KPRD1-63 SERIES
Residual Current Circuit Breaker

Construction and Feature

1. Provides protection against earth fault/leakage current and function of isolation.
2. High short-circuit current withstand capacity
3. Applicable to terminal and pin/fork type busbar connection
4. Equipped with finger protected connection terminals
5. Fire resistant plastic parts endures abnormal heating and strong impact
6. Automatically disconnect the circuit when earth fault/leakage current occurs and exceeds the rated sensitivity.
7. Independent of power supply and line voltage, and free from external interference, voltage fluctuation.

Technical Data

1. Model: Electro-magnetic type, electronic type
2. Residual current characteristics: A, AC
3. Pole NO.: 2, 4
4. Rated making and breaking capacity: 630A
5. Rated current(A): 16, 25, 32, 40, 63
6. Rated voltage: 240/415V AC
7. Rated frequency: 50/60Hz
8. Rated residual operating current I△n(A): 0.03, 0.1, 0.3, 0.5
9. Rated residual non-operating current I△no: 0.5I△n
10. Rated conditional short-circuit current I△c: 10kA
11. Rated conditional residual short-circuit current I△c: 10kA
12. Tripping duration: Instantaneous tripping ≤ 0.1s
13. Residual tripping current range: 0.5I△n~I△n
14. Electro-mechanical endurance: ≥ 4000 cycles
15. Connection capacity: Rigid conductor 25mm²
16. Connection terminal: Screw terminal Pillar terminal with clamp
17. Fastening torque: 2.0Nm
18. Installation: On symmetrical DIN rail 35mm Panel mounting

Wiring Diagram

Overall & Installation Dimensions
**Construction and Feature**

1. Provides protection against earth fault/leakage current and function of isolation.
2. High short-circuit current withstand capacity
3. Transparent cover designed to carry label
4. Applicable to terminal and pin/fork type busbar connection
5. Equipped with finger protected connection terminals
6. Automatically disconnect the circuit when earth fault/leakage current occurs and exceeds the rated sensitivity.
7. Independent of power supply and line voltage, and free from external interference, voltage fluctuation.

**Technical Data**

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3. Pole NO.: 2, 4
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5. Rated current(A): 16, 25, 32, 40, 63
6. Rated voltage: 240/415V AC
7. Rated frequency: 50/60Hz
8. Rated residual operating current $I_{n}$ (A): 0.03, 0.1, 0.3, 0.5
9. Rated residual non operating current $I_{no}$: 0.5$I_{n}$
10. Rated conditional short-circuit current $I_{cc}$: 6kA
11. Rated conditional residual short-circuit Current $I_{ncc}$: 6kA
12. Tripping duration: instantaneous tripping $\leq 0.1s$
13. Residual tripping current range: 0.5$I_{n} - I_{n}$
14. Electro-mechanical endurance: $\geq 4000$ cycles
15. Connection capacity: Rigid conductor 25mm²
16. Connection terminal: Screw terminal, Pillar terminal with clamp
17. Fastening torque: 2.0Nm
18. Installation: On symmetrical DIN rail 35mm, Panel mounting

**Wiring Diagram**

![Wiring Diagram Image]

**Overall & Installation Dimensions**

![Overall & Installation Dimensions Image]
Construction and Feature

1. Provides protection against earth fault/leakage current and function of isolation.
2. High short-circuit current withstand capacity
3. Applicable to terminal and pin/fork type busbar connection
4. Equipped with finger protected connection terminals
5. Fire resistant plastic parts endures abnormal heating and strong impact
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9. Rated residual non operating current $I_{\Delta no}$: 0.5$I_{\Delta n}$
10. Rated conditional short-circuit current $I_{nc}$: 10kA
11. Rated conditional residual short-circuit Current $I_{\Delta c}$: 10kA
12. Tripping duration: instantaneous tripping $\leq 0.1s$
13. Residual tripping current range: 0.5$I_{\Delta n}$ – $I_{\Delta n}$
14. Electro-mechanical endurance: $\geq 4000$ cycles
15. Connection capacity: Rigid conductor 25mm²
16. Connection terminal: Screw terminal, Pillar terminal with clamp
17. Fastening torque: 2.0Nm
18. Installation: On symmetrical DIN rail 35mm, Panel mounting

Wiring Diagram

Overall & Installation Dimensions
Construction and Feature

1. Provides protection against earth fault/leakage current and function of isolation.
2. High short-circuit current withstand capacity
3. Applicable to terminal and pin/fork type busbar connection
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7. Rated frequency: 50/60Hz
8. Rated residual operating current $I_{\Delta n}$(A): 0.03, 0.1, 0.3, 0.5
9. Rated residual non operating current $I_{\Delta no}$: 0.5$I_{\Delta n}$
10. Rated conditional short-circuit current $I_{\Delta c}$: 10kA
11. Rated conditional residual short-circuit Current $I_{\Delta c} \leq n$: 10kA
12. Tripping duration: instantaneous tripping $\leq 0.1$s
13. Residual tripping current range: 0.5$I_{\Delta n}$-$I_{\Delta n}$
14. Electro-mechanical endurance: $\geq 4000$ cycles
15. Connection capacity: Rigid conductor 25mm$^2$
16. Connection terminal: Screw terminal Pillar terminal with clamp
17. Fastening torque: 2.0Nm
18. Installation: On symmetrical DIN rail 35mm Panel mounting

