

Shanghai Liangxin Electrical Co., Ltd.

Product Specification of NDB1LE-32

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

Product Name: RCBO

Product type:NDB1LE-32

Date:2022-11-15

Prepared	<u>Guo jun Xu</u>	Date	<u>2022-11-23</u>
Reviewed	<u>Zhiqiang</u>	Date	<u>2022-11-23</u>
	<u>Huo</u>		
Approved	<u>Hui Duan</u>	Date	<u>2022-11-23</u>

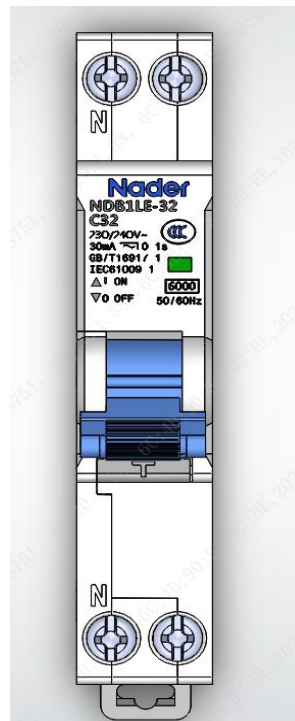
Revision information					
Version	Revised contents and reasons	Date	Prepared	Reviewed	Approved
0	New addition	20221123	Guojun Xu	Zhiqiang Huo	Hui Duan

1、Application

- Short-circuit protection
- Overload protection
- Current leakage
- Isolation

The NDB1LE-32 series of residual current action circuit breakers provide the ground leakage, direct or indirect electric shock by human body and other faults protection, which are applicable to the low-voltage terminal distribution in the industry, civil buildings, energy, communication, infrastructure and other fields.

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



3、Model and implication

ND	B	1	L	E	-	32	C	10	/	□	/	□	/	□
Nader Low-voltage electrical appliance	Miniature circuit breaker	Design SN	Leakage	Electronic release		Frame level 32A	Tripping characteristics Type C	Rated current 6A, 10A, 16A, 20A, 25A, 32A		Number of poles Empty= 1P+N		Rated residual current Empty= 30mA		Type of residual tripping current AC A

4、Main technical parameters

- Electrical parameters

○ Rated working voltage: AC110/120V, AC230/240V

- ☐ Pole: 1P+N (1 protected pole with a switched neutral pole)
- ☐ Frequency: 50/60Hz
- ☐ Rated working current: 6A, 10A, 16A, 20A, 25A, 32A
- ☐ Rated breaking capacity: 6kA
- ☐ Rated impulse withstand voltage: 4kV
- ☐ Rated residual operating current: 30mA
- ☐ Rated residual making and breaking capacity: 500A
- ☐ Type of the residual tripping current: Type AC, Type A
- ☐ Action time: $<0.1s$ (In the rated residual action current)
- ☐ Mechanical life: 20,000 times
- ☐ Electrical life: 10,000 times
- Isolating function
- ☐ Switch on and off instructions
- ☐ The green mark in the inspection window indicates that the contact is in disconnected position
- Wiring
- ☐ Tunnel terminal blocks
- ☐ Terminal connection area: Apply to $(1\sim16mm^2)$
- ☐ Wiring deepness: 11.5mm
- ☐ Standard torque: $1.2N\cdot m$
- Product certification
- ☐ CCC, CB
- Standard reference
- ☐ GB/T16917.1, IEC61009-1

5、Working conditions

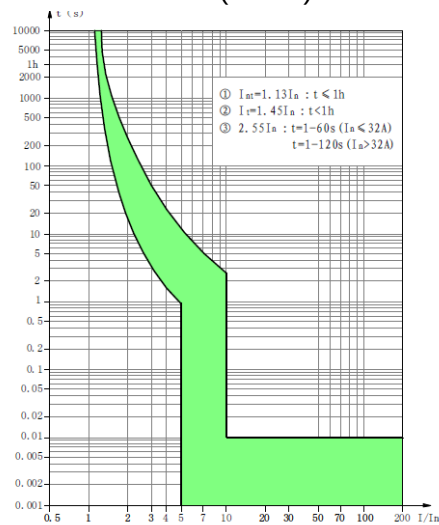
- Altitude: $\leq 2000m$, In case of use at the higher altitude, refer to the requirements of the miniature circuit breaker for derating. Refer to GB/T20645 “Specific Environmental Condition - Technical Requirements of Low-voltage Apparatuses for Plateau.
- Pollution level: 2
- Ambient temperature: $-25^{\circ}C\sim+60^{\circ}C$
- Wet heat resistance: Not more than 95% for relative humidity

