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# People Electric Low voltage <br> Selection Guide 




## Providing Safer electrical products globally



## COMPANY PROFILE

## 公司简介

People Ele．Appliance Group was wholly owned company of People Holding Group，one of Chinese Top 500 Enterprise，and founded in the year 1996.

Industrial electrical products as the core business of People Ele．Appliance Group，People Electric owns Zhejiang，Shanghai，Nanchang and Fuzhou four manufacturing bases， 12 wholly owned subsidiaries， 85 holding member enterprises，over 800 cooperated processing enterprises and over 3000 sales companies

The products are popularly sold to over 70 countries and regions，which are widely used in Pudong Airport，Beijing－Shanghai high－speed railway，Three Gorges Hydropower，Beijing Subway，Olympic venues，South North Water Transfer，Qinghai－Tibet Railway，Chang＇e Lunar Exploration Project and Vietnam Taian hydropower project etc．major projects at home and abroad，which ranked among the World＇s Top 500 Machinery Enterprises．

Assess by the World＇s Brand Laboratory，the brand value reaches to RMB 30.512 billion Yuan．

## Perfect industry chain and personalize solutions， Satisfying the different requirements of global customers



Industry and machinery
－Mining／building materials
－Water／water treatment
－Car


Building
－Official building
－Industrial building
－Basic facility


Date center
－IT
－High technology
－Internet

Residence
－Residential construction
－Public construction
－Community facility


Supply the power uninterruptedly

## More efficient

Reducing the consumption of energy and the cost，shorten the time of supply

> More
> economic
> Optimize the process of the machinery and factory, improving the comfortability of use.

## More eco－ friendly

## Supply the energy

 through the renewable energy， reducing the carbon emissions
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## DZ 47-63

Miniature Circuit Breaker


## Application

DZ47-63 miniature circuit breaker is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ (single phase), $400 \mathrm{~V}(2,3,4$ phases), for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}, 2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency(Hz) | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $2,4,6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |
| Type of instantaneous release | B,C,D |
| Protective grade | IP 20 |
| Breaking capacity $(\mathrm{A})$ | 4500 |
| Mechanical life | 8000 times |
| Electrical life | 4000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |
| Terminal connection type | Cable/Pin type busbar |
|  |  |

Dimension(mm)


## RDB67-63

Miniature Circuit Breaker


## Application

RDB67-63 miniature circuit breaker is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ (single phase), 400V(2,3, 4 phases), for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

## Model No.



Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}, 2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency $(\mathrm{Hz})$ | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $2,4,6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |
| Type of instantaneous release | B,C,D |
| Protective grade | IP 20 |
| Breaking capacity $(\mathrm{A})$ | 6000 |
| Mechanical life | 12000 times |
| Electrical life | 4000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |
| Terminal connection type | Cable/Pin type busbar |

Dimension(mm)


RDB67-63H
Miniature Circuit Breaker

## Application

RDB67-63H miniature circuit breaker is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ (single phase), $400 \mathrm{~V}(2,3,4$ phases), for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Pole | 1P,2P,3P,4P |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ |
| Insulation voltage Ui(V) | 500 |
| Rated frequency(Hz) | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $2,4,6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |
| Type of instantaneous release | B,C,D |
| Protective grade | IP 20 |
| Breaking capacity(A) | 6000 |
| Mechanical life | 12000 times |
| Electrical life | 4000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35$ ) |
| Terminal connection type | Cable/Pin type busbar / U type busbar |
|  |  |

Dimension(mm)


## RDB5-63

Miniature Circuit Breaker


## Application

RDB5-63 miniature circuit breaker is applicable to a circuit of AC50/60Hz, 230 V (single phase), 400V(2,3, 4 phases), for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

## Model No



Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}, 2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency $(\mathrm{Hz})$ | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $2,4,6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |
| Type of instantaneous release | B,C,D |
| Protective grade | IP 20 |
| Breaking capacity(A) | 6000 |
| Mechanical life | 20000 times |
| Electrical life | 4000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |
| Terminal connection type | Cable/Pin type busbar |

Dimension(mm)


## RDX6-63

## Miniature Circuit Breaker



## Application

RDX6-63 miniature circuit breaker is applicable to a circuit of AC50/60Hz, 230 V (single phase), $400 \mathrm{~V}(2,3,4$ phases $)$, for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898.

Model No.


Technical specifications

|  |  |  |
| :--- | :--- | :--- |
| Pole | 1P,2P,3P,4P | 1P,2P,4P |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ | $220 / 400 / 1000$ |
| Insulation voltage Ui(V) | 500 |  |
| Rated frequency(Hz) | $50 / 60$ | DC |
| Rated current $\ln (\mathrm{A})$ | $2,4,6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |  |
| Type of instantaneous release | B,C,D | B,C |
| Protective grade | IP 20 |  |
| Breaking capacity(A) | 10000 | 6000 |
| Mechanical life | 20000 times |  |
| Electrical life | 4000 times |  |
| Ambient temperature( $\left.{ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |  |
| Terminal connection type | Cable/Pin type busbar / U type busbar |  |

Dimension(mm)


## RDX65-63

Miniature Circuit Breaker

## Application

RDX65-63 miniature circuit breaker is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ (single phase), 400V(2,3, 4 phases), for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

## Model No.



Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}, 2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency $(\mathrm{Hz})$ | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $2,4,6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |
| Type of instantaneous release | B,C,D |
| Protective grade | IP 20 |
| Breaking capacity(A) | 10000 |
| Mechanical life | 20000 times |
| Electrical life | 4000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |
| Terminal connection type | Cable/Pin type busbar |

Dimension(mm)


## RDX2-125

## Miniature Circuit Breaker



## Application

RDX2-125 miniature circuit breaker is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ (single phase), $400 \mathrm{~V}(2,3,4$ phases $)$, for overload and short circuit protection.
Rated current up to 63A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}, 2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400 \sim 240 / 415$ |
| Insulation voltage Ui(V) | 500 |
| Rated frequency(Hz) | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $63,80,100,125$ |
| Type of instantaneous release | $8-12 \mathrm{ln}$ |
| Protective grade | IP 20 |
| Breaking capacity(A) | 10000 |
| Rated impulse withstand voltage(1.2/50) Uimp(V) | 4000 |
| Mechanical life | 8000 times |
| Electrical life | 1500 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |
| Terminal connection type | Cable/Pin type busbar |

Dimension(mm)


Miniature Circuit Breaker

## Application

RDX30-32 miniature circuit breaker(DPN) is applicable to a circuit of AC50/60Hz, 230V (single phase), for overload and short circuit protection.
Rated current up to 32A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}+\mathrm{N}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency $(\mathrm{Hz})$ | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $1,2,3,4,6,10,16,25,32 \mathrm{~A}$ |
| Type of instantaneous release | B,C,D |
| Protective grade | IP 20 |
| Breaking capacity(A) | 4500 |
| Mechanical life | 10000 times |
| Electrical life | 4000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35$ ) |
| Terminal connection type | Cable/Pin type busbar |

Dimension(mm)


## RDX6-40

Miniature Circuit Breaker

## Application

RDX6-40 miniature circuit breaker(DPN) is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ (single phase), for overload and short circuit protection.
Rated current up to 40A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}+\mathrm{N}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency(Hz) | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $1,2,3,4,6,10,16,25,32,40 \mathrm{~A}$ |
| Type of instantaneous release | $\mathrm{B}, \mathrm{C}, \mathrm{D}$ |
| Protective grade | IP 20 |
| Breaking capacity(A) | 6000 |
| Electrical life | 8000 times |
| Mechanical life | 20000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35)$ |
| Terminal connection type | Cable/Pin type busbar / U type busbar |

Dimension(mm)



## RDX30N-32

Miniature Circuit Breaker

## Application

RDX30N-32 (RDX65-40) miniature circuit breaker(DPN) is applicable to a circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}$, 230V (single phase), for overload and short circuit protection.
Rated current up to 40A. It also can be used as a switch for an infrequent conversion line. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems. It conforms with the standard of IEC/EN60898-1

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Pole | $1 \mathrm{P}+\mathrm{N}$ |
| Rated voltage $\mathrm{Ue}(\mathrm{V})$ | $230 / 400$ |
| Insulation voltage $\mathrm{Ui}(\mathrm{V})$ | 500 |
| Rated frequency $(\mathrm{Hz})$ | $50 / 60$ |
| Rated current $\ln (\mathrm{A})$ | $1,2,3,4,6,10,16,25,32,40 \mathrm{~A}$ |
| Type of instantaneous release | $\mathrm{B}, \mathrm{C}, \mathrm{D}$ |
| Protective grade | IP 20 |
| Breaking capacity(A) | 4500 |
| Mechanical life | 20000 times |
| Electrical life | 8000 times |
| Ambient temperature $\left({ }^{\circ} \mathrm{C}\right)$ | $-5 \sim+40$ (with daily average $\leqslant 35$ ) |
| Terminal connection type | Cable/Pin type busbar / U type busbar |

## Dimension(mm)



RDL6-40(RCBO)
Residual Current Circuit Breaker

## Application

RDL6-40 residual current circuit breaker with overload protection is applicable to a circuit of AC50/60Hz, 230V (single phase), for overload, short circuit and residual current protection.
Electromagnetic type RCD.
Rated current up to 40A. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems.It conforms with the standard of IEC/EN61009.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Standard | IEC/EN 61009 |
| Type(wave form of the earth leakage sensed) | AC,A |
| Thermo-magnetic release characteristic | B,C |
| Rated current In | $6,10,16,20,25,32,40 \mathrm{~A}$ |
| Poles | $1 \mathrm{P}+\mathrm{N}$ |
| Rated voltage Ue | $230 / 400-240 / 415 \mathrm{~V}$ |
| Rated sensitivity I $\triangle \mathrm{n}$ | $0.03,0.1,0.3 \mathrm{~A}$ |
| Rated short-circuit capacity Icn | 4500 A |
| Break time under I $\triangle \mathrm{n}$ | $\leqslant 0.1 \mathrm{~s}$ |
| Electrical life | 2000 times |
| Mechanical life | 2000 times |
| Mounting | On DIN rail EN60715(35mm)by means of fast clip device |
| Terminal connection type | Cable/pin type busbar/ U type busbar |
|  |  |

## Dimension(mm)



RDL8-40(RCBO)
Residual Current Circuit Breaker


## Application

RDL8-40 residual current circuit breaker with over-current protection is applicable to a circuit of AC50/60Hz, 230V (single phase), 400 V (three phases), for overload, short circuit and residual current protection.
Electromagnetic type RCD.
Rated current up to 40A. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems.It conforms with the standard of IEC/EN61009.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Standard | IEC/EN 61009 |
| Type(wave form of the earth leakage sensed) | AC,A |
| Thermo-magnetic release characteristic | B,C |
| Rated current In | $6,10,16,20,25,32,40 \mathrm{~A}$ |
| Poles | $1 \mathrm{P}+\mathrm{N}, 3 \mathrm{P}+\mathrm{N}$ |
| Rated voltage Ue | $230 / 400-240 / 415 \mathrm{~V}$ |
| Rated sensitivity $\mathrm{I} \triangle \mathrm{n}$ | $0.03,0.1,0.3 \mathrm{~A}$ |
| Rated short-circuit capacity Icn | 6000 A |
| Break time under I $\triangle \mathrm{n}$ | $\leqslant 0.1 \mathrm{~s}$ |
| Electrical life | 2000 times |
| Mechanical life | 10000 times |
| Mounting | On DIN rail EN60715(35mm)by means of fast clip device |
| Terminal connection type | Cable/pin type busbar/ U type busbar |

Dimension(mm)


## RDL9-40(RCBO)

Residual Current Circuit Breaker

## Application

RDL9-40 residual current circuit breaker with over-current protection is applicable to a circuit of AC50/60Hz, 230V (single phase), for overload, short circuit and residual current protection.
Electromagnetic type RCD.
Rated current up to 40A. It is mainly used in domestic installation, as well as in commercial and industrial electrical distribution systems.It conforms with the standard of IEC/EN61009.

Model No.


Technical specifications

|  |  |
| :--- | :--- |
| Standard | IEC/EN 61009 |
| Type(wave form of the earth leakage sensed) | AC,A |
| Thermo-magnetic release characteristic | B,C |
| Rated current In | $6,10,16,20,25,32,40 \mathrm{~A}$ |
| Poles | $1 \mathrm{P}+\mathrm{N}$ |
| Rated voltage Ue | $230 / 400-240 / 415 \mathrm{~V}$ |
| Rated sensitivity I $\triangle \mathrm{n}$ | $0.03,0.1,0.3 \mathrm{~A}$ |
| Rated short-circuit capacity Icn | 6000 A |
| Break time under I $\triangle \mathrm{n}$ | $\leqslant 0.1 \mathrm{~s}$ |
| Electrical life | 2000 times |
| Mechanical life | 2000 times |
| Mounting | On DIN rail EN60715(35mm)by means of fast clip device |
| Terminal connection type | Cable/pin type busbar/ U type busbar |

## Dimension(mm)



## DZ47LE-63(RCBO)

Residual Current Circuit Breaker


## Application

The DZ47LE-63 RCBO is designed to ensure the protection of low-voltage electrical applications up to 63A
Line protection against earthleakage, overload and short-circuits
$1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ breakers with rating current from 2 A to 63 A
DIN-35 rail type mounting in the distribution board or cabinet
Electronic type RCD
Comply with IEC61009

Model No.


Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | 6, 10, 16, 20, 25, 32, 40, 50, 63A |
|  | Poles | $1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03, 0.1, 0.3A |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 500A |
|  | Rated short-circuit capacity Icn | 4.500/6,000A |
|  | Break time under I $\triangle$ n | $\leqslant 0.1 \mathrm{~s}$ |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Dielectric TEST voltage at ind. Freq. for 1 min | 2 kV |
|  | Insulation voltage Ui | 500 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 4,000 |
|  | Mechanical life |  | 10,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 25 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 25 |
|  |  | $N^{*} \mathrm{~m}$ | 2 |
|  | Tightening torque | In-Ibs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


|  | A | B | C | D | $1 \mathrm{P}+\mathrm{N}$ | 2 P | 3 P | $3 \mathrm{P}+\mathrm{N}$ |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| DZ47LE-32 | 39 | 30 | 21 | 6 | $18+27$ | $36+27$ | $54+36$ | $54+45$ | $72+45$ |
| DZ47LE-63 | 56 | 42 | 28 | 8 | $18+36$ | $36+36$ | $54+50$ | $54+64$ | $72+64$ |

RDB5LE-63(RCBO)
Residual Current Circuit Breaker


Application

The RDB5LE-63 RCBO is designed to ensure the protection of low-voltage electrical applications up to 63 A rated voltage $230 / 400 \mathrm{~V}$, AC $50 / 60 \mathrm{~Hz}$
Line protection against earthleakage, overload and short-circuits
Electronic type RCD
Rated short-circuit breaking capacity $\mathrm{Icn}=6 \mathrm{kA}$
With indication window
Sensitivity range: $30 \mathrm{~mA}, 100 \mathrm{~mA}, 300 \mathrm{~mA}$
Comply with IEC61009/GB16917.1

## Model No.



## Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | $6,10,16,20,25,32,40,50,63 \mathrm{~A}$ |
|  | Poles | $1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03, 0.1, 0.3A |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 2000A |
|  | Rated short-circuit capacity Icn | 6,000A |
|  | Break time under $\mathrm{I} \triangle$ n | $\leqslant 0.1 \mathrm{~s}$ |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Dielectric TEST voltage at ind. Freq. for 1 min | 2 kV |
|  | Insulation voltage Ui | 600 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 4,000 |
|  | Mechanical life |  | 10,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 25 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 25 |
|  |  | $N^{*} \mathrm{~m}$ | 2 |
|  | Tightening torque | In-Ibs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


|  | A | B | C | D | 1P+N | 2P | 3P | $3 \mathrm{P}+\mathrm{N}$ | 4P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RDB5LE-63 | 55 | 42 | 28 | 8 | 18+36 | 36+36 | 54+50 | 54+63 | 72+63 |

RDB67LE-63(RCBO)
Residual Current Circuit Breaker


Application

RDB67LE-63 residual current operated circuit breaker can be applied to the circuit of $\mathrm{AC} 50 / 60 \mathrm{~Hz}$, rated voltage $230 / 400 \mathrm{~V}$, rated current up to 63A
Line protection against earthleakage, overload and short-circuits
AC or A tripping class
Electronic type RCD
Rated short-circuit breaking capacity Icn=6kA
With indication window \& power lamp
Sensitivity range: $30 \mathrm{~mA}, 100 \mathrm{~mA}, 300 \mathrm{~mA}$
Comply with IEC61009-1/GB16917-1

Model No.


Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | 6, 10, 16, 20, 25, 32, 40, 50, 63A |
|  | Poles | $1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03, 0.1, 0.3A |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 500A |
|  | Rated short-circuit capacity Icn | 6,000A |
|  | Break time under I $\triangle$ n | $\leqslant 0.1$ s |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Residual current making \& breaking capacity | 2000A |
|  | Insulation voltage Ui | 500 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 6,000 |
|  | Mechanical life |  | 20,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 25 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 25 |
|  |  | $N^{*} \mathrm{~m}$ | 2 |
|  | Tightening torque | In-Ibs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


|  | A | C | 1P+N | 2P | 3P | $3 \mathrm{P}+\mathrm{N}$ | 4P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RDB67LE-63 | 36 | 54 | 18+36 | 36+36 | $54+50$ | $54+54$ | 72+54 |

## RDX2LE-125(RCBO)

Residual Current Circuit Breaker


## Application

The RDX2LE-125 RCBO is designed to ensure the protection of low-voltage electrical applications up to 125A
rated voltage $230 / 400 \mathrm{~V}$, AC $50 / 60 \mathrm{~Hz}$
Line protection against earthleakage, overload and short-circuits
Electronic type RCD
Rated short-circuit breaking capacity Icn=10kA
Rated current: 40~125A
Sensitivity range: $\mathbf{3 0 m A}, 100 \mathrm{~mA}, 300 \mathrm{~mA}$
Comply with IEC61009-1/GB16917.1

Model No.


Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Certificate | CE |
|  | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | 40, 50, 63,80,100,125A |
|  | Poles | $1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03, 0.1, 0.3A |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 1,500A |
|  | Rated short-circuit capacity Icn | 6,000(4~40A); 4500(50,63A) |
|  | Break time under $\mathrm{I} \triangle$ n | $\leqslant 0.1$ s |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Dielectric TEST voltage at ind. Freq. for 1 min | 2 kV |
|  | Insulation voltage Ui | 600 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 6,000 |
|  | Mechanical life |  | 20,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 50 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 50 |
|  |  | N*m | 3.5 |
|  | Tightening torque | In-lbs | 31 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


## RDX6LE-63(RCBO)

Residual Current Circuit Breaker


Application

The RDX6LE-63 RCBO is designed to ensure the protection of low-voltage electrical applications up to 63A
rated voltage $230 / 400 \mathrm{~V}$, AC $50 / 60 \mathrm{~Hz}$
Line protection against earthleakage, overload and short-circuits
Electronic type RCD
Rated short-circuit breaking capacity $\operatorname{Icn}=10 \mathrm{kA}$
With indication window
Sensitivity range: $\mathbf{3 0 m A}, 100 \mathrm{~mA}, 300 \mathrm{~mA}$
Comply with IEC61009/GB16917.1

Model No.


Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | 6, 10, 16, 20, 25, 32, 40, 50, 63A |
|  | Poles | $1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03, 0.1, 0.3A |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 2,000A |
|  | Rated short-circuit capacity Icn | 10,000 |
|  | Break time under I $\triangle$ n | $\leqslant 0.1$ s |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Dielectric TEST voltage at ind. Freq. for 1 min | 2 kV |
|  | Insulation voltage Ui | 600 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 6,000 |
|  | Mechanical life |  | 20,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 25 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 25 |
|  |  | $N^{*} \mathrm{~m}$ | 2 |
|  | Tightening torque | In-Ibs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


|  | $1 \mathrm{P}+\mathrm{N}$ | 2P | 3P | $3 \mathrm{P}+\mathrm{N}$ | 4P |
| :---: | :---: | :---: | :---: | :---: | :---: |
| L1 | $36 \pm 0.5$ | $36 \pm 0.5$ | $46.5 \pm 0.5$ | $60 \pm 0.5$ | $60 \pm 0.5$ |
| Lmax | 54 | 72 | 102 | 124 | 132 |

RDX30LE-32(RCBO)
Residual Current Circuit Breaker

Application

The RDX30LE-32 RCBO is designed to ensure the protection of low-voltage electrical applications up to 32A
rated voltage $220 / 230 \mathrm{~V}, \mathrm{AC} 50 / 60 \mathrm{~Hz}$
Line protection against earthleakage, overload and short-circuits
DPN-VIGI, Electronic type RCD
Rated short-circuit breaking capacity $\operatorname{Icn}=4.5 \mathrm{kA}$
With indication window
Sensitivity range: 30 mA
Comply with IEC61009-1 / GB16917.1

Model No.


Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | 4,6, 10, 16, 20, 25, 32A |
|  | Poles | $1 \mathrm{P}+\mathrm{N}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03 |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 1,500A |
|  | Rated short-circuit capacity Icn | 45,000 |
|  | Break time under $\mathrm{I} \triangle$ n | $\leqslant 0.1$ s |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Dielectric TEST voltage at ind. Freq. for 1 min | 2 kV |
|  | Insulation voltage Ui | 600 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 4,000 |
|  | Mechanical life |  | 6,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 25 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 25 |
|  |  | $N^{*} \mathrm{~m}$ | 2 |
|  | Tightening torque | In-lbs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


## RDX65LE-63(RCBO)

## Residual Current Circuit Breaker



## Application

The RDX65LE-63 RCBO is designed to ensure the protection of low-voltage electrical applications up to 63A
rated voltage $230 / 400 \mathrm{~V}$, AC $50 / 60 \mathrm{~Hz}$
Line protection against earthleakage, overload and short-circuits
Electronic type RCD
Rated short-circuit breaking capacity $\operatorname{Icn}=6 \mathrm{KA}(4 \sim 40 \mathrm{~A})$; $\operatorname{Icn}=4.5 \mathrm{KA}(50,63 \mathrm{~A})$
With indication window
Sensitivity range: $\mathbf{3 0 m A}, 100 \mathrm{~mA}, 300 \mathrm{~mA}$
Comply with IEC61009-1.

Model No.


Specification

|  | Standard | IEC/EN 61009 |
| :---: | :---: | :---: |
| Electrical features | Thermo-magnetic release characteristic | C, D |
|  | Rated current In | 4,6,10,16,20,25,32,40,50,63A |
|  | Poles | $1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
|  | Rated voltage Ue | 230/400V |
|  | Rated sensitivity I $\triangle$ n | 0.03, 0.1, 0.3A |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 500A |
|  | Rated short-circuit capacity Ion | 6,000(4~40A); 4500(50,63A) |
|  | Break time under I $\triangle$ n | $\leqslant 0.1$ s |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Rated impulse withstand voltage Uimp | 4,000V |
|  | Residual current making \& breaking capacity | 2 kV |
|  | Insulation voltage Ui | 600 |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 6,000 |
|  | Mechanical life |  | 20,000 |
|  | Contact position indicator |  | Yes |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 25 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 25 |
|  | Tightening torque | N*m | 2 |
|  |  | In-lbs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top |

Overall and Mounting Dimensions (mm)


## RDL7-100

Residual Current Circuit Breaker


## Application

The item is in comply with standard of IEC61008-1, applying to the circuit of AC $50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ single phase, 400 V three phases or below it for industrial and mining enterprise, trade building, commerce and family. It is mainly used for preventing electric fire and personal casual accident caused by personal electric shock or leakage of electrified wire net. This is a current operated fast leakage protector of pure electromagnetic type, which can break off fault circuit rapidly in order to avoid occurrence of accident. The Item Is precise in structure, less elements, without auxiliary power and high working reliability. The function of the switch won't be influenced by ambient temperature and lightning. The mutual inductor of the item is used to test vector differential value of passing current, and produces a relevant output power and add it to the tripper In secondary winding, If the current of vector differential value of protected circuit of personal electric shock is up to or over leakage operating current, the tripper will act and cut off so that the Item will take effect of protection.

## Working Principle



Specification

|  | Standard | IEC/EN 61008 |
| :---: | :---: | :---: |
| Electrical features | Mode | Electro-magnetic type, electronic type |
|  | Type(wave form of the earth leakage sensed) | A,AC |
|  | Rated current In | 16,25,32,40,63,80,100A |
|  | Poles | 2P,4P |
|  | Rated voltage Ue | AC $230 / 400 \mathrm{~V}$ |
|  | Rated sensitivity I $\triangle n$ | 0.01,0.03,0.1,0.3,0.5A |
|  | Insulation voltage Ui | 500 V |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 1000A |
|  | Short-circuit current I $\triangle$ c | 6000A |
|  | SCPD fuse | 6000A |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 4,000 |
|  | Mechanical life |  | 10,000 |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 35 |
|  |  | AWG | 18-3 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 35 |
|  |  | AWG | 18-3 |
|  | Tightening torque | N*m | 2 |
|  |  | In-Ibs | 18 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top and bottom |

Wiring Diagram


Overall and Mounting Dimensions (mm)


## PID-125

## Residual Current Circuit Breaker



## Application

The items is in comply with standard of IEC61008-1, applying to the circuit of AC $50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ single phase, 400 V three phases or below it for industrial and mining enterprise, trade building, commerce and family. It is mainly used for preventing electric fire and personal casual accident caused by personal electric shock or leakage of electrified wire net, this is a current operated, fast leakage protector of pure electromagnetic type, which can break off fault circuit rapidly in order to avoid occurrence of accident. The item is precise in structure, less elements, without auxiliary power and high working reliability. The function of the switch won't be influenced by ambient temperature and lightning. The mutual inductor of the item is used to test vector differential value of passing current, and produces a relevant output power and add it to the tripper in secondary winding, if the current of vector differential value of protected circuit of personal electric shock is up to or over leakage operating current, the tripper will act and cut off so that the item will take effect of protection.

## Working Principle



Specification

|  | Standard | IEC/EN 61008 |
| :---: | :---: | :---: |
| Electrical features | Mode | Electro-magnetic type, electronic type |
|  | Type(wave form of the earth leakage sensed) | A, AC |
|  | Rated current In | 16,25,32,40,63,80,100,125A |
|  | Poles | 2P,4P |
|  | Rated voltage Ue | AC $230 / 400 \mathrm{~V}$ |
|  | Rated sensitivity I $\triangle$ n | 0.01,0.03,0.1,0.3,0.5A |
|  | Insulation voltage Ui | 500 V |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 1250A |
|  | Short-circuit current I $\triangle$ c | 6000A |
|  | SCPD fuse | 6000A |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 4,000 |
|  | Mechanical life |  | 10,000 |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 35 |
|  |  | AWG | 18-3 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 35 |
|  |  | AWG | 18-3 |
|  | Tightening torque | $N^{*} \mathrm{~m}$ | 2.5 |
|  |  | In-Ibs | 22 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top and bottom |

Wiring Diagram


Overall and Mounting Dimensions (mm)


## PF360

Residual Current Circuit Breaker


## Application

The items is in comply with standard of IEC61008-1, applying to the circuit of AC $50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}$ single phase, 400 V three phases or below it for industrial and mining enterprise, trade building, commerce and family. It is mainly used for preventing electric fire and personal casual accident caused by personal electric shock or leakage of electrified wire net, this is a current operated, fast leakage protector of pure electromagnetic type, which can break off fault circuit rapidly in order to avoid occurrence of accident. The item is precise in structure, less elements, without auxiliary power and high working reliability. The function of the switch won't be influenced by ambient temperature and lightning. The mutual inductor of the item is used to test vector differential value of passing current, and produces a relevant output power and add it to the tripper in secondary winding, if the current of vector differential value of protected circuit of personal electric shock is up to or over leakage operating current, the tripper will act and cut off so that the item will take effect of protection.

## Working Principle



Specification

|  | Standard | IEC/EN 61008 |
| :---: | :---: | :---: |
| Electrical features | Mode | Electro-magnetic type, electronic type |
|  | Type(wave form of the earth leakage sensed) | A,AC |
|  | Rated current In | 16,25,32,40,63A |
|  | Poles | 2P,4P |
|  | Rated voltage Ue | AC $230 / 400 \mathrm{~V}$ |
|  | Rated sensitivity I $\triangle$ n | 0.01,0.03,0.1,0.3,0.5A |
|  | Insulation voltage Ui | 500 V |
|  | Rated residual making and breaking capacity I $\triangle \mathrm{m}$ | 630A |
|  | Short-circuit current I $\triangle$ c | 6000A |
|  | SCPD fuse | 6000A |
|  | Rated frequency | $50 / 60 \mathrm{~Hz}$ |
|  | Pollution degree | 2 |

## RESIDUAL CURRENT CIRCUIT BREAKER

|  | Standard |  | IEC/EN 61009 |
| :---: | :---: | :---: | :---: |
| Mechanical features | Electrical life |  | 4,000 |
|  | Mechanical life |  | 10,000 |
|  | Protection degree |  | IP20 |
|  | Ambient temperature(with daily average $\leq 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \sim+70$ |
| Installation | Terminal connection type |  | Cable/U-type busbar/Pin-type busbar |
|  | Terminal size top for cable | $\mathrm{mm}^{2}$ | 35 |
|  |  | AWG | 18-3 |
|  | Terminal size top for busbar | $\mathrm{mm}^{2}$ | 35 |
|  |  | AWG | 18-3 |
|  | Tightening torque | N*m | 2.5 |
|  |  | In-Ibs | 22 |
|  | Mounting |  | On DIN rail EN 60715 (35mm) by means of fast clip device |
|  | Connection |  | From top and bottom |

Wiring Diagram


Overall and Mounting Dimensions (mm)


## RDSP6

Surge Protection Device


## Application

RDSP6 series surge protection device, is mainly applied to the TN-C, TN-S, TT, IT power system of AC50Hz or 60 Hz , nominal discharge current $5 \mathrm{KA} \sim 60 \mathrm{kA}$, Maximum discharge current $10 \mathrm{KA} \sim 100 \mathrm{KA}$, Rated operational voltage 220 V or380 to protect the power grid from thunder shock overload and surge overload voltage. It is Widely applied to residential, transportation, electric power, the third industry and the industrial field of surge protection requirements.

Model No.


## Normal working condition and Installation environment

3.1 Frequency: AC power frequency from 48 Hz to 62 Hz .
3.2 Voltage: Continuous voltage on the terminal should
not exceed the maximum continuous operational voltage
3.3 Altitude: should not exceed 2000m
3.4 Using and storage Temperature:

Normal range: $-5^{\circ} \mathrm{C} \sim+40^{\circ} \mathrm{C}$
Limit temperature: $-40^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$
3.5 Humidity: relative humidity should from $30 \%$ to $90 \%$. Under the indoor humidity
3.6 Installation location without obvious impact and vibration, and the angle between the prodouct and vertical plane
should not exceed $5^{\circ}$.

## Main Technical Parameter

[^0]
## RESIDUAL CURRENT CIRCUIT BREAKER

Table2

| Production type | Power grid operational voltage Ue | Maximum continous operational voltage Uc | Voltage protection class Up(kV) |  |  |  | Ground system |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | $\ln =2$ | 15 kA | $\ln =6$ | 30kA |  |
| 1P | 220 V | 420V | 1.8 |  | 2.4 | 2.2 | TN-C/IT |
| 2P |  |  |  |  | TN/TN-S/IT |  |  |
| 3P | 380 V | 420V | 2.0 | 1.8 |  |  | TN-C/IT |
| 4P |  |  |  |  |  |  | TT/TN-S/IT |
| $1 \mathrm{P}+\mathrm{N}$ | 220 V | 420 V |  |  |  |  |  |
| $2 \mathrm{P}+\mathrm{N}$ | 380 V | 420V |  |  |  |  | TT/TN-S/IT |
| $3 P+N$ |  |  |  |  |  |  |  |

Overall and Installation Dimensions:

Overall and installation dimensions, see Fig 1.


## RDM1

Moulded Case Circuit Breaker


## Application

RDM1 series product has small volume, high breaking capacity, short arc, anti vibration advantages, whichis the ideal product for land and marine use. Breaker rated insulation voltage 800V (RDM1-63 insulation voltage is 500 V ), is applied to distribution network of AC $50 \mathrm{~Hz} / \mathrm{AC} 60 \mathrm{~Hz}$, Rated working voltage up to 690 V , rated current up to 1250 A to distribe the power and protect the circuit and power source against overload, short-circuit and under-voltage damage, and it also can be used to transfer circuit, motor-start unfrequently and overload, short-circuit and under-voltage protection. The product can be installed vertically and horizontally.
This production is appiled to insulation, Sign: $\quad ـ \quad \mapsto$

Model No.


## Normal working condition and Installation environment

Moulded Case Circuit Breaker3.1 Temperature: no higher than $+40^{\circ} \mathrm{C}$, and no lower than $-5^{\circ} \mathrm{C}$, and the average temperature no higher than $+35^{\circ} \mathrm{C}$.
3.2 Installation location no more than 2000 m .
3.3 The relative humidity: no more than $50 \%$, when Temperature is $+40^{\circ} \mathrm{C}$. The product can withstand the higher humidity under lower temperature, for instance, when temperature at $+20^{\circ} \mathrm{C}$, the product can withstand $90 \%$ relative humidity. The condensation that happened because of temperature changes should be taken care in special measurements
3.4 Class of pollution: 3 Class
3.5 Maximum install inclined Angle : $22.5^{\circ}$
3.6 Auxiliary circuit and control circuit installation type: II Class; Main circuit breaker installation type: III Class;
3.7 It can stand the normal vierbation and operate stably under marine condition.

## MOULDED CASE CIRCUIT BREAKER

Table 14 P with N -pole type.

|  |  |
| :--- | :--- |
| Code | Structure description(Production without indicated is B type) |
| A type | N-pole without overload tripping, and N-pole is always connected |
| B type | N-pole without overload tripping, and connecting, breaking with other poles. |

Table 2 Tripping type and accessory code


Main technical parameter
4.1 Main technical parameter see Table 3

Table 3

| Model No. | Frame size rated current Inm A | Rated current $\ln (A)$ | Rated working voltage Ue(V) | Poles | Rated short-circuit circuit breaker (kA) |  |  |  | Arcdistance$(\mathrm{mm})$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | $\mathrm{Icu} / \cos \varphi$ |  | $\mathrm{lcs} / \cos \phi$ |  |  |
|  |  |  |  |  | 400 V | 690 V | 400V | 690 V |  |
| RDM1-63L | 63 | $\begin{aligned} & \text { (6),10,16,20, } \\ & 25,32,40,50,63 \end{aligned}$ | 400 | 3 | 25 | - | 12.5 | - | $\leqslant 50$ |
| RDM1-63M |  |  | 400 | 3,4 | 50 | - | 25 | - |  |
| RDM1-63H |  |  | 400 | 3 | 50 | - | 25 | - |  |
| RDM1-125L | 125 | $\begin{aligned} & (10), 16,20,25,32, \\ & 40,50,63,80,100 \\ & 125 \end{aligned}$ | 400 | 2,3,4 | 35 | - | 25 | - | $\leqslant 50$ |
| RDM1-125M |  |  | 400/690 | 2,3,4 | 50 | 10 | 35 | 5 |  |
| RDM1-125H |  |  | 400/690 | 3,4 | 85 | 20 | 50 | 10 |  |
| RDM1-250L | 250 | $\begin{aligned} & \text { 100,125,160, } \\ & \text { 180,200,225,250 } \end{aligned}$ | 400 | 2,3,4 | 35 | - | 25 | - | $\leqslant 50$ |
| RDM1-250M |  |  | 400/690 | 2,3,4 | 50 | 10 | 35 | 5 |  |
| RDM1-250H |  |  | 400/690 | 3,4 | 85 | 10 | 50 | 5 |  |
| RDM1-400C | 400 | $\begin{aligned} & 225,250,315, \\ & 350,400 \end{aligned}$ | 400 | 3 | 50 | - | 35 | - | $\leqslant 100$ |
| RDM1-400L |  |  | 400/690 | 3,4 | 50 | 10 | 35 | 5 |  |
| RDM1-400M |  |  | 400/690 | 3,4 | 65 | 10 | 42 | 5 |  |
| RDM1-400H |  |  | 400/690 | 3,4 | 100 | 10 | 65 | 5 |  |
| RDM1-630L | 630 | 400,500,630 | 400 | 3,4 | 50 | - | 25 | - | $\leqslant 100$ |
| RDM1-630M |  |  | 400/690 | 3,4 | 65 | 10 | 32.5 | 5 |  |
| RDM1-630H |  |  | 400 | 3,4 | 100 | - | 60 | - |  |
| RDM1-800M | 800 | 630,700,800 | 400/690 | 3,4 | 75 | 20 | 50 | 10 | $\leqslant 100$ |
| RDM1-800H |  |  | 400 | 3,4 | 100 | - | 65 | - |  |
| RDM1-1250M | 1250 | 700,800,1000,1250 | 400/690 | 3,4 | 65 | 20 | 35 | 10 | $\leqslant 100$ |

4.2 Overload current release consists of Thermal relay release with inverse time characteristic and Instantaneous release(elecmagnetic).

