



NDG3A Series

Disconnecter

Shanghai Liangxin Electrical Co., Ltd.
002706.SZ



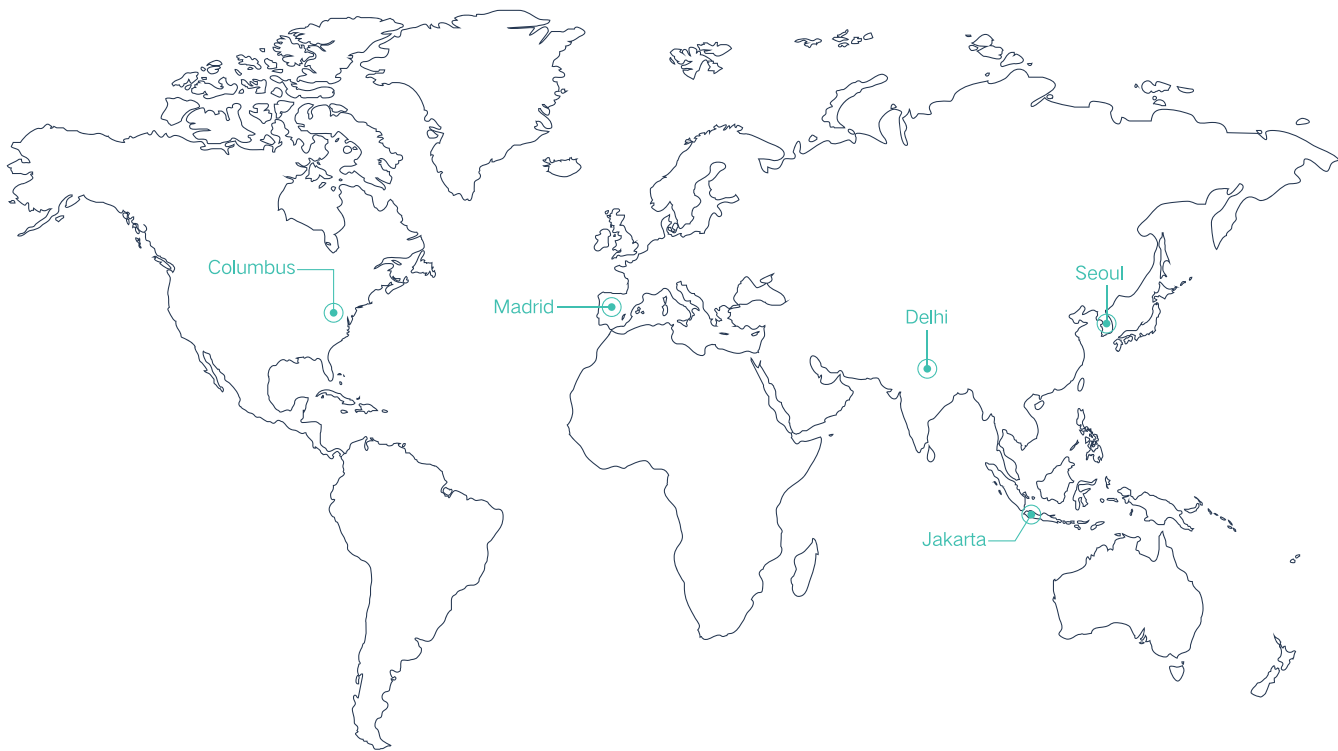
SMART ELECTRICAL SOLUTION EXPERT

Company Profile

LAZZEN is a leading “Smart Electrical Solution Expert” in the industry. Its products and solutions are applied to a wide range of scenarios from power generation, power transmission and distribution to power consumption. Its business covers many fields, including power grid, new energy, real estate, information and communication, power generation, industrial control, and industrial buildings.

LAZZEN was listed on the Shenzhen Stock Exchange in 2014, with stock code 002706.SZ. LAZZEN has always adhered to the core value of “satisfying customers”, and promoted the product development on the basis of market demand, with annual R&D investment accounting for more than 6% of revenue every year. Its R&D center was rated as the "National Enterprise Technology Center", the "Enterprise Postdoctoral Research Workstation" was set up, and the laboratory passed the dual accreditation of CNAS and UL. LAZZEN has become a national demonstration enterprise of intellectual property.

LAZZEN provides high-quality products and system solutions to global users through its super representative and end-to-end service system, with offices set in more than 140 cities in China, as well as in Europe, North America, Asia and other countries and regions.



Service Network

43 offices in Chinese mainland

5 overseas offices

Service Principles

Give priority to solving the problem for customers

Customer Service Hotline 

400-99-02706

CONTENTS

NDG3A Series Disconnecter	1-1
■ Product Features	1-1
■ Application Range	1-1
■ Product Display	1-2
■ Product Technical Characteristics	1-5
Instructions for Model and Specification	1-5
Technical Parameters	1-7
■ Wiring Method (Wiring Diagram)	1-11
Wiring Diagram of AC Main Circuit	1-11
Wiring Diagram of DC Main Circuit	1-12
■ Outline and Mounting Dimensions	1-13
■ Accessories description	1-22
Model interpretation	1-22
■ Mounting Mode	1-25
■ Transport and storage	1-32
■ Operation and Maintenance	1-32
■ Precautions	1-32

Product Features

Scope of Application and Purpose

- ◆ NDG3A Series Disconnecter is applicable to AC/DC power system, mainly mounted in the low-voltage distribution circuit, and used for infrequent connection and disconnection of the main circuit and for isolating and breaking the circuit. It is suitable for energy storage, power, construction and other industries. NDG3A-2000 is used in power circuits with a rated voltage of AC690V (50/60Hz) and below, or DC500V and below.
NDG3A-1000Z/1600Z/2000Z/2500Z/3200Z is used in power circuits with a rated voltage of DC1500V and below.

Application Range

Applied environment

Operating ambient temperature/storage temperature

- ◆ Ambient temperature for operation: -25°C to 55°C
(40°C for the UPS test)
- ◆ Storage temperature: -50°C to +80°C

Altitude

- ◆ The altitude of the mounting site is $\leq 2,000$ m.

Relative humidity for operation/storage

- ◆ Relative humidity for operation/storage: The atmospheric relative humidity should not be higher than 50% at an ambient air temperature of +40°C; a higher relative humidity may be permitted at a lower temperature.

Protection Level

- ◆ Protection level: IP20 for the whole machine and IP65 for the out-of-cabinet handle

