

Shanghai Liangxin Electrical Co., Ltd.

NDG2-1000 Product Specification

(IPD-ENG-DEV-T20 AI 2016-09-23)

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Approved by	Wang Jili	Date	2020-07-02

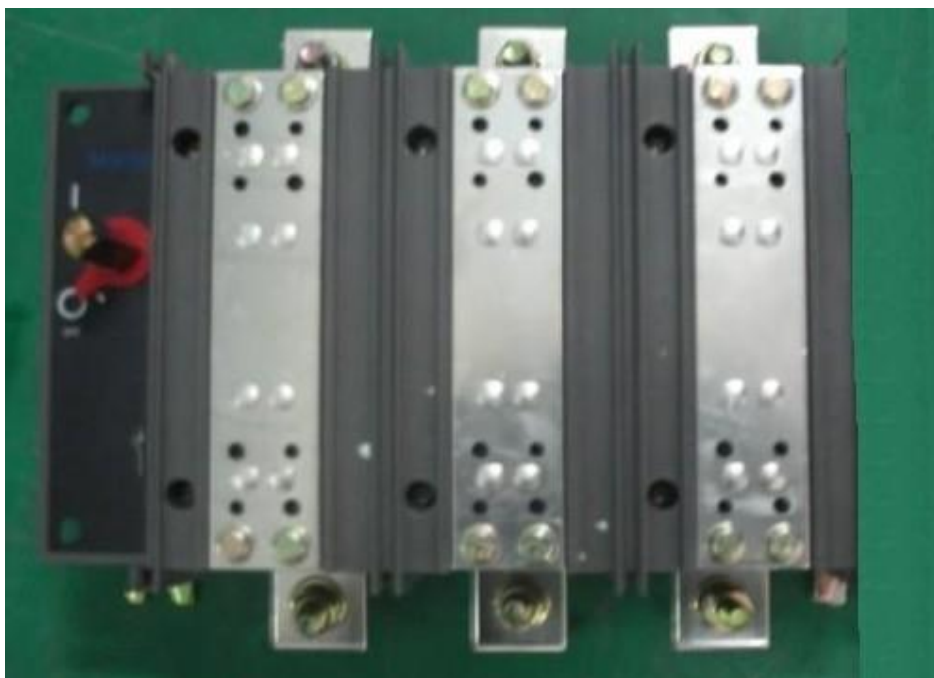
Revision History					
Version	Revision Reason/Content	Implementation Date	Prepared by	Reviewed by	Approved by
0	New addition	2011-10-20	Li Xingwei	Ding Guohui	Li Shengai
1	Modification Product Dimension and Installation Dimensions	2012-06-01	Yu Jinzhen	Ding Guohui	Li Shengai
2	Combine the Product Specification of 3P and 4P	2018-11-26	Zhang Jiazheng	Wang Jili	Zhou Bo
3	Renew the Product Dimension label	2019-06-29	Jiang Zhaoyong	Zheng Lei	Wang Jili

1. Applicable Scope and Purpose

The NDG2-1000 disconnecting switch is applicable to the low-voltage power distribution or motor network with the AC or DC 50/60HZ, the rated working voltage of DC 1000V、AC400V and AC690V and the rated working current of 1000A for infrequent connecting and breaking of the circuit as well as line isolation.

Products are widely used in power transmission and distribution and automation systems in construction, power, chemistry and other industries.

2. Picture of the Product



NDG2-1000/3



NDG2-1000/4

3. Specification and Model Description

ND G 2 – 1000 / □ / □ (□ + □)							
1	2	3	4	5	6	7	8
SN	SN name	Code					
1	Enterprise code	ND-Nader low-voltage apparatus					
2	Product code	G - Disconnecting switch					
3	Design SN	2-Design SN					
4	Specification	1000A					
5	Poles	3-3P 4-4P					
6	Auxiliary switch type	No code-Without auxiliary switch F1-With an auxiliary switch (one normally open; one normally closed) F2-With two auxiliary switches (two normally open; two normally closed)					
7	Handle mode	Inner: Inner Handle H-style: H-style handle H-style +interlocking: H-type handles with the door interlocking function B-style: B-type handles with the door interlocking function					
8	Shaft mode	L、L1、L2 (The exact length can be found in Product Dimension and Installation Dimensions)					

