

Shanghai Liangxin Electrical CO.,LTD

## NDB2LM-63 Product Specifications

(IPD-SPT-T11 A0 2014-04-01)

Products Name: Residual current protection module

Products model: NDB2LM-63

Date: JAN 13<sup>th</sup>., 2015

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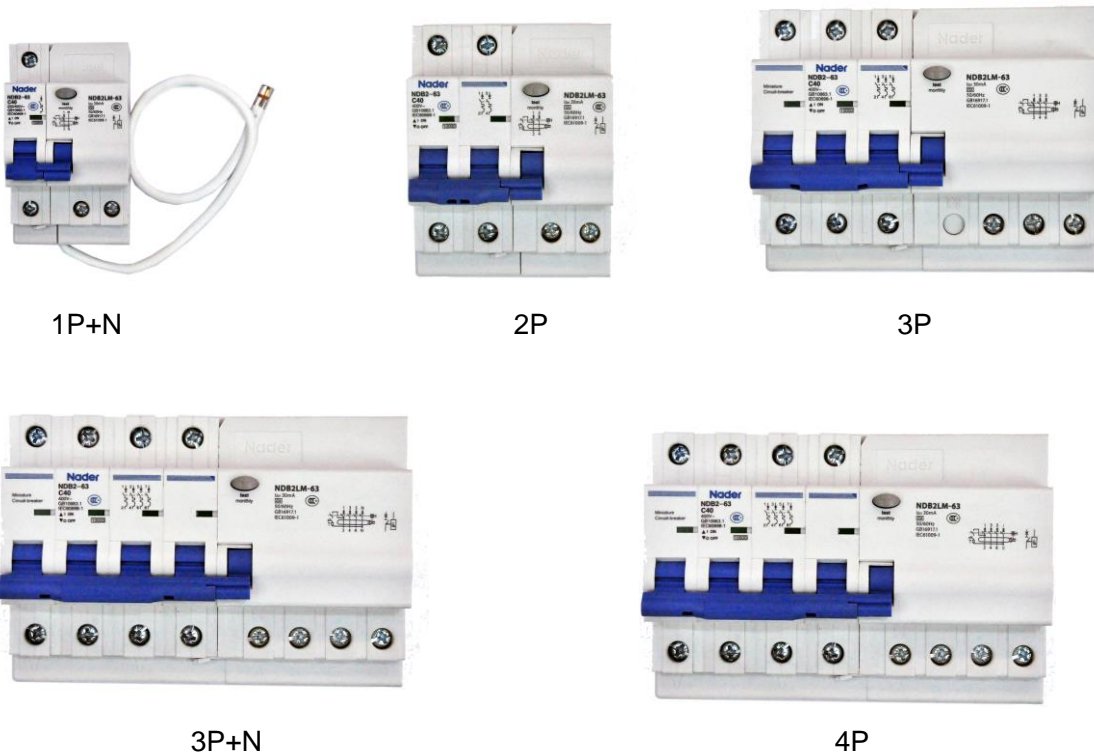


1、Applicable scope and purpose

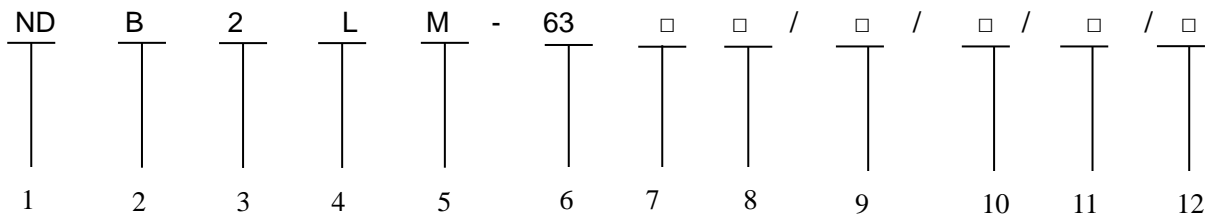
- Short circuit protection
- Overload protection
- Isolation
- Earth leakage

NDB2LM-63 series residual current protection module is used for protecting earth leakage, direct or indirect electric-shock on body and applied in low-voltage terminal distribution field, including Industry, Civil Building, Energy, Communication and Infrastructure etc.