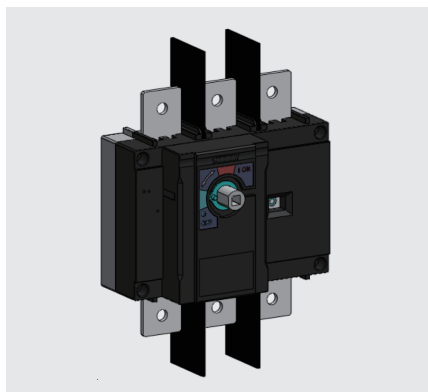
Pollution Level

- ◆ Level 3

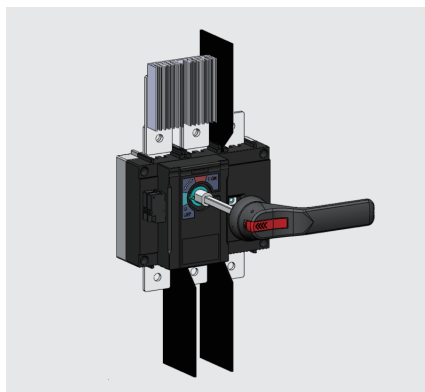
Mounting Type

- ◆ Mounting category: III and IV

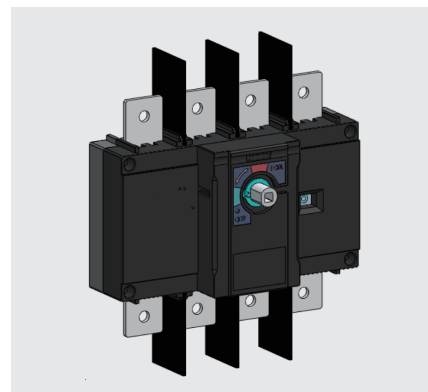
Product Display



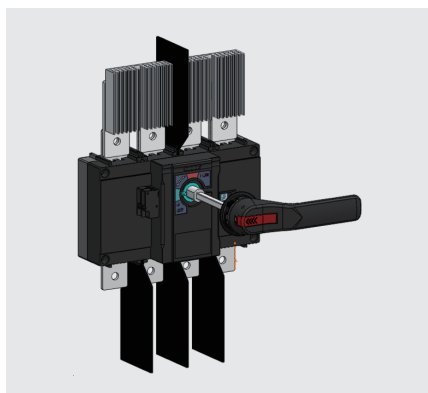
NDG3A-500/630/800 (3P)
basic type



NDG3A-500/630/800 (3P)
with accessories



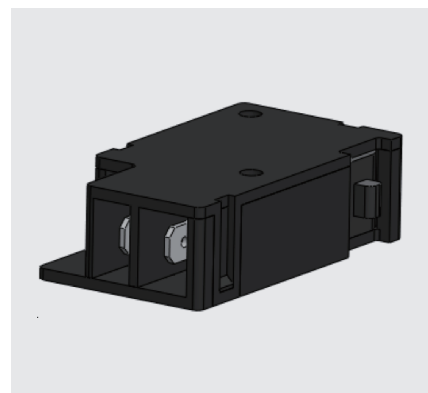
NDG3A-500/630/800 (4P)
basic type



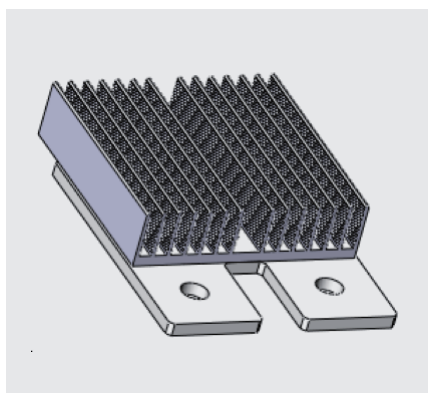
NDG3A-500/630/800 (4P)
with accessories



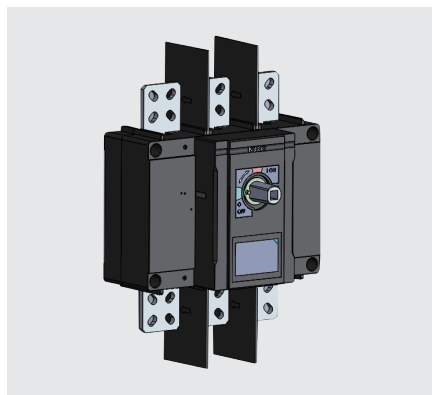
Out-of-cabinet handle



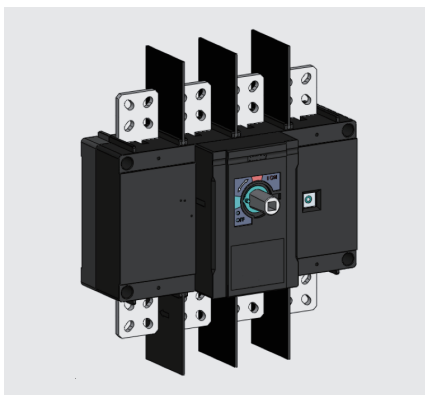
Auxiliary contact



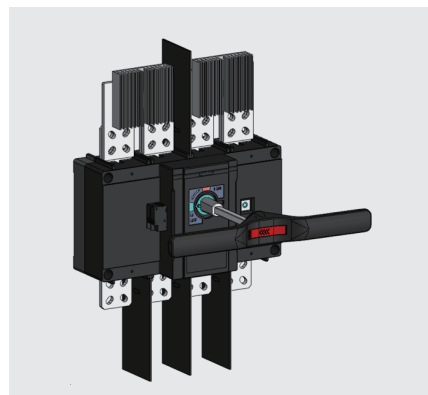
Short-circuit busbar



NDG3A-1000/1250 (3P)
basic type



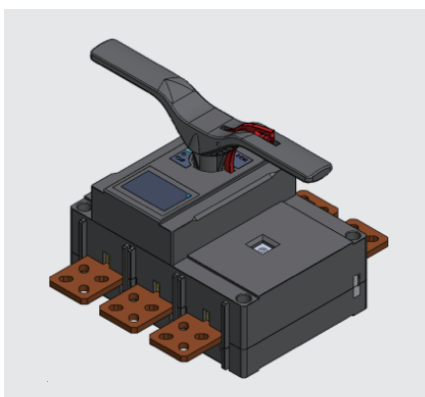
NDG3A-1000/1250 (4P)
basic type



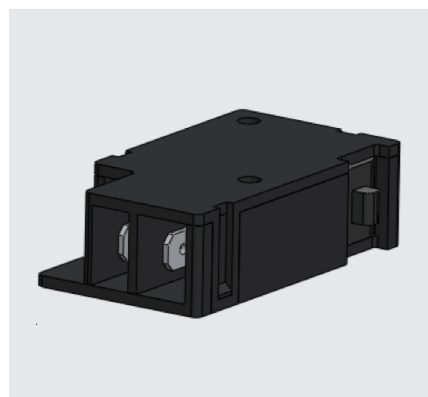
NDG3A-1000/1250 (4P)
with accessories



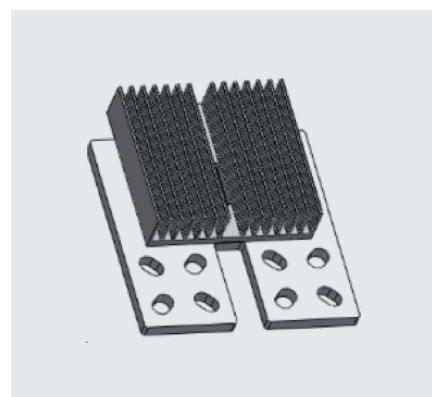
Out-of-cabinet operating products



In-cabinet operating products



Auxiliary contact



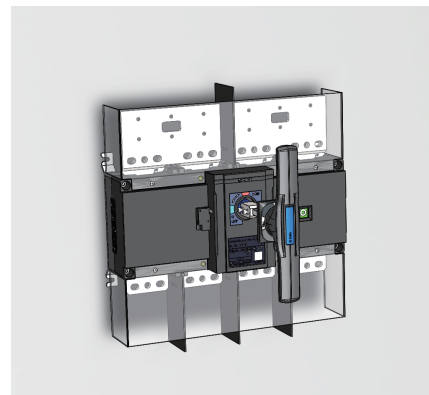
Short-circuit busbar



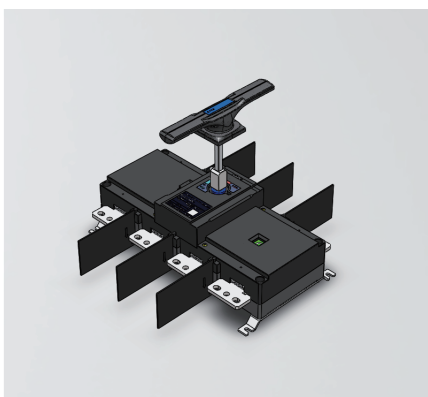
NDG3A-1600/1800/2000 (3P)
basic type



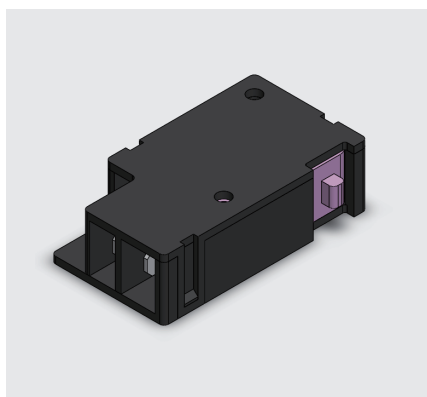
NDG3A-1600/1800/2000 (4P)
basic type



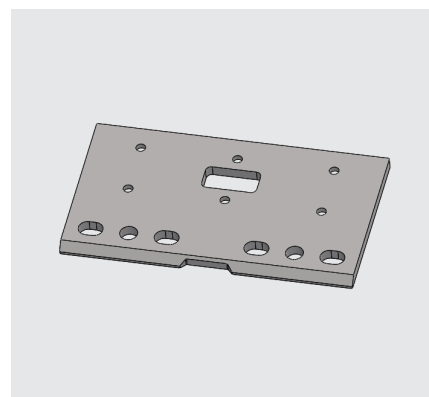
NDG3A-1600/1800/2000 (4P)
with accessories



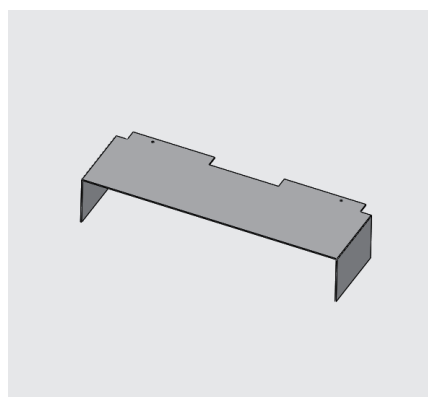
Out-of-cabinet operating products



Auxiliary contact



Short-circuit busbar



Terminal shield

Product Technical Characteristics

Instructions for Specification and Model of NDG3A

<div> <div>ND</div> <div>G</div> <div>3A</div> <div>-</div> <div><input type="text"/></div> <div>/</div> <div><input type="text"/></div> <div>/</div> <div><input type="text"/></div> <div>/</div> <div><input type="text"/></div> <div>/</div> <div><input type="text"/></div> </div>									
<div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> <div>9</div> <div>10</div> </div>									
S/N	Code Name	Codes Description							
1	Enterprise Code	ND: Nader LV electrical apparatus							
2	Product code	G: Disconnecter							
3	Design code	3A							
4	Rated Current (A)	In: 100、125、160、200、250、250H、315、400、500C、500、630、800、 1000、1250、1600、1800、2000							
5	Number of Poles	3: 3P 4: 4P							
6	Current Type	No code: conventional products Z: DC products							
7	Handle type	K: In-cabinet handle P: Out-of-cabinet handle							
8	Connecting square shaft specification code	150: Shaft length of 150mm 200: Shaft length of 200mm 250: Shaft length of 250mm 300: Shaft length of 300mm 400: Shaft length of 400mm							
9	Auxiliary contact	C1: 1 set of conventional contacts C2: 2 sets of conventional contacts W1: 1 set of micro power contacts W2: 2 sets of micro power contacts							
10	Terminal protection	No code: Interphase spacer Z3: 3-pole terminal cover (terminal shield) Z4: 4-pole terminal cover (terminal shield)							

Note: 1. Items 8, 9, 10 only applies to rated current of 100, 125, 160, 200, 250, 250H, 315 and 400 (Item 10 applies to rated current of 1,600, 1,800 and 2,000).

2. Rated current (A): DC 4P products are available with 100, 125, 160, 200, 250, 250H, 315, 400, 500C, 1,600, 1,800, and 2,000.

3. In-cabinet handle is unavailable to the product with rated current of 2,000.

4. The shaft length of the product with rated current of 2,000 is only 200mm and 400mm.

5. The product with rated current of 2,000 is only provided with conventional micro switch.

Instructions for Specification and Model of NDG3A-Z

<div> <div>ND</div> <div>G</div> <div>3</div> <div>A</div> <div>-</div> <div><input type="text"/></div> <div><input type="text"/></div> <div>/</div> <div><input type="text"/></div> <div>/</div> <div><input type="text"/></div> </div>		
<div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> <div>6</div> <div>7</div> <div>8</div> </div>		
S/N	Code Name	Codes Description
1	Enterprise Code	ND
2	Product code	G: Disconnecter/isolator
3	Design code	3
4	Derived Code	A
5	Rated Current (A)	In: 1000、1600、2000、2500、3200
6	Product Category	Z: DC isolator
7	Number of Poles	2: 2P
8	Handle type	P: Out-of-cabinet handle K: In-cabinet Handle ①

Note: ① NDG3A-3200Z has no in-cabinet handle.

Technical Parameters

Disconnector			NDG3A-100	NDG3A-125	NDG3A-160	NDG3A-200	NDG3A-250	NDG3A-250H	NDG3A-315	NDG3A-400	NDG3A-500C
Conventional heating current I _{th} (A)			250					500			
Number of Poles			3、4								
Rated insulation voltage U _i (V)			800					1000			
Rated impulse withstand voltage U _{imp} (kV)			8					8			
Rated short-time withstand current (I _{cw}) (1s, kA effective value) without protective device			AC: 7; DC: 3					AC: 9; DC: 4.8			
Rated short-circuit making capacity I _{cm} (kA peak)			AC: 18; DC: 12I _e					AC: 23; DC: 12I _e			
Rated current I _n (A) (at +40℃)			100 (A/B)	125 (A/B)	160 (A/B)	200 (A/B)	250 (A/B)	250H (A/B)	315 (A/B)	400 (A/B)	500C (A/B)
Rated operating current I _e (A)	380VAC 400VAC 415VAC	AC-20A/AC-20B	100/100	125/125	160/160	200/200	250/250	250/250	315/315	400/400	/
		AC-21A/AC-21B					200/200				500/500
		AC-22A/AC-22B									/
		AC-23A/AC-23B	100/100	125/125	160/160	160/160	160/160	250/250			/
	500VAC	AC-20A/AC-20B	100/100	125/125	160/160	200/200	250/250	250/250	315/315	400/400	/
		AC-21A/AC-21B				160/160	160/160	250/250			250/250
		AC-22A/AC-22B				125/125	125/125				125/125
		AC-23A/AC-23B		100/100	100/100	100/100	100/100	200/250			/
	660VAC 690VAC	AC-20A/AC-20B	100/100	125/125	160/160	200/200	250/250	250/250	315/315	400/400	/
		AC-21A/AC-21B				160/160	160/160	160/200			160/200
		AC-22A/AC-22B				125/125	125/125				125/125
		AC-23A/AC-23B	63/63					100/125			/
	800VAC	AC-21B	/					/			/
	1000VAC	AC-21B	/					/			/
	220VDC	DC-20A/DC-20B	100/100	125/125	160/160	200/200	250/250	250/250	315/315	400/400	/
		DC-21A/DC-21B				160/160	160/160	250/250			250/250
		DC-22A/DC-22B									/
		DC-23A/DC-23B				125/125	125/125	125/125	200/200		
	400VDC	DC-20A/DC-20B	100/100	125/125	160/160	200/200	250/250	250/250	315/315	400/400	/
		DC-21A/DC-21B				160/160	160/160	250/250			250/250
		DC-22A/DC-22B				125/125	125/125				125/125
		DC-23A/DC-23B			125/125	125/125	200/200			/	
	500VDC	DC-20A/DC-20B	100/100	125/125	160/160	200/200	250/250	250/250	315/315	400/400	/
		DC-21A/DC-21B			125/125	125/125	125/125	200/200			200/200
		DC-22A/DC-22B									/
		DC-23A/DC-23B									/
	750VDC	DC-21B	/					/			/
		DC-22B	/					/			/

Technical Parameters (continued)

Disconnector			NDG3A-100	NDG3A-125	NDG3A-160	NDG3A-200	NDG3A-250	NDG3A-250H	NDG3A-315	NDG3A-400	NDG3A-500C	
Rated operating current Ie(A)	1000VDC	DC-21B	/						/			
		DC-22B	/						/			
Mechanical life (s)			10000						5000			
Electrical life (s)			1000						1000			
Operating torque (N.m)			6.5						14.5			
Mounting Mode			Mounted with screw									
Outline dimensions (4P) (L×W×H) (mm)			135×170×65						230×160×75			
Outline dimensions (3P) (L×W×H) (mm)			135×140×65						180×160×75			
Compliant with the standard			GB/T 14048.1、GB/T 14048.3、IEC 60947-1、IEC 60947-3									
Product Certification			CCC、CE、TUV									
Single-phase internal resistance (mΩ)			≤0.8									
Minimum cross-sectional area of copper cable (mm²)			63A: 35; 100A: 50; 125A: 50; 160A: 95; 200A: 120; 250A: 150;						100A: 50; 125A: 50; 160A: 95; 200A: 120; 250A: 150; 315A: 185; 400A: 240; 500A: 250			
Minimum tightening torque for copper connection (N.m)			12						20			

Disconnecter	NDG3A-1000Z	NDG3A-1600Z	NDG3A-2000Z	NDG3A-2500Z	NDG3A-3200Z
Applicable Standard	IEC60947-1 / GB/T14048.1, IEC60947-3 / GB/T14048.3				
Certification awarded	CCC、CE、TUV				
Number of poles	2P				
Rated operating voltage Ue(V)	DC1500V				
Rated insulation voltage Ui(V)	1500V				
Rated impulse withstand voltage Uimp(kV)	12				
Rated current In (A)	1000	1600	2000	2500	3200
Rated short-time withstand current Icw(kA) 1s	19.2 kA		30 kA		50 kA
Rated limiting short-circuit current (with fuse)	85 kA		135 kA		150 kA
Usage Category	DC-20A/B				
Mechanical endurance	2500				4000
Operating torque (N.m)	18		40		56
Tightening torque of terminal screw (N.m)	10		14		40
Cross-sectional area of connecting copper busbar (mm ²)	2 pieces, 80×5	2 pieces, 100×5	3 pieces, 100×5	4 pieces, 100×5	3 pieces, 100×10
Mounting Mode	Mounted with screw				
Weight (kg)	6		14		18.5

Technical Parameters (continued)

Disconnector			NDG3A-500	NDG3A-630	NDG3A-800	NDG3A-1000	NDG3A-1250	NDG3A-1600	NDG3A-1800	NDG3A-2000
Conventional thermal current Ith (A)			800					1600	1800	2000
Number of Poles			3、 4							
Rated insulation voltage Ui (kV)			1							
Rated impulse withstand voltage Uimp (kV)			12							
Rated short-time withstand current Icw (1kA•s effective value) without protective device			AC: 16; DC: 10			AC: 35; DC: 10		AC: 50; DC: 10		
Rated short-circuit making capacity Icm (kA peak)			AC: 32; DC: 17			AC: 50; DC: 17		AC: 75 ¹ ; DC: 15		
Rated current In (A) (at +40°C)			500	630	800	1000	1250	1600	1800	2000
Rated operating current Ie (A)	380VAC 400VAC 415VAC	AC - 20A/AC - 20B	/							
		AC - 21A/AC - 21B	/					1600	1800	2000
		AC - 22A/AC - 22B	500	630	800	1000	1250	1800	1800	1800
		AC - 23A/AC - 23B	400	500	/	800	1000	1250		
	500VAC	AC - 20A/AC - 20B	/					/		
		AC - 21A/AC - 21B	/					1600		
		AC - 22A/AC - 22B	/					1250		
		AC - 23A/AC - 23B	/					1000		
	660/690VAC	AC - 20A/AC - 20B	/					/		
		AC - 21A/AC - 21B	/					1000		
		AC - 22A/AC - 22B	400	500		800		1000		
		AC - 23A/AC - 23B	315		/		500		500	
	800VAC	AC - 21B	500	630		/		/		
	1000VAC	AC - 21B	/			1000	1250	/		
	220VDC	DC - 20A/AC - 20B	/					/		
		DC - 21A/AC - 21B	/					1250		
		DC - 22A/AC - 22B	/					1250		
		DC - 23A/AC - 23B	/					1250		
	400VDC	DC - 20A/AC - 20B	/					/		
		DC - 21A/AC - 21B	/					1250		
		DC - 22A/AC - 22B	/					1250		
		DC - 23A/AC - 23B	/					1250		
	500VDC	DC - 20A/AC - 20B	/					/		
		DC - 21A/AC - 21B	/					1250		
		DC - 22A/AC - 22B	/					1250		
		DC - 23A/AC - 23B	/					1250		
	750VDC	DC - 21B	500/3	630/3	800/3	/	/	/		
		DC - 22B	/	/	/	1000/3	1250/3	/		
	1000VDC	DC - 21B	500/4	630/4	800/4	/	/	/	/	/
		DC - 22B	/	/	/	1000/4	1250/4	/	/	/

Technical Parameters (continued)

Disconnector	NDG3A-500	NDG3A-630	NDG3A-800	NDG3A-1000	NDG3A-1250	NDG3A-1600	NDG3A-1800	NDG3A-2000
Mechanical life (s)	5000					4000	4000	4000
Electrical life (s)	100					500	500	500
Operating torque (N•m)	40					56 Note 2	56 Note 2	56 Note 2
Mounting Mode	Mounted with screw					Mounted with screw		
Outline dimensions (4P) (L×W×H) (mm)	260×290×132			331×360×190		492×288×165.5		
Outline dimensions (3P) (L×W×H) (mm)	260×230×132			331×280×190		372×288×165.5		
Compliant with the standard	GB/T 14048.1、GB/T 14048.3、IEC 60947-1、IEC 60947-3					GB/T 14048.1、GB/T 14048.3、IEC 60947-1、IEC 60947-3		
Product Certification	CCC、CE、TUV					CCC、CE、TUV		
Single-phase internal resistance (mΩ)	≤0.1			≤0.05		≤0.08		
Minimum cross-sectional area of copper cable	2 pieces, 30×5	2 pieces, 40×5	2 pieces, 50×5	2 pieces, 60×5	2 pieces, 80×5	2 pieces, 100×5	3 pieces, 100×5	3 pieces, 100×5
Minimum tightening torque for copper connection (N•m)	10			14		40		

Note: 1. Rated operating voltage Ue is 415V.

