# Product datasheet

Specifications

## Protection relay, EOCR Digital, 0.5 to 80A, 100 to 240VAC/DC, for motor with built in ZCT

FBZ2-WRCUHZ

## Main

| | |
|---|---|
| **Range of product** | EOCR |
| **Device short name** | EOCR-FBZ2 |
| **Product or component type** | Protection relay |
| **Protection type** | Overload, In > OC setting<br>Underload, In < UC setting<br>Locked rotor for starting, In > 2...8 times OC setting<br>Locked rotor for running, In > 1.5...5 times OC setting<br>Sensitivity to phase loss<br>Phase unbalance, 10...50 %<br>Earth fault, Ig > Ig setting<br>Sensitivity to phase reverse |
| **Product specific application** | Motor protection |
| **Network type** | AC |
| **Network frequency** | 50...60 Hz |
| **protection ajustment range** | 0.5…80 A |
| **Tripping threshold** | 0.5...80 A (definite)<br>0.5...32 A (inverse and thermal)<br>0.03...10 A, off (definite) - earth fault current |

## Complementary

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|---|---|
| **[Us] rated supply voltage** | 100...240 V AC/DC |
| **Mounting support** | Base unit: 35 mm DIN rail<br>Base unit: panel<br>Display unit: flush |
| **Contacts type and composition** | 1 NC + 1 NO (OL)<br>1 NO (GR) |
| **Short-circuit and overload protection** | By 4 A gG fuse |
| **[Ue] rated operational voltage** | 600 V AC 8...200 Hz for power circuit conforming to UL<br>690 V AC 8...200 Hz for power circuit conforming to CSA<br>690 V AC 8...200 Hz for power circuit conforming to IEC 60947-4-1 |
| **[Uimp] rated impulse withstand voltage** | 6 kV conforming to IEC 60947-4-1 |
| **Reset** | Manual reset<br>Automatic reset 0.5…1200 s<br>Electrical 0…1 s by interruption of power supply |
| **Time delay type** | D-Time: 0...200 s<br>O-Time: 0.2...30 s (definite)<br>U-Time: 1...30 s, off<br>E-Time: 0.1...10 s<br>Ed-Time: 1...30 s, off<br>O-Time: 1...30 class (inverse and thermal) |
| **Display type** | Bar graph<br>7 segments LED |

Excluding VAT, FCA Jabal Ali & are subject to change – check with your local distributor.

| | |
|---|---|
| **power consumption per relay** | 3 W |
| **Connections - terminals** | Control circuit: cable 2 x 1…1.5 mm²solid or flexible without cable end - M3<br>Control circuit: cable 1 x 1…2.5 mm²solid or flexible with cable end - M3<br>Control circuit: cable 1 x 1…2.5 mm²solid or flexible without cable end - M3<br>Control circuit: cable 2 x 1…1.5 mm²flexible with cable end - M3 |
| **Tightening torque** | Control circuit: 0.8...1.2 N.m on cable, 4.7 mm |
| **Height** | 56.3 mm |
| **Width** | 70 mm |
| **Depth** | 108.1 mm |
| **Product weight** | 0.437 kg |

## Environment

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

## Packing Units

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|---|---|
| **Unit Type of Package 1** | PCE |
| **Number of Units in Package 1** | 1 |
| **Package 1 Height** | 11.5 cm |
| **Package 1 Width** | 16.65 cm |
| **Package 1 Length** | 10.5 cm |
| **Package 1 Weight** | 457.0 g |

## Contractual warranty

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|---|---|
| **Warranty (in months)** | 18 |

## Environmental Data

Schneider Electric aims to achieve Net Zero status by 2050 through supply chain partnerships, lower impact materials, and circularity via our ongoing “Use Better, Use Longer, Use Again” campaign to extend product lifetimes and recyclability.

Environmental Data explained >

How we assess product sustainability >

### Use Better

#### Materials and Substances

| | |
|---|---|
| Packaging made with recycled cardboard | **Yes** |
| Packaging without single use plastic | **No** |
| EU RoHS Directive | **Compliant** |

### Use Longer

#### Lifetime extension

| | |
|---|---|
| Repair | **No** |

### Use Again

#### Repack and remanufacture

| | |
|---|---|
| Take-back | **No** |
| WEEE Label | **The product must be disposed on European Union markets following specific waste collection and never end up in rubbish bins** |