

# NOARK

Catalog

## UL 98 Non-Fusible Disconnect Switch



**Excellent Products. Exceptional Value.**

[na.noark-electric.com](http://na.noark-electric.com)

## ABOUT US

**NOARK Electric** is a global manufacturer of low-voltage electrical components for industrial applications. We specialize in motor controls and circuit protection for original equipment manufacturers. Our mission is to provide customers with the highest quality products at an exceptional value and back them with world-class service and support. Every NOARK product is tested and certified to the highest industry standards and covered by our exclusive five-year limited warranty.

### Research and Development

The entire portfolio of high-quality NOARK products is designed for manufacturing and assembly (DFMA). Each component is developed in-house by our engineering team to meet the strictest standards and performance requirements. This dedication to excellence has led to the development of patented technology found in many of our products.

### World-class Manufacturing

After being thoroughly tested, approved and certified – each NOARK product is sent into production at our state-of-the-art manufacturing facilities. This allows us to maintain strict quality control standards throughout the manufacturing process. In addition, NOARK Electric adheres to a policy of environmental protection and sustainability.

### North American Distribution

NOARK's distribution centers are located in Pomona, CA and Kitchener, ON, with the aim of ensuring prompt and reliable deliveries of the entire product range to our customers all over North America. Our supply chain team works closely with our factories and logistics partners to ensure the availability of our products on the North American market and provide logistics services on the level which our customers expect. NOARK Electric is a subsidiary of the largest electrical manufacturing group in Asia with over 50 thousand employees and sales revenue of \$22 billion USD. We have corporate facilities in Los Angeles, Shanghai and Prague to service the requirements of individual markets and countries.

**140+**

Countries

**300+**

Overseas Distributors

**20**

Overseas Subsidiaries

**22**

Logistics Centers

**3**

R & D Centers

**10,000,000+**

Sq.Ft. Manufacturing Space

**50,000+**

Employees Worldwide





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# Non-Fusible Rotary Disconnect Switch

## Product Overview

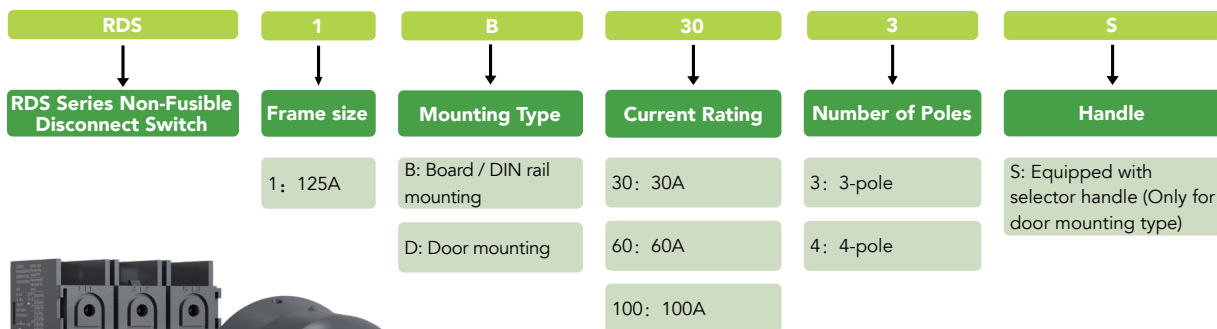
Noark RDS1 series non-Fusible Rotary Disconnect Switch complies with UL98 standard and can be used for isolation in AC 600V power systems. During the maintenance of electrical equipment, the product can isolate the equipment from the power supply, forming a clear disconnect point to ensure the safety of maintenance personnel and equipment.

## Design Features

- Electrical lifecycle: 6,000 times; Mechanical lifecycle: 20,000 times;
- Current ratings: 30~100A; maximum voltage rating: 600V;
- DIN rail/board mounting and door mounting options with rotary and selector handles.
- The switch can be equipped with up to 2 pairs of auxiliary contacts on both sides, with buckle design for easy mounting and unmounting.
- Widely used in industry and commerce, including power distribution, construction, petrochemical, etc.