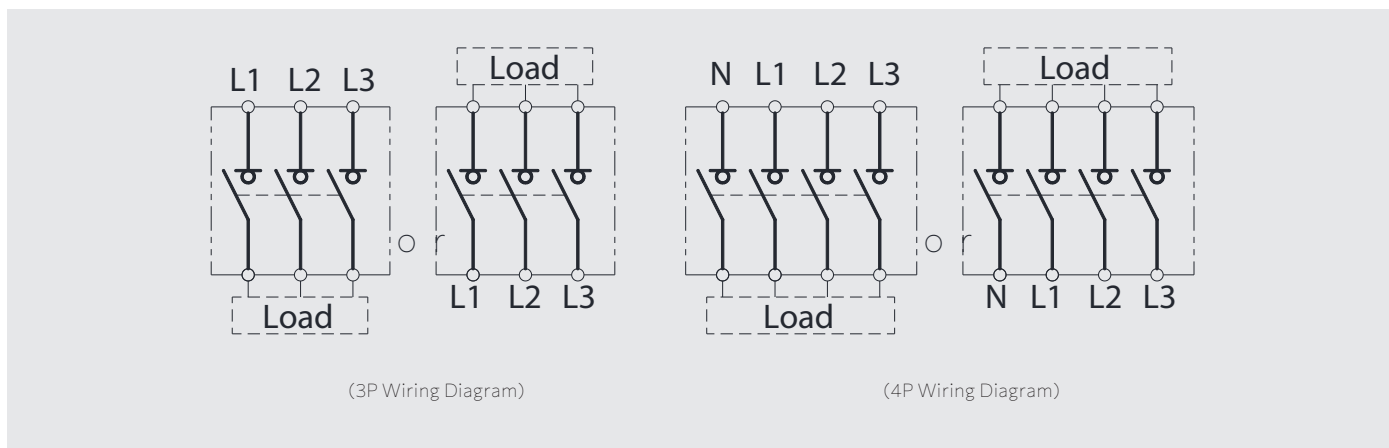
2. The range of operating torque is 0 to 20%.

3. Refer to GB/T 14048.3 for other unspecified parameters.

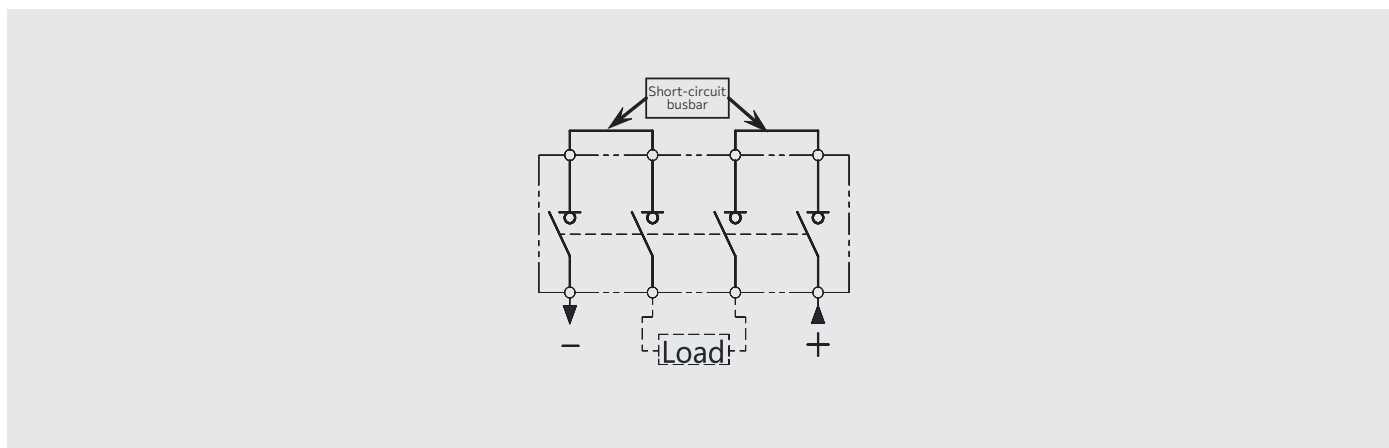
4. Refer to the Wiring Diagram for the wiring method.

Wiring Method (Wiring Diagram)

Wiring Diagram of AC Main Circuit

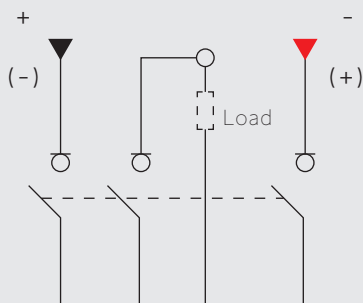


DC Main Circuit Wiring Diagram of NDG3A-100 to 500C and 1600 to 2000

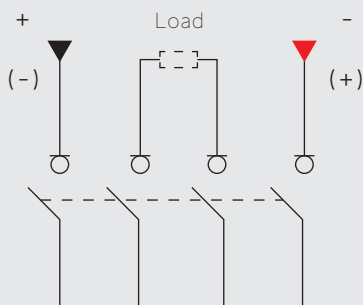


DC Main Circuit Wiring Diagram of NDG3A-500 to 1250

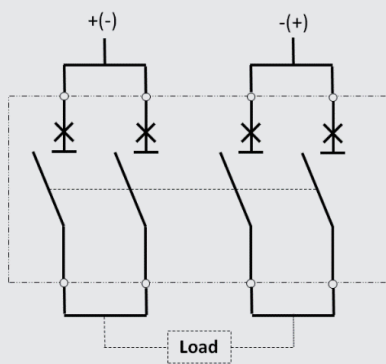
3-pole connection in series



4-pole connection in series

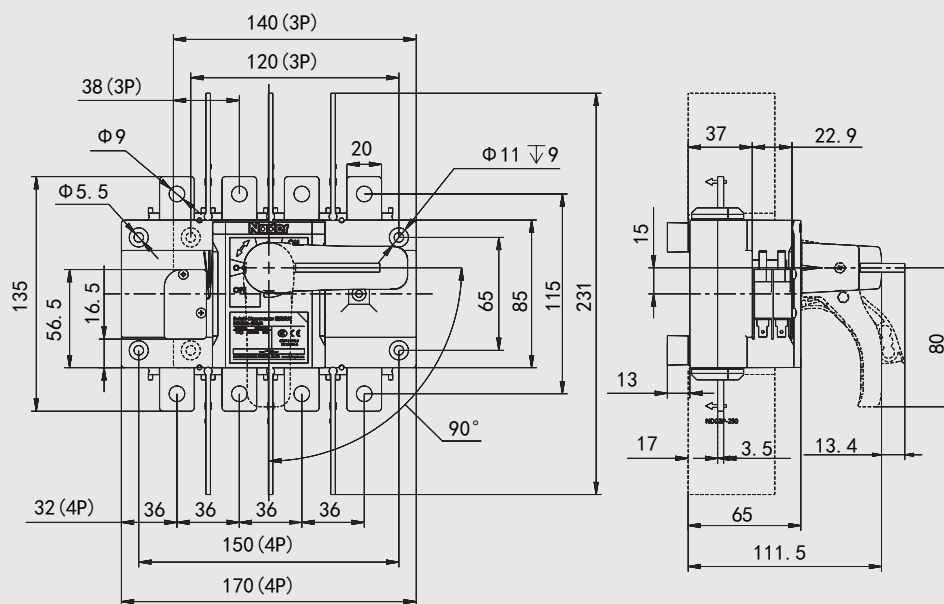


Wiring Diagram of NDG3A-1000Z to 3200Z (2P)

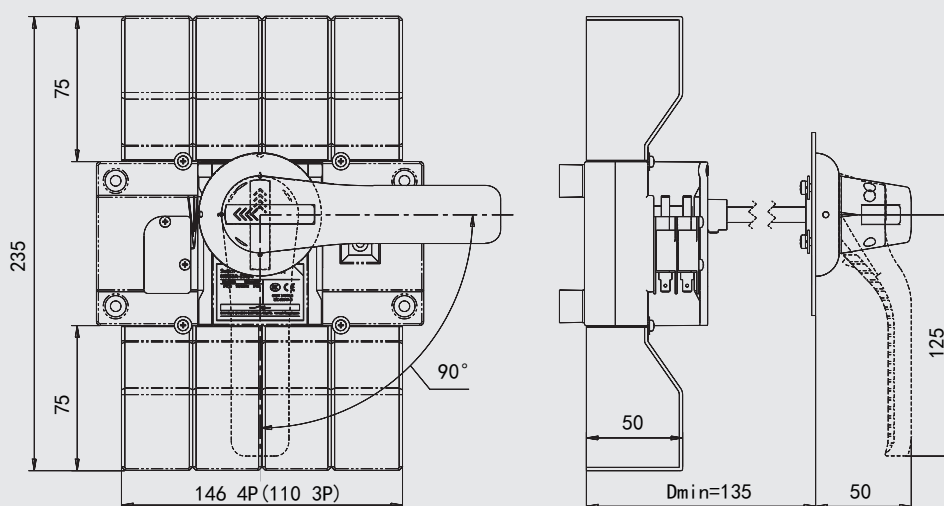


Outline and Mounting Dimensions

NDG3A-100 to 250 (Body + Separator + In-cabinet Handle)

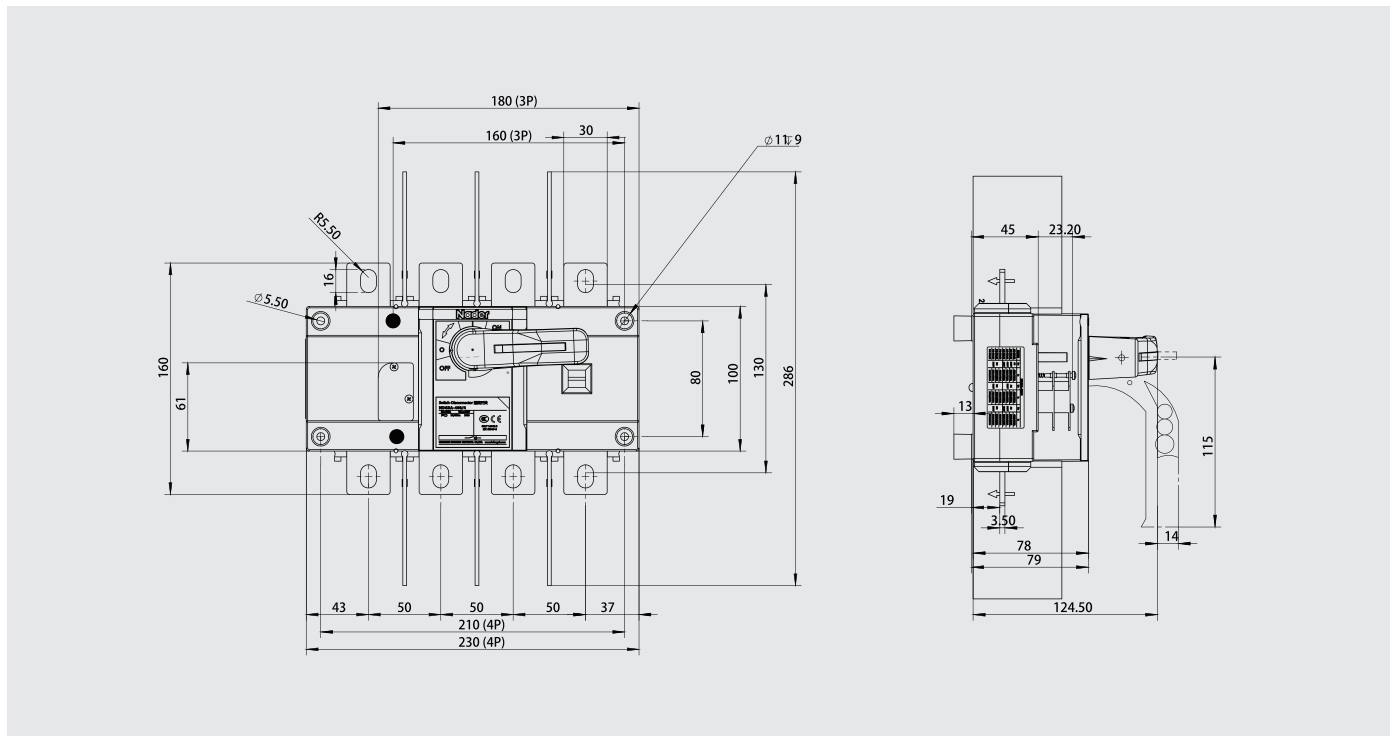


NDG3A-100 to 250 (Body + Case + Out-of-cabinet Handle)

