



## Main

|                                     |                                            |
|-------------------------------------|--------------------------------------------|
| Range                               | TeSys                                      |
| Product name                        | TeSys LRG                                  |
| Product or component type           | Electronic thermal overload relay          |
| Device short name                   | LR9G                                       |
| Relay application                   | Motor protection                           |
| Network type                        | AC                                         |
| Thermal overload class              | Class 5E...30E conforming to IEC 60947-4-1 |
| Thermal protection adjustment range | 160...630 A                                |

## Complementary

|                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network frequency                                        | 30...60 Hz<br>100 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Overvoltage category                                     | III                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Tripping threshold                                       | 1.125 +/- 0.07 In conforming to IEC 60947-4-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Protection type                                          | Ground fault protection - tripping time adjustment: 0...1 s - for alarm circuit conforming to IEC 60947-4-1<br>Ground fault protection - tripping time adjustment: 0...1 s - for alarm circuit conforming to UL 60947-4-1<br>Phase loss - tripping time adjustment: 0...4 s - for alarm circuit<br>Phase imbalance - tripping time adjustment: 0...5 s - for alarm circuit conforming to IEC 60947-4-1<br>Phase imbalance - tripping time adjustment: 0...5 s - for alarm circuit conforming to UL 60947-4-1 |
| Local signalling                                         | LED<br>Trip indicator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Contacts type and composition                            | 1 NO + 1 NC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| [I <sub>th</sub> ] conventional free air thermal current | 5 A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| [U <sub>c</sub> ] control circuit voltage                | 24...500 V AC 50/60 Hz<br>24...250 V DC                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| [U <sub>e</sub> ] rated operational voltage              | 1000 V AC 50/60 Hz                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | 8 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Reset                                                    | Automatic reset<br>Manual                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Mechanical durability                                    | 7000 cycles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Surge withstand                                          | 4 kV                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Electromagnetic compatibility                            | EMC immunity conforming to IEC 60947-4-1<br>Emission tests criteria A conforming to IEC 60947-4-1<br>Immunity to radiated radio-electrical interference - test level: 20 V/m conforming to EN/IEC 61000-4-3<br>Voltage dips and interruptions immunity test conforming to SEMI F47                                                                                                                                                                                                                           |
| Connections - terminals                                  | Power circuit: bar - busbar cross section: 50 x 10 mm<br>Power circuit: lugs-ring terminals 1 300 mm <sup>2</sup><br>Control circuit: push-in 1 0.2...2.5 mm <sup>2</sup> - cable stiffness: solid stranded without cable end<br>Control circuit: push-in 1 0.25...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Control circuit: push-in 2 0.5...1.0 mm <sup>2</sup> with cable end                                                                                                     |
| Tightening torque                                        | 58 N.m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Mounting support                                         | Direct on contactor<br>Plate                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                        |                                                                                                                  |
|------------------------|------------------------------------------------------------------------------------------------------------------|
| 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>JIS C8201-4-1<br>JIS C8201-5-1 |
| Product certifications | CB Scheme<br>CCC<br>CULus<br>UKCA<br>ATEX<br>EU-RO-MR by DNV-GL<br>EAC                                           |

## Environment

|                                                       |                                                                                                             |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| IP degree of protection                               | IP2x front face with shrouds conforming to IEC 60529<br>IP2x front face with shrouds conforming to VDE 0106 |
| Protective treatment                                  | TH                                                                                                          |
| Ambient air temperature for operation                 | -25...60 °C                                                                                                 |
| Ambient air temperature for storage                   | -60...80 °C                                                                                                 |
| Permissible ambient air temperature around the device | -40...60 °C at U <sub>c</sub>                                                                               |
| Adjustment of dial setting                            | -25...60 °C                                                                                                 |
| Mechanical robustness                                 | Vibrations 5...300 Hz 6 gn contactor open<br>Shocks 15 gn 11 ms contactor closed                            |
| Height                                                | 148 mm                                                                                                      |
| Width                                                 | 211 mm                                                                                                      |
| Depth                                                 | 186 mm                                                                                                      |
| Net weight                                            | 2.67 kg                                                                                                     |
| Colour                                                | Dark grey                                                                                                   |

## Packing Units

|                              |          |
|------------------------------|----------|
| Unit Type of Package 1       | PCE      |
| Number of Units in Package 1 | 1        |
| Package 1 Weight             | 4.136 kg |
| Package 1 Height             | 27 cm    |
| Package 1 width              | 27.5 cm  |
| Package 1 Length             | 32.5 cm  |
| Unit Type of Package 2       | S03      |
| Number of Units in Package 2 | 1        |
| Package 2 Weight             | 4.665 kg |
| Package 2 Height             | 30 cm    |
| Package 2 width              | 30 cm    |
| Package 2 Length             | 40 cm    |
| Unit Type of Package 3       | P06      |
| Number of Units in Package 3 | 8        |
| Package 3 Weight             | 49.0 kg  |
| Package 3 Height             | 105 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>             |
| 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>        |

|                             |                                    |
|-----------------------------|------------------------------------|
| PVC free                    | Yes                                |
| Halogen content performance | Halogen free plastic parts product |





