

Shanghai Liangxin Electrical Co., Ltd.

NDB6LM-40 Residual Current Operated Circuit-breakers With
Integral Overcurrent Protection

Product Specification

(IPD-ENG-DEV-T22 A1 2016-09-23)

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Revision information					
Version	Revised contents and reasons	Date	Prepared	Reviewed	Approved
2	Change the picture of the product	20200220	Guojun Xu	Min Dong	Yang Zhang
3	Add “Product certification and Executive Standards”	20220922	Guojun Xu	Min Xu	Hui Duan
4	Overall dimensions drawing revision Precautions regarding dust protection requirements.	20251230	Chen Junyu	Wang Zhoushi	Zhang Huifeng

1, Application

- Short -circuit protection
- Over-load protection
- Control
- Isolation
- earth leakage (prevent 5kA lightning time-delay type)

NDB6LM-40 series products is also wildly used in industry, commercial, high-rise and residential building, etc.

2, Product Pictures(The picture is for reference only, subject to the real object)



3, Model and implication

ND	B	6	L	M	—	40	C	16	/	□/	□/	□	/	□
1	2	3	4	5	6	7	8	9	10	11	12			

No.	Implication	NDB6LM-40
1	Brand code	ND(Nader)
2	Product code	B
3	Design code	6
4	Earth leakage protection	L
5	Electromagnetic type	M
6	Frame rating(A)	40
7	Instantaneous tripping characteristic	B,C
8	Rated current(A)	6,10,16,20,25,32,40(regular)

		25,32,40(with time-delay)
9	Number of poles	1P+N
10	Residual operating current (mA)	30,100,300(regular) 100,300(with time-delay)
11	Regular / with Time-delay	AC,A
12	Residual operating current type	Empty= regular / S

4, Main technical parameters

● electric parameter

○ Rated working voltage:AC230/240V;

○ Rated current:6A, 10A, 16A, 20A, 25A, 32A, 40A(regular);

25A, 32A, 40A(with time-delay);

○ Rated residual operating current:30mA, 100mA, 300mA(regular);

100mA, 300mA(with time-delay);

○Residual operating current type:A, AC;

○ Rated breaking capacity:10kA;

○ Rated residual making and breaking capacity:3kA.

● Isolation function

○ Practical breaking instructions;

○ View window within the green identification said contact in the off position.

○ Mechanical life: 6000 times, electrical life:4000 times

● Wiring: Tunnel type terminal

○ Conducting wire:1mm²~25mm² ;

○ Thickness of bus-bar:0.8mm~2mm;

○ Nominal diameter screw:5mm;

○ Tighten screw torque:1.5N.m~2.5N.m.

●Standard reference

○GB/T16917.1, IEC61009-1, EN61009-1

●Product certification

○CCC, CB, CE, TUV

5, Working conditions

- ambient temperature: $-25^{\circ}\text{C} \sim +60^{\circ}\text{C}$;
- Air relative humidity: $\leq 95\%$ at 55°C ;
- height: $\leq 2000\text{m}$;
- pollution degree: 2;
- External magnetic field should be 5 times less than geomagnetic field;
- Used in place without significant shock and collision.

6, Time-Current curves

● B type curve

○ Protection of short circuit current small load (Such as non-inductive or micro-sense circuit);

○ rated current: 6A, 10A, 16A, 20A, 25A, 32A, 40A;

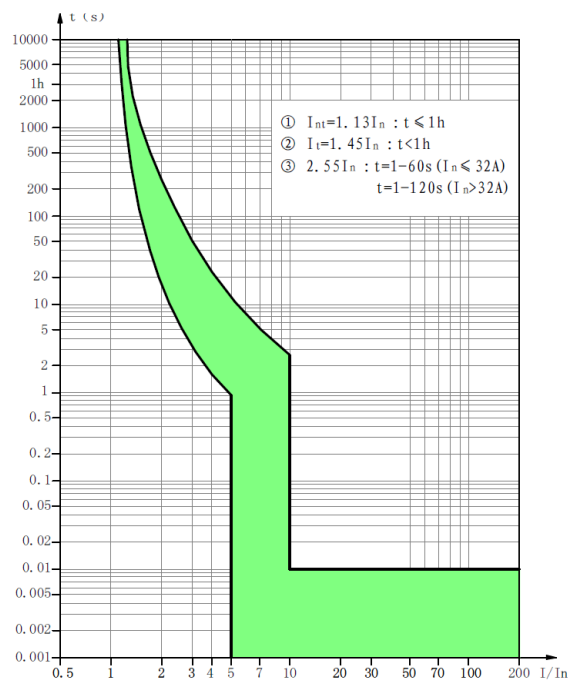
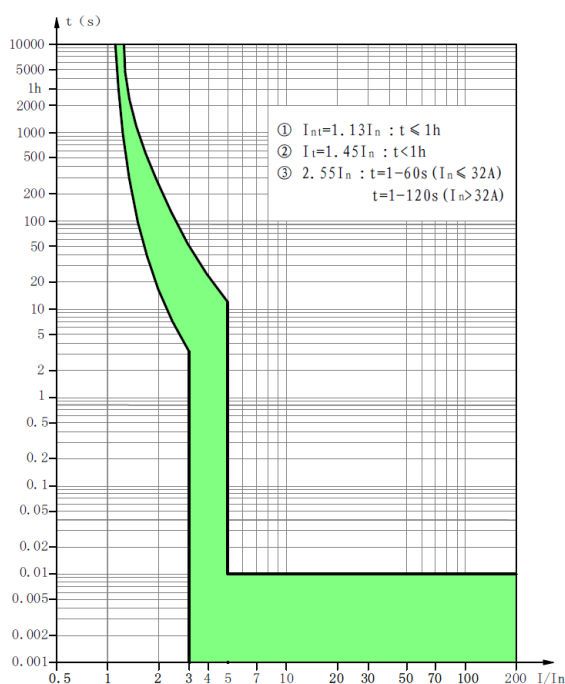
○ tripping characteristic: $3I_n \sim 5I_n$.