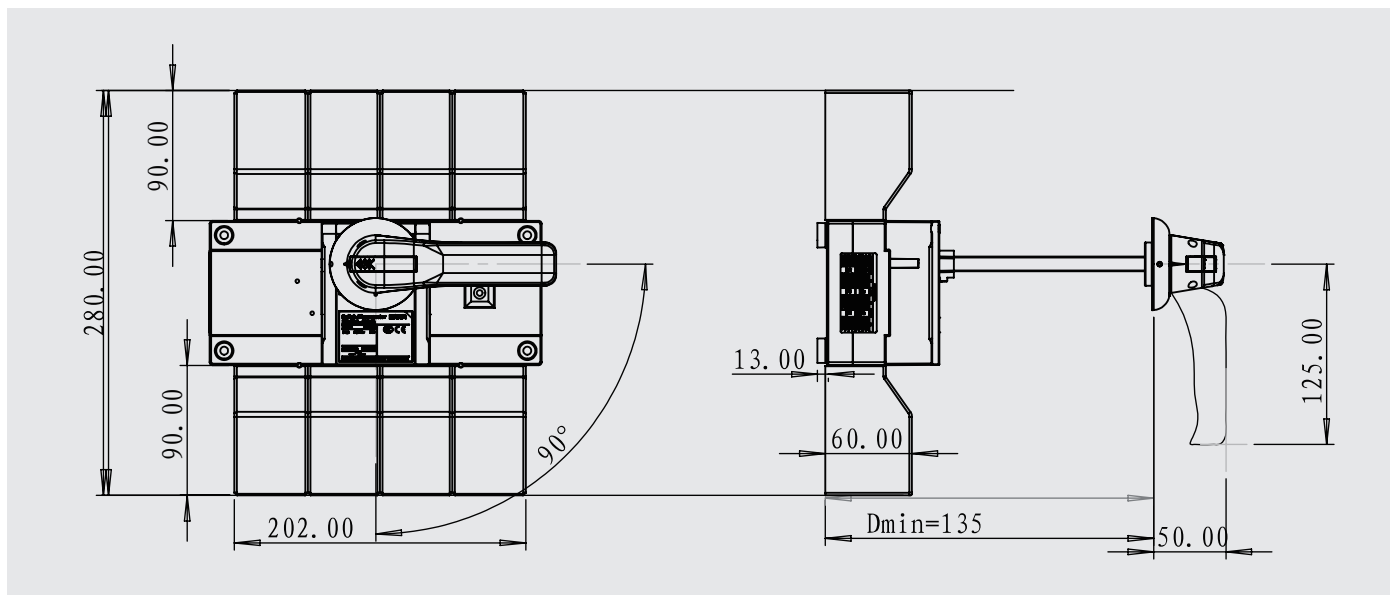


Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

NDG3A-250H to 500C (Body + Separator + In-cabinet Handle)



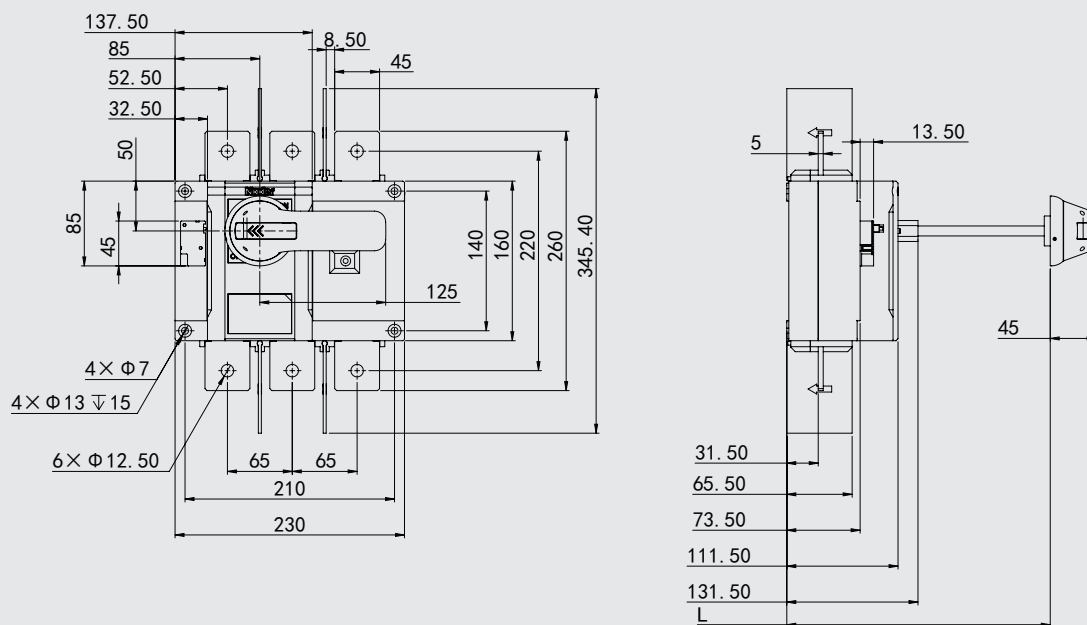
NDG3A-250H to 500C (Body + Case + Out-of-cabinet Handle)



Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

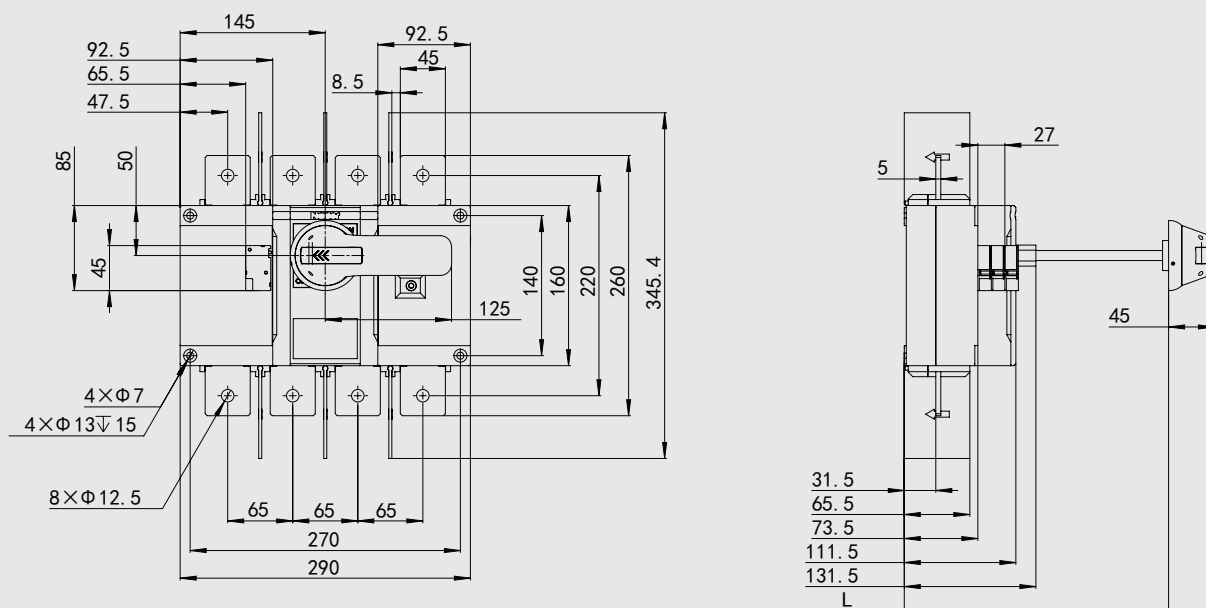
Outline and Mounting Dimensions of NDG3A-500 to 800

Outline and Mounting Dimensions of NDG3A-500/630/800 (3P) (Out-of-cabinet Handle)



L = "A" + 56.5 (in mm; A: Square shaft length of the out-of-cabinet handle)

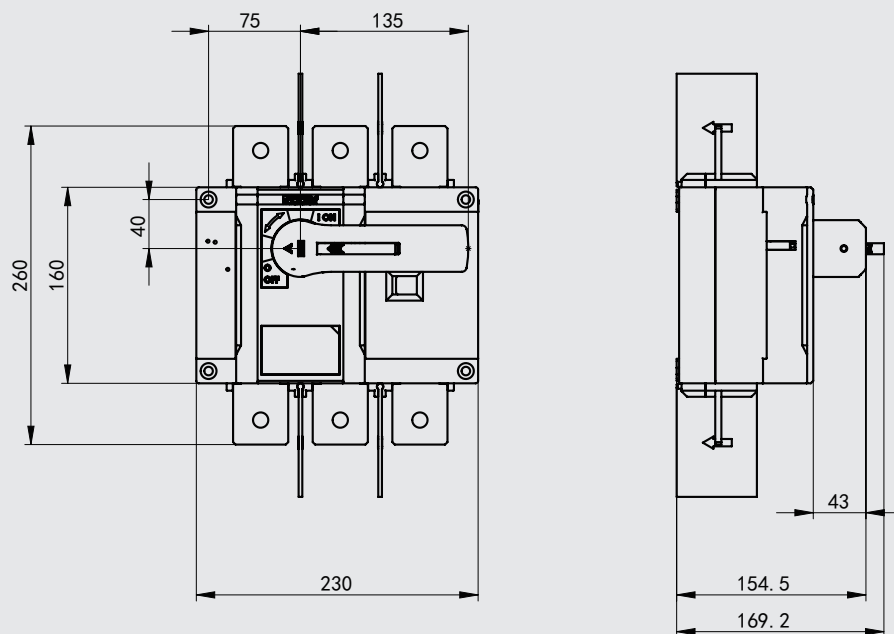
Outline and Mounting Dimensions of NDG3A-500/630/800 (4P) (Out-of-cabinet Handle)



L = "A" + 56.5 (in mm; A: Square shaft length of the out-of-cabinet handle)

Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

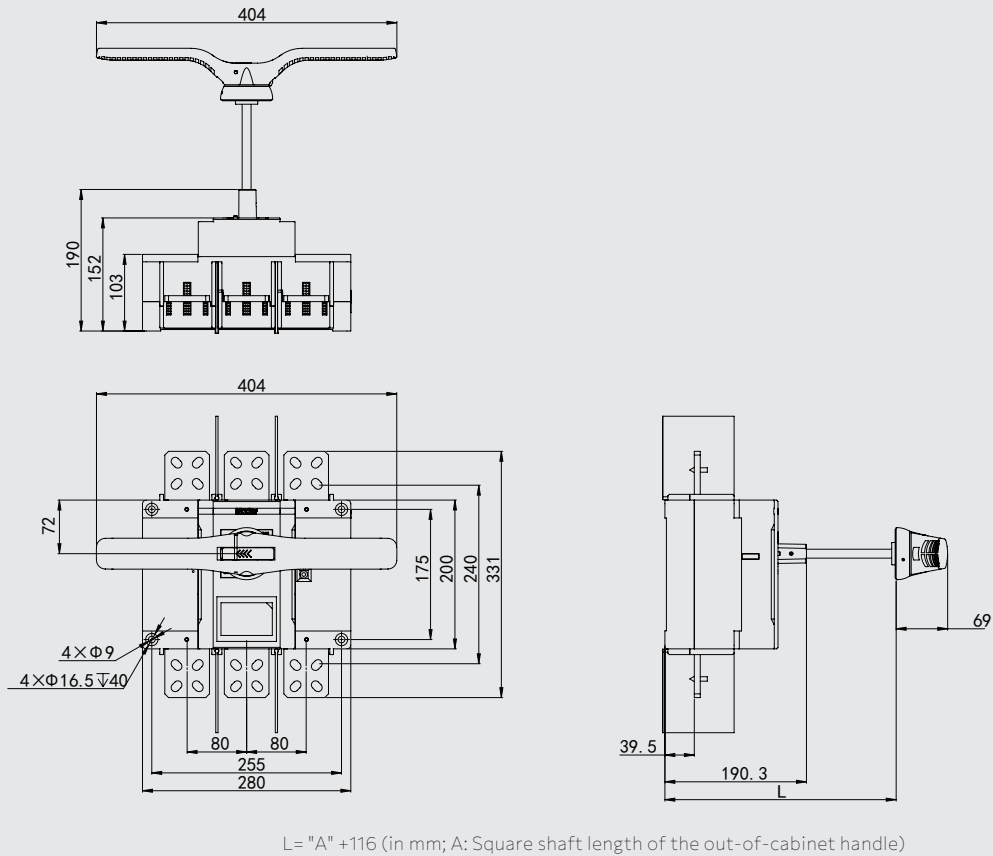
Outline Dimensions of NDG3A-500/630/800 (In-cabinet Direct Operating Handle)



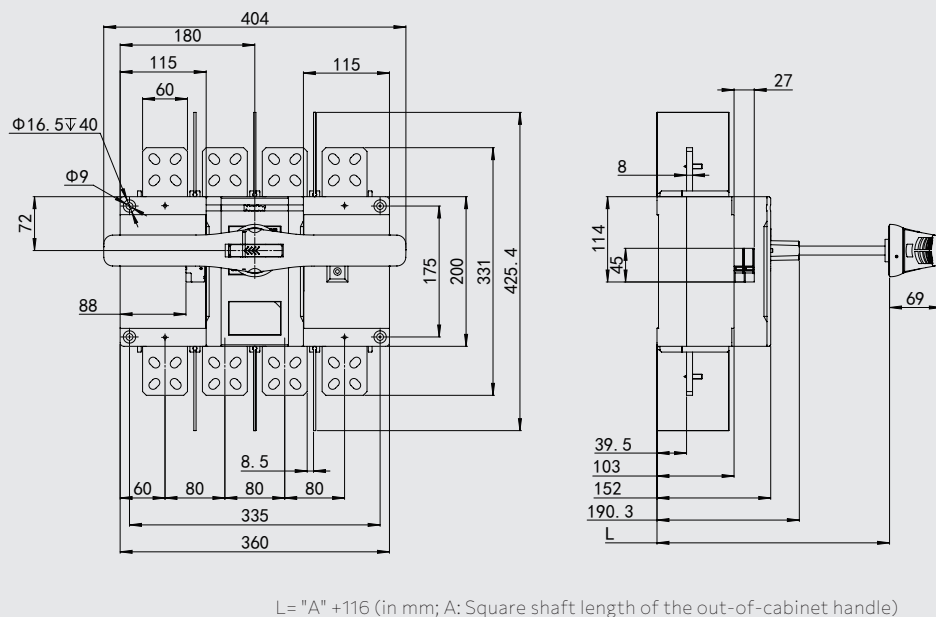
Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