2、Pictures



3、Model and implication:



No.	Implication	NDB2LM-63
1	Brand code	ND(Nader)
2	Product code	B

3	Design code	2
4	Earth leakage protection	L
5	Electromagnetic type	M
6	Frame rating(A)	63
7	Instantaneous tripping characteristic	B,C,D
8	Rated current(A)	1, 2, 3, 4, 5, 6,10,16,20,25,32,40,50,63
9	Number of poles	1P+N,2P,3P,3P+N,4P
10	Rated residual operating current	30mA,100mA,300mA
11	Residual operating current type	A、AC
12	level of sensitivity	S

#### 4、 Main technical specifications

- electric parameter
- frequency:50/60Hz
- Rated working voltage: AC230/240V (1PN、 2P) AC400/415V (3P、 3PN、 4P)
- Rated impulse withstand voltage:6kV
- Rated insulation voltage:500V
- Residual operating current type: A、 AC
- Instantaneous tripping characteristic: B、 C、 D
- Rated current: 1A, 2A, 3A, 4A, 5A, 6A,10A,16A,20A,25A,32A,40A,50A,63A
- Rated breaking capacity: 10kA
- Rated residual operating current: 30mA,100mA,300mA(regular);100mA,300mA(with time-delay)
- level of sensitivity: Plain (not labeled), time delay (S)
- Isolation function
- Leakage is visible
- Wiring
- Tunnel type of wiring terminal
- Connection area:1mm<sup>2</sup>~35mm<sup>2</sup>
- Tighten screw torque: 3.5 N.M
- Protection requirements
- Protection grade:IP20
- Protection grade for device which is installed in distribution box:IP40

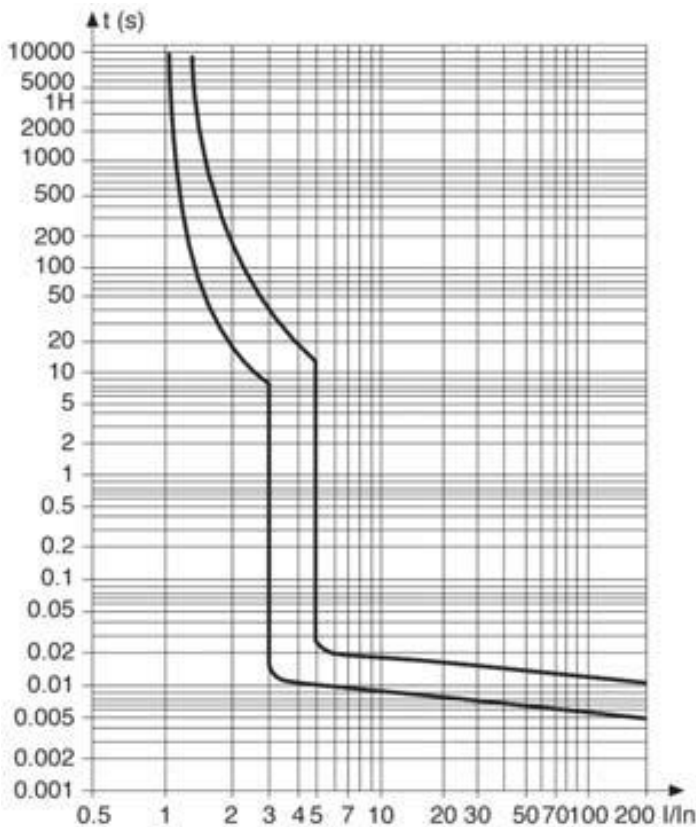
#### 5、 Normal working environment

- Height: ≤2000m, if you want to apply it more than 2000m, you must refer to Miniature Circuit Breaker's reduced capacity table. Also you can refer to GB/T20645 the technological requirement of the low-voltage electrical equipment when it is used on high altitude.
- pollution degree:3
- Ambient temperature:-25℃~+60℃