- The product can withstand the effects of salt mist and oil mist
- The product can be disposed in places that are free from explosive media, media corrosive to metal, insulation damaging gas, and conductive dust
- The product should be installed free from snow and rain

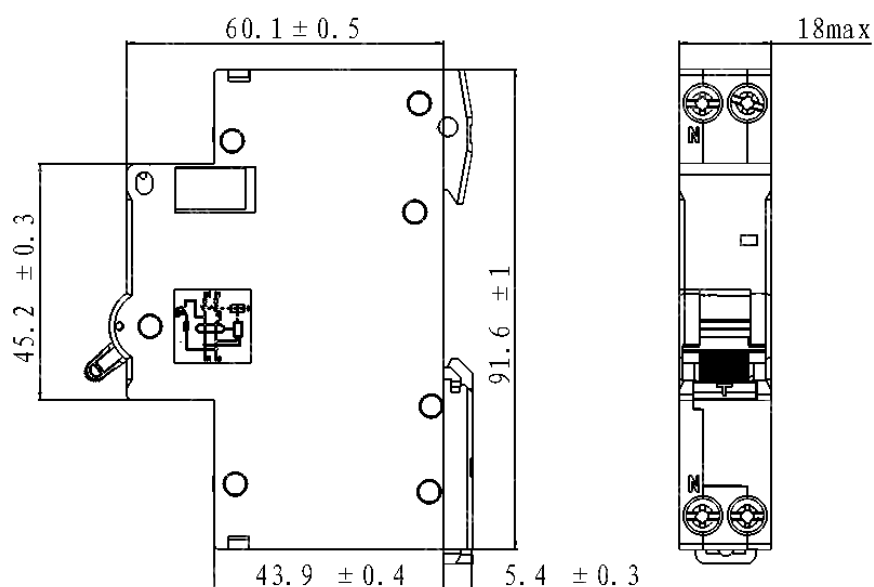
6、Time-Current curves

- Type C curve
- Tripping characteristics: Range of instantaneous tripping $5I_n \sim 10I_n$

C curve($5 \sim 10$) I_n



7、Outline and installation dimensions



8、Installation method

It can be easily installed on the TH35mm×7.5 standard guide.

9、Packaging and storage

Maximum packaging quantity is 12 pieces/box. The packaged products should be stored in a warehouse with the air ventilation and the relative humidity no more than 80% and the temperature between -30℃ and +70℃. No acidic, alkaline or other corrosive gas exists in the ambient air in the warehouse. Under the above conditions, the storage period shall be no more than three years since the manufacturing date.

10、Environment

Meeting RoHS requirement

11、Accessory list and installation

No

12、Notices

- The user must be responsible for product issue that occurs because the user disassembles the product without approval;
- It fails to provide protection for the electric shock caused due to two phases of the contacted lines to be protected;
- Do not test the insulation resistance of the product or carry out power frequency withstand voltage tests directly or indirectly with a megger or similar devices on the product so as to avoid damage to the product. If required by users, our company can provide an effective proof of the conformance test;
- In case of insulation resistance test on the project line, do not connect the product so as to avoid misunderstanding of the product quality or damage to the circuit board;
- Wiring of the leakage circuit breaker shall be done according to the up-in and down-out principle. Do not wire it wrongly. Otherwise, it may damage the product by pressing the test button again or in case of current leakage in the line;
- Wiring must be reliable to prevent the malfunction of the leakage circuit breaker or terminal burning damage due to the abnormal heat generation on the terminal;
- Carry out a monthly stimulated test on the current leakage. Namely, press the

test button to make the circuit breaker act so as to test proper operation of the circuit breaker, and replace the abnormal products in a timely manner;

- For automatic disconnection of the leakage circuit breaker, analyze fault reasons for the line or equipment.