Table 4

| Distribution circuit breaker |  |  |  | Motor-protection circuit breaker |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Thermal relay release |  | $\begin{array}{\|l\|} \text { Electromagnetic } \\ \text { release operational } \\ \text { current(A) } \end{array}$ | Rated current $\ln (\mathrm{A})$ | Thermal relay release |  | Electromagnetic release operationa current(A) |
| Rated current $\ln (\mathrm{A})$ | $\begin{aligned} & \text { 1.05In Conventional } \\ & \text { non tripping time } \\ & \text { H(cold state) } \end{aligned}$ | 1.30In Conventional <br> tripping time <br> H(Heat state) |  |  | 1.0In Conventional non-tripping time H cold state) | 1.2In Conventional tripping time H (heat state) |  |
| $10 \leqslant \ln \leqslant 63$ | 1 | 1 |  |  |  |  |  |
| $63<\ln \leqslant 100$ | 2 | 2 | 10in $\pm 20 \%$ | $10 \leq \ln \leqslant 630$ | 2 | 2 | $12 \ln \pm 20 \%$ |
| $100<\ln \leqslant 800$ | 2 | 2 | $5 \ln \pm 20 \%, 10 \ln \pm 20 \%$ |  |  |  |  |

## Circuit breaker accessory

### 5.1 Internal accessory

5.1.1 Shunt release

Connection diagram, see Fig 1 an Fig 2.
Rated voltage of control power supply: AC $50 / 60 \mathrm{~Hz}, 230 \mathrm{~V}, 400 \mathrm{~V}$; DC24V, circuit breaker can operate reliably under $85 \%$ to $110 \%$ of the rated control power supply voltage.


Fig 1 DC 24 V connection diagram


Power input
Fig 2 AC $50 / 60 \mathrm{~Hz}$, 230V, 400 V connection diagram
5.12 Under-voltage release

When the voltage is below $35 \%$ of the rated control power voltage, this release can prevent circuit breaker against closing. Connnection diagram, see Fig 3.
When the voltage decrease to the range of $70 \%$ to $35 \%$ of rated control power voltage, the under-voltage release would trip.
When the voltage is in the range of $85 \%$ to $110 \%$ of the rated control power voltage, this release can ensure the circuit closing reliably. Notice: The circuit breaker with under-voltage release could trip and close, only supplied the circuit breaker with rated voltage.


Fig 3 Under-voltage release connection diagram


Fig 4 Electri operation mechanism connection diagram

## MOULDED CASE CIRCUIT BREAKER

5.13 Auxiliary contact
circuit breaker has two sets contact,each set is not open on electric, the auxiliary contact details, see Table 5.

| Circuit breaker "open" position | $\begin{aligned} & \text { F14 } \\ & \text { F12 F11 } \\ & \text { F24 F2 } \\ & \text { F2 } \end{aligned}$ | Frame rated current 400A and above |
| :---: | :---: | :---: |
|  | $\begin{aligned} & \text { F14 } \\ & \mathrm{F} 12 \end{aligned}$ | Frame rated current 250A and below |
| Circuit breaker "open" positon | "open", contact which is close state turns to open state, contact which is open state turns to close state. |  |

### 5.14 Alarm contact

Rated operational voltage's parameter, see Table 5.

| When circuit breaker at "open" <br> and "close" position. | B14 12 |
| :--- | :--- |
| When circuit breaker at "trip free" <br> alarm position | B11,B12 close state turns to open state <br> B11,B14 open state turns to close state |

Table 5.

| Type | Frame size rated current | AC-15 |  |  | DC-13 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Conventiona heating current A | $\begin{array}{\|l\|} \hline \text { Rated operational } \\ \text { voltage } \mathrm{V} \text { \| } \end{array}$ | Rated fiequency Hz | Rated current A | Rated operational voltage $V$ | Rated current A |
| Auxiliary contact | Inm $\leqslant 250$ | 3 | 400 | 50 | 0.3 | 230 | 0.15 |
|  | Inm $\geqslant 400$ | 3 |  |  | 0.4 |  | 0.15 |
| Alarm contact | $63 \leqslant 1 \mathrm{~mm} \leqslant 800$ | 3 |  |  | 0.3 |  | 0.15 |

5.15 Special circuit breaker accessories of Pre-paid meter

Shunt release of Pre-paid Meter rated operational voltage is AC230V 50 Hz , Operate in the range of $65 \%$ to $110 \%$ Ue, when the Ctrl point is open, circuit breaker will be break after 0.5 s to 2 s deley. See Diagram:


Special circuit breaker for pre-paid meter diagram
5.16 Over-voltage circuit breaker

Over-voltage circuit breaker should be tripping under following conditions:
a) When the rated operational voltage(phase voltage)Ue lower than 262 V
b) When the neutral line of three phases and four wires is breaking
c) When the neutral line misconnecting phase lines,
5.2 circuit breaker extranal accessory
5.21 Electric operation mechanism structure see Table 6

## Table6

| Type | Model | RDM1-63,100,250 |
| :--- | :--- | :--- |
| Structure | Electromagnetic | RDM1-400,630,800 |
| Specification | $50 \mathrm{~Hz}, 230 \mathrm{~V}, 400 \mathrm{~V}$ | Motor |

### 5.22 Manual operating mechannism should be installed after drilling the hole according to the diagram.

Rotary handle "OFF" indicated to horizontal position, keep the handle position, and try to operating the handle, the rotation should flexible, and the breaker should be open when the handle at horizontal position; and breaker should be closed when the handle at vertical position.


Table7(mm)

| Model No. | RDM1-63 | RDM1-100 | RDM1-250 | RDM1-400 | RDM1-630 | RDM1-800 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Installation dimension | 50 | 52 | 54 | 97 | 97 | 90 |
| Y value of the operating handle relative to the breaker Center | 0 | 0 | 0 | 0 | 0 | 0 |

5.23 Installation dimension of Mechanical interlock of two circuit breakers, see Table 6 Fig 6 and Table 8.


Fig 6 Mechanical interlock dimension diagarm

## MOULDED CASE CIRCUIT BREAKER

Table8(mm)

| Model No. | A | B | W | C | L | A | фd |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| RDM1-63 | 25 | 117 | 105 | 35 | 22 | 117 | 3.5 |
| RDM1-125 | 30 | 129 | 120 | 46 | 22 | 140 | 4.5 |
| RDM1-250 | 35 | 126 | 138 | 46 | 22 | 132 | 5.5 |
| RDM1-400L,M,H | 44 | 194 | 178.5 | 56 | 28 | 188 | 7 |
| RDM1-800 | 44 | 215 | 176 | 56 | 28 | 188 | 5.5 |
| RDM1-630 | 58 | 200 | 230 | 56 | 28 | 240 | 7 |
| RDM1-400C | 70 | 243 | 250 | 56 | 28 | 252 | 5.5 |



Fig 7 RDM1-63~800 Front connection overall and installation dimension

| Model No. | Front connection overall |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | Installation dimension |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W |  | L | H | H1 | H 2 | H3 | W1 | L1 | L2 | W2 | K | N | M |  | X |  | Y |  | A | B | фd |
|  | 3P | 4P |  |  |  |  |  |  |  |  |  |  |  | 3P | 4P | 3P | 4P | 3P | 4P |  |  |  |
| RDM1-63L | 76 | - | 135 | 73 | 90.5 | 20 | 6.5 | 25 | 170 | 117 | 14 | 86.5 | 42.5 | 35 | - | 25 | - | 69 | - | 25 | 117 | 4 |
| RDM1-63M <br> RDM1-63H | 76 | 102 | 135 | 82 | 98.5 | 28 | 6.5 | 25 | 170 | 117 | 14 | 86.5 | 41.5 | 35 | 26.5 | 25 | 23 | 69 | 49 | 25 | 117 | 4 |
| RDM1-125L | 92 | 122 | 150 | 68 | 86 | 24 | 7.5 | 30 | 200 | 132 | 17 | 89 | 43 | 32 | 27 | 27 | 23 | 67 | 51 | 30 | 129 | 4 |
| RDM1-125M <br> RDM1-125H | 92 | 122 | 150 | 86 | 104 | 24 | 7.5 | 30 | 200 | 132 | 17 | 89 | 43 | 32 | 27 | 27 | 23 | 67 | 51 | 30 | 129 | 4 |
| RDM1-250L | 107 | 142 | 165 | 86 | 110 | 24 | 6 | 35 | 230 | 144 | 24 | 98 | 51 | 39 | 27 | 27 | 23 | 80 | 54 | 35 | 126 | 5 |
| RDM1-250M <br> RDM1-250H | 107 | 142 | 165 | 103 | 127 | 24 | 6 | 35 | 230 | 144 | 24 | 102 | 51 | 39 | 27 | 27 | 23 | 80 | 54 | 35 | 126 | 5 |
| RDM1-400C | 140 | - | 257 | 100 | 146 | 36.5 | 7.5 | 44 | 361.5 | 225 | - | 128 | 50.5 | 20 | - | 53 | - | 90 | - | 44 | 215 | 6.5 |
| RDM1-400L | 150 | 198 | 257 | 107 | 155 | 38 | 5 | 48 | 357 | 224 | 31 | 128 | 64.5 | 48 | 48 | 66 | 66 | 90 | 90 | 44 | 194 | 7 |
| RDM1-400M RDM1-400H | 150 | 198 | 257 | 107 | 155 | 38 | 5 | 48 | 357 | 224 | 31 | 128 | 64.5 | 48 | 48 | 66 | 66 | 90 | 90 | 44 | 194 | 7 |
| RDM1-630L | 182 | 240 | 270 | 112 | 160 | 45 | 3.5 | 58 | 370 | 234 | 41 | 135 | 67.5 | 45 | 45 | 66 | 66 | 90 | 90 | 58 | 200 | 7 |
| RDM1-630M <br> RDM1-630H | 182 | 240 | 270 | 114 | 160 | 43 | 3.5 | 58 | 370 | 234 | 41 | 138 | 69 | 45 | 42.5 | 69 | 67 | 96 | 90 | 58 | 200 | 7 |
| RDM1-800M RDM1-800H | 210 | 280 | 280 | 117 | 160 | 42 | 5 | 70 | 380 | 243 | 44 | 136 | 65.5 | 48 | 48 | 67 | 67 | 82 | 82 | 70 | 243 | 7.5 |

6.2 Back connection overall dimension, see Fig 8 and Table 10.


RDM1-63, 125, 250 back connection


RDM1-400, 630, 800 back connection

Fig 8 RDM1-63~800 Back connection overall and installation dimension
6.3 Back connection installation open hole dimension, see Table 9


Table 9 RDM1 back connection open hole dimension
Table10

| Model No. | Dimension code. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H3 | H4 | D | W | L2 | фd2 | A | B | C | ¢d1 |
| RDM1-63 | 28 | 46 | M5 | 25 | 117 | 8 | 25 | 117 | 50 | 5.5 |
| RDM1-125 | 64 | 100 | M8 | 30 | 132 | 24 | 30 | 129 | 60 | 5.5 |
| RDM1-250 | 70 | 100 | M10 | 35 | 144 | 26 | 35 | 126 | 70 | 5.5 |
| RDM1-400 | 71 | 105.5 | ф12 | 48 | 224 | 32 | 44 | 194 | 94 | 7 |
| RDM1-400C | 71 | 105.5 | ф12 | 44 | 225 | 32 | 44 | 215 | - | 8.5 |
| RDM1-630 | 46 | 105 | ф16 | 58 | 234 | 37 | 58 | 200 | 116 | 7 |
| RDM1-800 | 105 | 105 | \$16 | 70 | 243 | 48 | 70 | 243 | 70 | 7.5 |

6.4 RDM1 Insert type's overall and installation open hole dimension, see Fig 10, Fig 11 and Table 11


Fig RDM1 Insert type overall and installation open hole diagram

## MOULDED CASE CIRCUIT BREAKER

Table11

| Model No. | Dimension code. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B1 | B2 | C1 | C2 | E | F | G | K | H | H1 | H2 | AM | BM | 4-d |
| RDM1-63 | 135 | 75 | 100 | 50 | 75 | 60 | 117 | 100 | 17.5 | 27.5 | 18 | 16 | M5 | M5 | ¢5.5 |
| RDM1-125 | 168 | 91 | 125 | 60 | 90 | 56 | 132 | 92 | 38 | 50 | 33 | 28 | M6 | M8 | ¢6.5 |
| RDM1-250 | 186 | 107 | 145 | 70 | 105 | 54 | 145 | 94 | 46 | 50 | 33 | 37 | M6 | M8 | \$6.5 |
| RDM1-400 | 280 | 149 | 200 | 60 | 108 | 129 | 224 | 170 | 55 | 60 | 38 | 46 | M8 | M12 | ¢8.5 |
| RDM1-630 | 280 | 144 | - | 88 | - | 143 | 224 | 180 | 50 | 60 | 38 | 48 | M8 | M12 | $\phi 9$ |
| RDM1-800 | 300 | 182 | 242 | 100 | 158 | 123 | 234 | 170 | 65 | 60 | 39 | 50 | M8 | M12 | \$8.5 |
| RDM1-400C | 305 | 210 | 280 | 90 | 162 | 146 | 242 | 181 | 62 | 87 | 60 | 22 | M10 | M14 | \$11 |



Fig 11 RDM1-800 3P Insert type overall and installation open hole diagram


Fig 12 RDM1-125M circuit breaker overall and installation dimension
6.5 RDM1 circuit breaker's height after installing motop operating mechanism, see Table 12.

| Model No. | RDM1-63L | RDM1-63M <br> RDM1-63H | RDM1-100L | RDM1-100M <br> RDM1-100H | RDM1-250L | RDM1-250M <br> RDM1-250H |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Height | 155 | 164 | 152 | 170 | 182 | 199 |
| AC | 160 | 171 | 153 | 171 | 177 | 194 |
| DC |  |  |  |  |  |  |


| Model No. | RDM1-400C | RDM1-400L, M, H | RDM1-630L | RDM1-630M <br> RDM1-630H | RDM1-800M <br> RDM1-800H |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Height | 227 | 238 | 246 | 246 | 247 |
| AC | 160 | 255 | 262 | 262 | 261 |
| DC |  |  |  |  |  |

## RDM11

Moulded Case Circuit Breaker


## Application

RDM11 series Moulded Case circuit breaker, mainly applied to the circuit of AC 50 Hz , rated insulation voltage 750 V , rated operating voltage 690 V or below, rated current up to 630 A . In the regular situation, this production is used for transiting the circuit and starting the motor unfrequently, And it has the function of overload, short-circuit and under-voltage protection.
This production is applied to ioslation, the symbol is " $\qquad$ -×".
This production confirmed to standard of IEC60947-2 and GB14048.2-2008.

Model No.


## Normal working condition and Installation environment

3.1 Temperature: not exceed +40 C , and the day average value not exceed $+35^{\circ} \mathrm{C}$, not below $-5^{\circ} \mathrm{C}$. 3.2 Altitude: not exceed 2000 m .
3.3. Humidity: the relative humidity shall not exceed $50 \%$ when it at +40 C . And it has the lower temperature, the higher humidity is accepted,Like $90 \%$ humidity is accepted when the temperature is +20 C . And the special measurement should be taken for condensation caused by temperature change.
3.4 Pollution calss: 3 class.
3.5 Installation type: III type. The vertical install and horizontal installation.