Wiring Diagram

Overall & Installation Dimensions
RCCB residual current circuit breakers
Residual Current Circuit Breaker

Functions
1. Tripping in case of leakage current only.
2. One RCCB protects several circuits when fitted upstream of a group of circuit breakers.

Characteristics

<table>
<thead>
<tr>
<th>Main characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Reted impulse withstand voltage (Uimp)</td>
<td>4kv</td>
</tr>
<tr>
<td>According to IEC 61008-1</td>
<td></td>
</tr>
<tr>
<td>Making and breaking capacity (Im/Δm)</td>
<td>500A</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Additional characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of protection (IEC 60529)</td>
<td>Device</td>
</tr>
<tr>
<td>RoHS 2003 compliant</td>
<td>IP20</td>
</tr>
<tr>
<td>Tropicalisation (IEC 60068-1)</td>
<td>Treatment 2 (relative humidity 95% to 55°C)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2P Residual current circuit breakers AC-</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating (In)</td>
<td>30mA</td>
</tr>
<tr>
<td>63 A</td>
<td>EZ9R33263</td>
</tr>
<tr>
<td>80 A</td>
<td>EZ9R33280</td>
</tr>
<tr>
<td>Voltage rating (Ue)</td>
<td>127-230 V, 50/60Hz</td>
</tr>
<tr>
<td>Width in 9-mm modules</td>
<td>4</td>
</tr>
</tbody>
</table>

Dimensions (mm)

<table>
<thead>
<tr>
<th>Weight (g)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Easy+RCCB</td>
</tr>
<tr>
<td>2P</td>
<td>195</td>
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</tbody>
</table>
KPF360 SERIES
Residual Current Circuit Breaker

Construction and Feature
1. Provides protection against earth fault/leakage current and function of isolation.
2. High short-circuit current withstand capacity
3. Applicable to terminal and pin/fork type busbar connection
4. Equipped with finger protected connection terminals
5. Bakelite parts endures abnormal heating and strong impact
6. Automatically disconnect the circuit when earth fault/leakage current occurs and exceeds the rated sensitivity.
7. Independent of power supply and line voltage, and free from external interference, voltage fluctuation.

Technical Data
1. Model: Electro-magnetic type, electronic type
2. Residual current characteristics: A, AC
3. Pole NO.: 2, 4
4. Rated making and breaking capacity: 630A
5. Rated current (A): 16, 25, 40, 63
6. Rated voltage: 240/415V AC
7. Rated frequency: 50/60Hz
8. Rated residual operating current \( I_{\triangle n} \): 0.03, 0.1, 0.3, 0.5
9. Rated residual non operating current \( I_{\triangle no} \): 0.5\(I_{\triangle n}\)
10. Rated conditional short-circuit current \( I_{\triangle c} \): 10kA
11. Rated conditional residual short-circuit Current \( I_{\triangle c} \): 10kA
12. Tripping duration: instantaneous tripping \( \leq 0.1s \)
13. Residual tripping current range: 0.5\(I_{\triangle n}\) – \(I_{\triangle n}\)
14. Electro-mechanical endurance: \( \geq 4000 \) cycles
15. Connection capacity: Rigid conductor 25mm²
16. Connection terminal:
   17. Screw terminal
   18. Pillar terminal with clamp
19. Fastening torque: 2.0Nm
20. Installation:
21. On symmetrical DIN rail 35mm
22. Panel mounting

Wiring Diagram

Overall & Installation Dimensions
# Construction and Feature

1. Protection from short-circuits  
2. Protection of cable from overloads  
3. Protection of persons from electric shocks by direct contact (30 mA sensitivity)  
4. Can be fitted instead of a miniature circuit breaker for complete protection of one circuit  

The Earth Reference Cable "FE" enables RCD to protect users from electric shocks, even in case of supply neutral loss, neutral conductor breakage or supply voltage drop (FE= Functional Earth).

