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As standards, specifications and designs change from time to time, please ask for confirmation of the information given in this publication.

2011.05

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NDB2ZBSeries

DC MCB with Three-stage Current Protection

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Leading Low-voltage Electrical Component Manufacturer

NDB2ZBSeries

DC MCB with Three-stage Current Protection

Contents

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NDB2ZB Series DC MCB with Three-stage Current Protection

Application

NDB2ZB Series DC MCB, with three-stage current protection of over-load long time delay, short circuit short time delay and short circuit instant tripping, is developed specifically for DC power system in power distribution projects. Combining with inferior circuit breakers to achieve the integral selective protection, it can enable the short circuit breakdown protection in the meantime effectively avoid malfunction of superior circuit breakers caused by the inferior short circuit so as to guarantee the system safety and stability.

Model and Implication

ND	B	2	Z	B	-	40	/	32
1	2	3	4	5		6		7

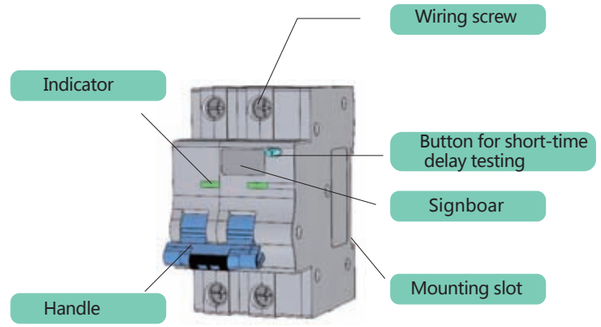
No.	Implication	NDB2ZB
1	Brand code	ND Nader
2	Product code	B Miniature Circuit Breaker
3	Design code	2
4	Utilisation code	Z： DC Application
5	Function code	B： Three-stage Current Protection
6	Frame rating(A)	40
7	Rated current(A)	16、20、25、32、40

Standards and Certificates

> GB14048.2-2008，CCC

Working Condition

> Altitude:≤2000m；
> Ambient temperature：-5~+40℃；
> Air humidity：The relative humidity of the air does not exceed 50% at the temperature of +40℃. Higher relative humiditymay be permitted at lower temperatures, such as 90% at 20℃. Special measures may be necessary in case of occasional condensation due to variations in temperature.
> Pollution degree: Ⅲ
> Working place without obvious vibration and shock



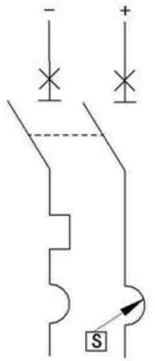
Product Features

> Electronic short-time delay module, high delay precision of 10ms±10%
> Wide short-time delay protection scope with 10In~1200A, selectable with wide power system scope.
> When the current is not reach the short-time delay protection scope, there is no current with the electronic module, so as to extend the service life.
> With short-time delay testing mechanism, guaranteeing the stability of products.
> With On-Off indicator, contact status easily identified.
> Adopting quickly cut on/off technology to extremely improve the electrical life .
> Adopting the technology of external magnetic quenching to improve the breaking capacity.
> With signboard for user to have systematic coding.
> Detachable with accessories of OF2 Auxiliary Switch, SD2 Alarm Switch, MX+OF2 Shunt Release, etc
> Modularized designed, rail clip mounting, compact size, width only with 45mm.
> Systematic used with NDB2Z series DC MCB due to the same style and appearance.

Specifications

> Rated working voltage: DC250V(two poles in series)
> Rated impulse withstand voltage Uimp： 4kV
> Rated current In ：16A、20A、25A、32A、40A
> Rated ultimate breaking capacity Icu: 10kA
> Rated operating short-circuit breaking capacity Ics: 10kA
> Short-time short circuit tripping time ：10ms±10%