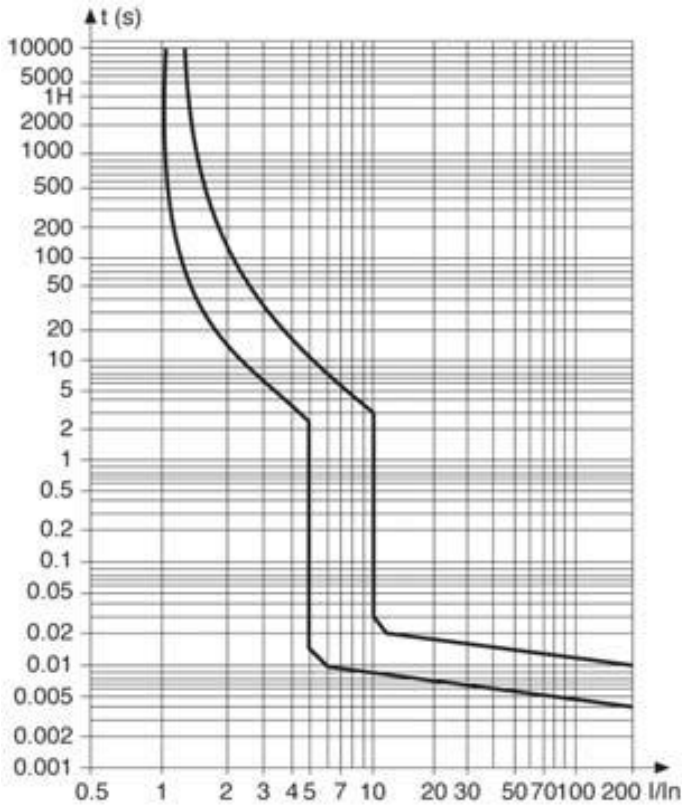
- Stored ambient temperature:  $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$
- Humidity requirement: relative humidity under  $40^{\circ}\text{C} \leq 50\%$ ;
- Magnetic requirement: magnetic field should be 5 times less than geomagnetic field in any directions
- Sine wave distortion: less than 5%
- Tolerate the influence of salt mist and oil mist
- Used in the place without explosion danger and the medium can't have the corrosive action on metals and damage the insulation gas and conductive dust.
- Used in the place without rain and snow.

#### 6、 Tripping characteristic

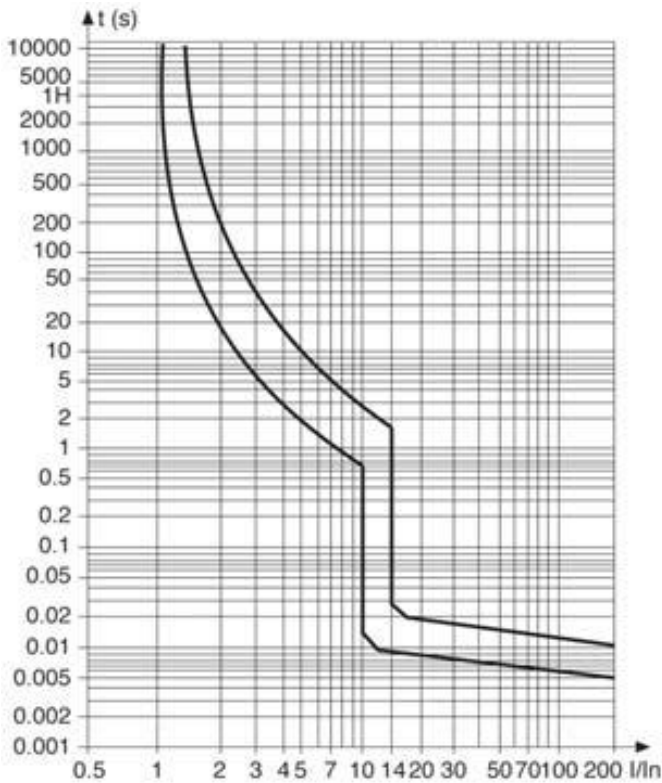
- B type curve
  - protect the non-inductive or micro-sense circuit
  - rated current:  $1\text{A} \sim 63\text{A}$
  - tripping characteristic: instantaneous tripping range is  $3I_n \sim 5I_n$



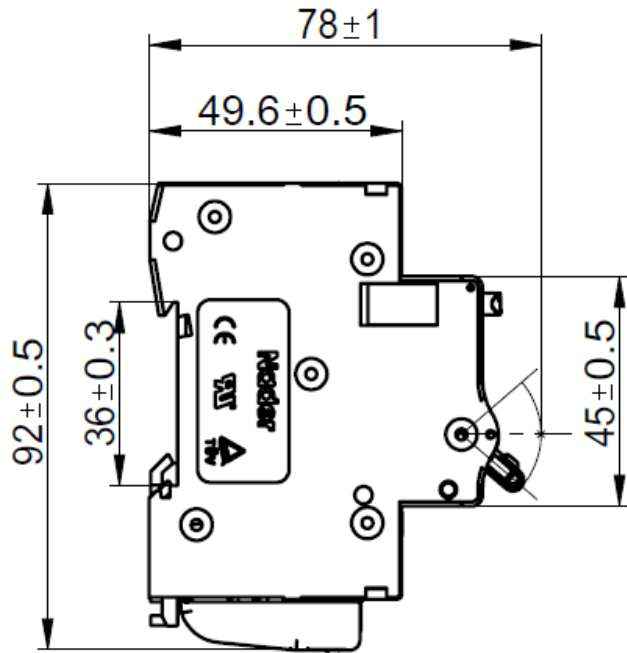
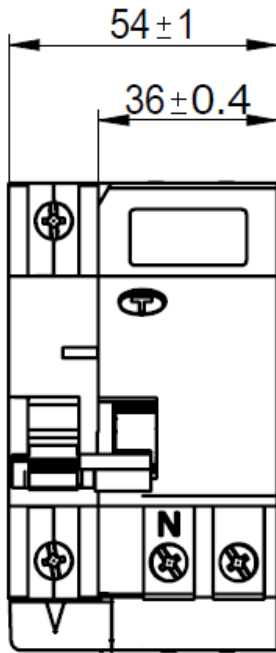
- C type curve
  - protect normal load and distribution wire cable
  - rated current:  $1\text{A} \sim 63\text{A}$
  - tripping characteristic: instantaneous tripping range is  $5I_n \sim 10I_n$



