



### Main

|                              |   |
|------------------------------|---|
| Commercial Status            | Commercialised  |
| Range of product             | EOCR  |
| Device short name            | EOCR-FMZ2   |
| Product or component type    | Protection relay  |
| Protection type              | Sensitivity to phase reverse<br>Earth fault, $I_g > I_g$ setting<br>Phase unbalance, 10...50 %<br>Sensitivity to phase loss<br>Locked rotor for running, $I_n > 1.5...5$ times OC setting<br>Locked rotor for starting, $I_n > 2...8$ times OC setting<br>Underload, $I_n < UC$ setting<br>Overload, $I_n > OC$ setting |
| Product specific application | Motor protection  |
| Network type                 | AC  |
| Network frequency            | 50...60 Hz  |
| Protection adjustment range  | 0.5...60 A  |
| Tripping threshold           | 0.03...10 A (definite) - earth fault current<br>0.5...60 A (definite)<br>0.5...32 A (inverse and thermal)   |

### Complementary

|  |  |
|--|--|
| [Us] rated supply voltage              | 24 V AC/DC   |
| Mounting support                       | Flush - display unit<br>Panel - base unit<br>35 mm DIN rail - base unit  |
| Contacts type and composition          | 1 NC + 1 NO (OL/GR)  |
| Short-circuit and overld prot          | By 4 A gG fuse   |
| [Ue] rated operational voltage         | Power circuit: 690 V AC 8...200 Hz IEC 60947-4-1<br>Power circuit: 690 V AC 8...200 Hz CSA<br>Power circuit: 600 V AC 8...200 Hz UL  |
| [Uimp] rated impulse withstand voltage | 6 kV IEC 60947-4-1   |
| Reset                                  | Automatic reset 0.5...1200 s<br>Electrical < 1 s by interruption of power supply<br>Manual reset   |
| Time delay type                        | O-Time: 1...30 class (inverse and thermal)<br>Ed-Time: 0...30 s<br>E-Time: 0.05...10 s<br>U-Time: 0.5...30 s<br>O-Time: 0.2...30 s (definite)<br>D-Time: 0...200 s   |
| Display type                           | 7 segments LED<br>Bar graph  |
| Power consumption per relay            | < 3 W  |
| Connections - terminals                | Control circuit: 1 cable 1...2.5 mm <sup>2</sup> - flexible - without cable end - M3<br>Control circuit: 1 cable 1...2.5 mm <sup>2</sup> - flexible - with cable end - M3<br>Control circuit: 2 cable 1...1.5 mm <sup>2</sup> - flexible - without cable end - M3<br>Control circuit: 2 cable 1...1.5 mm <sup>2</sup> - flexible - with cable end - M3 |
| Tightening torque                      | 0.8...1.2 N.m for control circuit - cable - 4.7 mm head  |
| Height                                 | 74.5 mm  |
| Width                                  | 150 mm   |
| Depth                                  | 155 mm   |
| Product weight                         | 0.974 kg   |

## Environment

|  |  |
|--|--|
| Standards  | IEC 60947-4-1  |
| Product certifications                                   | UL   |
| IP degree of protection                                  | IP20 IEC 60529   |
| Ambient air temperature for operation                    | -20...60 °C IEC 60947-4-1  |
| Ambient air temperature for storage                      | -40...85 °C  |
| Operating altitude                                       | 2000 m   |
| Fire resistance  | 960 °C UL 94<br>650 °C IEC 60695-2-12  |
| Shock resistance   | 15 gn for 11 ms IEC 60068-2-7  |
| Vibration resistance                                     | 2 gn on 35 mm DIN rail IEC 60068-2-6<br>4 gn on panel mounting IEC 60068-2-6   |
| Dielectric strength                                      | 2 kV at 50...60 Hz in between circuit IEC 60255-5<br>1 kV at 50...60 Hz in between contact IEC 60255-5<br>2 kV at 50...60 Hz in between case and circuit IEC 60255-5   |
| Surge withstand  | 6 kV IEC 61000-4-5   |
| Electromagnetic compatibility                            | Conducted RF disturbances class A EN 55011<br>Conducted RF disturbances 10 V EN 61000-4-6<br>Resistance to fast transient 2 kV IEC 61000-4-4<br>Resistance to radiated electromagnetic fields 10 V/m level 3 IEC 61000-4-3<br>Resistance to electrostatic discharge 8 kV air, 6 kV contact IEC 61000-4-2 |
| [I <sub>th</sub> ] conventional free air thermal current | 3 A, control circuit   |
| Permissible current                                      | 250 V, 3 A   |

## Contractual warranty

|        |           |
|--------|-----------|
| Period | 18 months |
|--------|-----------|