Outline and Mounting Dimensions of NDG3A-1000/1250

Outline and Mounting Dimensions of NDG3A-1000/1250 (3P) (Out-of-cabinet Handle)

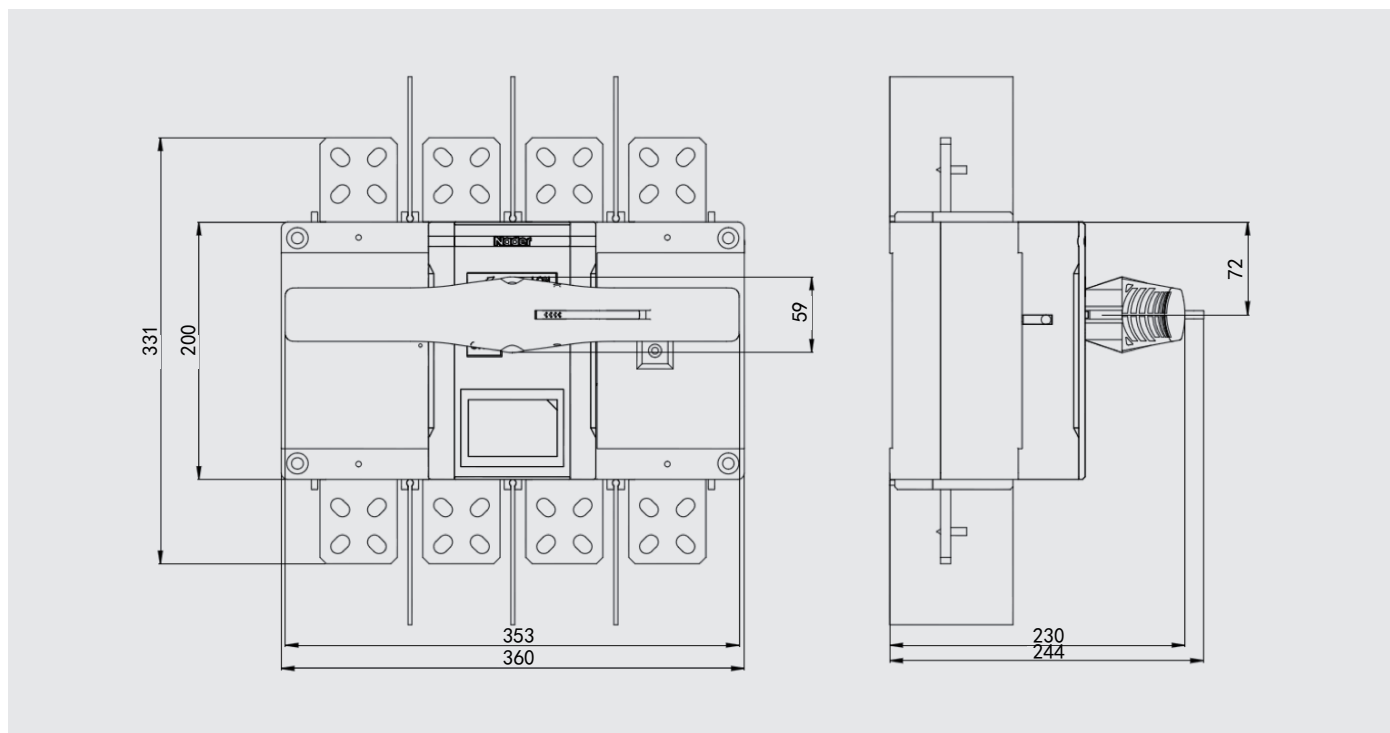


Outline and Mounting Dimensions of NDG3A-1000/1250 (4P) (Out-of-cabinet Handle)

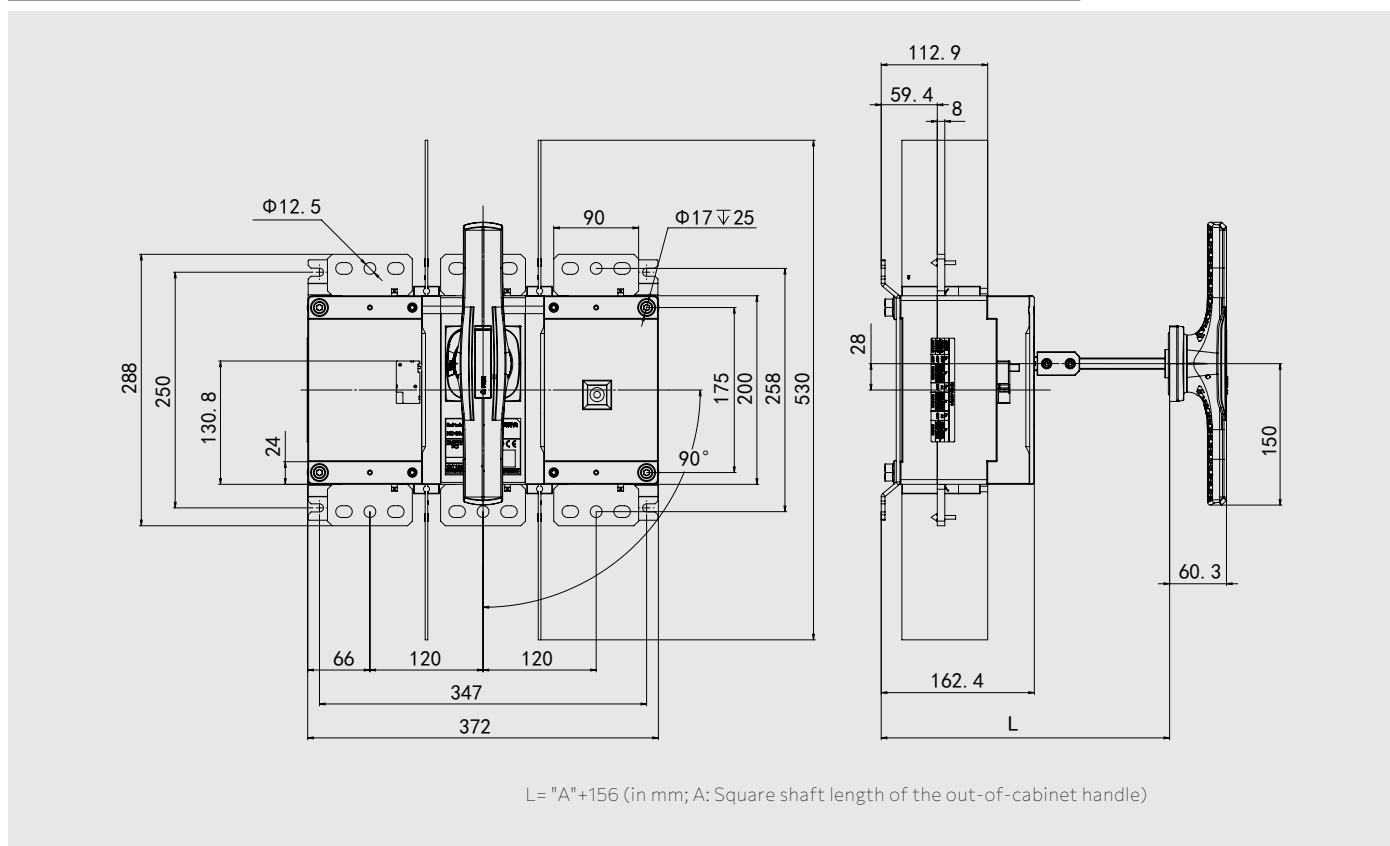


Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

Outline Dimensions of NDG3A-1000/1250 (4P) (In-cabinet Handle)

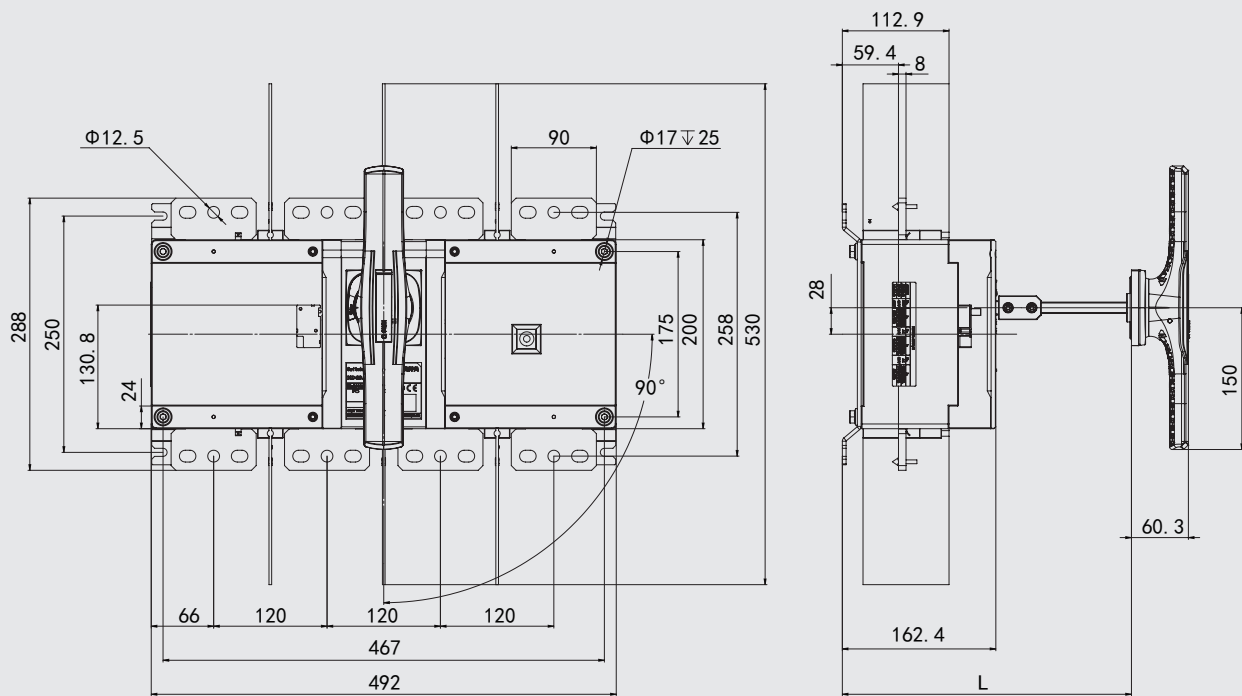


Outline and Mounting Dimensions of NDG3A-1600/1800/2000 (3P) (Out-of-cabinet Handle)



Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

Outline and Mounting Dimensions of NDG3A-1600/1800/2000 (4P) (Out-of-cabinet Handle)

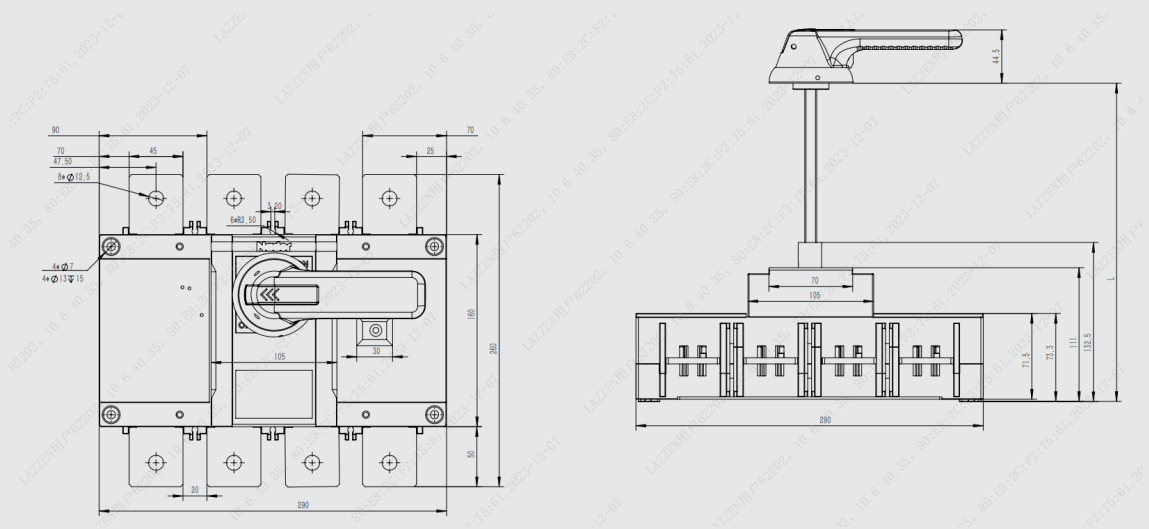


L = "A" + 156 (in mm; A: Square shaft length of the out-of-cabinet handle)