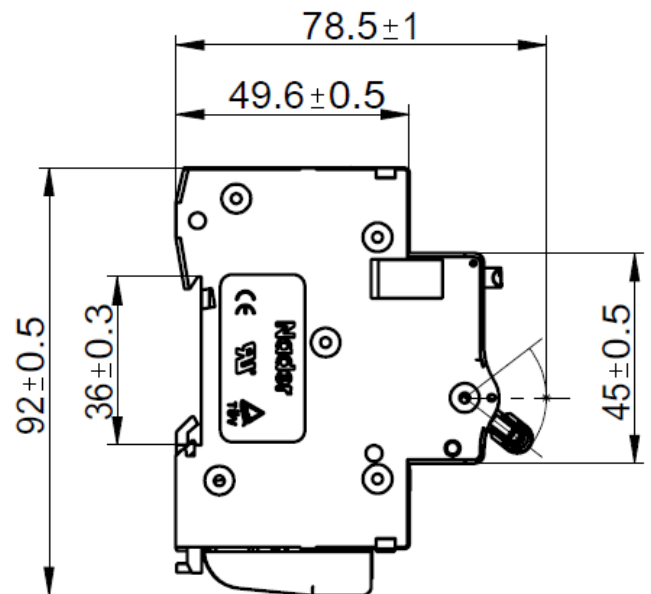
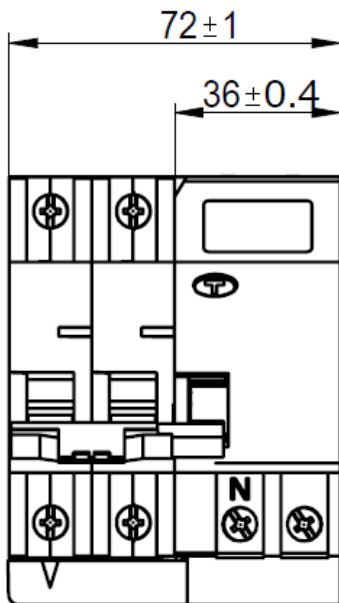
- D type curve
- protect industrial distribution system
- rated current: 1A~63A
- tripping characteristic: instantaneous tripping range is  $10I_n \sim 14I_n$



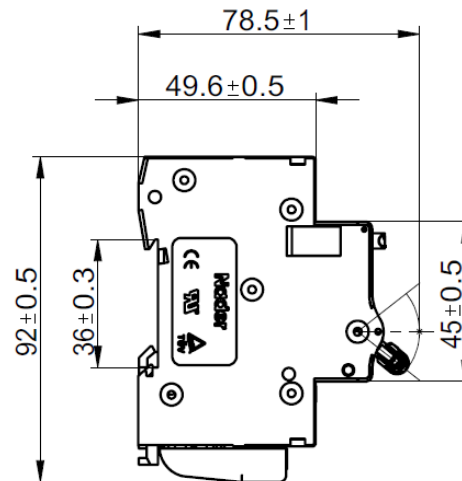
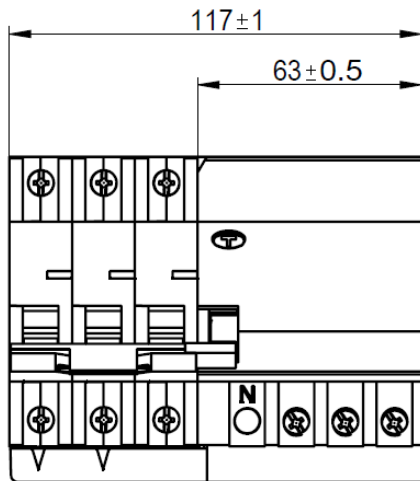
7、Outline and installation dimensions