## MOULDED CASE CIRCUIT BREAKER

## Main technical parameter

4.1 Main specification and technical, see Table 1

Table1

| Tripping type | Accessory name |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | No access -ories | Alarm contact | Shunt release | Shunt release <br> Alarm contact | One group of auxiliary contact | Alarm contact $+$ Auxiliary contact | Under -voltage release | Under -voltage release <br> $+$ <br> Alarm contact | Shunt release + Auxiliary contact | Shunt <br> release + <br> Auxiliar contact <br> Alarm release | groups Two of Auxiliary contact | Two groups of Auxiliary contact Alarm contact | Under -voltage release $+$ Auxiliary contact | Under -voltage release Auxiliary contact Alarm contact |
|  | Accessory code |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Instantaneous release | 200 | 208 | 210 | 218 | 220 | 228 | 230 | 238 | 240 | 248 | 260 | 268 | 270 | 278 |
| Double type release Thermal release + Magnetic release) | 300 | 308 | 310 | 318 | 320 | 328 | 330 | 338 | 340 | 348 | 360 | 368 | 370 | 378 |
| Intelligent type release | 400 | 408 | 410 | 418 | 420 | 428 | 430 | 438 | 440 | 448 | 460 | 468 | 470 | 478 |

Notice: RDM11-100, 160, 250 has thermal eletromegnetic release + Intelligent release; RDM11-400, 630 only has Intelligent release
4.2 Main parameter and main performance index, see Table 2

Table2

| Item |  | Model No. |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | RDM11-100 |  | RDM11-160 |  | RDM11-250 |  | RDM11-400 |  | RDM11-630 |  |
|  |  | N | H | N | H | N | H | N | H | N | H |
| Frame size rated current A |  | 100 |  | 160 |  | 250 |  | 400 |  | 630 |  |
| Poles |  | 3,4 |  |  |  |  |  |  |  |  |  |
| Release rated current A |  | $\begin{aligned} & 16,(20), 25,(32) \\ & 40,50,63,80,100 \end{aligned}$ |  | 63,80,100,125,160 |  | $\begin{aligned} & 100,125,160,200 \\ & 250 \end{aligned}$ |  | 160,200,250,400 |  | 250,400,500,630 |  |
| Rated insulation voltage V |  | 750 |  |  |  |  |  |  |  |  |  |
| Rated limited short-circuit breaking capacity kA |  | 25 | 50 | 35 | 50 | 35 | 50 | 35 | 50 | 35 | 50 |
| Rated operating short-circuit breaking capacity kA |  | 16 | 35 | 18 | 35 | 18 | 35 | 25 | 35 | 25 | 35 |
| Mass kg | 3P | 1.6 |  |  |  | 1.9 |  | 6.0 |  |  |  |
|  | 4P | 2.1 |  |  |  | 2.3 |  | 7.8 |  |  |  |
| Arc distance mm |  | $\leqslant 35$ |  |  |  |  |  | $\leqslant 6$ |  |  |  |

4.3 Operational service life

Table3

| Model No. |  | RDM11-100 | RDM11-160 | RDM11-250 | RDM11-400 | RDM11-630 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Frame size rated current A | 100 | 160 | 250 | 400 | 630 |  |
|  | Total | 10000 | 8000 |  | 5000 |  |
| Service life <br> (C-O) times | No load | 8500 | 7000 |  | 4000 |  |
|  | load | 1500 | 1000 |  | 1000 |  |

4.4 Thermal electromagnetic release operating performance, see Table 4

Table4

| Model No. | Setting current multiple | Conventional time H |  |  | Initial state |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\mathrm{ln} \leqslant 63$ | $63<\ln \leqslant 250$ | $250<\ln$ |  |
| Converntional not tripping current | 1.05 | $\geqslant 1$ | $\geqslant 2$ |  | Cold state |
| Conventional tripping current | 1.30 | <1 | $<2$ |  | Heat state |
| Return characteristic current | 3.0 | Return 5s | 8s | 12s | Cold state |

Notice: Heat state means it charged the conventional not tripping current to the specified conventional time state.
4.5 Motor-protection circuit breaker Inverse time limit breaking characteristic, see Table 5

Table5

| Testing current name | Setting current multiple | Conventional time H | Initial state |
| :--- | :--- | :--- | :--- |
| Converntional not tripping current | 1.0 | $<2 \mathrm{~h}$ | Cold state |
| Conventional tripping current | 1.2 | $\geqslant 2 \mathrm{~h}$ | Heat state |
|  | 1.5 | $2 \mathrm{~min}-4 \mathrm{~min}$ | Heat state |

Notice: Tp for delay time
4.6 3P overload release charge 2 poles 's breaking characteristic, see Table 6.

Table6

| Testing current name | Setting current multiple | Conventional time H | Initial state |
| :--- | :--- | :--- | :--- |
| Converntional not tripping current | 3P charged 1.0 | $\geqslant 2 \mathrm{~h}$ | Cold state |
| Conventional tripping current | 2P charged 1.25 | $<2 \mathrm{~h}$ | Heat state |

4.7 Power distribution circuit breaker short-circuit protection setting current, see Table 7

Table7

| Model No. | Release setting current In A |  |  |  |  |  |  |  |  |  | Accuracy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 16 | 25 | 40 | 63 | 80 | 100 | 125 | 160 | 200 | 250 |  |
|  | Short-circuit protection setting currtent |  |  |  |  |  |  |  |  |  |  |
| RDM11-100 | 190 | 300 | 500 | 630 | 800 | 1000 | - | - | - | - | $\pm 20 \%$ |
| RDM11-160 | - | - | - | - | 800 | 1000 | 1250 | 1600 |  |  |  |
| RDM11-250 | - | - | - | - | - | 1000 | 1250 | 1600 | (5-10) In |  |  |

4.8 Motor-protection circuit breaker short-circuit protection setting current, see Table 8

Table8

4.9 Circuit breaker rated current setting measurement, see Fig 1


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Rated current setting, see Table $9 \sim$ Table 10

400A

| Ir | 1 | 098 | 0.95 | 093 | 0.9 | 0.88 | 0.85 | 0.8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 400 | 392 | 380 | 372 | 360 | 352 | 340 | 320 |
| 0.9 | 360 | 353 | 342 | 335 | 324 | 317 | 306 | 288 |
| 0.8 | 320 | 314 | 304 | 298 | 288 | 282 | 272 | 256 |
| 0.7 | 280 | 274 | 266 | 260 | 252 | 246 | 238 | 224 |
| 0.63 | 252 | 247 | 239 | 234 | 227 | 222 | 214 | 202 |
| 0.5 | 200 | 196 | 190 | 186 | 180 | 176 | 170 | 160 |

630A

| Ir <br> lo |  | 1 | 0.98 | 0.95 | 093 | 0.9 | 0.88 | 0.85 | 0.8 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 | 630 | 617 | 598 | 585 | 567 | 554 | 535 | 504 |  |
| 0.9 | 567 | 556 | 539 | 527 | 510 | 499 | 482 | 454 |  |
| 0.8 | 504 | 494 | 478 | 468 | 454 | 443 | 428 | 403 |  |
| 0.7 | 441 | 432 | 419 | 410 | 397 | 388 | 375 | 353 |  |
| 0.63 | 397 | 389 | 377 | 369 | 357 | 349 | 337 | 317 |  |
| 0.5 | 315 | 308 | 299 | 292 | 283 | 277 | 267 | 252 |  |

Example:


Overall and installation dimensions

See Fig 2 and Table 11


Table11

| Model No. | Overall dimension (mm) |  |  |  |  |  |  |  | Installation dimension (mm) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W1 | W2 | L | H1 | H2 | H3 | X | Y | a1 | a2 | b | $\phi$ d | ¢ d |
| RDM11-100 | 105 | 140 | 160 | 82 | 87 | 111 | 27 | 73 | 35 | 70 | 126 | 6 | $\mathrm{M} 6 \times 20$ |
| RDM11-160 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| RDM11-250 |  |  |  |  |  | 126 |  |  |  |  |  |  | -18×20 |
| RDM11-400 | 140 | 185 | 255 | 105 | 110 | 168 | 60 | 114 | 45 | 90 | 200 | 6 | $\mathrm{M} 10 \times 30$ |
| RDM11-630 |  |  |  |  |  |  |  |  |  |  |  |  |  |

## RDM1E

Electronic Moulded Case Circuit Breaker

## Application

RDM1E series RDM1E series electronic Moulded case circuit breaker is a new designed MCCB developed and manufactured by adopting international advanced technology. Its rated insulation voltage is 800 V , is applied to the circuit of AC 50 HZ , rated working voltage 400 V , rated current up to 1250 A as infrequently switch and starting of motor. MCCB has the functions of overload long delay inverse time limit, short-circuit short delay inverse time limit, short-circuit short delay definite time limit, short-circuit instantaneous and under-voltage protection, to protect the circuit and power equipment against being damage.
MCCB has the characteristics of small volume, high breaking capacity, short arcing distance, and anti-vibration.
MCCB cannot be inverted wiring, only can be $1,3,5$ connect to the power line, $2,4,6$ connect to the load line.
MCCB has the isolation function, its symbol is: " $\qquad$ -"

Model No.


## Standards

GB 14048.1-2006 Low voltage switchgear and control equipment Part 1: General Rule GB 14048.2-2008 Low voltage switchgear and control equipment Part 2: Circuit Breaker GB 14048.4-2010 Low voltage switchgear and control equipment Part 4-1: Contactor and Motor starter
GB 14048.5-2008 Low voltage switchgear and control equipment Part 5-1: Control electric appliance and components

## Normal working condition and Installation environment

[^1]
## MOULDED CASE CIRCUIT BREAKER

Main Technical Specification

| Model |  | RDM1E-100 |  |  | RDM1E-225 |  |  | RDM1E-400 |  |  | RDM1E-800 |  | RDM1E-1250 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frame current Inm(A) |  | 100 |  |  | 225 |  |  | 400 |  |  | 800 |  | 1250 |
| Breaking capacity class |  | M |  | H | M | H |  |  | M | H | M | H | M |
| Rated current $\ln (\mathrm{A})$ |  |  |  |  |  |  |  | 400 |  |  | 630. | 800 | 800, 1000, 1250 |
| Pole |  | 3, 4 |  | 3 | 3, 4 |  | 3 | 3, 4 |  | 3 | 3, 4 | 3 | 3 |
| Rated voltage Ue(V) |  | AC400 |  |  |  |  |  |  |  |  |  |  |  |
| Rated insulated voltage Ui(V) |  | 800 |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 8000 |  |  |  |  |  |  |  |  |  |  |  |
| Rated limited short-circuit breaking capacity Icu(kA) |  | 50 | 85 |  | 50 | 85 |  | 65 | 100 |  | 65 | 100 | 80 |
| Rated working short-circuit breaking capacity $\operatorname{lcs}(\mathrm{KA})$ |  | 25 |  | 45 | 25 |  | 50 | 32.5 |  | 55 | 42 | 60 | 50 |
| Rated short time withstand current Icw 0.5S(kA) |  | -- |  |  | -- |  |  | 5 |  |  | 10 |  | 15/1s |
| Using category |  | A |  |  | A |  |  | B |  |  | B |  | B |
| Arc distance(mm) |  | $\leqslant 50$ |  |  | $\leqslant 50$ |  |  | $\leqslant 100$ |  |  | $\leqslant 100$ |  | $\leqslant 100$ |
| Operation performance | Power on(Times) | 1500 |  |  | 1000 |  |  | 1000 |  |  | 500 |  | 500 |
|  | Power off(Times) | 8500 |  |  | 7000 |  |  | 4000 |  |  | 3000 |  | 3000 |
| Front plate wiring |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Back plate wiring |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  |
| Plug-in wiring |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  |
| Drawer wiring |  |  |  |  |  |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Under voltage release |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Shunt release |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Auxiliary contact |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Alarm contact |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Motor operation mechanism |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Manual operation mechanism |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Hand test device |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  |
| Intelligent control module |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| Test power module |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |
| LCD display module |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  |  | $\bigcirc$ |  | $\bigcirc$ |

## Release characteristic

1.Electronic release characteristic

Breaker is installed current sensor with effective value sampling. MCCB is with the functions of overload long delay inverse time, short-circuit short delay inverse time, short-circuit short delay definite time, short-circuit instantaneous action and so on, the user can set the protection characteristic they need.
Release characteristic as picture 1
2. Overload long delay inverse time protection action characteristic as form 3
3. Short-circuit short delay protection action characteristic as form 4
4. short-circuit instantaneous protection action characteristic as form 5

| Current |  | Action time (S) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Distribution Type | 1.05IR | $>2 \mathrm{~h}$ no tripping |  |  |  |  |  |
|  | 1.3IR | $\leqslant 1 \mathrm{~h}$ tripping |  |  |  |  |  |
|  | 2IR | Action time $\mathrm{TR}_{R}$ | 12 | 60 | 80 | 100 | 150 |
|  |  | Setting time tr | 12 | 60 | 80 | 100 | 150 |
| Motor protection Type | 1.05IR | $>2 \mathrm{~h}$ no tripping |  |  |  |  |  |
|  | 1.2IR | $\leqslant 1 \mathrm{~h}$ tripping |  |  |  |  |  |
|  | 1.5IR | Action time $\mathrm{T}_{\mathrm{R}}$ | 21.3 | 107 | 142 | 178 | 267 |
|  | 2 IR | Setting time tr | 12 | 60 | 80 | 100 | 150 |
|  | 7.2 IR | Action time $\mathrm{T}_{\mathrm{R}}$ | 0.93 | 4.63 | 6.17 | 7.72 | 11.6 |
|  | Release class |  | 1 | 10A | 10 | 20 | 30 |

form 4

| short delay action characteristic |  | Current Isd | Action time(S) |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | $\leqslant 0.9$ Isd | No tripping |  |  |  |  |
|  |  | $\geqslant 1.1$ lsd | tripping |  |  |  |  |
| short delay protection | inverse time protection | \|sd $\leqslant 1<1.5$ \|sd | $I^{2} \mathrm{~T}_{\mathrm{R}=(1.5 \mathrm{lsd})^{2} \mathrm{t} 5 \mathrm{~d}}$ |  |  |  |  |
|  | definite time protection | $1.5 \mathrm{Isd} \leqslant \mathrm{l}<\mathrm{li}$ | Setting time tsd(s) | 0.06 | 0.1 | 0.2 | 0.3 |
|  |  |  | Error(s) | $\pm 0.02$ | $\pm 0.03$ | $\pm 0.04$ | $\pm 0.06$ |
|  |  |  | Back time(s) | 1 | 1 | 0.14 | 0.21 |
| Accuracy |  | Inverse time actio |  |  |  |  |  |

form 5

| Action characteristic | Current |  |
| :--- | :--- | :--- |
|  | $\leqslant 0.85 \mathrm{li}$ | Action time(S) |
|  | No tripping |  |

form 6

| Classify | Frame rated current $\operatorname{Inm}(\mathrm{A})$ | Conventional thermal <br> current Ith(A) | Rated working current |  |
| :--- | :--- | :--- | :--- | :--- |
| Auxiliary contact | Inm $\leqslant 400$ | 3 | AC400V | DC220V |
| Alarm contact | $10 m \geqslant 400$ | 3 | 0.3 | 0.15 |

Rated control power voltage (Us) and rated operating voltage (Ue) of control circuit release and the motor mechanism to see form 7
form 7

| Type | Rated voltage(V) |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
|  | AC 50HZ |  | DC |  |
| Release | Shunt release | Us | 220380 | 110220 |
|  | Under voltage release | Ue | 220380 | - |

## MOULDED CASE CIRCUIT BREAKER

## Release unit technical parameter

1. It should reliably break the circuit breaker, when the applied voltage of shunt release is between $70 \%$ and $100 \%$ of the rated control power voltage.
2. The under-voltage release can reliably break the circuit breaker when the power voltage reduces to the $70 \% \sim 35 \%$ of the under-voltage's rated operating voltage; The under-voltage release can prevent the circuit breaker close when the power voltage is lower than $35 \%$ of the under-voltage's rated operating voltage; The under-voltage release can ensure the circuit breaker can reliably close when the power voltage is higher than $85 \%$ of the under-voltage's rated operating voltage.
3. When the motor mechanism is at rated frequency, and the power voltage is between $85 \% \sim 110 \%$, the circuit breaker can be reliably closed.

## The power consumption and derating coefficient

1. power consumption as form 8
2. derating coefficient of environment temperature as form 9
form 8


## Appearance and installation dimension

Appearance dimension as picture2, picture3, picture4, picture5, picture6 and form 10
(1)Front plate wiring appearance dimension as pictures2 ( $\mathrm{X}-\mathrm{X}, \mathrm{Y}-\mathrm{Y}$ is the center of 3 P circuit breaker)
(2) Back plate wiring appearance dimension as pictures 3 , pictures 4
(3) Plug-in front plate wiring appearance dimension as pictures 5
(4) Plug-in front back wiring appearance dimension as pictures 6


Picture2 fixed front wiring


Picture3 RDM1E-125, 250 fixed back wiring


Picture4 RDM1E-400,800 fixed back wiring


Picture5 Plug-in front wiring


Picture6 Plug-in back
form 10

| Model | Front plate wiring |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | W | W1 | L | L1 | L2 | H | H1 | H2 | H3 | H4 | E | F | G | W2 | W3 | M1 |
| RDM1E-125 | 92 | 60 | 150 | 100 | 132 | 93 | 112 | 29 | 12 | 4 | 55 | 25 | 18 | 122 | 90 | M8 |
| RDM1E-250 | 107 | 70 | 165 | 132 | 144 | 90 | 110 | 24 | 5 | 4 | 65 | 25 | 22 | 142 | 105 | M8 |
| RDM1E-400 | 150 | 96 | 257 | 220 | 244 | 107 | 147 | 38 | 9.5 | 6.5 | 92 | 68 | 30 | 198 | 144 | M10 |
| RDM1E-800 | 210 | 140 | 280 | 240 | 243 | 116 | 155 | 46 | 15 | 5 | 83 | 680 | 44 | 280 | 210 | M12 |

form 11

| Model | Back plate wiring |  |  |  |  |  |  | Plug-in wiring |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | L4 | H5 | H6 | H7 | M1 | d | t | L6 | H8 | H9 | H10 | H11 | M1 | M2 | L7 | L8 |
| RDM1E-125 | 164 | 53 | 93 | 35 | M8 | - | - | 168 | 50 | 64 | 76 | 18 | M8 | M6 | 220 | 250 |
| RDM1E-250 | 173 | 55 | 100 | 35 | M8 | 8.5 | - | 183 | 50 | 72 | 87 | 18 | M8 | M6 | 252 | 276 |
| RDM1E-400 | 267 | 68 | 128 | 37 | M10 | 10.5 | 8.5 | 279 | 60 | 84 | 107 | 21 | M10 | M8 | 357 | 387 |
| RDM1E-800 | 295 | 84 | - | 37 | M12 | 13 | 16 | 296 | 61 | 97 | 148 | 16 | M12 | M8 | - | - |

RDM1E-1250 front plate (3P)X-X, Y-Y is the center of breaker

$Y$


[^2]
## RDM5

## Moulded Case Circuit Breaker



## Application

RDM5 series moulded case circuit breaker is applied to the circuit of AC 50 HZ , insulation voltage 1000 V , rated working voltage up to 690 V , rated current up to 800 A , which to distribute the power and protect the circuit and power source against overload, short-circuit and under voltage damage. Especially, when the current is lower 630A, it also can protect the motor. Normally breaker can infrequently invert and starting of motor.
The product can be installed vertically and horizontally.
The product is applied to insulation, sign: $\qquad$ $\vdash$

Model No.