## Standards and certifications

- UL 98
- IEC/EN 60947-3
- GB/T 14048.3





# Non-Fusible Rotary Disconnect Switch

## Product Selection Guide



Rated current ( A )		3P		4P(N pole on the right)		4P(N pole on the left)	
		Product	Part Number	Product	Part Number	Product	Part Number
Door-mounting	30	RDS1D303S	1002979	RDS1D304S	1002991	RDS1D304S	1600245
	60	RDS1D603S	1002980	RDS1D604S	1002992	RDS1D604S	1600246
	100	RDS1D1003S	1002981	RDS1D1004S	1002993	RDS1D1004S	1600247
	125	RDS1D1253S	1002982	RDS1D1254S	1002994	RDS1D1254S	1600248



Rated current ( A )		3P		4P(N pole on the right)		4P(N pole on the left)	
		Product	Part Number	Product	Part Number	Product	Part Number
Board/DIN rail mounting	30	RDS1B303	1002971	RDS1B304	1002983	RDS1B304	1600249
	60	RDS1B603	1002972	RDS1B604	1002984	RDS1B604	1600250
	100	RDS1B1003	1002973	RDS1B1004	1002985	RDS1B1004	1600251
	125	RDS1B1253	1002974	RDS1B1254	1002986	RDS1B1254	1600252



# Non-Fusible Rotary Disconnect Switch

## UL98 Specifications

		RDS1				
Standard		UL98				
Number of Poles		3, 4				
Voltage Rating (Vac)		600				
Current Rating (A)		30	60	100		
Rated Conditional Short-Circuit Current (kA)	600V	200	200	50	200	
Maximum Fuse Size (A)		60	60	150	100	
Fuse Type		Class J, Class T				
General purpose amp rating pf = 0.7 ~ 0.8; -40°C ~ +40°C	Current Rating (A)	30	60	100		
	Max. operating voltage (Vac)	600				
Max. horsepower rating / motor FLA current	Pf = 0.4 ~ 0.5	240V	10HP/28A	20HP/54A	30HP/80A	
		Three Phase	480V	20HP/27A	40HP/52A	50HP/65A
			600V	30HP /32A	40HP/41A	50HP/52A
	Single Phase	120V	2HP/24A	3HP/34A	5HP/56A	
		240V	5HP/28A	7.5HP/40A	15HP/68A	
		480V	--	--	25HP/55A	
		600V	--	--	20HP/35A	
Operations	Electrical (times) pf = 0.7 ~ 0.8	6,000				
	Mechanical (times)	20,000				
Wire Range (M8)	Disconnect switch AWG (mm <sup>2</sup> )	30A, 60A	14~4 (2.5~25)			
		100A	8~1/0 (10~70)			
	Auxiliary Contacts AWG (mm <sup>2</sup> )	22 (0.4~0.5)				
Wire Tightening Torque (N.m)	Main circuit	6.2				
	Auxiliary	0.8				
Operating Torque (N.m)		1.5 ~ 2				



# Non-Fusible Rotary Disconnect Switch

## CE Specifications

			RDS1			
Standards			IEC/EN 60947-3			
Number of Poles			3,4			
Current Rating (A)			30	60	100	125
Rated operational Current (A)	AC-21A AC-22A	415V	40	63	100	125
		500V	40	63	100	125
		690V	40	63	100	125
	AC-23A	415V	40	63	80	90
		440V	40	63	65	78
		500V	40	63	60	70
		690V	40	40	40	50
Rated Insulation Voltage Ui (V)			750			
Dielectric Strength 50Hz/1 min. (kV)			6			
Rated short circuit making capacity Icm (kA)			3.6 (peak value)			
Rated Impulse Withstand Voltage Uimp (kV)			8			
Rated Short-time Withstand Current Icw			2.5kA/1s (r.m.s. value)			
Protection Degree			IP20			
Operating Direction			Front operation			
Wiring Range (M8)	Switch-dis-connector AWG (mm <sup>2</sup> )	30A, 60A	14~4 (2.5~25)			
		100A, 125A	8~1/0 (10~70)			
	Auxiliary contacts AWG (mm <sup>2</sup> )		22 (0.4~0.5)			
Wire Tightening Torque (N.m)	Main circuit		6			
	Auxiliary		0.8			
Operations	Mechanical Lifecycle (times)		20,000			
Operating Torque (N.m)			1.5 ~ 2			
Operating Temperature Range			-40°C ~ +85°C (Does not derate at 70°C)			
Altitude ft (m)			Does not exceed 6,561 (2,000)			
Atmospheric Conditions			At 68 °F (+20°C ), the relative humidity does not exceed 90%			
			At 104 °F (+40°C), the relative humidity does not exceed 50%			



