

# Product data sheet

Specifications



## Thermal overload relay, TeSys Deca, 5.5...8 A, class 10A

LRD12

### Main

|                                     |                                                                                                                                     |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| Range                               | TeSys<br>TeSys Deca                                                                                                                 |
| Product name                        | TeSys LRD<br>TeSys Deca                                                                                                             |
| Product or component type           | Differential thermal overload relay                                                                                                 |
| Device short name                   | LRD                                                                                                                                 |
| Relay application                   | Motor protection                                                                                                                    |
| Product compatibility               | LC1D18<br>LC1D25<br>LC1D32<br>LC1D12<br>LC1D09<br>LC1D38                                                                            |
| Network type                        | DC<br>AC                                                                                                                            |
| Thermal overload class              | Class 10A conforming to IEC 60947-4-1                                                                                               |
| Thermal protection adjustment range | 5.5...8 A                                                                                                                           |
| [Ui] rated insulation voltage       | Power circuit: 600 V conforming to CSA<br>Power circuit: 600 V conforming to UL<br>Power circuit: 690 V conforming to IEC 60947-4-1 |

### Complementary

|                                                          |                                                                                            |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Network frequency                                        | 0...400 Hz                                                                                 |
| Mounting support                                         | Plate, with specific accessories<br>Rail, with specific accessories<br>Under contactor     |
| Tripping threshold                                       | 1.14 +/- 0.06 I <sub>r</sub> conforming to IEC 60947-4-1                                   |
| Auxiliary contact composition                            | 1 NO + 1 NC                                                                                |
| [I <sub>th</sub> ] conventional free air thermal current | 5 A for signalling circuit                                                                 |
| Permissible current                                      | 1.5 A at 240 V AC-15 for signalling circuit<br>0.1 A at 250 V DC-13 for signalling circuit |
| [U <sub>e</sub> ] rated operational voltage              | 690 V AC 0...400 Hz for power circuit conforming to IEC 60947-4-1                          |
| Associated fuse rating                                   | 4 A gG for signalling circuit<br>4 A BS for signalling circuit                             |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | 6 kV                                                                                       |

|                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Phase failure sensitivity             | Tripping current 130 % of Ir on two phase, the last one at 0                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Control type                          | Red push-button: stop<br>Blue push-button: reset                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Temperature compensation              | -20...60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Connections - terminals               | Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² flexible without cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² flexible with cable end<br>Control circuit: screw clamp terminals 2 cable(s) 1...2.5 mm² solid<br>Power circuit: screw clamp terminals 1 cable(s) 1.5...10 mm² flexible without cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...4 mm² flexible with cable end<br>Power circuit: screw clamp terminals 1 cable(s) 1...6 mm² solid |
| Tightening torque                     | Control circuit: 1.7 N.m - on screw clamp terminals<br>Power circuit: 1.7 N.m - on screw clamp terminals                                                                                                                                                                                                                                                                                                                                                                                                    |
| Height                                | 66 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Width                                 | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Depth                                 | 70 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Net weight                            | 0.124 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <h2>Environment</h2>                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Climatic withstand                    | conforming to IACS E10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| IP degree of protection               | IP20 conforming to IEC 60529                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Ambient air temperature for operation | -20...60 °C without derating conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Ambient air temperature for storage   | -60...70 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Flame retardance                      | V1 conforming to UL 94                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical robustness                 | Vibrations: 6 Gn conforming to IEC 60068-2-6<br>Shocks: 15 Gn for 11 ms conforming to IEC 60068-2-7                                                                                                                                                                                                                                                                                                                                                                                                         |
| Dielectric strength                   | 1.89 kV at 50 Hz conforming to IEC 60947-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Standards                             | EN/IEC 60947-4-1<br>EN/IEC 60947-5-1<br>UL 60947-4-1<br>UL 60947-5-1<br>CSA C22.2 No 60947-4-1<br>CSA C22.2 No 60947-5-1<br>GB/T 14048.4<br>GB/T 14048.5<br>EN 50495                                                                                                                                                                                                                                                                                                                                        |
| Product certifications                | IEC<br>UL<br>CSA<br>CCC<br>EAC<br>BV<br>RINA<br>DNV-GL<br>LROS (Lloyds register of shipping)<br>ATEX INERIS<br>UKCA                                                                                                                                                                                                                                                                                                                                                                                         |
| <h2>Packing Units</h2>                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Unit Type of Package 1                | PCE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Number of Units in Package 1          | 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Package 1 Weight                      | 146.0 g                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Package 1 Height                      | 5 cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Package 1 width                       | 7.7 cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Package 1 Length                      | 9 cm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Unit Type of Package 2                | S02                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Number of Units in Package 2          | 24                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

|                              |          |
|------------------------------|----------|
| Package 2 Weight             | 3.81 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 | 384      |
| Package 3 Weight             | 69.54 kg |
| Package 3 Height             | 80 cm    |
| Package 3 width              | 80 cm    |
| Package 3 Length             | 60 cm    |

### Offer Sustainability

|                            |                                                                                                                                                                                                                                                           |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sustainable offer status   | Green Premium product                                                                                                                                                                                                                                     |
| REACH Regulation           | <a href="#">REACH Declaration</a>                                                                                                                                                                                                                         |
| EU RoHS Directive          | Compliant<br><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><br>Product out of China RoHS scope. Substance declaration for your information                                                                                                                                     |
| 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                                                                                                                               |
| 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> |

### Contractual warranty

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