

# Product datasheet

Specifications



## EasyPact TVS differential thermal overload relay 5.5...8 A - class 10A

LRE12

### Main

|                           |                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------|
| Range                     | EasyPact                                                                                    |
| Product name              | EasyPact TVS                                                                                |
| Product or component type | Differential thermal overload relay                                                         |
| Device short name         | LRE                                                                                         |
| Relay application         | Motor protection                                                                            |
| Phase failure sensitivity | Tripping current 130 % of $I_r$ on two phase, the last one at 0 conforming to IEC 60947-4-1 |
| Colour                    | Grey (RAL 7011)                                                                             |

### Complementary

|                                                          |                                                                                                    |
|----------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Product compatibility                                    | LC1E09...38                                                                                        |
| Network type                                             | AC                                                                                                 |
| Network frequency                                        | 50...60 Hz                                                                                         |
| Mounting support                                         | Under contactor<br>Plate, with specific accessories<br>Rail, with specific accessories             |
| Thermal overload class                                   | Class 10A conforming to IEC 60947-4-1                                                              |
| Signalling function                                      | Relay trip indicator                                                                               |
| Thermal protection adjustment range                      | 5.5...8 A                                                                                          |
| Tripping threshold                                       | 1.14 +/- 0.06 $I_r$ conforming to IEC 60947-4-1                                                    |
| Mechanical robustness                                    | Shocks: 6 Gn for 11 ms conforming to IEC 60068-2-7<br>Vibrations: 3 Gn conforming to IEC 60068-2-6 |
| Auxiliary contact composition                            | 1 NO + 1 NC                                                                                        |
| [I <sub>th</sub> ] conventional free air thermal current | 5 A for signalling circuit                                                                         |
| [U <sub>e</sub> ] rated operational voltage              | <= 690 V AC                                                                                        |
| Associated fuse rating                                   | 20 A gG for power circuit<br>12 A aM for power circuit<br>5 A gG for signalling circuit            |
| [U <sub>i</sub> ] rated insulation voltage               | 690 V conforming to IEC 60947-4-1                                                                  |
| [U <sub>imp</sub> ] rated impulse withstand voltage      | 6 kV                                                                                               |
| Local signalling                                         | Trip indicator                                                                                     |

|                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Control type</b>                  | Push-button red stop:<br>Push-button green reset:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Temperature compensation</b>      | -20...60 °C                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Connections - terminals</b>       | Power circuit: screw clamp terminals 1 1.5...6 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Power circuit: screw clamp terminals 1 1...4 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Power circuit: screw clamp terminals 1 1...6 mm <sup>2</sup> - cable stiffness: solid without cable end<br>Signalling circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible without cable end<br>Signalling circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: flexible with cable end<br>Signalling circuit: screw clamp terminals 2 1...2.5 mm <sup>2</sup> - cable stiffness: solid without cable end |
| <b>Recommended tightening torque</b> | Power circuit: 1.7 N.m - on screw clamp terminals<br>Signalling circuit: 1.7 N.m - on screw clamp terminals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Height</b>                        | 44.5 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Width</b>                         | 45 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Depth</b>                         | 70 mm                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Net weight</b>                    | 0.13 kg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

## Environment

|                                              |                                                                                       |
|----------------------------------------------|---------------------------------------------------------------------------------------|
| <b>Standards</b>                             | IEC 60947-4-1<br>IEC 60947-5-1                                                        |
| <b>Product certifications</b>                | EAC                                                                                   |
| <b>Protective treatment</b>                  | TH conforming to IEC 60068                                                            |
| <b>IP degree of protection</b>               | IP20 conforming to IEC 60529                                                          |
| <b>Ambient air temperature for operation</b> | -20...60 °C without derating conforming to IEC 60947-4-1<br>-20...70 °C with derating |
| <b>Ambient air temperature for storage</b>   | -60...80 °C                                                                           |
| <b>Fire resistance</b>                       | 850 °C conforming to IEC 60068-2-1                                                    |
| <b>Dielectric strength</b>                   | 6 kV at 50 Hz conforming to IEC 60255-5                                               |
| <b>Electromagnetic compatibility</b>         | Surge withstand: 6 kV conforming to IEC 60801-5                                       |

## Packing Units

|                                     |          |
|-------------------------------------|----------|
| <b>Unit Type of Package 1</b>       | PCE      |
| <b>Number of Units in Package 1</b> | 1        |
| <b>Package 1 Weight</b>             | 145.0 g  |
| <b>Package 1 Height</b>             | 4.8 cm   |
| <b>Package 1 width</b>              | 8 cm     |
| <b>Package 1 Length</b>             | 8.2 cm   |
| <b>Unit Type of Package 2</b>       | S02      |
| <b>Number of Units in Package 2</b> | 33       |
| <b>Package 2 Weight</b>             | 5.188 kg |
| <b>Package 2 Height</b>             | 15 cm    |
| <b>Package 2 width</b>              | 30 cm    |
| <b>Package 2 Length</b>             | 40 cm    |

## Offer Sustainability

|                           |                                                  |
|---------------------------|--------------------------------------------------|
| <b>REACH Regulation</b>   | <a href="#">REACH Declaration</a>                |
| <b>REACH free of SVHC</b> | Yes                                              |
| <b>EU RoHS Directive</b>  | Compliant<br><a href="#">EU RoHS Declaration</a> |

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|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| <b>Mercury free</b>               | Yes                                                                                                                         |
| <b>RoHS exemption information</b> | <a href="#">Yes</a>                                                                                                         |
| <b>China RoHS Regulation</b>      | <a href="#">China RoHS declaration</a><br>Product out of China RoHS scope. Substance declaration for your information       |
| <b>WEEE</b>                       | The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins |

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**Contractual warranty**

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| <b>Warranty</b> | 18 months |
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