Wiring Schematic



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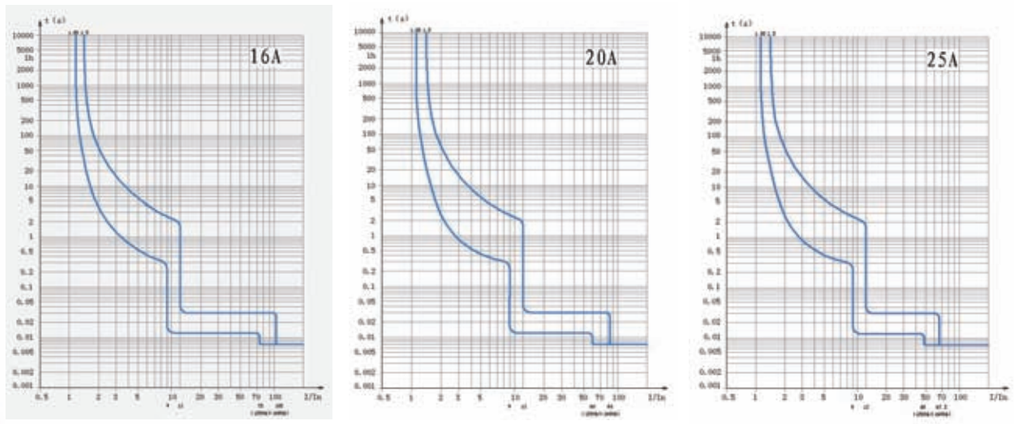
Tripping Characteristics

No.	Tripping Characteristic	Testing Current	Original Status	Tripping Time	Anticipated Result
1	Overload long-time delay	1.05In	Cold	1h	Not trip
2		1.3In	Following No. 1	≤1h	Trip
3		2In	Cold	5s≤t≤60s	Trip
4	Short circuit short-time delay	8In	Cold	t≤0.2s	Not trip
5		10In		0.01s≤t≤0.03s	Trip
6		1200A			Trip
7		10In~1200A		Δt≤0.007s	Spring recoverable, not trip
8	Short circuit instant trip	1680A	Cold	t < 0.006s	Trip

> Note: the time period of short circuit short-time delay is refer to the whole tripping time. It is the sum total of mechanism action time and delay time.

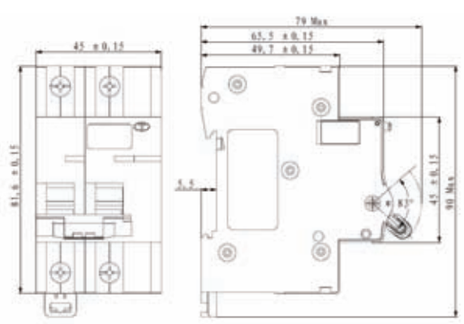
Tripping Curve



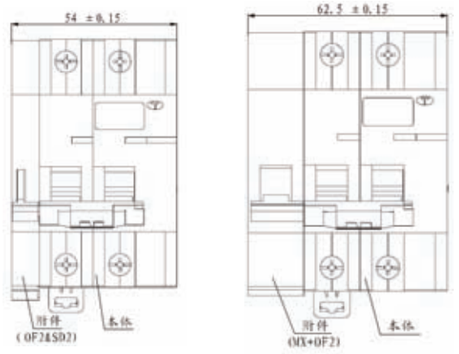
Wiring Capacity

> Tunnel wiring, ≤35mm^2

Dimension



MCB overall and installation dimension



MCB +OF2/SD2、MCB +MX+OF2overall dimension

Overall and Installation Dimension

> NDB2ZB is a DC MCB, please do in strict accordance with "+" and "-" marked on the terminals, wrong wiring may cause inaction or damage.

> The testing button is for check the short-time delay function. Have the MCB connected in the system and switch on, and then press the button. If the mechanism tripped, it means the short-time delay function qualified.

> The testing button just for testing the function, don't try to make the MCB tripped through testing button while being normal used.

> Our company take no responsibility for quality problems caused by non-professional maintenance or dismounting by customers themselves.

> Don't touch the non-insulated exposed part of the products during power-on state.

> Please ensure the wiring reliable so as to prevent from terminals damage and malfunction caused by wrong wiring.

> The standard ambient temperature is 30℃. Since the overload protection is determined by the stability of bimetal strip, the rated current should be adjusted when the ambient temperature changed.

Statement for Quality Warranty

Within 3 years after goods delivery, any damage or malfunction caused by the quality problems, the manufacturer will replace any faulty part freely if the products are normally mounted and used.part freely if the products are normally mounted and used.

Ordering Notice

Make sure that name, type, specification and volume are all clearly indicated when ordering.