## Normal operating condition and installation condition

[^3]| Model | Frame class rated current Inm(A) | Rated current $\ln (A)$ | Rated working voltage Ue(V) | Rated insulation voltage(V) | Pole | Rated limited short circuit breaking capacity | Rated limit/Rated operation Icu/lcs(KA) |  | Arc distance (mm) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | AC400V | AC690V |  |
| RDM5-125 | 125 | $\begin{aligned} & 10,16,20,25 \\ & 32,40,50,63 \\ & 80,100,125 \end{aligned}$ | 400/690 | 1000 | 3,4 | L | 50/35 | 20/10 | $\leqslant 50$ |
|  |  |  |  |  | 2,3,4 | M | 70/50 | 20/12 |  |
|  |  |  |  |  | 3,4 | H | 100/70 | 30/15 |  |
| RDM5-250 | 250 | 100,125,160, |  |  | 3,4 | L | 50/35 | 20/10 |  |
|  |  | 180,200,225 |  |  | 2,3,4 | M | 70/50 | 20/12 | $\leqslant 50$ |
|  |  | ,250 |  |  | 3,4 | H | 100/70 | 30/15 |  |
| RDM5-400 | 400 | 200,225, |  |  | 3,4 | L | 50/50 | 20/10 |  |
|  |  | 250,315, |  |  | 3,4 | M | 70/70 | 25/15 | $\leqslant 100$ |
|  |  | 350,400 |  |  | 3,4 | H | 100/75 | 35/18 |  |
| RDM5-630 | 630 | $\begin{aligned} & 400,500, \\ & 630 \end{aligned}$ |  |  | 3,4 | L | 50/50 | 20/10 | $\leqslant 100$ |
|  |  |  |  |  | 3,4 | M | 70/70 | 25/15 |  |
|  |  |  |  |  | 3,4 | H | 100/75 | 35/18 |  |
| RDM5-800 | 800 | $\begin{aligned} & 500,630, \\ & 700,800 \end{aligned}$ |  |  | 3,4 | L | 65/65 | 20/10 | $\leqslant 100$ |
|  |  |  |  |  | 3,4 | M | 75/75 | 25/15 |  |
|  |  |  |  |  | 3,4 | H | 100/75 | 35/20 |  |

External and installation dimensions

RDM5-125~800 front plate wiring appearance and installation dimension


| Model | Poles | Front plate wiring |  |  |  |  |  |  |  |  |  |  |  |  |  | Mounting dimension |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | L1 | L2 | L3 | L4 | L5 | L6 | W1 | W2 | H1 | H2 | H3 | H4 | H5 | K | a | b | d |
| RDM5-125L | 3 | 130 | - | 116.5 | 85 | - | 49.5 | 75 | 11 | 80.5 | 71 | 56 | 24.5 | 24.5 | 16 | 25 | 111 | 3.5 |
|  | 4 | 130 | - | 116.5 | 85 | - | 49.5 | 100 | 11 | 80.5 | 71 | 56 | 24.5 | 24.5 | 16 | 25 | 111 | 3.5 |
| RDM5-125M/H | 2 | 150 | - | 132 | 88 | 31 | 52 | 62 | 14.5 | 110 | 96 | 82 | 29.5 | 29.5 | 18 | - | 129 | 4.5 |
|  | 3 | 150 | - | 132 | 88 | 31 | 52 | 92 | 14.5 | 110 | 96 | 82 | 29.5 | 29.5 | 18 | 30 | 129 | 4.5 |
|  | 4 | 150 | - | 132 | 88 | 31 | 65 | 122 | 14.5 | 110 | 96 | 82 | 29.5 | 29.5 | 18 | 60 | 129 | 4.5 |
| RDM5-250L | 3 | 165 | - | 144 | 102 | 33 | 65 | 107 | 14 | 96 | 76 | 67 | 23 | 23 | 23 | 35 | 126 | 4.5 |
|  | 4 | 165 | - | 144 | 102 | 33 | 65 | 142 | 14 | 96 | 76 | 67 | 23 | 23 | 23 | 70 | 126 | 4.5 |

## MOULDED CASE CIRCUIT BREAKER

| Model | Poles | Front plate wiring |  |  |  |  |  |  |  |  |  |  |  |  |  | Mounting dimension |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | L1 | L2 | L3 | L4 | L5 | L6 | W1 | W2 | H1 | H2 | H3 | H4 | H5 | K | a | b | d |
| RDM5-250M/H | 2 | 165 | - | 144 | 102 | 33 | 65 | 75 | 14 | 115 | 94 | 85 | 23 | 23 | 23 | - | 126 | 4.5 |
|  | 3 | 165 | - | 144 | 102 | 33 | 65 | 107 | 14 | 115 | 94 | 85 | 23 | 23 | 23 | 35 | 126 | 4.5 |
|  | 4 | 165 | - | 144 | 102 | 33 | 65 | 142 | 14 | 115 | 94 | 85 | 23 | 23 | 23 | 70 | 126 | 4.5 |
| RDM5-400L/M/H | 3 | 257 | 132 | 224 | 132 | 53 | 100 | 150 | 35 | 148 | 117 | 101 | 38 | 38 | 33 | 44 | 194 | 7 |
|  | 4 | 257 | 132 | 224 | 132 | 53 | 100 | 198 | 35 | 148 | 117 | 101 | 38 | 38 | 33 | 94 | 194 | 7 |
| RDM5-630L/M/H | 3 | 270 | 146 | 235.5 | 146 | 52.5 | 100 | 182 | 35.5 | 166 | 119 | 106 | 45 | 42 | 44 | 58 | 200 | 7 |
|  | 4 | 270 | 146 | 235.5 | 146 | 52.5 | 100 | 240 | 35.5 | 166 | 119 | 106 | 45 | 42 | 44 | 116 | 200 | 7 |
| RDM5-800L/M/H | 3 | 280 | 148 | 243 | 148 | 52 | 100 | 210 | 35 | 168 | 122 | 108 | 43 | 41.5 | 44.5 | 70 | 243 | 7 |
|  | 4 | 280 | 148 | 243 | 148 | 52 | 100 | 280 | 35 | 168 | 122 | 108 | 43 | 41.5 | 44.5 | 140 | 243 | 7 |

RDM5-125~800 back plate wiring appearance and installation dimension


RDM5-125,250 back plate wiring


RDM5-400,630,800 back plate wiring

Installation hole dimension of back plate wiring


RDM5-125~800 Installation hole dimension of back plate wiring

| Model | Dimension code |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | H3 | H4 | D | W | L2 | d2 | A | B | C | d1 |
| RDM5-125L | 39.5 | 69.5 | M6 | 25 | 116 | 12 | 25 | 111 | 50 | 4.5 |
| RDM5-125M/H | 64 | 100 | M8 | 30 | 132 | 24 | 30 | 108 | 60 | 5.5 |
| RDM5-250L | 72 | 101 | M10 | 30 | 145 | 15 | 35 | 126 | 70 | 5.5 |
| RDM5-250M/H | 70 | 100 | M10 | 35 | 144 | 26 | 35 | 122 | 70 | 5.5 |
| RDM5-400 | 71 | 105.5 | $\varphi 12$ | 48 | 224 | 32 | 44 | 194 | 94 | 7 |
| RDM5-630 | 46 | 105 | $\varphi 16$ | 58 | 234 | 37 | 58 | 200 | 116 | 7 |
| RDM5-800 | 105 | 105 | $\varphi 16$ | 70 | 243 | 48 | 70 | 243 | 70 | 7.5 |

RDM5 plug-in wiring appearance and installation dimension


Installation plate hole dimension(mm)


RDM5-800 3P plug-in type appearance dimension and installation plate hole drawing

RDM5-125~800 3P plug-in type appearance dimension and installation plate hole dimension

| Model | Dimension code |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B1 | B2 | C1 | C2 | E | F | G | K | H | H1 | H2 | H3 | AM | BM | 4-d |
| RDM5-125L | 136 | 75 | 100 | 51 | 76 | 60 | 116 | 92 | 12 | - | - | - | - | M6 | M8 | $\varphi 4.5$ |
| RDM5-125M/H | 168 | 91 | 125 | 60 | 90 | 56 | 132 | 92 | 38 | 48 | 32.5 | 32.5 | 18 | M6 | M8 | $\varphi 6.5$ |
| RDM5-250L | 184 | 109 | 144 | 70 | 105 | 74.5 | 146 | 104 | 30 | - | - | - | 15 | M6 | M8 | $\varphi 6$ |
| RDM5-250M/H | 186 | 107 | 145 | 70 | 105 | 54 | 144 | 94 | 45.5 | 49.5 | 33.5 | 34 | 15 | M6 | M8 | $\varphi 6.5$ |
| RDM5-400 | 280 | 149 | 200 | 60 | 108 | 129 | 224 | 170 | 55 | 59.5 | 40 | 44 | 23.5 | M8 | M12 | $\varphi 8.5$ |
| RDM5-630 | 300 | 182 | 242 | 100 | 158 | 123 | 234 | 170 | 65 | 60 | 40 | 50 | 30.5 | M8 | M12 | $\varphi 8.5$ |
| RDM5-800 | 305 | 210 | 280 | 90 | 162 | 146 | 242 | 181 | 62 | 87 | 60 | - | - | M10 | M14 | $\varphi 11$ |

## MOULDED CASE CIRCUIT BREAKER

## RDM1L

Moulded Case Circuit Breaker


## Application

RDM1L series moulded case circuit breaker, is mainly applied to the distribution circuit of AC50/60Hz, rated working voltage is 400 V , rated current up to 800 A for providing protection indirectly and prevent the fire caused by the fault grounding current, and it also can be used for power distribution and circuit protection against overload and short-circuit, it also works for transfering circuit and starting motor unfrequently.
This product is suitable for isolating
This product is applied to standard of IEC 60947-2.

Model No.


Note: RDM1L-100L and RDM1L-225L have no leakage alarm module.

## Normal operation condition and installation condition

[^4]Table1

| Code | Instruction |
| :--- | :--- |
| A type | $N$ pole has no overload release, and $N$ pole is always connected and do not connect or break with the other 3 pole together. |
| B type | $N$ pole has no overload release, and $N$ pole connect or break with the other 3 pole together. |
| C type | $N$ pole has overload release, and $N$ pole connect or break with the other 3 pole together. |
| D type | $N$ pole has overload release, and $N$ pole always connected, do not connected or break with the other 3 pole together. |

Table2

|  | non | alarming contact | shunt realease | auxiliary contact | under voltage release | shunt auxiliary release | under shunt voltage release | $\begin{gathered} 2 \text { sets } \\ \text { contacts } \end{gathered}$ | auxiliary contact \&under voltage release | alarming contact \&shunt release | alarming auxiliary contact | alarming auxiliary contact \&shunt release | 2 sets auxiliary alarming contact |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| instantanous release | 200 | 208 | 210 | 220 | 230 | 240 | 250 | 260 | 270 | 218 | 228 | 248 | 268 |
| multiple release | 300 | 308 | 310 | 320 | 330 | 340 | 350 | 360 | 370 | 318 | 328 | 348 | 368 |

Note:1.Only 4P B type and C type products has $240,250,248$ and $340,350,318,348$ accessory code.
2.Only RDM1L-400 and 800 frame size 4P B type and C type product have 260,270,268 and 360,370,368 accessory code.
3.2 Classification
3.2.1 Pole: 2P, 3P and 4P(2P product only has RDM1L-125L/2300, RDM1L-125M/2300,RDM1L-250M/2300,RDM1-250M/2300) 3.2.2 Connection type: front board connection, back board connection and insert type.
3.2.3 Application: power-distribution type and motor-protection type
3.2.4 Residual current release type: electromagnetic type, intantanous type.
3.2.5 Residual current breaking time: delay type and Non-delay type
3.2.6 Rated limited short-circuit breaking capacity: L-standard type, M-Medium type, H-high type
3.2.7 Operational type: Handle-directed operation,Motor operation( $P$ ), rotation-handle operation(Z,for cabinet)

## Main technical parameter

4.1 Ui=690V, Uimp $=8 \mathrm{kV}$, the main technical parameter see Table3.

Table3

| Model No. | Rated current $\ln (A)$ | Rated operational voltage(V) | Rated short-circuit breaking capacity R |  | Rated residual short circuit making and breaking capacity Im(A) | Rated residual action current $\ln (\mathrm{mA})$ | Arc distance mm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Icu(kA) | Ic(skA) |  |  |  |
| RDM1L-125L | $\begin{array}{lll} 10 & 16 & 20 \\ 25 & 32 & 40 \\ 50 & 63 & 80 \\ 100 \end{array}$ | 400 | 35 | 22 | 25\%lcu | 30/100/300 No delay type 100/300/500 delay type | $\leqslant 50$ |
| RDM1L-125M |  |  | 50 | 35 |  |  |  |
| RDM1L-125H |  |  | 85 | 50 |  |  |  |
| RDM1L-250L | $\begin{aligned} & 100, ~ 125, ~ \\ & 160,180, \\ & 200,225 \end{aligned}$ | 400 | 35 | 22 | 25\%lcu | 100/300/500 | $\leqslant 50$ |
| RDM1L-250M |  |  | 50 | 35 |  |  |  |
| RDM1L-250H |  |  | 85 | 50 |  |  |  |
| RDM1L-400L | $\begin{aligned} & 225, ~ 250, \\ & 315, ~ 350, ~ \\ & 400 \end{aligned}$ | 400 | 50 | 25 | 25\%lcu | 100/300/500 | $\leqslant 50$ |
| RDM1L-400M |  |  | 65 | 35 |  |  |  |
| RDM1L-400H |  |  | 100 | 50 |  |  |  |
| RDM1L-800L | $\begin{aligned} & 400, ~ 500, ~ \\ & 630, ~ 700, ~ \\ & 800 \end{aligned}$ | 400 | 50 | 25 | 25\%lcu | 300/500/1000 | $\leqslant 50$ |
| RDM1L-800M |  |  | 70 | 35 |  |  |  |
| RDM1L-800H |  |  | 100 | 50 |  |  |  |

## MOULDED CASE CIRCUIT BREAKER

4.2 Circuit breaker residual current action protection time see Table4

Table4

| Residual current |  | $I \triangle \mathrm{n}$ | $2 I \triangle \mathrm{n}$ | $5 I \triangle \mathrm{n}$ | $101 \triangle \mathrm{n}$ |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Non-delay type | Max breaking time(s) | 0.3 | 0.15 | 0.04 | 0.04 |
| Delay type | Max breaking time(s) | $0.4 / 1.0$ | $0.3 / 1.0$ | $0.2 / 0.9$ | $0.2 / 0.9$ |
|  | Limited undrive time $\mathrm{t}(\mathrm{s})$ | - | $0.1 / 0.5$ | - | - |

4.3 Overload release consists of the thermal long-delay release which has inverse-time characteristic and instantanous action release, the action feature see Table5

Table5

| Power-Distribution circuit breaker |  |  |  | Motor-protection circuit breaker |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rated current $\ln (A)$ | Thermal release |  | electromagnetic release action current | Rated current $\ln (\mathrm{A})$ | Thermal release |  | electromagnetic release action current |
|  | $1.05 \ln$ (cool state) Non-action time(h) | $1.30 \ln$ (heat state) Action time(h) |  |  | 1.0 ln (cool state) non-action time(h) | $1.20 \ln$ (heat state) action time(h) |  |
| $10 \leqslant \ln \leqslant 63$ | , | 1 |  |  |  |  |  |
| $63<\ln \leqslant 100$ | 2 | 2 | $\mathrm{n} \pm 20$ | $10 \leq \ln \leq 6$ |  |  | 120\% |
| $100<\ln \leqslant 800$ | 2 | 2 | $\begin{gathered} 5 \operatorname{In} \pm 20 \% \\ 10 \ln \pm 20 \% \end{gathered}$ |  |  |  |  |

4.4 Accessory device technical parameter
4.4.1 Auxiliary contact and alarm contact rated value, see Table6

Table6

| Contact | Frame size rated current | conventional heating current lth(A) | Rated operation current le(A) |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | AC400V | DC220V |
| Auxiliary contact | $\mathrm{lnm} \leqslant 225$ | 3 | 0.3 | 0.15 |
|  | $1 \mathrm{~nm} \geqslant 400$ | 3 | 0.4 | 0.15 |
| Alarm contact | $100 \leqslant \operatorname{lnm} \leqslant 630$ | 3 | 0.3 | 0.15 |

4.4.2 Control circuit release and motor rated control power voltage(Us) and rated operational voltage(Ue) See Table7.

Table7

| Type |  | Rated voltage (V) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | AC 50Hz |  |  | DC |  |  |
| Release | shunt release | Us | 230 | 400 | 24 | 110 | 220 |
|  | undervoltage release | Ue | 230 | 400 |  |  |  |
| motor mechanism |  | Us | 230 | 400 | 110 |  |  |

4.4.2.1 shunt release external voltage is between rated control power voltage $70 \% \sim 110 \%$, it can tripping the release realiably.
4.4.2.2 when power supply voltage decrease to $70 \%$ to $35 \%$ undervoltage rated operating voltage, under-voltage release can breaking the line. When the power supply voltage is higher than $85 \%$ of undervoltage release rated operating voltage,the undervoltage release will that circuit breaker close.Warning: Undervoltage release must be charged at first, then circuit breaker closed. If not, the circuit breaker would be damaged.
4.4.2.3 Motor operation mechanism ensure that it can make the circuit breaker closed when the power voltage is between $85 \%-110 \%$,under rated frequency.
4.4.3 Leakage alarming module(RDM1L-125L,250L do not have it.) Specification: P5-P6 port for input power-source

AC50/60Hz,230Vor 400V.P1-P2,P3-P4 port for capacity is AC230V 5A, see Fig1
Note: 1. Mode II could satisfy the speacial place needs, User adopts this function after the consideration.
2. Circuit breaker with leakage alarming module. when the leakage alarming is happening, the leakage protection module would function after reseting the reset button of Module II.Fig1.


Fig1.
5.1 Appeatance and Installation dimension see Fig2, Fig3 and Fig8.