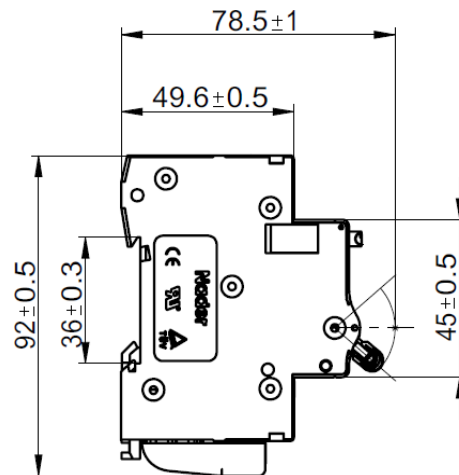
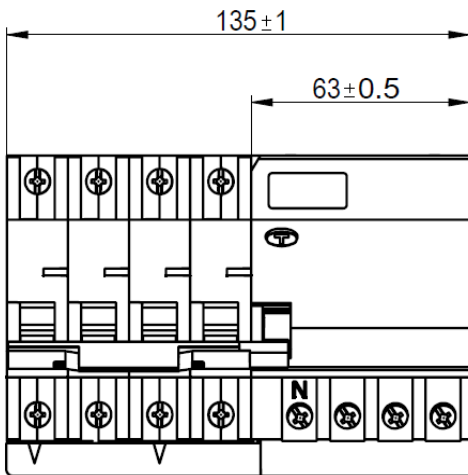
1P+N



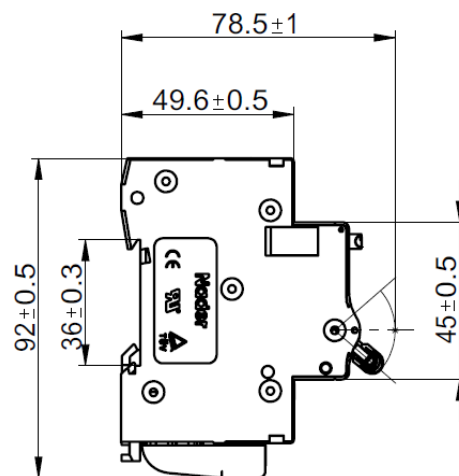
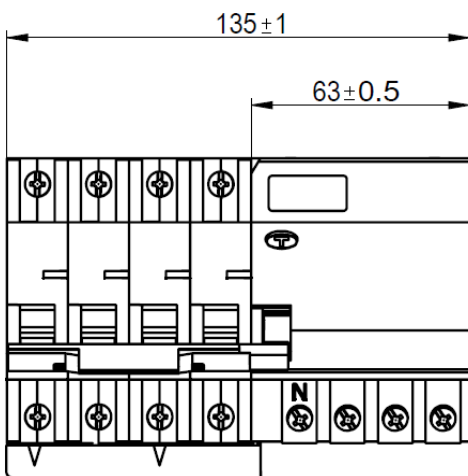
2P



3P



3P+N



4P

## 8、Installation Method



Installed in TH35mm x 7.5 standard guide rail and wired in tunnel type.

## 9、Packaging and storage

1P+N: 4pcs per box; 2P:3 pcs per box, 3P: 2pcs per box, 3P+N or 4P:1 pcs per box. Packing cartons should be stored where air circulation and relative humidity is not more than 50% and the temperature is not higher than + 80℃ and not less than - 40℃, and also without acidic、alkaline and other corrosive gas. In the above conditions, the storage period since the production date is not more than three years.

## 10、Accessories list and installation

- OF2 auxiliary contact: mount on the left side of MCB to indicate the tripping status of the associated MCB.
- SD2 alarm contact: mount on the left side of MCB to indicate the fault tripping status of the associated MCB
- MX+OF2 shunt tripping device: mount on the left side of MCB to remotely control MCB
- NGQ2 (A) Undervoltage tripping device: mount on the left side of MCB, realize single-phase overvoltage, undervoltage, under-voltage protection function
- Tm2 electric operating mechanism: mount on the left side of MCB to breaker on-off control
- Tm2GQ Since multiple undervoltage: mount on the left side of MCB ,when in the light over-voltage or under-voltage, on line protection

## 11、Environmental protection requirement

Conform to RoHS directive

## 12、Notice

- No responsibility for problems caused by disassembling privately;
- RCD 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 RCD should not be connected to avoid misunderstanding on the products' quality or damage its PCB;
- Please make sure reliable connection to avoid fault tripping or damage of terminals caused by exceptional heat;
- Simulating test should be made once a month by pressing the test button to check whether the circuit breaker works normally. If RCD is abnormal, it should be replaced.
- If the RCD trip automatically, you must timely analyze the fault reason of the line or the device.