# New 6商 <br> Miniature Circuit Breaker 

## DELIXI




## ELECTRIC



## Low Voltage Electrical Appliances

" Delixi Electric Easy Electric "


## Delixi Electric: Who are we



## A global company at your service

Delixi was founded in 1984 in Zhejiang province with sales over 1.5BM€,employing more than 15000 people. Delixi created an international Joint Venture in November 2007,named Delixi Electric Ltd., in order to serve you worldwide, with core LV products having the right quality at the right price.

Our products are designed for Residential/Building/Energy/infrastructure and Industrial markets.Delixi Electric employs 5200 people world wide.

## A reliable company serving you with reliable product



- Fully automatized distribution center
- Network of recognized 600 distributors world wide
- Dedicated R\&D center
- International quality control of suppliers
- International quality control of plants


## CDB6i Miniature circuit breaker

CDB6i Miniature circuit breaker has the following functions

- Short-circuit protection
- Over-load protection
- Isolation protection

Main features

| Rated operating voltage(V) | 1P: 230/400 AC |
| :---: | :---: |
|  | 1P+N: 230 AC |
|  | $2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}: 400 \mathrm{AC}$ |
| Rated current(A) | $1,2,3,4,5,6,8,10,13,16,20,25,32,40,50,63$ |
| Frequency (Hz) | 50 |
| Poles | $1 \mathrm{P}, 1 \mathrm{P}+\mathrm{N}, 2 \mathrm{P}, 3 \mathrm{P}, 3 \mathrm{P}+\mathrm{N}, 4 \mathrm{P}$ |
| Breaking capacity (kA) | 6 |
| Trip curve | B, C, D type |
| Characteristic | No |
| Current specification | *B type no 1A, 2A, 3A, 4A, 5A; $1 P+N, 3 P+N$ type no 1A, 2A, 3A, 4A, 5A, 6A, 8A |
| Standard | GB 10963.1, IEC/EN60898-1 |
| Certification | (<C) CE $\triangle$ RoHS |

Product Detail Display



Flexible Installation direction

## Electrical Characteristics

| Nominal insulation voltage $\mathrm{Ui}(\mathrm{V}$ ) | 250 (phase to earth)/500 (phase to phase) |
| :---: | :---: |
| Rated operating voltage $\mathrm{Ue}(\mathrm{V})$ | 1P: 230/400AC 1P+N: 230AC |
|  | 2P, 3P, 4P, 3P+N: 400AC |
|  | 1P: 60 DC |
| Rated short circuit capability Icn(IEC/EN 60898-1) (KA) | 6 |
| Rated impulse withstand voltage Uimp(1.2/50) (kA) | 4 |
| Dielectric test voltage | $2 \mathrm{kV}(45 \sim 65 \mathrm{~Hz}, 1 \mathrm{mins})$ |
| Utilization Category | A |
| Isolation function | Yes |
| Pollution class | 2 |
| Trip type | Thermal magnetic trip |
| Thermal magnetic tripping characteristics |  |
| B-type curve( $3 \ln \sim 5 \ln$ ) | $\square$ |
| C-type curve(5in $\sim 10 \mathrm{In}$ ) | $\square$ |
| D-type curve(101n $\sim 14 \mathrm{In}$ ) | $\square$ |
| Electrical and mechanical accessories | $\square$ |

## Mechanical Characteristics

| Handle | Red |
| :---: | :---: |
| On-off indication | ON-OFF indication |
| Mechanical life(times) | 20000 |
| Electrical life (times) | 10000 |
| Protection degree | Installed in distribution box IP40 |
|  | Installation directly IP20 |
| Mechanical shock resistance | 30 g 3shocks,lasting 11 ms (no significant vibration and shock) |
| Anti-vibration(IEC/EN 60068-2-6) | No significant vibration and shock |
| Damp and hot resistance(IEC 60068-2) | Class 2, 28 cycles |
| Damp and hot( ${ }^{\text {C } / R H)}$ | Relative humidity $90 \%-96 \%$ at $55{ }^{\circ} \mathrm{C}$ |
|  | Relative humidity $95 \%-100 \%$ at $25{ }^{\circ} \mathrm{C}$ |
| Baseline ambient temperature | $30^{\circ} \mathrm{C}$ |
| Ambient temperature (daily average temperature $\leq+35^{\circ} \mathrm{C}$ ) | $-35^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$ |
| Storage temperature | $-40^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$ |

## Installation Characteristics

| Terminal form | U terminal |
| :--- | :---: |
| Maximum wiring capability (A) | Current level 1-63: 25mm² |
| Maximum limit torque (A) | Current level 1-63: $2.5 \mathrm{~N} . \mathrm{m}$ |
| Tool | Phillips screwdriver or slotted screwdriver |
| Installation | Mounted on standard Din rail (35mm) |
| Incoming type | Top or bottom |

## Tripping characteristics

## B type

B tripping characteristics miniature circuit breakers comply with the GB 10963.1 IEC60898 standard and are suitable for protecting resistive loads or loads without inrush current.

