



### Main

|                                     |                                                                                                                                   |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| Range                               | TeSys                                                                                                                             |
| Product name                        | TeSys LRD                                                                                                                         |
| Product or component type           | Non differential thermal overload relay                                                                                           |
| Device short name                   | LR3D                                                                                                                              |
| Relay application                   | Motor protection                                                                                                                  |
| Product compatibility               | LC1D115<br>LC1D150                                                                                                                |
| Network type                        | AC<br>DC                                                                                                                          |
| Overload tripping class             | Class 10A conforming to IEC 60947-4-1                                                                                             |
| Thermal protection adjustment range | 80...104 A                                                                                                                        |
| [Ui] rated insulation voltage       | 600 V power circuit conforming to UL<br>600 V power circuit conforming to CSA<br>1000 V power circuit conforming to IEC 60947-4-1 |

### Complementary

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
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| Network frequency                                        | 0...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Mounting support                                         | Under contactor<br>Rail with specific accessories<br>Plate with specific accessories                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Tripping threshold                                       | 1.14 +/- 0.06 I <sub>r</sub> conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| [I <sub>th</sub> ] conventional free air thermal current | 5 A for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Permissible current                                      | 0.12 A at 600 V AC-15 for signalling circuit<br>0.06 A at 440 V DC-13 for signalling circuit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| [U <sub>e</sub> ] rated operational voltage              | 690 V AC 0...400 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | 6 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Phase failure sensitivity                                | Tripping current 130 % of I <sub>r</sub> on two phase, the last one at 0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Control type                                             | Blue push-button for reset mode<br>Red push-button stop                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Temperature compensation                                 | -20...60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Connections - terminals                                  | Power circuit : screw clamp terminals 1 cable(s) 4...50 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Power circuit : screw clamp terminals 1 cable(s) 4...50 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: solid - without cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - with cable end<br>Control circuit : screw clamp terminals 2 cable(s) 1...2.5 mm <sup>2</sup> - cable stiffness: flexible - without cable end<br>Power circuit : screw clamp terminals 1 cable(s) 4...35 mm <sup>2</sup> - cable stiffness: flexible - with cable end |
| Tightening torque                                        | Power circuit : 9 N.m - on screw clamp terminals<br>Control circuit : 1.7 N.m - on screw clamp terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Product weight                                           | 0.9 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

## Environment

|                                       |                                                                                                               |
|---------------------------------------|---------------------------------------------------------------------------------------------------------------|
| Standards                             | ATEX D 94/9/CE<br>EN 60947-4-1<br>EN 60947-5-1<br>IEC 60947-4-1<br>IEC 60947-5-1<br>UL 508<br>CSA C22.2 No 14 |
| Product certifications                | ATEX INERIS<br>BV<br>CCC<br>CSA<br>DNV<br>GL<br>GOST<br>RINA<br>UL<br>LROS                                    |
| Protective treatment                  | TH conforming to IEC 60068                                                                                    |
| 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                                                                                                   |
| Fire resistance                       | 850 °C conforming to IEC 60695-2-1                                                                            |
| Flame retardance                      | V1 conforming to UL 94                                                                                        |
| Mechanical robustness                 | Shocks 15 Gn for 11 ms IEC 60068-2-7<br>Vibrations 6 Gn IEC 60068-2-6                                         |
| Dielectric strength                   | 6 kV at 50 Hz conforming to IEC 60255-5                                                                       |