4. Main Technical Parameters

1) Electrical characteristics

- ▲ Rated insulation voltage U_i : 1000V
- ▲ Rated impulse voltage U_{imp} : 12kV
- ▲ Rated working voltage U_e : AC400V, AC690V, DC 1000V
- ▲ Rated working current/ AC : AC-23B At U_e : 400V, I_e : 1000A/500V ;
AC-23B At U_e : 690V, I_e : 800A/710A ;
- ▲ Rated working current/ DC : 500V L/R=15ms DC-22B(A) 500A
- ▲ Rated throughput capacity:
Rated marking capacity: AC 690V AC-23B 8000A
Rated breaking capacity: AC 690V AC-23B 6400A
Rated on-off capacitive load capacity: AC 400V 540kVAr
- ▲ Rated short circuit making capacity I_{cm} (peak value): AC690V 85kA
DC1000V 50kV
- ▲ Rated short-time withstand current I_{cw} : AC690V 50kA /1s
DC1000V 15kA /1s
- ▲ Allowable load
1000A under the ambient temperature of 40°C

960A under the ambient temperature of 45°C

920A under the ambient temperature of 50°C

880A under the ambient temperature of 55°C

▲ Auxiliary switch 380V AC-15 6A

▲ Auxiliary switch 220V AC-13 0.6A

2) Operating performance

▲ Electrical life: 150 times

▲ Mechanical life: 3,000 times

▲ Operating torque: 30Nm

3) Connection capacity

▲ Rated current (A): 1000

▲ Minimum copper cables cross section(mm²): 2×150

▲ Maximum copper cables cross section(mm²): 40×16

▲ Maximum copper bar width(mm): 40

▲ Terminal tightening torque: 35-45Nm

5. Normal Working Environment

▲ Altitude: ≤2000m;

▲ Ambient temperature: -25°C~+55°C; the average within 24h shall not be more than +35°C; in case the ambient temperature is above 40°C consider reducing the capacity for use;

▲ Pollution level: 3;

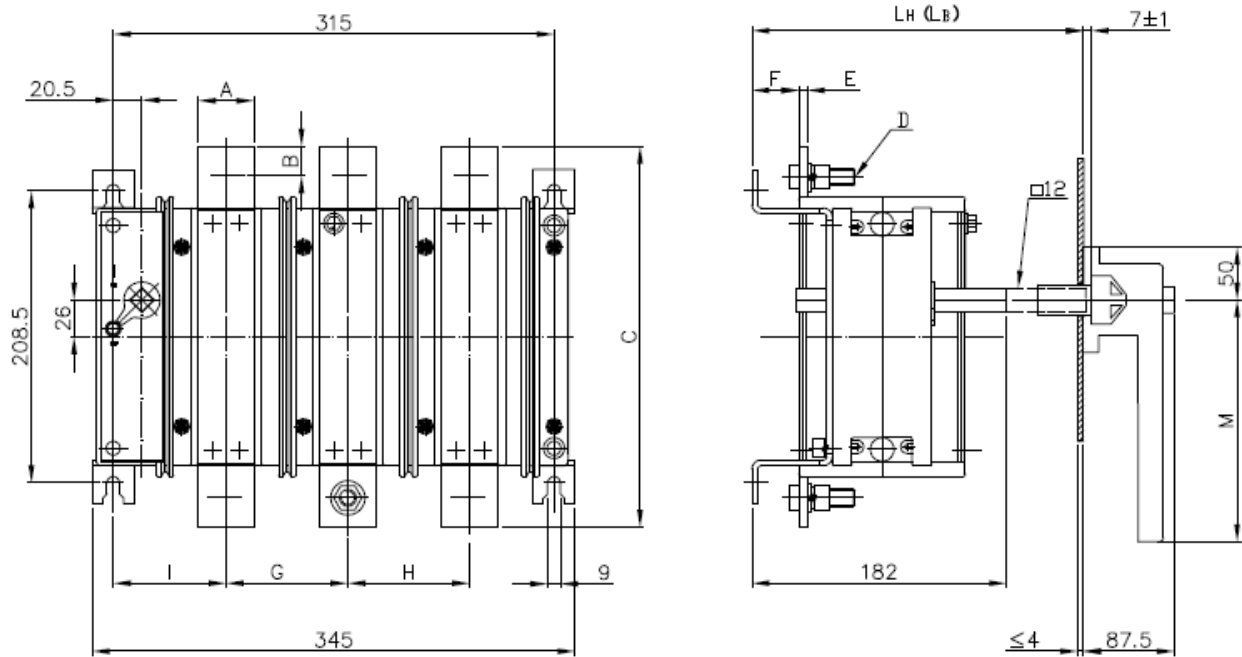
▲ When the highest temperature is +40°C, the relative humidity of air should not exceed 50%; a high relative humidity is allowed under a low temperature, e.g. 90% under 20°C. Special measures should be taken to address occasional condensing due to temperature fluctuation;

▲ Installation category: III and IV;

▲ The product should be installed free from obvious shaking, impact and vibration as well as snow and rain. The installation site should be free from dangerous explosive media without corrosive to metal, insulation damaging gas and dust.