<table>
<thead>
<tr>
<th>Main characteristics</th>
<th></th>
</tr>
</thead>
</table>
| Endurance (O-C)      | Electrical: 4000 cycles  
                        | Mechanically: 1000 cycles  |

<table>
<thead>
<tr>
<th>Additipnal characteristics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Degree of protection</td>
<td>Device: IP20</td>
</tr>
<tr>
<td>Overvoltage category (IEC 60364)</td>
<td>IV</td>
</tr>
<tr>
<td>Operating temperature</td>
<td>-15°C to +60°C</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-40°C to +85°C</td>
</tr>
<tr>
<td>Hazardous substances</td>
<td>RoHS 2003 compliant</td>
</tr>
<tr>
<td>Tropicalisation (IEC 6)</td>
<td>Treatment 2 (relative humidity) 95% to 55°C</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>1P+N Easy+RCBO type A</th>
<th>30 mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rating (In)</td>
<td>B curve</td>
</tr>
<tr>
<td>6A</td>
<td>EZ9D 16806</td>
</tr>
<tr>
<td>10A</td>
<td>EZ9D 16810</td>
</tr>
<tr>
<td>16A</td>
<td>EZ9D 16816</td>
</tr>
<tr>
<td>20A</td>
<td>EZ9D 16820</td>
</tr>
<tr>
<td>25A</td>
<td>EZ9D 16825</td>
</tr>
<tr>
<td>32A</td>
<td>EZ9D 16832</td>
</tr>
<tr>
<td>40A</td>
<td>EZ9D 16840</td>
</tr>
<tr>
<td>50A</td>
<td>EZ9D 16850</td>
</tr>
<tr>
<td>Voltage rating (Ue)</td>
<td>230 V AC, 50Hz</td>
</tr>
<tr>
<td>Width in 9-mm modules</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (g)</td>
<td>Easy+RCBO</td>
</tr>
<tr>
<td>1P+N</td>
<td>180</td>
</tr>
</tbody>
</table>

![Image of residual current circuit breaker](image-url)
KPR8 SERIES
Residual Current Circuit Breaker

**General**

R8 residual current circuit breaker is mainly used for 230 v and below, the rated current to 32A distribution lines and electrical equipment, to direct or indirect or indirect contact charged body and the leakage, fire accident and insulation damage lamp, fault, for effective protection. Its main characteristic is electronic structure, high sensitivity. Widely used in the civil, public and industrial areas such as buildings, buildings, hotel, etc. This product meets the standard of IEC/EN61009-1.

**It has the following features**

1. Electronic structure and high sensitivity
2. Maximum connecting ability of 16mm, wiring torque 2.5N m, applicable to a variety of installing equipments, wiring stronger
3. Protection class: IP20

**Technical Data**

<table>
<thead>
<tr>
<th>Electrical features</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Rated current In</td>
<td>6-32A</td>
</tr>
<tr>
<td>Poles</td>
<td>1P+N</td>
</tr>
<tr>
<td>Rated Voltage Ue</td>
<td>230V~</td>
</tr>
<tr>
<td>Insulation voltage Ui</td>
<td>500V</td>
</tr>
<tr>
<td>Rated frequency</td>
<td>50/60HZ</td>
</tr>
<tr>
<td>Rated sensitivity I Δ n</td>
<td>0.03A 0.1A 0.3A</td>
</tr>
<tr>
<td>Rated residual making and breaking capacity I Δ m</td>
<td>500A</td>
</tr>
<tr>
<td>Rated breaking capacity</td>
<td>4500/6000A</td>
</tr>
<tr>
<td>Break time under I Δ n</td>
<td>≤0.15</td>
</tr>
<tr>
<td>Rated impulse withstand voltage (1.25/50)Uimp</td>
<td>4KV</td>
</tr>
<tr>
<td>Dielectric test voltage at and ind.Freq.for 1 min</td>
<td>2.5KV</td>
</tr>
<tr>
<td>Pollution degree</td>
<td>2</td>
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<tr>
<td>Thermo-magnetic release characteristic</td>
<td>B,C</td>
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<tr>
<td>Electrical life and mechanical life</td>
<td>4000</td>
</tr>
</tbody>
</table>

**Overall and mounting dimensioned chart**
MINIATURE CIRCUIT BREAKER
Residual Current Circuit & Indicator Light

KP-5M3

KP-R15-0

KP-R15-B

KP-R15-2

KP-IL7-1

KP-IL7-2

KP-IL7-3

KP-IL15-1

KP-IL15-2

KP-ILMT

KP-ILMT

KP-ILMT

KP-ILM3

KP-GR

KP-SL-63

KP-C22

KP-C21
MINIATURE CIRCUIT BREAKER
Residual Current Circuit Breaker

KP-F360-3

KP-F360-4

KP-F8

KP-F9

KP-F7

KP-NFIN-2

KP-NFIN-1

KP-FIN

KP-MEM-R

KP-QAR

KP-F360-1
MINIATURE CIRCUIT BREAKER
Residual Current Circuit Breaker

KP-BV-DN  KP-BV-D  KP-ETI-R

KP-MG-R  KP-C65NL3

KP-CD  KP-CE

KP-5SM1  KP-5SM2