Fig2a RDM1L-125M/2300


Fig2b RDM1L-250M/2300


Fig3 Appearance


Table8

| Model No. | Pole | Front board connection |  |  |  |  |  |  |  |  | Installation Dimension |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | L1 | L2 | W1 | W2 | W3 | H1 | H2 | H3 | K | a | b | ¢ d |
| RDM1L-125L | 3 | 150 | 52 | 92 | 88 | 23 | 94 | 75 | 72 | 18 | 30 | 129 | ¢ 4.5 |
|  | 4 | 150 | 52 | 122 | 88 | 23 | 94 | 75 | 72 | 18 | 60 | 129 | ¢ 4.5 |
| RDM1L-250L | 4 | 150 | 52 | 92 | 88 | 23 | 110 | 92 | 90 | 18 | 30 | 129 | ¢ 4.5 |
|  | 3 | 150 | 52 | 122 | 88 | 23 | 110 | 92 | 90 | 18 | 60 | 129 | ¢ 4.5 |
| RDM1L-250M.H | 3 | 165 | 52 | 107 | 102 | 23 | 94 | 72 | 70 | 23 | 35 | 126 | ¢ 5 |
|  | 3 | 165 | 62 | 142 | 102 | 23 | 94 | 72 | 70 | 23 | 70 | 126 | ¢ 5 |
| RDM1L-400 | 3 | 165 | 52 | 107 | 102 | 23 | 110 | 90 | 88 | 23 | 35 | 126 | ¢ 5 |
|  | 4 | 165 | 62 | 142 | 102 | 23 | 110 | 90 | 88 | 23 | 70 | 126 | ¢ 5 |
| RDM1L-800 | 4 | 257 | 130 | 150 | 150 | 65 | 150 | 110 | 108 | 32 | 44 | 194 | ¢ 7 |
|  | 4 | 257 | 92 | 198 | 142 | 65 | 150 | 110 | 108 | 32 | 44 | 194 | ¢ 7 |
| RDM1L-100M.H | 4 | 280 | 138 | 210 | 210 | 66 | 150 | 116 | 111 | 44 | 70 | 243 | ¢ 7 |
|  | 3 | 280 | 92 | 280 | 182 | 67 | 150 | 116 | 111 | 44 | 70 | 243 | ¢ 7 |

## ABE

Moulded Case Circuit Breaker


## Application

ABE series moulded case circuit breaker is suitable for industrial or commercial power and lighting with AC $50 / 60 \mathrm{~Hz}$, rated working voltage up to AC $600 \mathrm{~V} / \mathrm{DC} 250 \mathrm{~V}$, rated current up to 400 A . It's a kind of economical breaker with the characters of stable and reliable function: beautiful appearance, small size and long life. It can be used for conversion of line and infrequent starting motor. It can also be attached to install the accessories which have protection function for avoiding loss-voltage, under voltage. The product can install connection line with front board and back board. It also can equip hand-operating apparatus or motor-operating apparatus to control in a remote distance. It conforms with IEC60947-2.

Model No.


Main technique parameter

| Type | Number of poles | Rated current in (A) | Breaking capacity (AC50/60Hz) KA |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 220/240V | 380 V | 410 V | 440/460V | 480/500V | 600 V |
| ABE-52b | 2 P | 5,10,15,20,30,40,50 | 10 | 7.5 | 5 | 5 | 2.5 | 2.5 |
| ABE-53b | 3P | 5,10,15,20,30,40,50 | 10 | 7.5 | 5 | 5 | 2.5 | 2.5 |
| ABE-54b | 4P | 5,10,15,20,30,40,50 | 10 | 7.5 | 5 | 5 | 2.5 | 2.5 |
| ABE-102b | 2P | 60,75,100 | 25 | 14 | 10 | 10 | 7.5 | 5 |
| ABE-103b | 3P | 60,75,100 | 25 | 14 | 10 | 10 | 7.5 | 5 |
| ABE-104b | 4P | 60,75,100 | 25 | 14 | 10 | 10 | 7.5 | 5 |
| ABE-202b | 2 P | 125,150,175,200,225 | 35 | 18 | 18 | 18 | 10 | 7.5 |
| ABE-203b | 3P | 125,150,175,200,225 | 35 | 18 | 18 | 18 | 10 | 7.5 |
| ABE-204b | 4P | 125,150,175,200,225 | 35 | 18 | 18 | 18 | 10 | 7.5 |
| ABE-403b | 3P | 250,300,350,400 | 35 | 30 | 25 | 25 | 18 | 18 |
| ABE-603b | 3P | 500,600 | 50 | 42 | 35 | 35 | 25 | 22 |
| ABE-803b | 3P | 800 | 50 | 42 | 35 | 35 | 25 | 22 |




3 Pole


4 Pole


Diagram of Terminal Connection



Diagram of Terminal Connection


## ABN

Moulded Case Circuit Breaker


## Application

ABN series moulded case circuit breaker is suitable for industrial or commercial power and lighting with AC $50 / 60 \mathrm{~Hz}$, rated working voltage up to AC $600 \mathrm{~V} / \mathrm{DC} 250 \mathrm{~V}$, rated current up to 400 A . This breaker with the characters of stable and reliable function: beautiful appearance, small size and long life. It can be used for conversion of line and infrequent starting motor. It can also be attached to install the accessories which have protection function for avoiding loss-voltage, under voltage. The product can install connection line with front board and back board. It also can equip hand-operating apparatus or motor-operating apparatus to control in a remote distance. It conforms with IEC60947-2.

Model No.


Main technique parameter

| Frame grade |  | 50AF | 100AF | 250AF | 400AF | 800AF |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Type |  | N Type |  |  |  |  |
| Type and pole | 2P | ABN52c | ABN102c |  |  |  |
|  | 3 P | ABN53c | ABN103c | ABN203c | ABN403c | ABN803c |
|  |  | $\begin{aligned} & 15,20,30,40, \\ & 50 \end{aligned}$ | $\begin{aligned} & 15,20,30,40, \\ & 50,60,75,100 \end{aligned}$ | $\begin{aligned} & 100,125,150,175, \\ & 200,225,250 \end{aligned}$ | $\begin{aligned} & 250,300,350, \\ & 400 \end{aligned}$ | $\begin{aligned} & 500,630,700, \\ & 800 \end{aligned}$ |
| Rated operational voltage, Ue | AC(V) | 690 | 690 | 690 | 690 | 690 |
|  | DC(V) | 500 | 500 | 500 | 500 | 500 |
| Rated insulation voltage Ui V |  | 750 | 750 | 750 | 750 | 750 |
| Rated impulse withstand voltage Uimp Kv |  | 8 | 8 | 8 | 8 | 5 |
| AC | 690 V | 2.5 | 5 | 8 | 5 | 8 |
|  | 480/500V | 7.5 | 10 | 18 | 18 | 25 |
|  | 415/460V | 14(10) | 18 | 26 | 37 | 37 |
|  | 380 V | 18(14) | 22 | 30 | 42 | 45 |
|  | 220/250V | 30(25) | 35 | 65 | 50 | 50 |
| DC | 500 V (3P) | 5 | 10 | 10 | 10 | 10 |
|  | 250 V (2P) | 5 | 10 | 10 | 10 | 10 |
| Ics=\% $\times 1 \mathrm{cu}$ |  | 100 | 100 | 100 | 100 | 100 |
| Dimensions $\mathrm{W} \times \mathrm{H} \times \mathrm{D}(\mathrm{mm}$ ) |  | $75 \times 130 \times 60$ | $75 \times 130 \times 60$ | $105 \times 165 \times 60$ | $140 \times 257 \times 109$ | $210 \times 280 \times 113$ |



## RDW1

Air circuit breaker


## Description

RDW1 air circuit breaker which applied to power distribution network of AC $50 / 60 \mathrm{~Hz}$, rated operational voltage up to 690 V , rated current up to 6300 A . It's mainly used to distribute power and protect the circuit and equipments against damages of overload, short-circuit, under voltage and ground fault, and it has intelligent protection functions, provides accurated selective protection, improves power-supply reliability to avoid unnecessary power interruption. And it also has open type communication port, can realize remote control function and satisfy the requirements of control center and automatic system. This production without intelligent controller and senor has insulation function. This product conforms to the standard of IEC60947-2

Model No.


## Normal operation condition and installation condition

3. 1 Temperature: no more than $+40^{\circ} \mathrm{C}$, no 1 ess than $-5^{\circ} \mathrm{C}$, and average day temperature no more than $+35^{\circ} \mathrm{C}$.
If customer requires condition of higher than $+40^{\circ} \mathrm{C}$, or lower than $-25^{\circ} \mathrm{C}$, it should be consulted with manufacture.
4. 2 Installation location attitude no more than 2000 m
5. 3 Humidity: when the temperature at $+40^{\circ} \mathrm{C}$, it no more $50 \%$

The higher humidity is accepted at the lower temperature. The average humidity of month should no more than $90 \%$, and the average temperature of month should not lower than $+25^{\circ} \mathrm{C}$.
The condensation should be taken care when the humidity change.
3. 4 Protection class: IP20
3. 5 Using type: B type
3. 6 Pollution type: 3 level
3. 7 Installation type:

Type of circuit breaker main circuit, under voltage release, primary coil of power transformer is installation IV; type of Auxiliary circuit and control circuit installation is III.

Main technique parameter

| Model No. |  | RDW1-1000 | RDW1-2000 | RDW1-3200 | RDW1-4000 | RDW1-6300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rated current (A) |  | $\begin{aligned} & 200,400,630 \\ & 800,1000 \end{aligned}$ | $\begin{aligned} & 400,630,800,1000 \\ & 1250,1600,2000 \end{aligned}$ | $\begin{aligned} & 2000,2500,2900, \\ & 3200 \end{aligned}$ | 3200,3600,4000 | 4000,5000,6300 |
| Neutral rated current $\ln (\mathrm{A})$ |  | 100\% ln | 100\% ln | 100\% ln | - | 50\% ln |
| Rated operating voltage (V) |  | AC 400 | AC 400/690 |  | AC 400 |  |
| Frequency (Hz) |  | $50 / 60 \mathrm{~Hz}$ |  |  |  |  |
| Number of poles |  | 3P/4P |  |  |  |  |
| Rated impulse withstand voltage Uimp (Kv) |  | AC 12 |  |  |  |  |
| Rated isolation voltage Ui (V) |  | AC 1000 |  |  |  |  |
| Power frequency withstand voltage(V) 1 min |  | 2200 |  |  |  |  |
| Rated ultimate short circuit breaking capacity(Icu) | AC400V | 42 | 80 | 100 | 80 | 120 |
|  | AC690V | - | 50 | 65 | - | - |
| Rated operating short circuit breaking capacity(lcs) | AC400V | 32 | 65 | 80 | 65 | 100 |
|  | AC690V | - | 50 | 65 | - | - |
| Rated withstand current for short-time(Icw) | AC400V | 20/30(0.5s) | 65 | 80 | 65 | 85 |
|  | AC690V | - | 40 | 50 | - | - |
| Operation life(times) <br> 2500A below <br> 1time/3min; <br> Above 2500A <br> 1 time/6min | Electrical life | 7000 | 6500 | 3000 | 3000 | 1500 |
|  | Mechanical life | 15000 | 15000 | 10000 | 10000 | 5000 |

## External and installation dimension

Fixed type circuit installation dimension and overall dimension


## AIR CIRCUIT BREAKER

Drawout type circuit breaker Installation and Overall dimension


Drawout type and Fixed type circuit breaker Installation and Overall dimension


Fixed type 3P/4P cabinet door opening dimension


Drawout type 3P/4P cabinet door opening dimension

## RDW5

Intelligent type Air circuit breaker


## Description

RDW5 series intelligent type Air circuit breaker is applied to power distribution network of AC $50 / 60 \mathrm{~Hz}$, rated operating voltage up to $400 \mathrm{~V} / 690 \mathrm{~V}$, rated current up to 6300 A . It's mainly used to distribute power and protect circuit and power-supply equipment against damage of faults, such as overload, under-voltage, short-circuit, single-phase grounding, and it has insulation function. Besides, the circuit breaker has various intelligent protect function, can realize bidirectional communication between several breaker and central control computer by its network system, realize remote control function to satisfied the requirements of automatic system control. The circuit breaker conforms the standard of IEC60947-2.

Model No


## Normal operation condition and installation condition

```
3.1 Temperature: no more than +40 ' C no less than - 5 ' C, and average day temperature no
more than +35 ' C .
If customer requires condition of higher than +40 ' C or lower than - 25 ' C , it should be
consulted with manufacture.
3.2 Installation location attitude no more than 2000m
3.3 Humidity: when the temperature at +40 ' C, it no more 50%
The higher humidity is accepted at the lower temperature. The average humidity of
month should no more than 90%, and the average temperature of month should not lower
than +25 ' C .
The condensation should be taken care when the humidity change.
3.4 Protection class: IP20
3.5 Using type: B type
3.6 Pollution type: 3 level
3.7 Installation type
Type of circuit breaker main circuit, under voltage release, primary coil of power
transformer is installation IV; type of Auxiliary circuit and control circuit
installation is III.
3.8 Installation condition: it should be installed according to instruction,
vertical plane tilt angle should not exceed 5 *
3.9 It conforms suandard IEC 60947-2.
```


## AIR CIRCUIT BREAKER

Main technique parameter

| Model No. |  | RDW5-1600 | RDW5-2500 | RDW1-3200 | RDW5-4000 | RDW5-6300 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rated current (A) |  | $\begin{aligned} & 200,400,630,800, \\ & 1000,1250,1600 \end{aligned}$ | $\begin{aligned} & 1000,1250,1600, \\ & 2000,2500 \end{aligned}$ | $\begin{aligned} & 2000,2500,2900, \\ & 3200,3600,4000 \end{aligned}$ | 3200,3600,4000 | 4000,5000,6300 |
| Neutral rated current $\ln (\mathrm{A})$ |  | 100\% ln | 100\% ln | 100\% ln | 100\% ln | 50\%In |
| Rated operating voltage (V) |  |  |  | AC 400/690 |  |  |
| Frequency (Hz) |  |  |  | $50 / 60 \mathrm{~Hz}$ |  |  |
| Number of poles |  |  |  | $3 \mathrm{P} / 4 \mathrm{P}$ |  |  |
| Rated impulse withstand voltage Uimp (Kv) |  |  |  | AC 12 |  |  |
| Rated isolation voltage Ui (V) |  |  |  | AC 1000 |  |  |
| Power frequency withstand voltage(V) 1 min |  |  |  | 3500(Main circuit) |  |  |
| Rated ultimate short circuit breaking capacity(Icu) | AC400V | 42 | 80 |  | 100 | 80 |
|  | AC690V | - | 50 |  | 65 | - |
| Rated operating short circuit breaking capacity(Ics) | AC400V | 32 | 65 |  | 80 | 65 |
|  | AC690V | - | 50 |  | 65 | - |
| Rated withstand current for short-time(Icw) | AC400V | 20/30(0.5s) | 65 |  | 80 | 65 |
|  | AC690V | - | 40 |  | 50 | - |
| Operation life(times) 2500A below 1time/3min; Above 2500A 1time/6min | Electrical life | 7000 | 6500 |  | 3000 | 3000 |
|  | Mechanical life | 15000 | 15000 |  | 10000 | 10000 |
| Using type |  | B type |  |  |  |  |
| Breaking time(without any auxiliary delay |  | 25-30ms |  |  |  |  |
| Closing time |  | $\leqslant 70 \mathrm{~ms}$ |  |  |  |  |
| Operation life(times) 2500A below | 400 V electrical life | 8000 | 8000 | 5000 |  | 1500 |
|  | 690 V electrical life | 3000 | 2500 | 2000 |  | 1000 |
| 1time/3min;Above 2500A 1time/6min | Mechanical life (maintenance - free) | 15000 | 12500 | 10000 |  | 6500 |
|  | Mechanical life (maintenance) | 30000 | 25000 | 20000 |  | 13000 |
| Wire incoming pattern |  | Wire to enter from the upper or lower port |  |  |  |  |
| Arc distance(mm) |  | 0 |  |  |  |  |
| Installation method |  | Fixed type or draw-out type |  |  |  |  |

External and installation dimension

| Draw-out type |  |  |  |  |  | Fixed type |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Model | Poles | Width (mm) | Height (mm) | Depth (mm) | Weight (kg) | Width <br> (mm) | Height (mm) | Depth (mm) | Weight (kg) |
| RDW5-1600 | 3P | 282 | 351 | 345 | 43 | 254 | 320 | 254 | 22 |
|  | 4P | 352 | 351 | 345 | 55 | 324 | 320 | 254 | 26.5 |
| RDW5-2500 | 3P | 375 | 435 | 485 | 84 | 368 | 400 | 360 | 47 |
|  | 4P | 470 | 435 | 485 | 96 | 463 | 400 | 360 | 56 |
| RDW5-4000 | 3P | 435 | 435 | 515 | 100 | 428 | 400 | 392 | 53 |
|  | 4P | 550 | 435 | 515 | 130 | 543 | 400 | 392 | 67 |
| RDW5-6300 | 3P | 780 | 435 | 515 | 195 | 773 | 400 | 441 | 106 |
|  | 4P | 895 | 435 | 515 | 225 | 888 | 400 | 441 | 120 |

Overall dimension


RDW5-6300/3P Fixed type horizontal connection
horizontal connection and phase spacing








RDW5-6300/3P The vertical connection of fixed type Vertical connection and phase spacing




RDW5-6300/4P The vertical connection of fixed type Vertical connection and phase spacing


## RDCH8

AC contactor


## Description

RDCH8 series AC contactor, is mainly applied to circuit of 50 Hz or 60 Hz , rated operational volteage up to 400 V , Rated operational current up to 63 A , to control the household appliance and the low induction load, and also can control the household motor load, the control power should decreased accordingly. This production can be used in the household, hotel, apartment those place to realize automation, and also can used in the other appliances.
This production conforms to the standard of IEC61095.

Model No.


## Normal working condition and Installation environment

3.1 Temperature: $-5^{\circ}+40^{\circ}$, the average temperature of 24 hours should not exceed $35^{\circ} \mathrm{C}$.
3.2 Altitude : should not exceed 2000 m .
3.3 The relative humidity: no more than $50 \%$, when Temperature is $+40^{\circ} \mathrm{C}$. The product can withstand the higher humidity under lower temperature, for instance, when temperature at $+20^{\circ} \mathrm{C}$, the product can withstand $90 \%$ relative humidity.
3.4 Pollution class: 2 class
3.5 Installation type: II class
3.6 Installation codition: the angle between the prodouct and vertical plane should not exceed $5^{\circ}$.
3.7 Installation methods: adopt 35 mm DIN-Rail
3.8 Protection class: IP20.