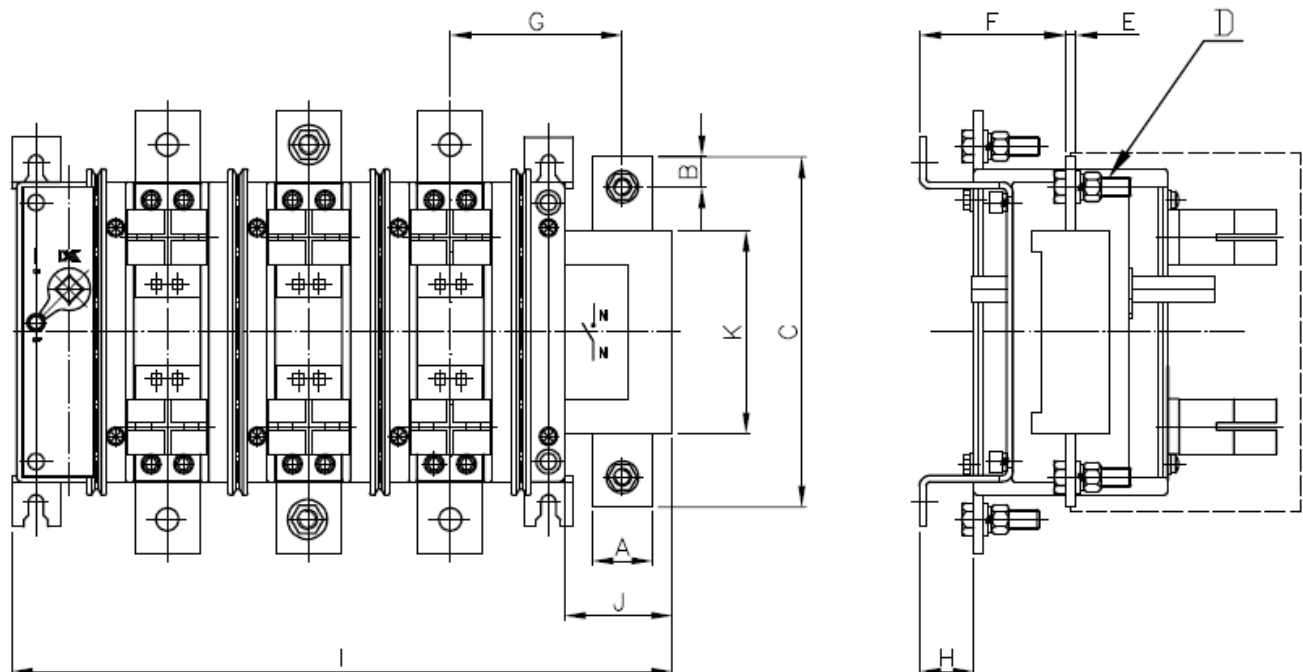
6. Product Dimension and Installation Dimensions

3P Product Dimension and external handel (H-type / B-type) Installation Dimensions



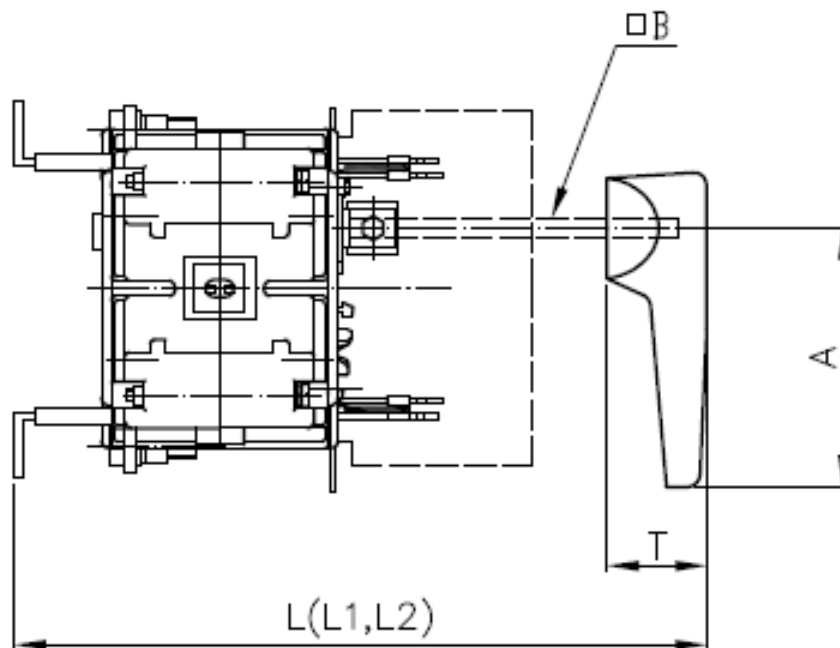
Model	A	B	C	D	E	F	G	H	I	LH	LB	M	A
NDG2-1000/3	40	21	272	M12	6	33	87	87	60.2	365	350	200	40