## C type

C tripping characteristics miniature circuit breakers comply with GB 10963.1 IEC60898 standard and are suitable for protecting inductive loads with resistive loads or low inrush current.

## D type

D tripping characteristics miniature circuit breaker complies with the GB 10963.1 IEC60898 standard and is suitable for protecting loads with high inrush current when the line is connected.

| Trip type | Standard | Thermal tripping characteristics |  |  |  | Electromagnetic tripping characteristics |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Test current | Test time | Starting state | Result | Test current AC | Test time | Starting state | Result |
| B | $\begin{gathered} \text { IEC60898-1 } \\ \text { GB10963.1 } \end{gathered}$ | 1.13In | $\begin{aligned} & \leq 1 h(\leq 63 A) \\ & \leq 2 h(>63 A) \end{aligned}$ | Cold | No trip | 3 ln | $\leq 0.1$ s | Cold | No trip |
|  |  | 1.45In | $\begin{aligned} & <1 \mathrm{~h}(\leq 63 \mathrm{~A}) \\ & <2 \mathrm{~h}(>63 \mathrm{~A}) \end{aligned}$ | Hot | Trip | 5 ln | <0.1s |  | Trip |
| C | $\begin{aligned} & \text { IEC60898 } \\ & \text { GB10963.1 } \end{aligned}$ | 1.13In | $\begin{aligned} & \leq 1 h(\leq 63 A) \\ & \leq 2 h(>63 A) \end{aligned}$ | Cold | No trip | 5 ln | $\leq 0.1 \mathrm{~s}$ |  | No trip |
|  |  | 1.45In | $\begin{aligned} & <1 \mathrm{~h}(\leq 63 \mathrm{~A}) \\ & <2 \mathrm{~h}(>63 \mathrm{~A}) \end{aligned}$ | Hot | Trip | 10in | <0.1s |  | Trip |
| D | $\begin{gathered} \text { IEC60898-1 } \\ \text { GB10963.1 } \end{gathered}$ | 1.13In | $\begin{aligned} & \leq 1 h(\leq 63 A) \\ & \leq 2 h(>63 A) \end{aligned}$ | Cold | No trip | 10in | $\leq 0.1$ s |  | No trip |
|  |  | 1.45In | $\begin{aligned} & <1 h(\leq 63 A) \\ & <2 h(>63 A) \end{aligned}$ | Hot | Trip | 14In | <0.1s |  | Trip |

Tripping curve


B curve


C curve


МСВ

## CDB6i Miniature Circuit Breaker



## Selectlon Guide

## Order Selection and Code

CDB6i Miniature circuit breaker

| Model | Pole | Trip type | Rated Current |  |
| :--- | :--- | :--- | :--- | :--- |
| CDB6i | 1 | C | 6 |  |
|  | $1: 1 \mathrm{P}$ | B: B type | $1: 1 \mathrm{~A}$ | $13: 13 \mathrm{~A}$ |
|  | $2: 2 \mathrm{P}$ | C: C type | $2: 2 \mathrm{~A}$ | $16: 16 \mathrm{~A}$ |
|  | $3: 3 P$ | D: D type | $3: 3 \mathrm{~A}$ | $20: 20 \mathrm{~A}$ |
|  | $4: 4 \mathrm{P}$ |  | $4: 4 \mathrm{~A}$ | $25: 25 \mathrm{~A}$ |
|  | $5: 1 \mathrm{P}+\mathrm{N}$ |  | $5: 5 \mathrm{~A}$ | $32: 32 \mathrm{~A}$ |
|  | $6: 3 \mathrm{~N}+\mathrm{N}$ |  | $8: 6 \mathrm{~A}$ | $40: 40 \mathrm{~A}$ |
|  |  |  | $8: 8 \mathrm{~A}$ | $50: 50 \mathrm{~A}$ |
|  |  |  | $10: 10 \mathrm{~A}$ | $63: 63 \mathrm{~A}$ |