Outline and Mounting Dimensions of NDG3A-1000/1250

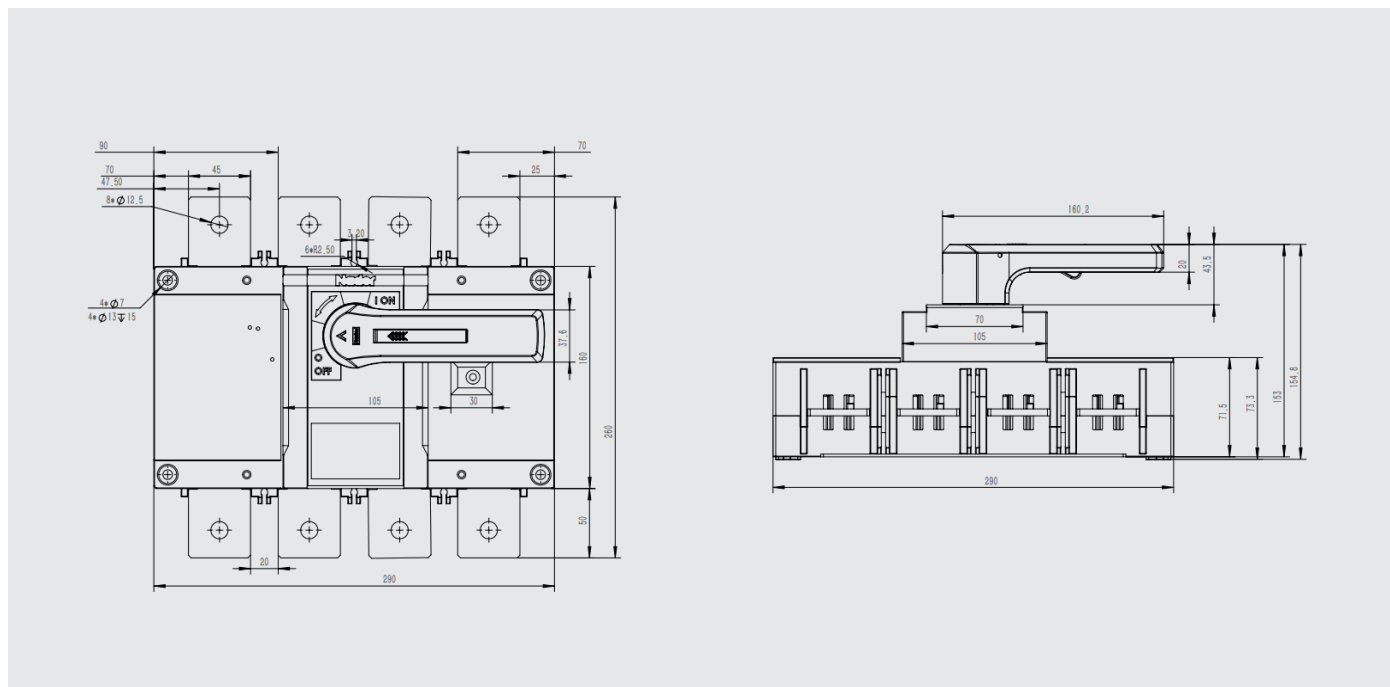
Outline and Mounting Dimensions of NDG3A-1000Z/1600Z (2P) (Out-of-cabinet Handle)

Out-of-cabinet operating handle SB1-"A"/G3A-800



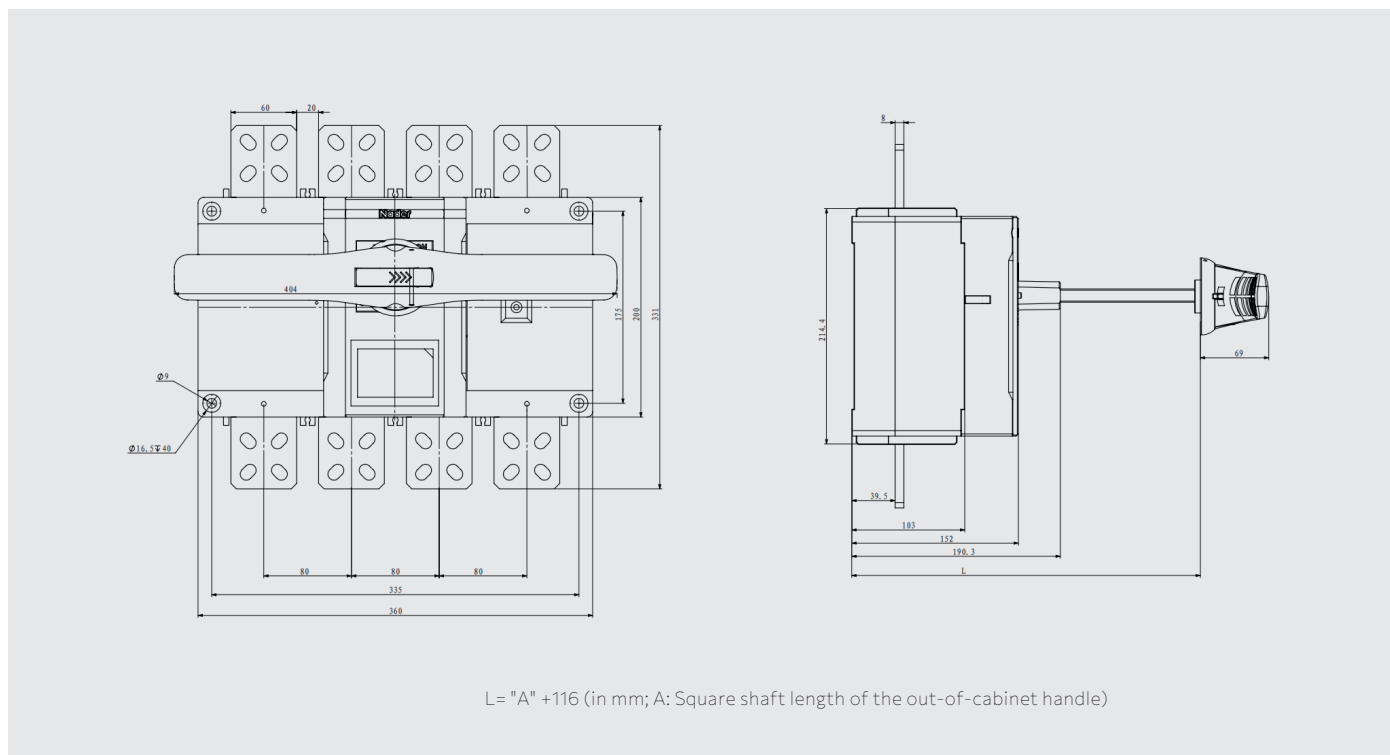
L = "A" + 65.5 (in mm; A: Square shaft length of the out-of-cabinet handle)

Outline Dimensions of NDG3A-1000Z/1600Z (2P) (In-cabinet Handle)

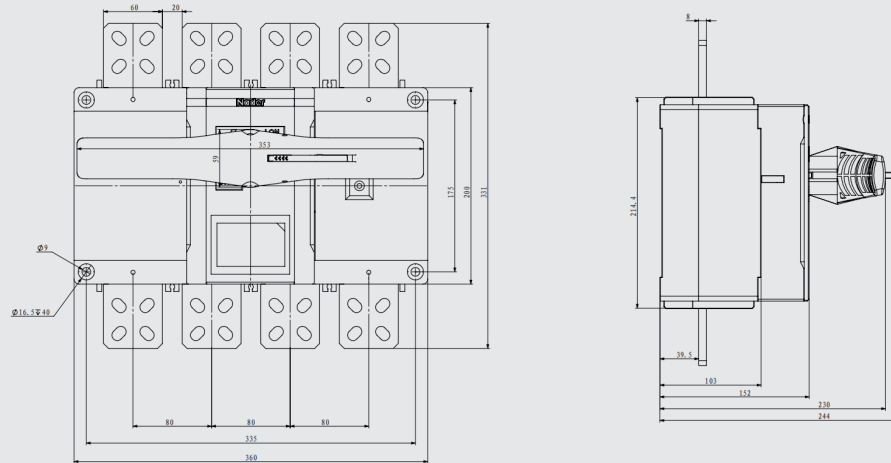


Outline and Mounting Dimensions of NDG3A-2000Z/2500Z (2P) (Out-of-cabinet Handle)

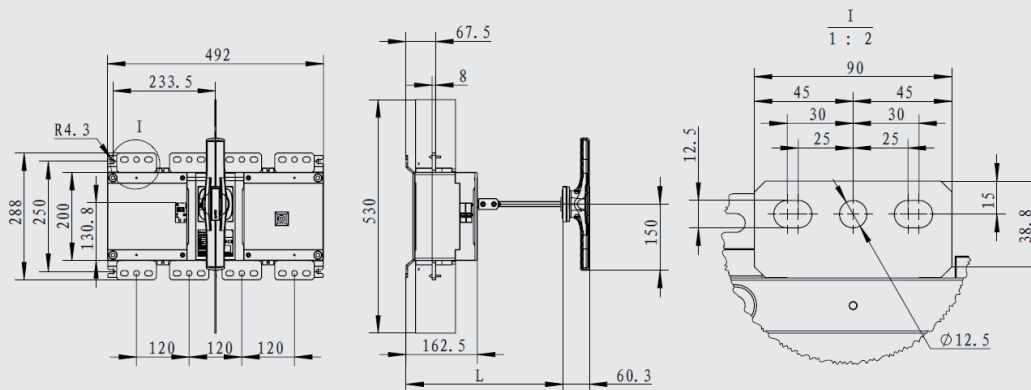
Out-of-cabinet operating handle: SB1-"A"/G3A-1250



Outline Dimensions of NDG3A-2000Z/2500Z (2P) (In-cabinet Handle)

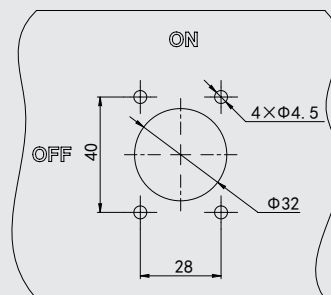


Outline Dimensions of NDG3A-3200Z (2P) (Out-of-cabinet Handle + Interphase Separator)



$L = "A" + 158$ (in mm; A: Square shaft length of the out-of-cabinet handle)

Cabinet Door Hole Dimension for NDG3A Series



Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

Accessories description

Model interpretation

Handle model interpretation

S/N	Code Name	Codes Description
1	Function code	Handle
2	Design serial number	1
3	Square shaft specification code	88: shaft length of 88mm; 150: shaft length of 150mm; 200: shaft length of 200mm; 250: shaft length of 250mm; 275: shaft length of 275mm 300: shaft length of 300mm; 400: shaft length of 400mm; 650: shaft length of 650mm
4	Applicable switch models	G3A-250: Applicable to NDG3A-100, 125, 160, 200 and 250 G3A-400: Applicable to NDG3A-500C, 400, 315 and 250H G3A-800: Applicable to NDG3A-500, 630, 800, 1000Z and 1600Z G3A-1250: Applicable to NDG3A-1000, 1250, 2000Z and 2500Z G3A-2000: Applicable to NDG3A-2000, 1800, 1600 and 3200Z

Note: G3A-1250 and G3A-2000 are available with shaft length only of 200 and 400;
 G3A-1000Z and G3A-1600Z are available with shaft length only of 88, 200, 275, 400 and 650;
 G3A-1000Z/G3A-1600Z is available with shaft length only of 88, 275 and 650;
 G3A-2000Z, G3A-2500Z and G3A-3200Z is available with shaft length only of 200 and 400.

Square shaft model interpretation

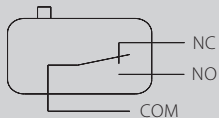
S/N	Code Name	Codes Description
1	Function code	FZ square shaft
2	Design serial number	1
3	Square shaft specification code	150: Shaft length of 150mm 200: Shaft length of 200mm 250: Shaft length of 250mm 300: Shaft length of 300mm 400: Shaft length of 400mm
4	Applicable switch models	G3A-400: Applicable to NDG3A-500C, 400, 315 and 250H G3A-250: Applicable to NDG3A-250, 200, 160, 125 and 100

Interpretation of Auxiliary Contact Model

F	1	-	□	□	□	/	□
1	2	3	4	5	6		
S/N	Code Name	Codes Description					
1	Function code	Auxiliary contact					
2	Design serial number	1					
3	Number of contact pairs	11: One normally opened and one normally closed					
4	Specification	C: AC250V/10A, DC220V/0.2A W: AC125V/0.1A, DC30V/0.1A (micro power) No: AC250V/16A, DC250V/0.3A, DC125V/0.6A					
5	Installed Quantity	1/A: One mounted per unit 2/B: Two mounted per unit					
6	Applicable switch models	G3A-400: Applicable to NDG3A-500C, 400, 315, 250H, 250, 160, 125 and 100 G3-800: Applicable to NDG3(A)-500, 630, 800, 1000, 1250, NDG3A-1000Z, 1600Z, 2000Z and 2500Z G3A-2000: Applicable to NDG3A-1600, 1800, 2000 and 3200Z					

Note: For NDG3A-100, 125, 160, 250, 250H, 315, 400 and 500C auxiliary switches, they are of micro power consumption, and the optional specification and quantity are C1, C2, W1 and W2.

For NDG3A-500, 630, 800, 1000, 1250, 1600, 1800, 2000, 1000Z, 1600Z, 2000Z, 2500Z and 3200Z auxiliary switches, the optional specification and quantity can be selected as A and B.

Auxiliary Contact Spec.	F1-11C	F1-11W
Voltage specification/ rated current	NDG3A-500、630、800、1000、1250、1000Z、1600Z、 2000Z、2500Z、3200Z、2000: AC230V/16ADC250V/0.3A DC125V/0.6A	AC125V/0.1A DC30V/0.1A
Contact material	Silver alloy	Gold alloy
Min. applicable load of contact	DC8V/160mA	DC5V/1mA
Internal resistance	< 30 mΩ	< 50 mΩ
Life	DC Main Circuit Wiring Diagram of NDG3A-500 to 1250	
Operating frequency	120 times/hour	
Terminal specification	NDG3A-20000 microswitch: terminal: 6.4mm wide and 0.8mm thick	
Contact form: switching type		