## Main Technical parameter

[^5]
## AC CONTACTOR

Table 1

| Model No. | Rated current (pole) | Using type | Rated operational current(A) | Rated insulation voltage (V) | Control power (kW) | Connection type |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RDCH8-25 | 16 (1P/2P) | AC-7a | 16 | 500 | 3.5 | With soft-cable: $2 \times 2.5 \mathrm{~mm}^{2}$ With hard-cable: $6 \mathrm{~mm}^{2}$ |
|  |  | AC-7b | 7 | 500 | 1.0 |  |
|  | 20 (1P/2P) | AC-7a | 20 | 500 | 4 |  |
|  |  | AC-7b | 8.5 | 500 | 1.2 |  |
|  | 25 (1P/2P) | AC-7a | 25 | 500 | 5.4 |  |
|  |  | AC-7b | 9 | 500 | 1.4 |  |
|  | 25 (3P/4P) | AC-7a | 40 | 500 | 16 |  |
| RDCH8-63 | 32 (2P) | AC-7a | 32 | 500 | 7.2 | With soft-cable: $2 \times 10 \mathrm{~mm}^{2}$ <br> With hard-cable: $25 \mathrm{~mm}^{2}$ |
|  | 32 (3P/4P) | AC-7a | 32 | 500 | 21 |  |
|  | 40 (2P) | AC-7a | 40 | 500 | 8.6 |  |
|  | 40 (3P/4P) | AC-7a | 40 | 500 | 26 |  |
|  | 63 (2P) | AC-7a | 63 | 500 | 14 |  |
|  | 63 (3P/4P) | AC-7a | 63 | 500 | 40 |  |

Table 2

| Pole | Rated current (A) | Rated voltage (V) | NO NC |
| :--- | :--- | :--- | :--- |
| 1P | $16 \sim 25$ | $220 / 230$ | 10 |
| 2P | $16 \sim 25$ | $220 / 230$ | 20 |
| 3P | $40 \sim 63$ | $380 / 400$ | 02 |
| 4P | 25 | $380 / 400$ | 30 |
|  | $40 \sim 63$ | 25 | 40 |
|  | $40 \sim 63$ |  | 04 |

4.3 Operation performance: Under the condition of the ambient temperature is in the range of $-5^{\circ} \mathrm{C} \sim+40^{\circ} \mathrm{C}$, charge the contactor attract coil with rated control power voltage Us and warm it to the stable state, the contactor should attract stably in any value between the $85 \%$ and $100 \%$ of rated control power voltage Us;
it should release and break between $75 \%$ and $20 \%(2 \mathrm{P})$ or $10 \%(1 \mathrm{P})$ of the rated control power voltage Us.
4.4 Mechanical life: no less than 1 million times.
4.5 Electrical life: no less than 100 thousands times.
4.6 Wiring diagram: see FIg1 to Fig5



Fig3 16/30~63/30


Fig4 25/40~63/40


Fig3 25/04~63/04

Overall and Installation Dimensions:


16/25 2P


40/63 2P


16/25 3P, 4P


40/63 4P

$16 / 252 P$


16/25 3P, 4P


40/63 2P 40/63 3P, 4P

Table 3

| Model No. | Rated current(Poles) | D | L | L1 | L2 | H | H1 | H2 | H3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RDCH8-25 | 16/25 1P,2P | 18 | 85 | 35.5 | 45.5 | 66 | 61 | 45 | 23 |
|  | 16/25 3P,4P | 36 | 85 | 35.5 | 45.5 | 66 | 61 | 45 | 23 |
| RDCH8-63 | 40/63 2P | 36 | 85 | 35.5 | 45.5 | 66 | 61 | 45 | - |
|  | 40/63 3P,4P | 54 | 85 | 35.5 | 45.5 | 66 | 61 | 45 | - |

## RDH5D

## Automatic Transfer Switch



## Application

RDH5D series Automatic transfer switch equipment, integrates electrical and mechanical interlocking systems to guarantee safe transfer operation.It is applicable for the industry distribution device power supply system of AC 50 Hz , rated voltage AC 400 V , rated conventional current up to 3200 A . It has detection, communication, electrical and mechanical interlocking functions.It can realize fullautomatic and remote control, reset, manual control for emergency and other operations. This switch is applicable for two circuit power supplys, normal and standby power supply changeover automatically or the automatic changeover and safe disconnect between two sets of load equipments.

Model No.


## Switch structure

3.1 Electrical lock: control switch internal circuit power. when it is on, the switch can realize fullautomatic, forced recovery and remote operation; when it is off, the switch only can be manualoperate.
3.2 Operation handle: The electrical lock should be off when the handle is used for manual operation. 3.3 Mechanism lock: using for detection. Firstly, turn switch to "0" position by using handle, then, pull the lock mechanism up and lock it, then taking detection. (pull up the lock, and the switch internal control power supply would be cut off, the switch can not automatic and manual operation.)
3.4 Position indication: indicate the working position(I, O, II).


Main technical parameter
4.1 Standard: IEC60947-6-1
4.2 Rated operation voltage(Ue):AC400V
4.3 Rated insulation voltage(Ue):AC690V
4.4 Rated operation current(le):10A-3200A
4.5 Control power supply voltage: DC24V,AC230V,AC400V

Main specifications


Wiring diagram


## Switch function

6.1 Automatic function: when normal power supply is off, the switch transfers the circuit to Backup power supply; when normal power supply is recovery,the switch would transfer circuit to Normal power supply.
6.2 Forced recovery "0" function: start " 0 " button, the switch would cut two power supplys.
6.3 Remote control function: remote contol, push "I" button to start the normal power supply. Push "II" button to start back up power supply; Push "0" button to cut off two power supplys.
6.4 Please choose the switch function, and connect according to needs.
6.5 Please mention the model No., Specification and needed functions.

## Appearance



Terminal connection


## Switch installation



The above $A, B, C$ is corrected( $A$ is best), $D$ is not right.

| Specification |  |  |  |  |  |  | Sh | dim | mension | and | Install | lation |  | ion |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| In | A | A1 | B | B1 | C | E | G | $J$ | K | L | N | P | R | S | T | U | W | ФX | Y | Y1 |
| 100A/3 | 235 | 232 | 110 | 105 | 134 | 150 | 115 | 221 | 84 | 7 | 74.5 | 30 | 14 | 18 | 2.5 | 105 | 126 | 6 | 36 | 86 |
| 100A/4 | 247 | 244 | 110 | 105 | 134 | 150 | 115 | 232 | 84 | 7 | 74.5 | 30 | 14 | 18 | 2.5 | 105 | 126 | 6 | 36 | 86 |
| 160A/3 | 292 | 270 | 145 | 128 | 230 | 200 | 145 | 254 | 105 | 7 | 91 | 36 | 20 | 25 | 3.5 | 127 | 158 | 9 | 55 | 125 |
| 160A/4 | 322 | 303 | 145 | 128 | 230 | 200 | 145 | 285 | 105 | 7 | 91 | 36 | 20 | 25 | 3.5 | 127 | 158 | 6 | 55 | 125 |
| 250A/3 | 356 | 312 | 170 | 142 | 261 | 220 | 145 | 295 | 105 | 7 | 91 | 50 | 25 | 30 | 3.5 | 142 | 168 | 6 | 60 | 145 |
| 250A/4 | 406 | 365 | 170 | 142 | 261 | 220 | 145 | 345 | 105 | 7 | 91 | 50 | 25 | 30 | 3.5 | 142 | 168 | 6 | 60 | 145 |
| 400A/3 | 487 | 370 | 240 | 222 | 284 | 280 | 189 | 351 | 180 | 9 | 93 | 65 | 32 | 40 | 5 | 222 | 203 | 9 | 83 | 193 |
| 400A/4 | 552 | 437 | 240 | 222 | 284 | 280 | 189 | 422 | 180 | 9 | 93 | 65 | 32 | 40 | 5 | 222 | 203 | 9 | 83 | 193 |
| 630A/3 | 487 | 368 | 240 | 222 | 284 | 280 | 189 | 351 | 180 | 9 | 93 | 65 | 40 | 50 | 6 | 222 | 203 | 9 | 83 | 193 |
| 630A/4 | 552 | 437 | 240 | 222 | 284 | 280 | 189 | 422 | 180 | 9 | 93 | 65 | 40 | 50 | 6 | 222 | 209 | 9 | 83 | 193 |
| 800A/3 | 646 | 519 | 328 | 250 | 363 | 320 | 443 | 490 | 220 | 11 | 87 | 120 | 60 | 69 | 8 | 250 | 207 | 11 | 109 | 254 |
| 800A/4 | 760 | 630 | 328 | 250 | 363 | 320 | 443 | 610 | 220 | 11 | 87 | 120 | 60 | 69 | 8 | 250 | 207 | 11 | 109 | 254 |
| 1000A/3 | 646 | 519 | 328 | 250 | 363 | 320 | 443 | 490 | 220 | 11 | 87 | 120 | 60 | 69 | 8 | 250 | 207 | 11 | 109 | 254 |
| 1000A/4 | 760 | 630 | 328 | 250 | 363 | 320 | 443 | 610 | 220 | 11 | 87 | 120 | 60 | 69 | 8 | 250 | 207 | 11 | 109 | 254 |
| 1250A/3 | 646 | 519 | 335 | 250 | 363 | 320 | 443 | 490 | 220 | 11 | 87 | 120 | 80 | 69 | 8 | 250 | 207 | 11 | 110 | 255 |
| 1250A/4 | 760 | 630 | 335 | 250 | 363 | 320 | 443 | 610 | 220 | 11 | 87 | 120 | 80 | 69 | 8 | 250 | 207 | 11 | 110 | 255 |
| 1600A/3 | 646 | 519 | 335 | 250 | 363 | 351 | 443 | 499 | 220 | 11 | 87 | 120 | 80 | 69 | 10 | 250 | 207 | 12 | 110 | 255 |
| 1600A/4 | 760 | 634 | 335 | 250 | 363 | 351 | 443 | 617 | 220 | 11 | 87 | 120 | 80 | 69 | 10 | 250 | 207 | 12 | 110 | 255 |
| 2000A/3 | 800 | 535 | 423 |  | 542 | 560 | 447 | 490 | 220 |  | 84.5 |  | 80 | 120 | 10 |  |  | 12 |  | 169 |
| 2000A/4 | 800 | 633 | 423 |  | 542 | 560 | 447 | 617 | 220 |  | 84.5 |  | 80 | 125 | 15 |  |  | 12 |  | 174 |
| 2500A/3 | 800 | 535 | 423 |  | 542 | 560 | 447 | 490 | 220 |  | 84.5 |  | 80 | 130 | 20 |  |  | 12 |  | 179 |
| 2500A/4 | 800 | 633 | 423 |  | 542 | 560 | 447 | 617 | 220 |  | 84.5 |  | 80 | 120 | 10 |  |  | 12 |  | 169 |
| 3200A/3 | 800 | 535 | 423 |  | 542 | 560 | 447 | 490 | 220 |  | 84.5 |  | 80 | 125 | 15 |  |  | 12 |  | 174 |
| 3200A/4 | 800 | 650 | 423 |  | 542 | 560 | 447 | 617 | 220 |  | 84.5 |  | 80 | 130 | 20 |  |  | 12 |  | 179 |

## Switch control type and relevent function

10.1 I type: Automatic type
10.2 II type: Automatic, Forced "O", remote control, With generator.
10.3 III type: Phase loss detection protection, automatic, Forced "O", remote control, With generator.
10.4 Automation: Self-throwing and self-reset, when normal power supply stops or defaults phase, switch transfers circuit to standby power supply. And when normal power recovers, switch transfers circuit return to normal power supply.
10.5 Forced " 0 ":when there is an emergency or device detection, start Forced " 0 " self-lock button, switch turns to " 0 " position and cut two circuits. 10.6 Remote control: start "I" position button, then normal power supply starts working;start "II" position button, then standby power supply starts working.
10.7 With generator:when normal power supply stops or defaults phase, then it gives the signal to start generator. When the power is turned on, the switch will automatically switch to the power supply. And when normal power supply recovers, switch returns the circuit to normal power supply, and stops the generator.
10.8 Phase loss protection:detect and protect normal power supply phase-loss.

## AUTOMATIC TRANSFER SWITCH

## Using instruction

11.1 Nonprofessional installation and Unauthorized opening is forbidden;
11.2 Please read this instruction to avoid improper using.
11.3 Switch interior control power supply rated voltage is 220 V , from c1 of normal power supply,N1and C2,N2of standby power supply . Only it is between $85 \%$ to $110 \%$ of rated control voltage, it could work normally.
11.4 Switch input terminal power supply should have overload protection for interior circuit board and control motor to avoid high voltage damage.
11.5 Switch output terminal should have short-circuit protection against high circuit damage.
11.6 When installing, Please turn off Electrical key lock, and turn the switch to "0" position.
11.7 when connecting, please distinguish $A, B, C, N$ of power supply input line, and connect to relative poles.
11.8 Before powering on, please check whether C.N voltage is in the $85 \%$ to $110 \%$ rated control voltage range, then turn on the electrical lock.
11.9 Please keep the electrical key and handle separately in case of accident.

12.1 RDH5D series Main circuit connection diagram

Normal power supply Standby power supply

12.2 100A I type connection diagram

12.3 100A II type Automation+Remote control connection diagram

12.4 100A III type Automation+Remote control connection diagram


## AUTOMATIC TRANSFER SWITCH

1. 100A and below only has I, II type switch
2. HD1-2, HL1-2 indication light can be connected according to needs.
3. Switch internal connects to Normal power supply C1.N1 and standby power supply C2,N2
4. I type (auto) switch internal, 201 and 206 terminal short-connects, so there is no 201-206 terminal.
5. Il type switch 201-206 terminal can be connected according to relavent function
6. 301 and 306 are the signal contacts of generator's starting.
7. 100A and below III type switch is special switch
8. III switch connects 3 phases, 102 and 105 terminal can not connect power supply.
9. Switch power supply throwing instruts connect wiring according to the above fig.
10. 302 connects from load side $N$ phase, signal light live line connects from load side $C$ phase.
11. 301 and 306 are the signal contacts of generator's starting.
12. Auto, remote control and II type are in same connection mode.

## F1-2:(2A)Fuse

HL1: Normal power supply power indication
HL2: Standby power supply power indication
HD1: Normal power supply throwing indication
HD2: Standby power supply throwing indication
SA: Power transfer switch
SB0:Forced "0" selflock button
SB1:Normal power supply throwing button
SB2:Standby power supply throwing button
12.5 160A to 630A II Type Auto.+ manual(remote control) connection diagram

12.6 160A to 630A III Type Auto.+manual(remote control) connection diagram


F1-2:(2A)fuse
HL1: Normal power supply power indicator
HL2: Standby power supply power indicator
1.HD1-6,HD1-2 indicator connects according to needs.
2. Only 400A and above have 401-406,501-506 terminals.
3.101 and 106 are switch output indicator power supplys, 106 is live line.
4. I type switch do not make 125A and above, only II type and III type
5. II type and III type 201-206 terminals can be connected according to relevant functions.
6. III Type connects 3 phases, 102-105 do not need power, only 3poles switch 103 needs to connect the normal power supply N1, 105 connects to Standby power N2.

HD1:Normal power supply throwing indication
HD2:Standby power supply throwing indication
HD3:Normal power supply pre-breaking indication
HD4:Standby power supply pre-breaking indication
HD5:Mechanical padlock on/off indication
HD6:Electrical lock on/off indication
AS:Function transfer switch
SB0:Forced reset "O" self-lock button SB1:Normal power supply throwing button
SB2:Standby power supply throwing button
12.7 1000A to 3200A II type auto+manual connection diagram


F1-2:(2A)Fuse
HL1: Normal power supply power indication
HL2: Standby power supply power indication
HD1: Normal power supply throwing indication
HD2: Standby power supply throwing indication
HD3:Normal power supply pre-breaking indication HD4:Standby power supply pre-breaking indication
HD5:Mechanical padlock on/off indication
HD6:Electrical lock on/off indication
K1: Middle relay

SA: Power transfer switch
SB0:Forced "0" selflock button
SB1:Normal power supply throwing button
SB2:Standby power supply throwing button

1. Only II type and III type have 1000A and above production.
2.HD1-6,HL1-2 indicator can be connected according needs.
3.101 and 106 are switch output indicator power supplys, 106 is live line 4.201-206 terminal can be connected according to relevant functions.
5.K1 relay only can be used at full-automation.
12.8 1000A to 3200 A III type auto+manual connection diagram


## Note:

1.III type switch connects to 3 phase power supply, 102-105 do not connect to power supply. only in the 3 poles switch, 103 connects Normal power supply $\mathrm{N} 1,105$ connects to Standby power supply. 2. Other connection mode refer to 125A to 630A type.

RDQ1

## Automatic Transfer Switch



Description

RDQ1 series Dual Power Supply Auto-Transfer Switch is suitable for the power- supply system of AC 50 Hz , rated operating voltage 400 V , rated operating current 63 A and below. It can switch optionally between two circuit power supplys according to requirements. This product has the protective functions of over-load, short-circuit, under-voltage, meanwhile, it also has the functions of fire protection, double breaking and output the closing signal, which is especially suitable for the lighting circuit of the office building, shopping mall, bank, high-rise building that require fire protection.

Model No.


