

## Product data sheet

### Characteristics

# LR97D015B

electronic overload relay for motor TeSys -  
0.3...1.5 A - 24 V AC/DC

Local distributor code: 387270993

EAN Code: 3389110575774



### Main

|                                     |                                                                                                                                                      |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Device short name                   | LR97                                                                                                                                                 |
| Product or component type           | Electronic overcurrent relay                                                                                                                         |
| Device application                  | Protection                                                                                                                                           |
| Relay application                   | Locked rotor, mechanical jamming $I > 3 \times I_{\text{setting}}$<br>Sensitivity to phase failure<br>Overload $I_{\text{max}} > I_{\text{setting}}$ |
| Product compatibility               | LC1D09...D38                                                                                                                                         |
| Network type                        | DC<br>AC                                                                                                                                             |
| [Us] rated supply voltage           | 24 V AC/DC                                                                                                                                           |
| Thermal protection adjustment range | 0.3...1.5 A                                                                                                                                          |
| Quantity per set                    | Set of 10                                                                                                                                            |

### Complementary

|                                             |                                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Network frequency                           | 50...60 Hz                                                                                                                                                                                                                                                                                                                                                      |
| Mounting support                            | Direct on contactor<br>Rail                                                                                                                                                                                                                                                                                                                                     |
| Tripping threshold                          | 0.3...1.3 A                                                                                                                                                                                                                                                                                                                                                     |
| Surge withstand                             | 6 kV conforming to IEC 61000-4-5                                                                                                                                                                                                                                                                                                                                |
| Contacts type and composition               | 1 C/O                                                                                                                                                                                                                                                                                                                                                           |
| [Ith] conventional free air thermal current | 3 A for control circuit                                                                                                                                                                                                                                                                                                                                         |
| Protection type                             | BS fuse 3 A - for control circuit<br>GB2 circuit breaker 3 A - for control circuit<br>GG fuse 3 A - for control circuit                                                                                                                                                                                                                                         |
| Maximum power                               | 28 W at 110 V DC conforming to IEC 60947<br>28 W at 220 V DC conforming to IEC 60947<br>55 W at 24 V DC conforming to IEC 60947<br>55 W at 48 V DC conforming to IEC 60947<br>140 VA at 48 V AC conforming to IEC 60947<br>360 VA at 110 V AC conforming to IEC 60947<br>360 VA at 220 V AC conforming to IEC 60947<br>70 VA at 24 V AC conforming to IEC 60947 |
| [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                                                                                                                                                                                                                             |
| [Uimp] rated impulse withstand voltage      | 6 kV                                                                                                                                                                                                                                                                                                                                                            |
| Phase failure sensitivity                   | < 3 s                                                                                                                                                                                                                                                                                                                                                           |
| Reset                                       | Automatic reset 120 s fixed<br>Electrical by interruption of power supply for minimum 0.1 s<br>Manual reset                                                                                                                                                                                                                                                     |
| Time range                                  | 0.2...10 s - O-time knob<br>0.3...10 s - O-time knob<br>0.5...30 s - D-time knob                                                                                                                                                                                                                                                                                |
| Signalling function                         | 2 LEDs                                                                                                                                                                                                                                                                                                                                                          |

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Connections - terminals | Control circuit: cable 1 x 1...25 mm <sup>2</sup> flexible with cable end<br>Control circuit: cable 1 x 1...25 mm <sup>2</sup> flexible without cable end<br>Control circuit: cable 1 x 2.5 mm <sup>2</sup> flexible without cable end<br>Control circuit: lug-clamp 1 x 0.34 mm <sup>2</sup> flexible with cable end<br>Control circuit: lug-clamp 1 x 0.75 mm <sup>2</sup> flexible without cable end<br>Control circuit: lug-clamp 2 x 1.5 mm <sup>2</sup> flexible with cable end<br>Control circuit: lug-clamp 2 x 2.5 mm <sup>2</sup> flexible without cable end<br>Power circuit: cable 1 x 1...4 mm <sup>2</sup> flexible with cable end<br>Power circuit: cable 1 x 1.5...10 mm <sup>2</sup> flexible without cable end<br>Power circuit: lug-clamp 1 x 1...4 mm <sup>2</sup> flexible with cable end<br>Power circuit: lug-clamp 1 x 1.5...10 mm <sup>2</sup> flexible without cable end |
| Tightening torque       | Control circuit: 0.6...1.2 N.m on lug-clamp<br>Power circuit: 2 N.m on cable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Height                  | 67.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Width                   | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Depth                   | 67.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Net weight              | 0.172 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

## Environment

|                                       |                                                                   |
|---------------------------------------|-------------------------------------------------------------------|
| Standards                             | IEC 60947<br>IEC 60255-6                                          |
| Product certifications                | GOST[RETURN]CSA[RETURN]UL                                         |
| Protective treatment                  | TH conforming to IEC 60068                                        |
| IP degree of protection               | IP20 conforming to IEC 60529                                      |
| Ambient air temperature for operation | -25...60 °C conforming to IEC 60947-4-1                           |
| Ambient air temperature for storage   | -30...80 °C                                                       |
| Operating altitude                    | 2000 m                                                            |
| Fire resistance                       | 850 °C conforming to IEC 60695-2-1                                |
| Shock resistance                      | 15 gn 11 ms conforming to IEC 60068-2-7                           |
| Vibration resistance                  | 4 gn conforming to IEC 60068-2-6                                  |
| Dielectric strength                   | 2 V 50 Hz conforming to IEC 60255-5                               |
| Resistance to electrostatic discharge | 6 kV in indirect mode<br>8 kV in air                              |
| Resistance to radiated fields         | 10 V/m level 3                                                    |
| Resistance to fast transients         | 2 kV                                                              |
| Disturbance radiated/conducted        | 10 V conforming to EN 61000-4-6<br>Class A conforming to EN 55011 |

## Packing Units

|                              |         |
|------------------------------|---------|
| Unit Type of Package 1       | PCE     |
| Number of Units in Package 1 | 1       |
| Package 1 Height             | 5.5 cm  |
| Package 1 Width              | 7.3 cm  |
| Package 1 Length             | 7.9 cm  |
| Package 1 Weight             | 178 g   |
| Unit Type of Package 2       | S02     |
| Number of Units in Package 2 | 24      |
| Package 2 Height             | 15 cm   |
| Package 2 Width              | 30 cm   |
| Package 2 Length             | 40 cm   |
| Package 2 Weight             | 4.68 kg |

## Offer Sustainability

|                            |                                                                                                                             |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| REACH Regulation           |  <a href="#">REACH Declaration</a>         |
| EU RoHS Directive          | Compliant with Exemptions                                                                                                   |
| Mercury free               | Yes                                                                                                                         |
| China RoHS Regulation      |  <a href="#">China RoHS Declaration</a>    |
| RoHS exemption information |  <a href="#">Yes</a>                       |
| WEEE                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

## Contractual warranty

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