Interpretation of Short-Circuit Busbar Model

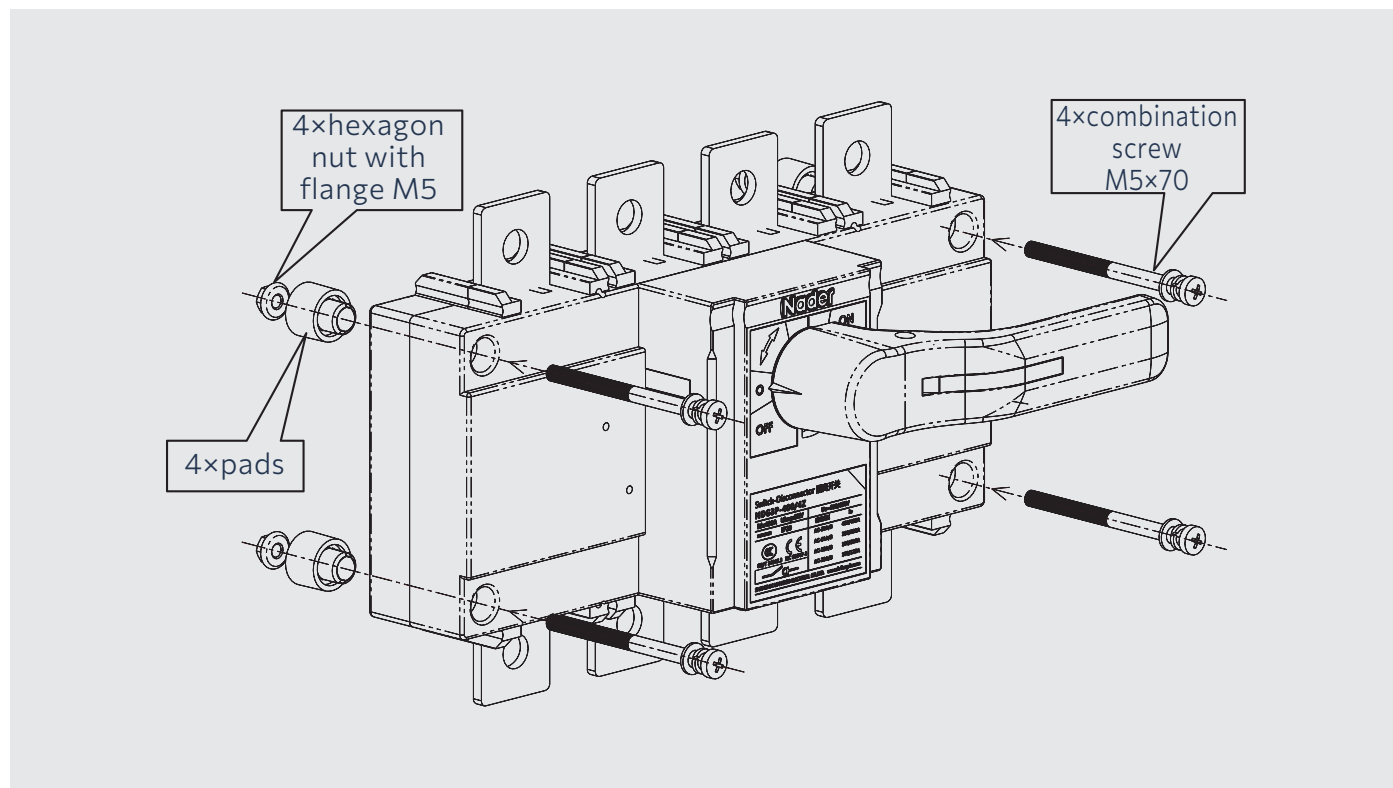
<div> <div>MX</div> <div>1</div> <div>/</div> <div><input type="checkbox"/></div> </div>		
<div> <div>1</div> <div>2</div> <div>3</div> </div>		
S/N	Code Name	Codes Description
1	Function code	Short-circuit busbar
2	Design serial number	1
3	Applicable switch models	G3A-400: Applicable to NDG3A-500C, 400, 315 and 250H G3A-250: Applicable to NDG3A-250, 200, 160, 125 and 100 G3A-800: Applicable to NDG3A-500C, 400, 315 and 250H G3A-1250: Applicable to NDG3(A)-1000 and 1250 G3A-2000: Applicable to NDG3A-2000, 1800 and 1600

Interpretation of Terminal Cover Model

<div> <div>Z</div> <div>1</div> <div>-</div> <div><input type="checkbox"/></div> <div>/</div> <div><input type="checkbox"/></div> </div>		
<div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> </div>		
S/N	Code Name	Codes Description
1	Function code	Terminal cover
2	Design serial number	1
3	Number of Poles	3, 4
4	Applicable switch models	G3A-400: Applicable to NDG3A-500C, 400, 315 and 250H G3A-250: Applicable to NDG3A-250, 200, 160, 125 and 100 G3A-2000: Applicable to NDG3A-2000, 1800 and 1600

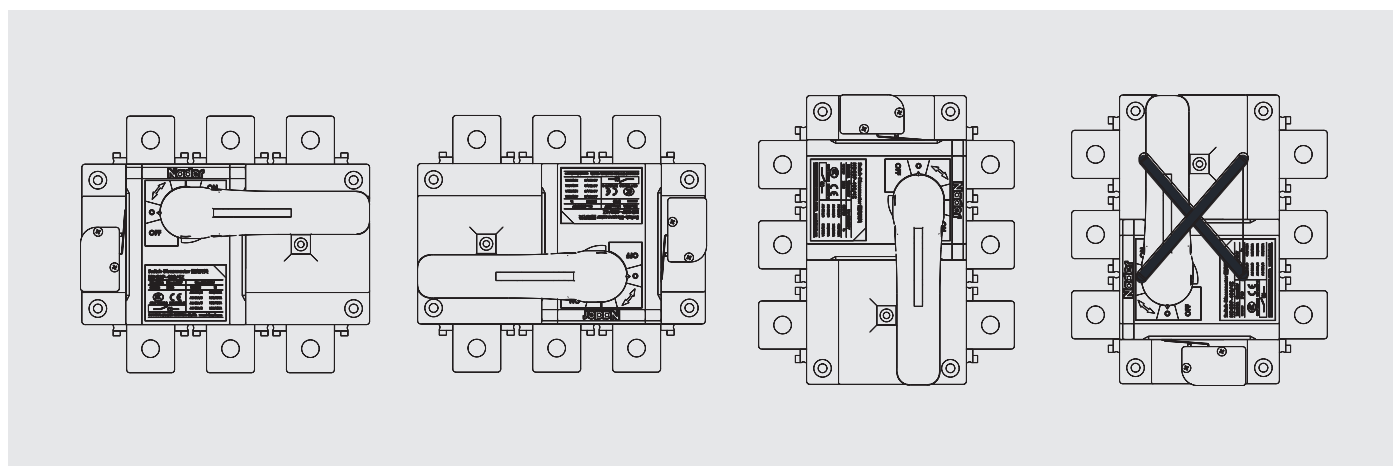
Mounting Mode

Mounting of product body and pad

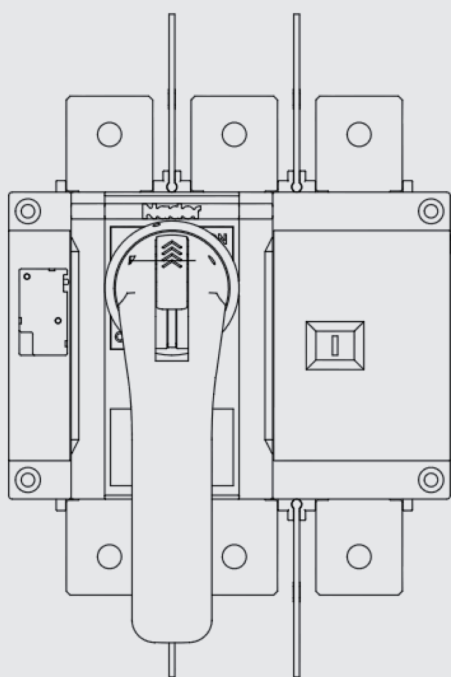


Instructions for product mounting position

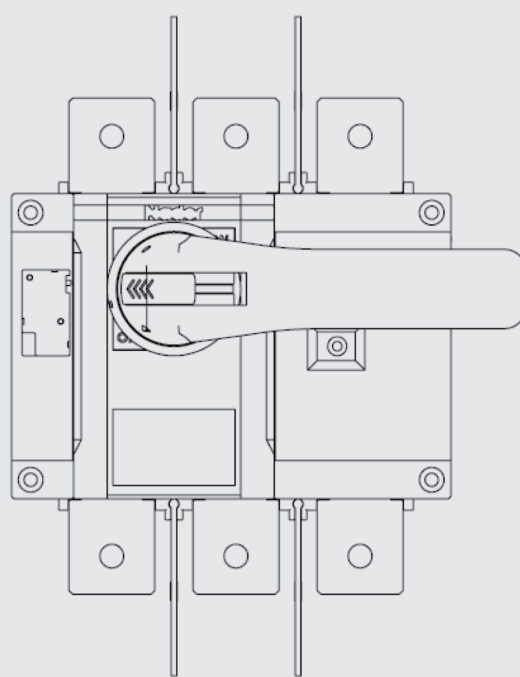
- ◆ The product can be mounted vertically and horizontally.
- ◆ When mounted vertically, the view window of contact position should not face upwards, as the fourth method shown below.
- ◆ The inclination of the vertical mounting surface shall not be greater than 5°.



◆ Status position: This product has two status positions: closing position "I/ON" and opening position "O/OFF", as shown below.



Closing position

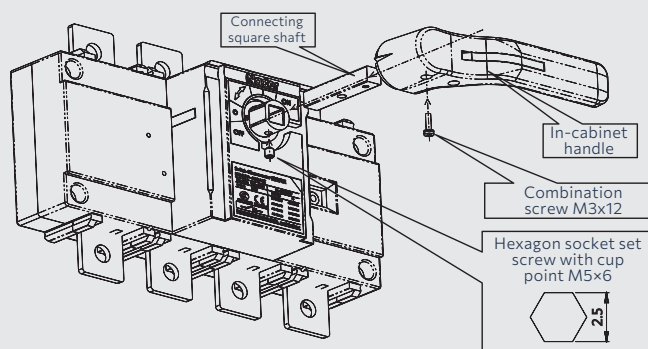


Opening position

Mounting Mode

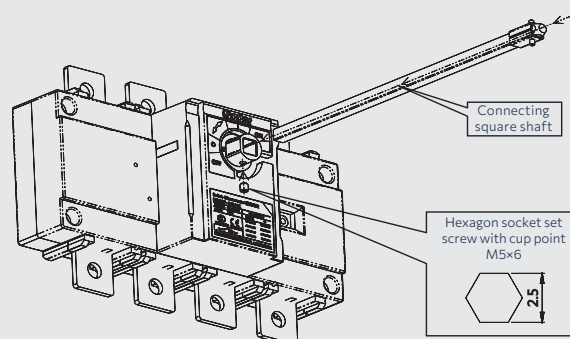
Mounting of In-cabinet Handle

First insert the connecting square shaft into the body, fix it with the hexagon socket end setting screw with cup point (M5x6), then insert the handle into the connecting square shaft, and fix it with the combination screw (M3x12).

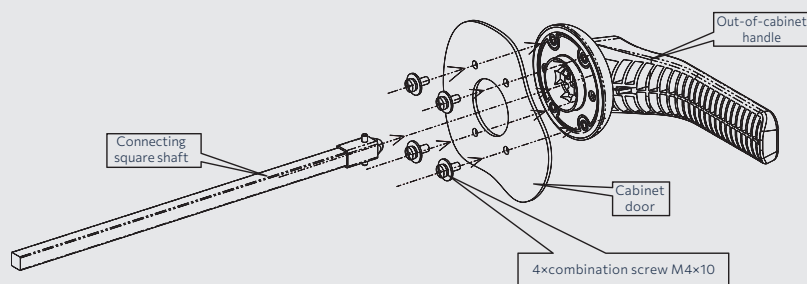


Mounting of Out-of-cabinet Handle

◆ Mounting of the connecting square shaft of out-of-cabinet handle

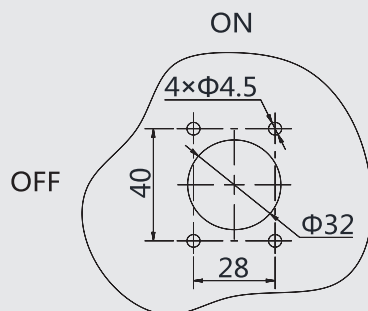


◆ Mounting of out-of-cabinet handle on the cabinet door



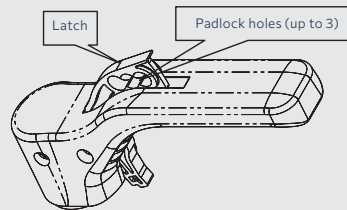
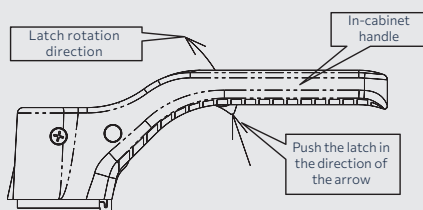
Note: The ON/OFF position of the handle corresponds to that of the product.

◆ Mounting hole size of the out-of-cabinet handle on the cabinet door



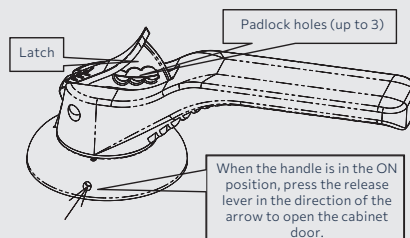
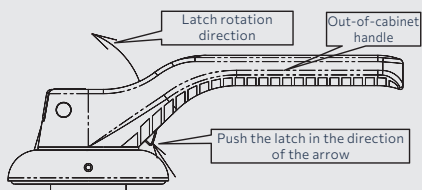
Padlock for the handle

◆ Padlock for in-cabinet handle

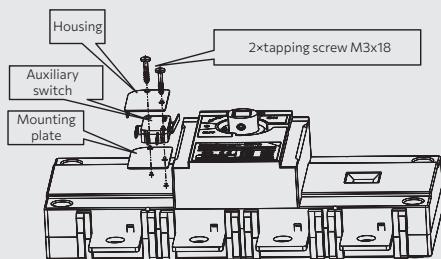


Note: The handle can only be padlocked when in the OFF position.