# Non-Fusible Rotary Disconnect Switch

## De-rating Specifications and Wiring Diagram

### Temperature De-rating

When the ambient temperature changes within its operating temperature range, please refer to the table below for the Temperature Compensation Coefficient.

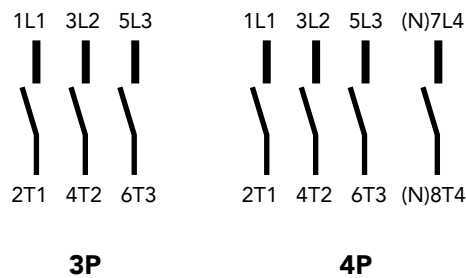
Ambient temperature (°C)	70	75	80	85
Operating current compensation coefficient	1	0.95	0.92	0.88
Operating voltage compensation coefficient	1	1	1	1
Power frequency withstand voltage (kV)	6	6	6	6

### Elevation De-rating

Breaker elevation de-rating with dielectric strength above 6,561 ft (2,000 m)

Altitude (m)	6,561 (2,000)	9,842 (3,000)	13,123 (4,000)	16,404 (5,000)
Operating current compensation coefficient	1	1	1	1
Operating voltage compensation coefficient	1	0.93	0.88	0.82
Power frequency withstand voltage (kV)	6	6	6	5