Normal operating condition and installation condition
3. 1 Altitude of installation place does not exceed 2000 m .
3. 2 Ambient temperature: $-5^{\circ} \mathrm{C}^{\sim}+40^{\circ} \mathrm{C}$, average value within 24 h does not exceed $+35^{\circ} \mathrm{C}$.
3. 3 Atmosphere condition: The relative humidity does not exceed $50 \%$ when the highest temperature is $+40^{\circ} \mathrm{C}$, it is allowed relatively high relative humidity at the relatively low temperature, for example, it reaches $90 \%$ when $20^{\circ} \mathrm{C}$, and it should take special measurements when there occurred the condensation on the products that is due to the variation of humidity.
3. 4 Grade of pollution: 3
3.5 Installation condition: it is installed at the places that without impact vibration and without rain and snow; The upper terminal connects to the power supply side, the lower terminal connects to the load side, and the gradient between the installation side and the vertical side does not exceed $5^{\circ}$
3. 6 Installation category: III
3. 7 External magnetic field of the installation place nearby does not exceed 5 times

## Technical parameter

4.1 Basic parameter of double power supply ATS to see table 1

Table 1

## Product performance parameter

Confirms to standards
ATS grade CB class
Usage category
Rated operating voltage Ue
Rated operating frequency
Rated operating current le
Switch control voltage
Rated insulation voltage Ui
Transfer action time
Life Electrical life Mechanical life

Rated short-circuit connecting capacity Icm
Rated short-circuit breaking capacity Icn

IEC60947-6-1
CB
AC-33iB
AC230V-400V
$50 \mathrm{~Hz} / 60 \mathrm{~Hz}$
6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Ac230 V
AC690V
$\leq 3$ s (cannot be adjustable)
1500 times
6000 times
7. 5 kA

5kA
4.2 Basic parameter for the conventional type and intelligent type double power supply ATS to see table 2

Table 2

|  |  |  |
| :--- | :--- | :--- |
| Product model | Conventional type | Intelligent type |
| Installation mode | Integrated type | Integrated type |
| Operation mode | Automatic and manual | Automatic and manual |
| Monitor function | Breaking phase detection | Under voltage, loss of phase and break phase detection <br> ofconventional power supply |
| Transfer mode | Automatic transfer and automatic recovery | Automatic transfer but does not automatic recovery |
| Fire protection linkage control | Non | DC12-24V input double break (fire auto cut off function) |
| Display function | LED light | LED light |

External and installation dimension

External and installation dimension confirm to table 3 and map 1


Table 3

| Dimensions |  | External dimension |  | Installation dimension |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | L | W | H | W1 | 中 d |  |
| Four poles | 222 | 135 | 116 | 202 | 123 | 5 |
| Three poles | 185 |  |  | 165 |  |  |

Installation

### 6.1 Conductive wire

The conductive wire (cable) adopted by the double power supply is the single core PVC insulation copper wire or equal copper bar, the cross section according to table 4.

| Rated current $\ln (\mathrm{A})$ | 6 | 10 | 16 | 20 | 25 | 32 | 40 | 50 | 63 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Cross section of wire or cable $\mathrm{mm}^{22}$ | 1.0 | 1.5 | 2.5 | 4.0 | 6.0 | 10 | 16 |  |  |

### 6.2 Wiring map of dual power supply ATS

### 6.2.1 Wiring map for the four poles of ATS to see map 2



Map2


Map3
6.3 Wiring sketch map for the output terminal of ATS
6.3.1 Wiring sketch map for the output terminal of conventional type to see map 4

6.3.2 Wiring sketch map for the output terminal of intelligent type to see map 5


Closing indication Closing indication EPS fire protection for normal power for backup power (DC12-24V) supply(AC 220 V supply(AC 220 V
signal lamp) signal lamp)
Map5

## RDQH

## Automatic Transfer Switch



## Application

RDQH automatic transfer switch is applicable for power system of AC 50 Hz , rated operation voltage 380 V , rated operation current 10A to 1600A.It transfers circuit between two circuit power supplys according to needs. This product has protection against overload, short-circuit, under-voltage, and also has fire protection, two circuit breaks and output making signal function.

## Model No.



## Normal operating condition and installation condition

3. 1 installation location altitude should not exceed 2000 m .
4. 2 ambient temperature shall not exceed $+40^{\circ} \mathrm{C}$, but shall not lower than $5^{\circ} \mathrm{C}$. Daily average temperature shall not exceed $+35^{\circ} \mathrm{C}$
5. 3 Humidity: Relative humidity is not more than $50 \%$ when temperature is $+40^{\circ} \mathrm{C}$, and the higher humidity is accepted if temperature is lower.
6. 4 Pollution level:3
3.5 installation location do not be influenced by weather and impact. Upper terminal connects power side, lower terminals connects load side. tilt angle with the vertical plane shall not exceed $5^{\circ}$.
7. 6 Installation type:III.
8. 7 External magnetic field of the installation place nearby does not exceed 5 times of earth magnetic field at any direction.

## Technical parameter

4.1 Main technical parameter see Table 1.

Table 1

| Product performance parameter |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Standards | IEC60947-6-1 |  |  |  |
| ATS grade CB class | CB |  |  |  |
| Usage category | AC-33iB |  |  |  |
| Rated operating voltage Ue | AC380V-400V |  |  |  |
| Rated operating frequency | 50 Hz |  |  |  |
| Switch control voltage | AC230V,AC400V |  |  |  |
| Rated insulation voltage Ui | AC690V |  |  |  |
| Min transfer action time | $\leq 3 \mathrm{~s}$ |  |  |  |
| Life Electrical life | < 400A | 1500 times | $\geqslant 400 \mathrm{~A}$ | 1000 times |
| Mechanical life |  | 4500 times |  | 3000 times |

4.2 Basic parameter for the conventional type and intelligent type double power supply ATS to see table 2

Table 2

| Product model | Conventional type | Intelligent type |
| :--- | :--- | :--- |
| Installation mode | Integrated type | Integrated type |
| Operation mode | Automatic and manual | Automatic and manual |
| Monitor function | Breaking phase detection | Under voltage, loss of phase and break phase detection <br> ofconventional power supply |
| Transfer mode | Automatic transfer and automatic recovery | Automatic transfer but does not automatic recovery |
| Fire protection linkage control | Non | DC12-24V input double break (fire auto cut off function) |
| Display function | LED light | LED light |

4.2 Specification see Table2

Table 2

| Specification | Frame size | Rated operational current le(A) | Rated short-circuit impulse withstand voltage Uimp | Rated short-circuit breaking capacity Icn |
| :---: | :---: | :---: | :---: | :---: |
| RDQH-63 | 63 | 10, 16, 20, 25, 32, 40, 50, 63 | 8 kV | 5 kV |
| RDQH-100 | 100 | 32, 40, 50, 63, 80, 100 | 8kV | 10kV |
| RDQH-225 | 225 | 100, 125, 160, 180, 200, 225 | 8kV | 10kV |
| RDQH-400 | 400 | 225, 250, 315, 350, 400 | 8 kV | 10kV |
| RDQH-630 | 630 | 400, 500, 630 | 8 kV | 13 kV |
| RDQH-800 | 800 | 630, 800 | 10kV | 16kV |
| RDQH-1250 | 1250 | 800, 1000, 1250 | 12kV | 25kV |
| RDQH-1600 | 1600 | 1250, 1600 | 12 kV | 25kV |

## AUTOMATIC TRANSFER SWITCH

4.3 Controller function, see Table3

Table 3

| Model No. | RDQH ATSE Intelligent controller |
| :--- | :--- |
| installation type | Intergated type, separated embedded plane type |
| operational type | Manual, automatic,double-open |
| monitoring function | phase-loss,voltage-loss, undervoltage,overvoltage,manual,automatic,double-open |
| conversion method | Auto change and auto recovery,Auto change and no auto recovery, <br> Mutual standby, power optimized selection |
| native function | fire protection breaking,generator start signal,tripping alarming |
| delay time of power supply switching | Os to 999s (sets by user) |
| double-open delay | 1s to 10s(sets by user) |
| system type setting | 1\#city power2\#city power, 1\#city power2\#generator power, <br> 1\#generator power2\#city power |

4.4 Intergated type separated type of intelligent


Note: RDQH ATSE,difference of Intergated type and separated type:Intergated production controller and switch body connecting together as a whole,the separated type makes the control panel be installed at the cabinet door with wire. Their controller has same size.

Appearance and installation dimension
5.1 Appearance and installation dimension


## PEOPLE

| Dimensions Specification | Appearance |  |  |  | Installation |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Frame size | Pole | L | W | H | L1 | W1 | $\phi d$ |
| RDQH-63 | 3P | 375 | 215 | 120~130 | 338 | 195 | 6 |
| RDQH-63 | 4P | 400 | 215 | 120~130 | 364 | 195 | 6 |
| RDQH-100 | 3P | 410 | 220 | 120~140 | 370 | 200 | 6 |
| RDQH-100 | 4P | 440 | 220 | 120~140 | 400 | 200 | 6 |
| RDQH-225 | 3P | 450 | 220 | 165~180 | 410 | 200 | 6 |
| RDQ | 4P | 485 | 220 | 165~180 | 445 | 200 | 6 |
| RDQH-400 | 3P | 560 | 325 | 250 | 510 | 305 | 8 |
| RDQH-400 | 4 P | 610 | 325 | 250 | 560 | 305 | 8 |
| RDQH-630 | 3P | 640 | 325 | 260 | 600 | 305 | 8 |
|  | 4P | 700 | 325 | 260 | 650 | 305 | 8 |
| RDQH-800 | 3P | 670 | 330 | 260 | 630 | 305 | 12 |
| RDQH-800 | 4P | 790 | 330 | 260 | 750 | 305 | 12 |
| -1250 | 3P | 670 | 470 | 290 | 615 | 370 | 12 |
| RDQH-1250 | 4 P | 800 | 470 | 290 | 745 | 370 | 12 |
|  | 3P | 670 | 470 | 290 | 615 | 370 | 12 |
| RDQH-1600 | 4 P | 800 | 470 | 290 | 745 | 370 | 12 |



Seperated type controller plane open hole size: $80 \mathrm{~mm} \times 130 \mathrm{~mm}$

HL32-100(PH2-100)
Isolating Switch


## General

HL32-100(PH2-100) series isolating switch is applicable to the power distribution and control circuit with an alternating current of $50 \mathrm{HZ} / 60 \mathrm{HZ}$, rated voltage of $230 / 400 \mathrm{~V}$, and rated current up to 100 A as master switch of terminal electrical equipment. It can be used to control various motors, small powor electric appliance and illumination etc. It is widely used for industrial and mining enterprises, high buildings, commercial places, home and so on.
The product meets the standards of IEC60947.3.

Model No.


## Product category

3. 1 Rated current In: 32A, 63A, 100A;
4. 2 Number of poles: Single pole, Two poles, Three poles, Four poles.

## Technical parameter

|  | Standard |  | IEC/EN 60947-3 |
| :---: | :---: | :---: | :---: |
| Electrical features | Rated voltage Ue | V | 230/400 |
|  | Rated current le | A | 32, 63, 100 |
|  | Rated frequency | Hz | 50/60 |
|  | Rated impulse withstand voltage Uimp | V | 4000 |
|  | Rated short-time withstand current Icw |  | 12le, 1s |
|  | Rated making and breaking capacity |  | $3 \mathrm{le}, 1.05 \mathrm{Ue}, \cos \Phi=0.65$ |
|  | Rated short circuit making capacity |  | 20le, $\mathrm{t}=0.1 \mathrm{~s}$ |
|  | Insulation voltage Ui | V | 500 |
|  | Pollution degree |  | 2 |
|  | Use category |  | AC-22A |
| Mechanical features | Electrical life |  | 1500 |
|  | Mechanical life |  | 8500 |
|  | Protection degree |  | IP20 |
|  | Ambient temperature (with daily average $\leqslant 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \ldots+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \ldots+70$ |


|  | Standard |  | IEC/EN 60947-3 |
| :--- | :--- | :--- | :--- |
|  | Terminal connection type |  | Cable/Pin-type busbar |
|  | Terminal size top/bottom for cable | mm 2 | 50 |
| Electrical <br> features | Terminal size top/bottom for busbar | AWG | $18-1 / 0$ |
|  | Tightening torque | mm 2 | 25 |
|  |  | AWG | $18-3$ |
|  |  | $\mathrm{~N}^{*} \mathrm{~m}$ | 2.5 |

## Main specifications

4.1 Rated short-time withstand current: 121 ln , electrifying time 1 s ;
4.2 Rated short-time making capacity: 20 In , electrifying time 0.1 s ;
4.3 Rated making and breaking capacity: 1.05Ue, 3In, $\cos \oint=0.65$
4.4 Rated limited short-circuit current:20KA
4.5 Operating performance: No load 8500 times, On load 1500 times, 10000 in total. $\cos \oint=0.8$,

Operation frequency is 120 times/hour.

Overall and mounting dimensions(mm)


## ISOLATING SWITCH

RDX6SD-100
Isolating Switch

General

RDX6SD-100 series isolating switch is applicable to the circuit with an alternating current of $50 \mathrm{HZ} / 60 \mathrm{HZ}$, rated voltage to 400 V , and rated current up to 100 A for isolator or making and breaking function.
The product meets the standards of IEC60947.3.


Model No.


Product category
3. 1 Rated current In: $32 \mathrm{~A}, 63 \mathrm{~A}, 100 \mathrm{~A}$;
3. 2 Number of poles: Single pole, Two poles, Three poles, Four poles.

Technical parameter

|  | Standard |  | IEC/EN 60947-3 |
| :---: | :---: | :---: | :---: |
| Electrical features | Rated voltage Ue | V | 230/400 |
|  | Rated current le | A | 32, 63, 100 |
|  | Rated frequency | Hz | 50/60 |
|  | Rated impulse withstand voltage Uimp | V | 4000 |
|  | Rated short-time withstand current Icw |  | 12le, 1s |
|  | Rated making and breaking capacity |  | $3 \mathrm{le}, 1.05 \mathrm{Ue}, \cos \Phi=0.65$ |
|  | Rated short circuit making capacity |  | $20 \mathrm{le}, \mathrm{t}=0.1 \mathrm{~s}$ |
|  | Insulation voltage Ui | V | 500 |
|  | Pollution degree |  | 2 |
|  | Use category |  | AC-22A |
| Mechanical features | Electrical life |  | 1500 |
|  | Mechanical life |  | 8500 |
|  | Protection degree |  | IP20 |
|  | Ambient temperature (with daily average $\leqslant 35^{\circ} \mathrm{C}$ ) | ${ }^{\circ} \mathrm{C}$ | $-5 \ldots+40$ |
|  | Storage temperature | ${ }^{\circ} \mathrm{C}$ | $-25 \ldots+70$ |

## PEOPLE

|  | Standard |  | IEC/EN 60947-3 |
| :--- | :--- | :--- | :--- |
|  | Terminal connection type |  | Cable/Pin-type busbar |
|  | Terminal size top/bottom for cable | mm 2 | 50 |
| Electrical <br> features | Terminal size top/bottom for busbar | AWG | $18-1 / 0$ |
|  | Tightening torque | mm 2 | 25 |
|  |  | AWG | $18-3$ |
|  |  | $\mathrm{~N}^{*} \mathrm{~m}$ | 2.5 |

## Main specifications

4.1 Rated short-time withstand current: 121 ln , electrifying time 1 s ;
4.2 Rated short-time making capacity: 20 In , electrifying time 0.1 s ;
4.3 Rated making and breaking capacity: 1.05Ue, 3In, $\cos \oint=0.65$
4.4 Rated limited short-circuit current:20KA
4.5 Operating performance: No load 8500 times, On load 1500 times, 10000 in total. cos $\oint=0.8$,

Operation frequency is 120 times/hour.

Overall and mounting dimensions(mm)



[^0]:    4.1 Surge main technical Parameter see Table1, Table2
    4.2 Protective class: IP20
    4.3 This product confrms to standard of IEC61643-1.
    4.4 Testing type: II class Test.

[^1]:    1. Altitude of installation location no more than 2000 m
    2. Temperature: not higher than $+40^{\circ} \mathrm{C}$, and no lower than $-5^{\circ} \mathrm{C}$, and the average temperature within 24 h no higher than $+35^{\circ} \mathrm{C}$
    3. The relative humidity: no more than $50 \%$, when temperature is $+40^{\circ} \mathrm{C}$. The product can allow the higher humidity under lower temperature, for instance, when the humidity reaches to $90 \%$ when it is at $+20^{\circ} \mathrm{C}$.
    4. Class of pollution: class 3
    5. Installation type of circuit breaker' s main circuit: class III, installation type of auxiliary circuit and control circuit: class II.
    6. Using category: A or B.
[^2]:    Pictured11 RDM1E-1250 Front plate wiring and installation size

[^3]:    1. Installation location no more than 2000 m
    2. Temperature: not higher than $+40^{\circ} \mathrm{C}$, and no lower than $-5^{\circ} \mathrm{C}$, and the average temperature no higher than $+35^{\circ} \mathrm{C}$
    3. The relative humidity: no more than $50 \%$, when temperature is $+40{ }^{\circ} \mathrm{C}$. The product can withstand the higher humidity under lower temper- ature, for instance, when temperature at $+20^{\circ} \mathrm{C}$, the product can withstand $90 \%$ relative humidity.
    4. Class of pollution: 3 Class
    5. Main circuit breaker installation type: III class, Auxiliary circuit and control
    circuit installation type: II class
    6. The max angle of installation is $22.5^{\circ}$
[^4]:    3.1 Temperature: no higher than $+40^{\circ} \mathrm{C}$, and no lower than $-5^{\circ} \mathrm{C}$, and the average temperature no higher than $+35^{\circ} \mathrm{C}$.
    3.2 Installation location no more than 2000 m .
    3.3 The relative humidity: no more than $50 \%$, when Temperature is $40^{\circ} \mathrm{C}$, The product can withstand the higher humidity under lower temperature, for instance, when temperature at $+20^{\circ} \mathrm{C}$, the product can withstand $90 \%$ relative humidity.
    The condensation that happened because of temperature changes should be taken care with special measurements
    3.4 Class of pollution: 3 Class
    3.5 It should be installed at the place that have no danger of explosion, it also has no gas and conductive dust which would cause metal-corrosion and insulation-damage.
    3.6 Maximum install inclined Angle $5^{\circ}$, it should be installed at the place has no obvious impact and weather-influence.
    3.7 Main circuit installation type: III, Auxiliary circuit and control circuit installation type:II
    3.8 External magneticfield of Installation location should not exceed than 5 times of earth magnetic field.
    3.9 Installation electromagnetic environment: B type

[^5]:    4.1 Poles: 1P, 2P, 3P, 4P
    4.2 The specification see Table 1, Table 2