MCB

CDB6i Miniature circuit breaker


## CDB6i-125 Molded Case Circuit Breaker

## CDB6i-125 Molded Case Circuit Breaker has The Following Features

- Short circuit protection
- Overload protection
- Isolating function

| Main Features | $1 \mathrm{P}: 230 \mathrm{AC} / 80 \mathrm{DC}$ |
| :--- | :--- |
| Rated operating voltage (V) | $2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}: 400 \mathrm{AC}(2 \mathrm{P}: 125 \mathrm{DC})$ |
| Rated current (A) | $63-125$ |
| Rated frequency (Hz) | 50 |
| Poles | $1 \mathrm{P}, 2 \mathrm{P}, 3 \mathrm{P}, 4 \mathrm{P}$ |
| Breaking capacity (kA) | 10 |
| Standard | GB/T 14048.2, IEC60947-2 |
| Certification | ©C. C $\in \triangle$ RoHS |

* RoHS-compliant products, with a separate material number, under the order please pay attention to choose
* RoHS-compliant products in order to meet the CE certification


## Product Details Display



Description:

1, Power terminal
4, Rated current: $63,80,100,125 \mathrm{~A}$
6, Rated impact withstand voltage
8, Use category
11, Contact indication
14, Rated limit short circuit breaking capacity
16, Rated standard


2, The company trademark
3, Product model
5. Ted voltage: $230 \mathrm{~V}(1 \mathrm{P}) / 400 \mathrm{~V}$

7, Rated current: (C) II=8.5 in (for power distribution protection)
9, Load terminal
10, Isolation symbol
12, Wiring schematic Diagram
13, Rated frequency
15, Rated operating short circuit breaking capacity
17. Certification mark


Flexible installation direction Maximum ultimate torque

## Electrical Characteristics

## Anti-vibration (IEC/EN 60068-2-6)

High temperature humidity resistant(IEC 60068-2)
High temperature humidity

Operating ambient temperature
(daily mean temperatures $+35^{\circ} \mathrm{C}$ )
Storage temperature

## Installation Features

## Tools

Installation
Line incoming mode
Terminal type
Maximum wiring capacity
line inging mode
Rated insulation voltage Ui
Rated operating voltage Ue

| Rated short-circuit capacity len |
| :--- |
| (IEC/EN60898-1) |


| Rated impulse withstand voltage |
| :--- |
| Uimp(1.2/50) |

Dielectric test voltage
Isolating function
Pollution class

Tripping type Thermal magnetic tripping

| Thermal magnetic trip characteristics |  | C |
| :---: | :---: | :---: |
|  | C curve ( $\mathrm{li}=8.5 \mathrm{ln}$ ) | - |
|  | D curve ( $\mathrm{li=12} \mathrm{l}$ ) | 0 |
| Electrical and mechanical accessories |  | - |
| Mechanical characteristics |  |  |
| Handle |  | Red |
| Contact indication |  | Red Green indicates the on-off of the roduct |
| Mechanical life | Times | 20000 |
| Electrical life | Times | $\begin{aligned} & 6000 \text { times }(\ln \leq 100 A) \\ & 4000 \text { times }(\ln >100 A) \end{aligned}$ |
| Protection rating | Installed in distribution box | IP40 |
|  | Installed directly | IP20 |

Category 2, 28 cycles
${ }^{\circ} \mathrm{C} / \mathrm{RH}$ Relative humidity $90 \% \sim 96 \%$ at $55^{\circ} \mathrm{C}$ Relative humidity $95 \% \sim 100 \%$ at $25^{\circ} \mathrm{C}$

$$
{ }^{\circ} \mathrm{C} \quad 30^{\circ} \mathrm{C}
$$

${ }^{\circ} \mathrm{C} \quad-35^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$
${ }^{\circ} \mathrm{C} \quad-40^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$

Tunnel terminal
(A) Current ratings $\mathbf{6 3 - 1 2 5 : 5 0} \mathrm{mm}^{2}$
(A) Current ratings $63-125: 3.5 \mathrm{~N} . \mathrm{m}$

Cross head screwdriver or flathead screwdriver

Installed on standard DIN guide rail ( 35 mm )

Top or bottom


3P



4P