### Wiring Diagram







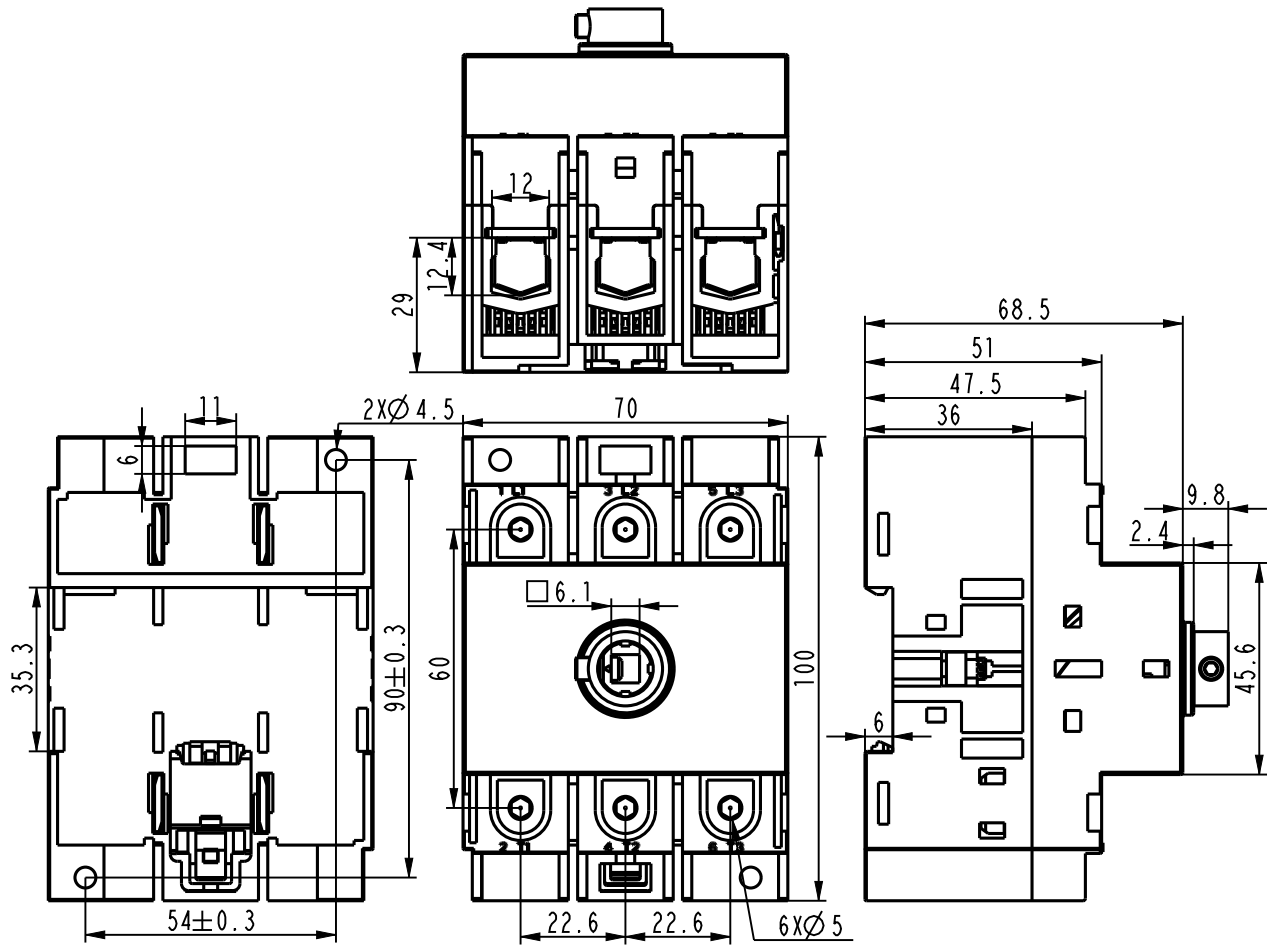
# Non-Fusible Rotary Disconnect Switch

## Dimensions

Board/DIN rail mounting

3P

Unit: mm





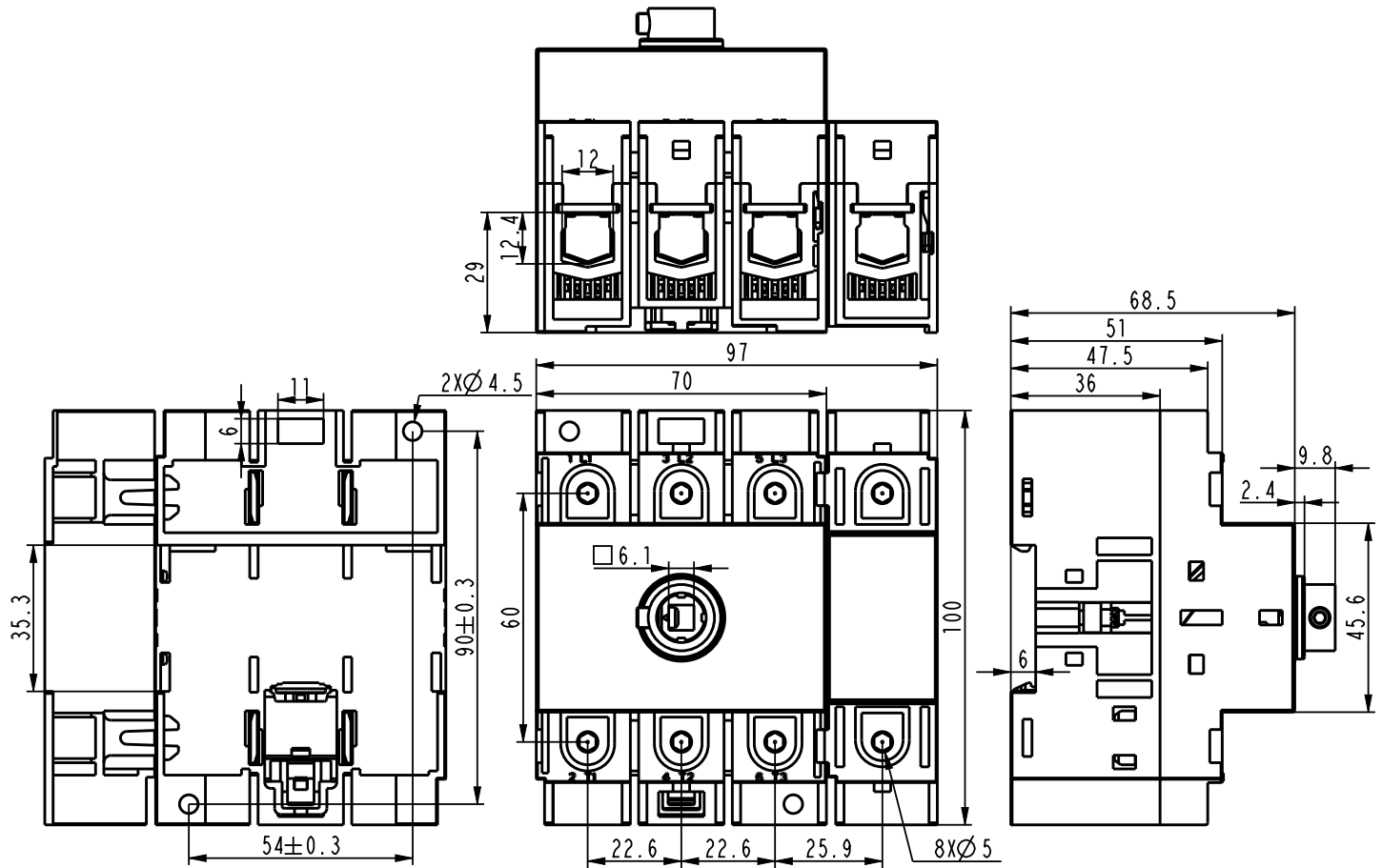
# Non-Fusible Rotary Disconnect Switch

## Dimensions

Board/DIN rail mounting

4P

Unit: mm





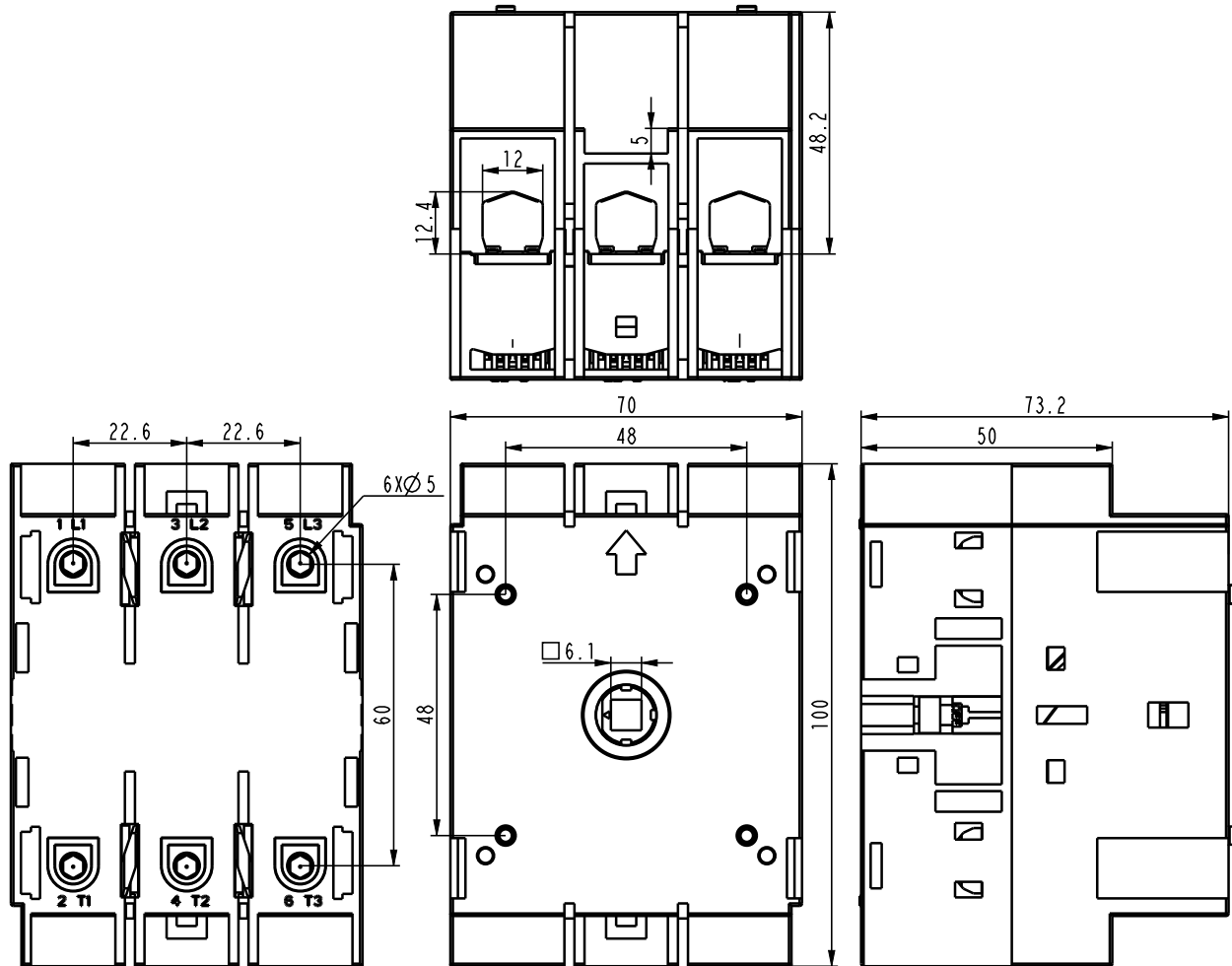
# Non-Fusible Rotary Disconnect Switch

## Dimensions

### Door mounting

3P