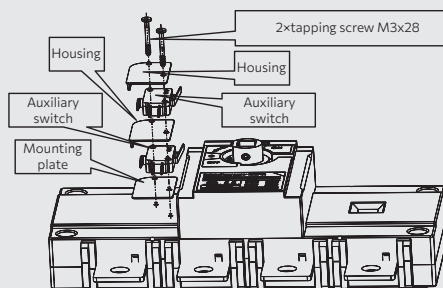
◆ Padlock for out-of-cabinet handle



Mounting of Auxiliary Contact

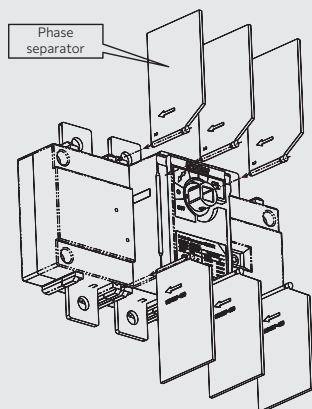


Mounting of single auxiliary contact

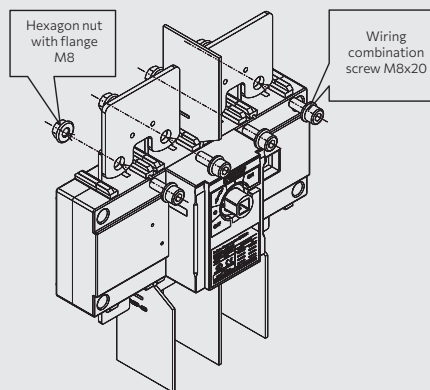


Mounting of double auxiliary contacts

Mounting of Interphase Spacer and Short-Circuit Busbar



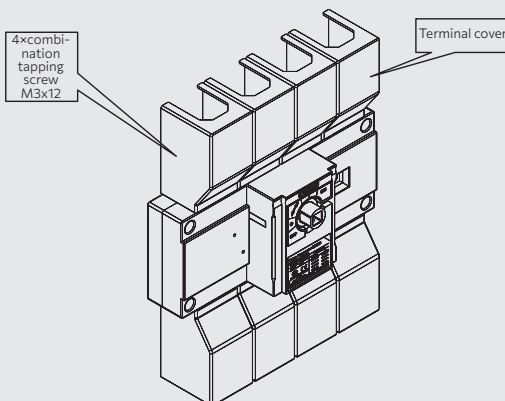
Mounting of interphase separator for basic type



Mounting of interphase separator for products with short-circuit busbar

Note: Insert the interphase separator into the slot in the direction of the arrow, and press it to the bottom.

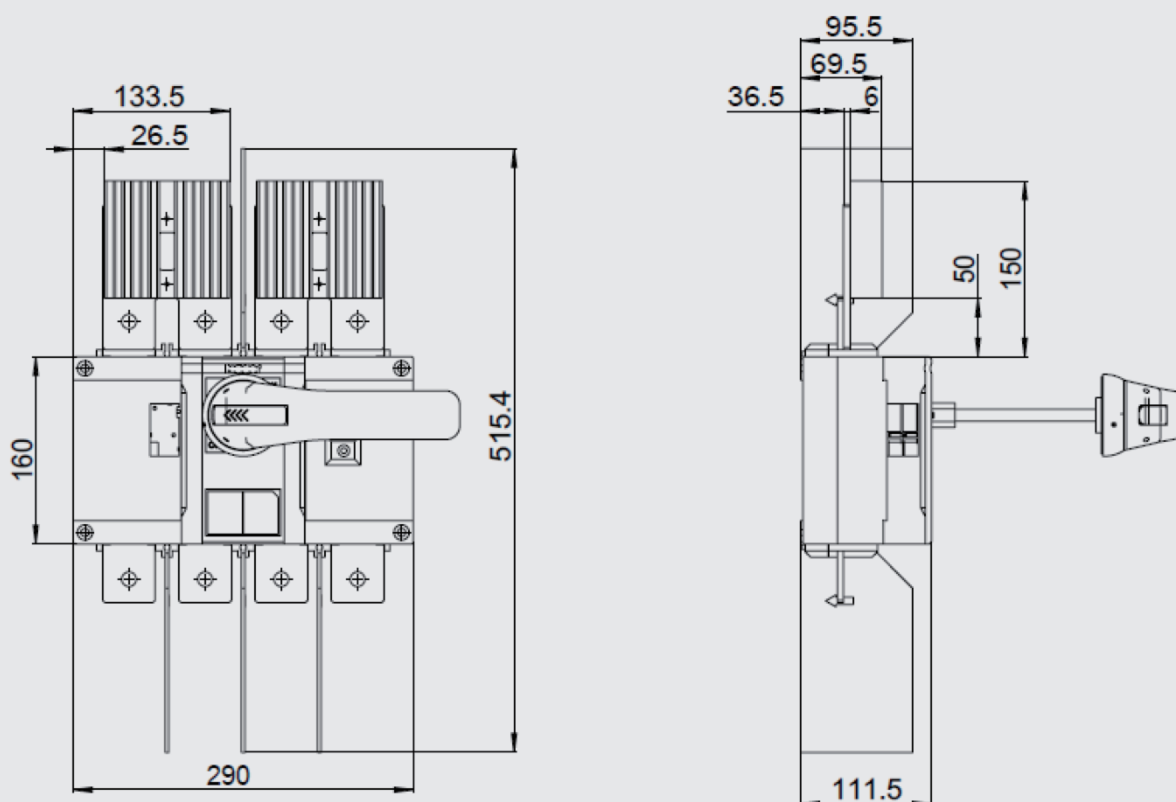
Terminal cover mounting



Note: The terminal cover is inserted into the interphase separator mounting slot, then pressed flat, and tightened with combination tapping screws.

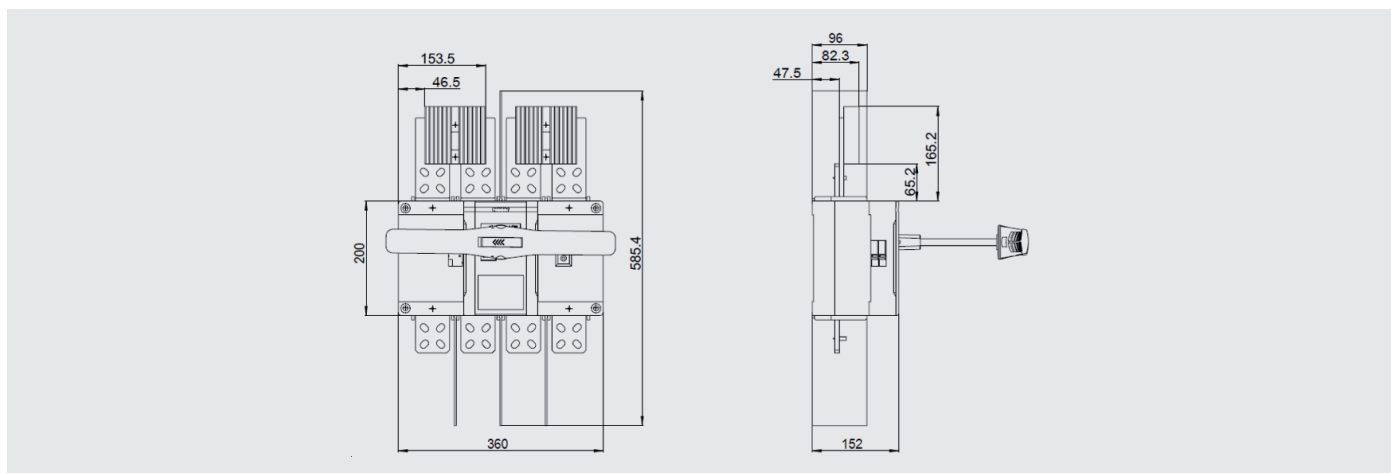
Outline and Wiring Method of NDG3A-800 with Short-Circuit Busbar

Outline Dimensions of Short-Circuit Busbar

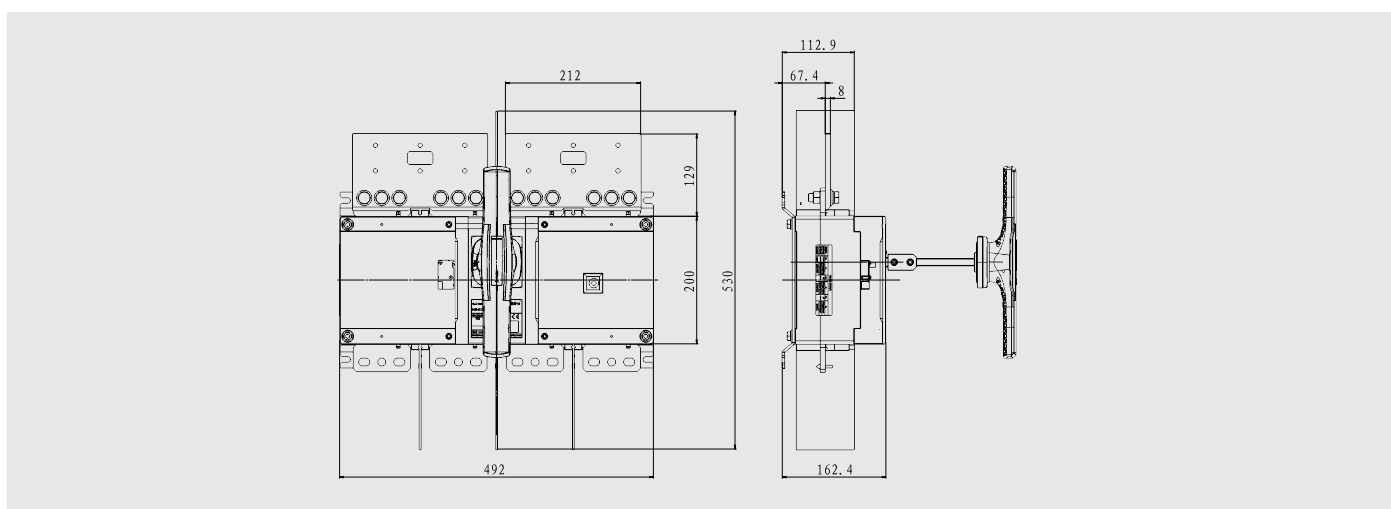


Outline and Wiring Method of NDG3A-1250 with Short-Circuit Busbar

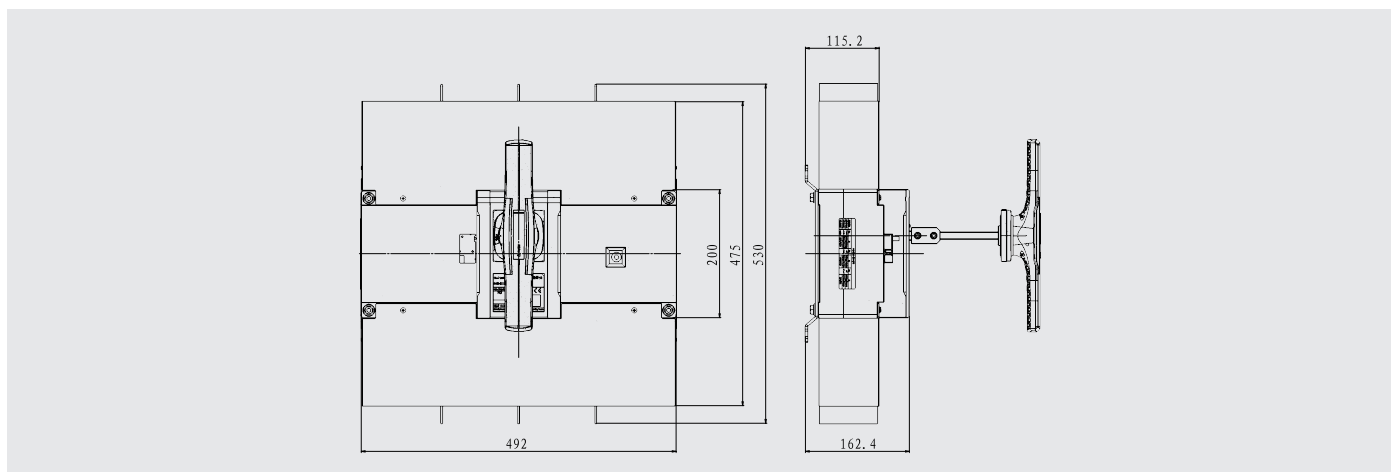
Outline Dimensions of Short-Circuit Busbar



Outline and Mounting Dimensions of NDG3A-1600/1800/2000 (with Short-Circuit Busbar)



Outline and Mounting Dimensions of NDG3A-1600/1800/2000 (with Terminal Shield)



Note: All the tolerance grades unspecified shall be Level C in GB/T 1804.

Transport and storage

- ◆ During storage, the product should be protected from rain and snow, and stored in a well-ventilated warehouse with a relative humidity of no more than 80% and a temperature of no higher than +85 °C and no less than -40 °C. It should be stored in a warehouse without acidic,

alkaline, or other corrosive gases in the surrounding air. Under the above conditions, the storage period is not more than 3 year from the date of manufacture.

Operation and Maintenance

- ◆ Make sure that the screws connecting and fixing the terminals are secured.
- ◆ Check whether the interphase separator or terminal cover of the disconnecter is properly mounted.
- ◆ The disconnecter handle can be in two positions at 90 degrees to each other, representing two states: ON and OFF.
- ◆ The handle can only be padlocked or the cabinet door opened when it is in the OFF position. To open the cabinet door in the ON position, it is required to press the release lever to open the door.
- ◆ For disconnecters fitted with auxiliary contacts, the auxiliary contact signals shall be converted normally when the disconnecter is turned on or off.
- ◆ Users are requested to comply with storage and operating conditions. Within 36 months from the date of shipment from the manufacturer, if the product is damaged or cannot work normally due to manufacturing quality issues, the manufacturer shall be liable for free repair or replacement.

- ◆ No maintenance is required if the disconnecter operates normally. However, users are advised to perform maintenance once a year as follows.
 - a) Operate the handle to close and open the disconnecter twice to confirm the disconnecter is operated reliable.
 - b) Clean the interphase separator and replace it if necessary.
 - c) Check all connections, wipe off oxides with gauze, clean with dissolvable detergent, and tighten bolts and nuts.
- ◆ Under normal installation, operation and inspection conditions, if the product is damaged or cannot function properly due to manufacturing quality, the manufacturer shall provide after-sales service.

Precautions

- ◆ It is the responsibility of users for any quality issues caused by unauthorized disassembly of the product.
- ◆ Do not touch the exposed non-insulated parts of the disconnecter after it is powered on.
- ◆ The connecting wires should be securely fastened to the distribution cabinet frame. The disconnecter should not bear the weight of the conductor. Before tightening the wire, the busbar or cable terminal should be parallel to the disconnecter in the plane. After bolting the wire to the disconnecter terminal, the disconnecter should not bear various mechanical stresses.

- ◆ The wires shall be connected reliably to prevent the disconnecter terminal from burning due to abnormal heating at the terminals.



Electricity For Life

www.sh-liangxin.com



Shanghai Liangxin Electrical Co., Ltd.
No. 2000, Shenjiang South Road, Pudong
New Area, Shanghai
E/liangxin@sh-liangxin.com
T/021-68586699 F/021-23025796