4P Product Dimensions



Model	A	B	C	D	E	F	G	H	I	J	K
NDG2-1000/4	40	20	192.2	M12	4	91	92.3	33	393	53	100

Inner Installation Dimensions

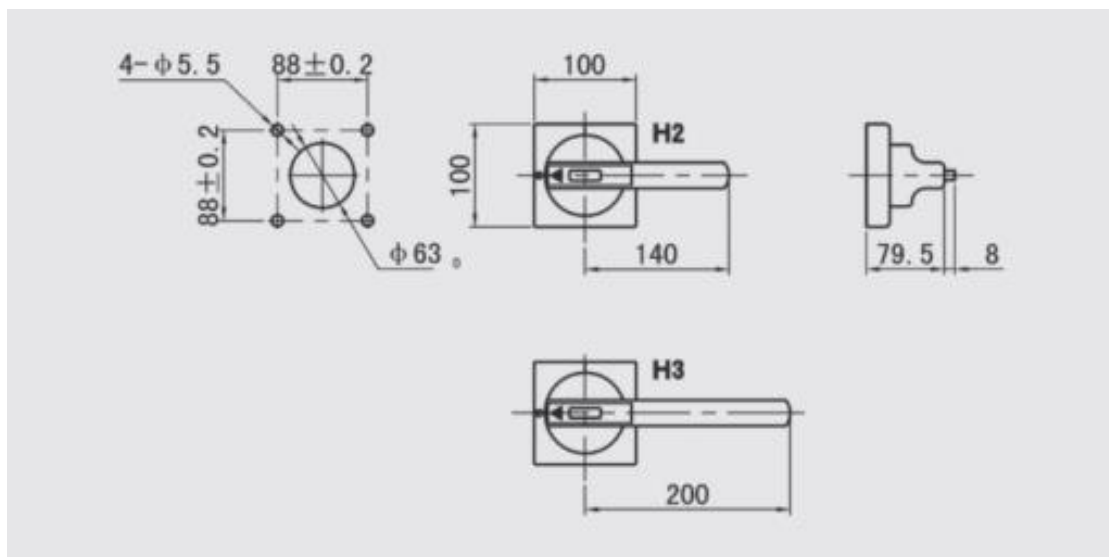


Model	L*	L1*	A	B	T
NDG2-1000	260~370	371~480	180	12	60

NOTE: 1. External handle (H-type / B-type) installation dimensions reference “3P Product Dimension and external handel (H-type / B-type) Installation Dimensions”

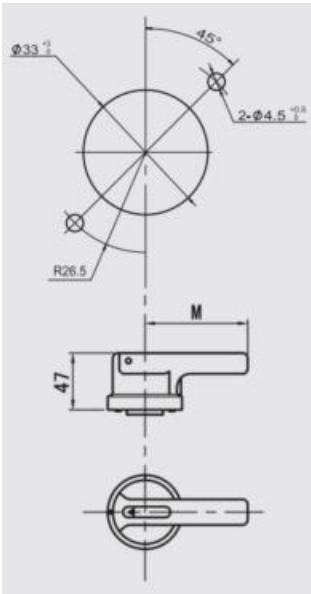
2. inner handle installation dimensions reference “inner installation dimensions”

H-type handle and mounting hole size



Note: H-type handle of NDG2-1000 disconnecting switch is applicable to H3 handle.

B-type handle and mounting hole size



Note: M=180mm for the B-type handle of the NDG2-1000 disconnecting switch.

7. 安装方式

Vertical installation, the inlet wire mode can adopt the up-in and down-out or down-in and up-out mode.

8 Packaging and Storage

The packaged product should be stored at -500C~+800C, and not be attacked by rain during transportation.

9. List of Accessories and Installation

1) H-type handle accessories list

SN	Name	Unit	Quantity	Remarks
1	Shaft	Piece	1	
2	Coupling (including screws)	Set	1	
3	Handle	Set	1	
4	Self-tapping screw for fixing the handle	A	4	
5	Handle gasket	Block	1	
6	Adjustment sample	Piece	1	
7	Certificate of conformity	Piece	1	
8	User manual	Piece	1	
9	H series handle user manual	Piece	1	

2) B-type handle accessories list

SN	Name	Unit	Quantity	Remarks
1	Shaft	Piece	1	
2	Handle	Set	1	
3	Self-tapping screw for fixing the handle	A	2	
4	Certificate of conformity	Piece	1	
5	User manual	Piece	1	

10. Precautions

- ▲ The default standard handle of the product is the H series handle. If you need the B series handle, please explain. The H and B series handles can be padlocked; The inner handles can not be padlocked
- ▲ The inner operation should be selected with the terminal cover. If the operating height is not high enough, the terminal cover can not add. It must be confirmed before ordering.
- ▲ If the required installation depth exceeds the normally given range, the required installation depth should be indicated.