Unit: mm





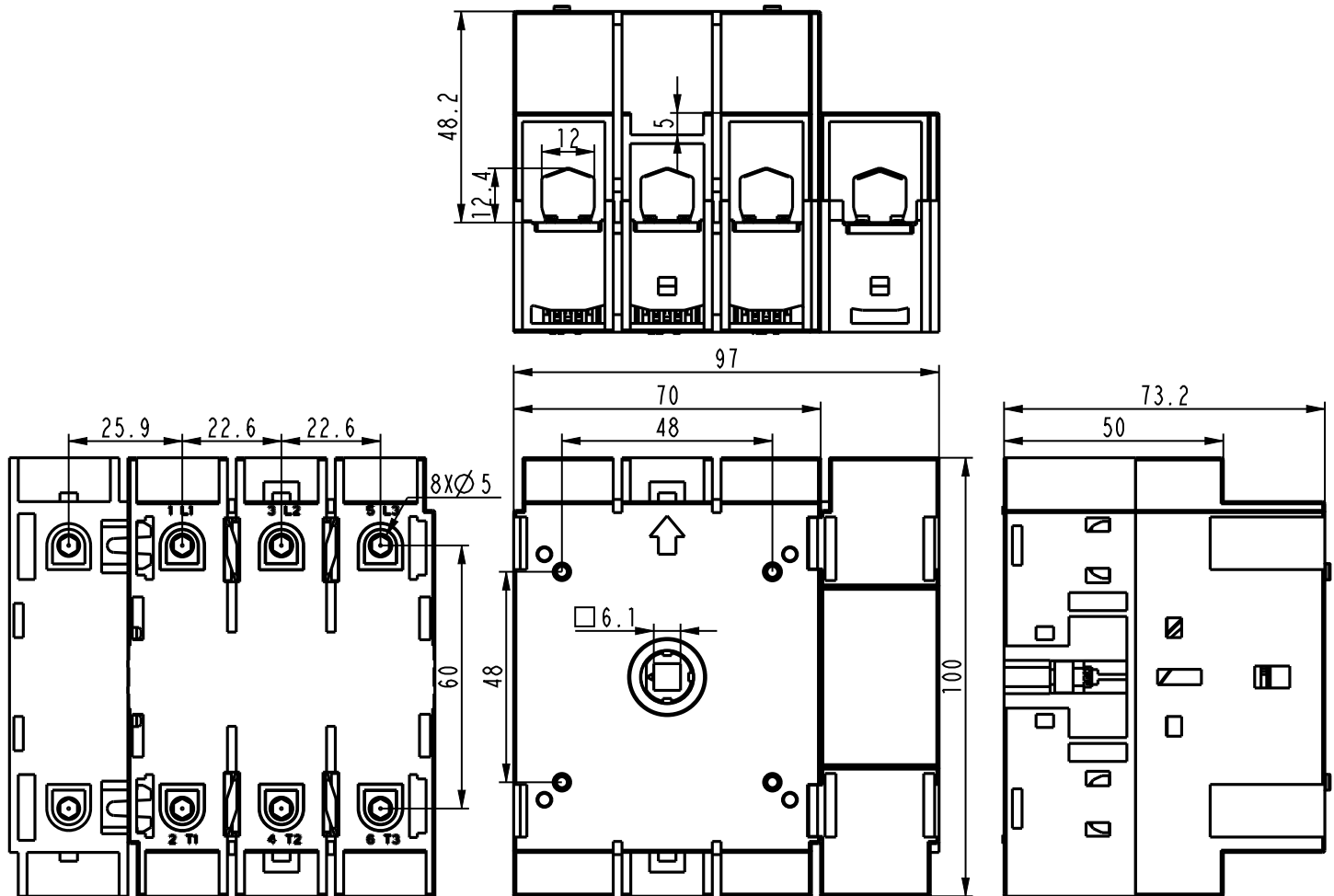
# Non-Fusible Rotary Disconnect Switch

## Dimensions

### Door mounting

4P

Unit: mm





# Accessory

## Rotary handle, Extended shaft

### Rotary Handle

NEH1	B	2
Description	Color	Standard
Rotary handle*	B: Black R: Red	2: NEMA



### Extended Shaft

ES	20	E
Description	Length	Cross-sectional area
