 Mcycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Maximum operating rate                     | 3600 cyc/h 60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

## Complementary

|                                 |                                                                                                                                      |
|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| Coil technology                 | Built-in bidirectional peak limiting                                                                                                 |
| Control circuit voltage limits  | <= 0.1 Uc (-40...70 °C):drop-out AC/DC<br>0.85...1.1 Uc (-40...60 °C):operational AC/DC<br>1...1.1 Uc (60...70 °C):operational AC/DC |
| Inrush power in VA              | 25 VA 50/60 Hz (at 20 °C)                                                                                                            |
| Inrush power in W               | 18 W at 20 °C                                                                                                                        |
| Hold-in power consumption in VA | 1.6 VA (at 20 °C) 50/60 Hz                                                                                                           |
| Hold-in power consumption in W  | 1.1 W at 20 °C                                                                                                                       |
| Heat dissipation                | 1.1 W at 50/60 Hz                                                                                                                    |
| Auxiliary contacts type         | Type mechanically linked 1 NO + 1 NC conforming to IEC 60947-5-1<br>Type mirror contact 1 NC conforming to IEC 60947-4-1             |
| Signalling circuit frequency    | 25...400 Hz                                                                                                                          |
| Minimum switching current       | 5 mA for signalling circuit                                                                                                          |
| Minimum switching voltage       | 17 V for signalling circuit                                                                                                          |
| Non-overlap time                | 1.5 Ms on de-energisation between NC and NO contact<br>1.5 ms on energisation between NC and NO contact                              |
| Insulation resistance           | > 10 MOhm for signalling circuit                                                                                                     |

## Environment

|                                       |                                                                                                                                                                                   |
|---------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IP degree of protection               | IP20 front face conforming to IEC 60529                                                                                                                                           |
| Climatic withstand                    | Conforming to IACS E10<br>Conforming to IEC 60947-1 Annex Q category D                                                                                                            |
| Pollution degree                      | 3                                                                                                                                                                                 |
| Ambient air temperature for storage   | -60...80 °C                                                                                                                                                                       |
| Operating altitude                    | 0...3000 m                                                                                                                                                                        |
| Fire resistance                       | 850 °C conforming to IEC 60695-2-1                                                                                                                                                |
| Mechanical robustness                 | 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 |
| Ambient air temperature for operation | -40...60 °C<br>60...70 °C with derating                                                                                                                                           |
| Height                                | 85 mm                                                                                                                                                                             |
| Width                                 | 45 mm                                                                                                                                                                             |
| Depth                                 | 92 mm                                                                                                                                                                             |
| Net weight                            | 0.433 kg                                                                                                                                                                          |
| Colour                                | Grey (SE GREY 6)<br>Green (SE GREEN 2)                                                                                                                                            |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 455.0 g  |
| Package 1 Height             | 5.5 cm   |
| Package 1 width              | 9.5 cm   |
| Package 1 Length             | 11.8 cm  |
| Unit Type of Package 2       | S02      |
| Number of Units in Package 2 | 15       |
| Package 2 Weight             | 7.138 kg |
| Package 2 Height             | 15 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |

## Offer Sustainability

|                             |                                                                                                                             |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status    | Green Premium product                                                                                                       |
| REACH Regulation            | <a href="#">REACH Declaration</a>                                                                                           |
| EU RoHS Directive           | Compliant <a href="#">EU RoHS Declaration</a>                                                                               |
| 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 |
| Halogen content performance | Halogen free plastic parts & cables product                                                                                 |

## Contractual warranty

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