● C type curve

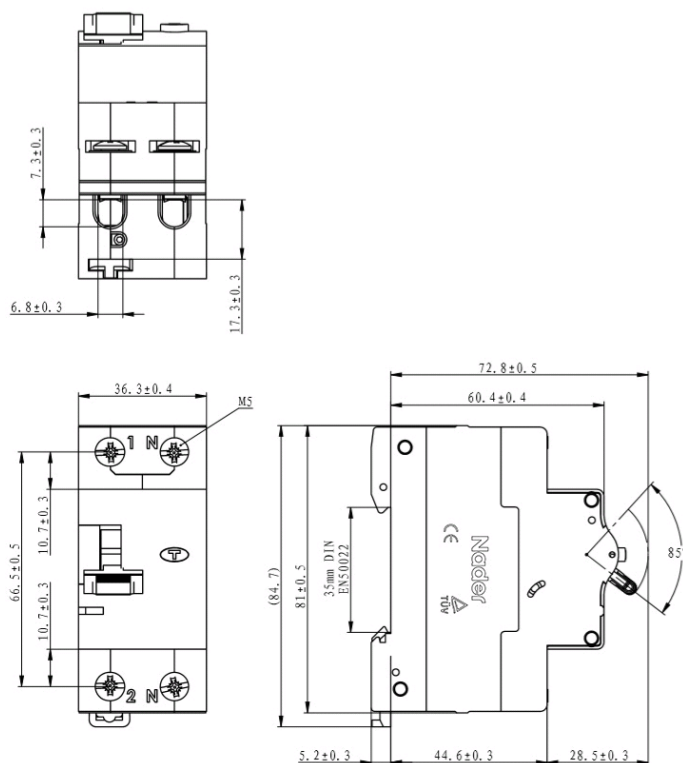
○ Protect normal load and distribution wire cable;

○ rated current: 6A, 10A, 16A, 20A, 25A, 32A, 40A;

○ tripping characteristic: $5I_n \sim 10I_n$.



7, Outline and installation dimensions



8, Installation method

Modular construction, can be installed in TH35mm x 7.5 standard guide rail.

9, Packaging and storage

Quantity (7PCS/box, 6 box/carton), Packing boxes of products should be stored in the air circulation and relative humidity is not more than 80% and the temperature is not higher than + 80 °C, Not less than - 40 °C in the air around without acid, external magnetic field should be 5 times less than geomagnetic field, alkali or other corrosive gases stored in the warehouse. In the above conditions, the storage period since the production date not more than three years.

10, Environment

Meeting RoHS requirement

11, Accessory list and installation

NDH1 bus-bar: It is NDB6LM-40 series products modular accessories, suitable for many sets of circuit breaker with phase, Also can be used as a generalization of the

dimension accessories used in phase with the electrical terminal.

12, Notices

- No responsibility for problems occurred by disassembly privately;
- RCBO can' t provide protection in the cases that touch two phase line synchronously;
- Please don' t perform insulating resistance test or voltage-withstand test on the product directly or indirectly by megohmmeter or similar test devices. If you need, we can offer validated proof regarding this item;
- When testing insulating resistance of the engineering circuit, the RCBO should not be connected to avoid misunderstanding on the products' quality or damage to the PCB of products;
- Please make sure reliable connection to avoid fault tripping or damage of terminals caused by exceptional heat resulted from unsuitable connection;
- Simulating test should be made once a month by pressing the test button to check whether the circuit breaker works normally. If RCBO is abnormal, it should be repla
- If the product operates in an environment with heavy dust contamination, the distribution box cover must be maintained in a close state, so as to prevent the product from direct exposure to the contaminated surroundings and avoid non-operation failures caused by dust ingress.