Extended shaft	20: 200mm 32: 320mm 40: 400mm	E: 6*6mm <sup>2</sup>



	Catalog number	Item Number	Description
Rotary handle	NEH1R2	1103300	Red
	NEH1B2	1103299	Black
Extended shaft	ES20E	1002999	200mm
	ES32E	1003000	320mm
	ES40E	1003001	400mm

\*1. Rotary handles need to be ordered together with extended shafts.

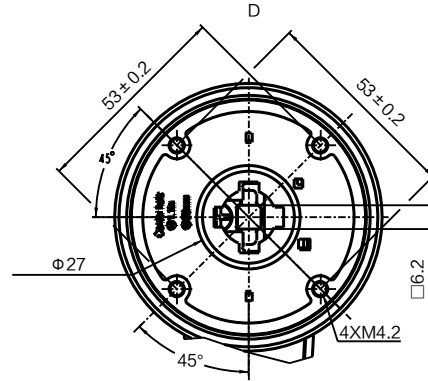
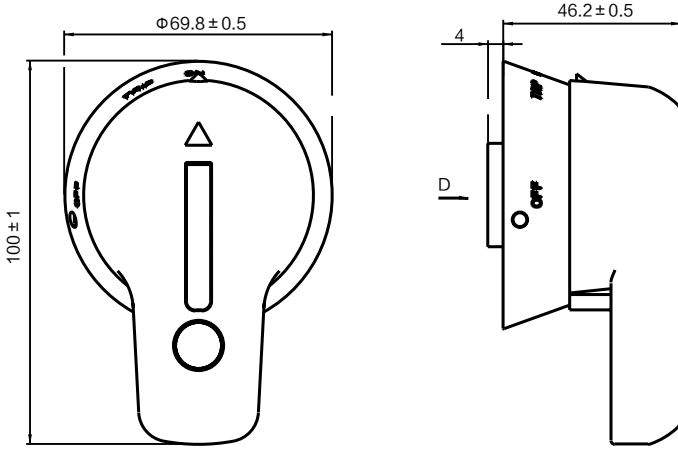


# Accessory

## Rotary handle, Extended shaft

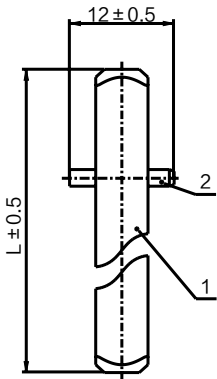
### Rotary handle

Unit: mm



### Extended shaft

Unit: mm



Product	L (mm)
ES20E	200
ES32E	320
ES40E	400



## Accessory Auxiliary Contact

AX15	11	L
Description	Auxiliary contact	Mounting direction
Auxiliary contact	11: 1NO+1NC 22: 2NO+2NC	L: Mounting on the left side * R: Mounting on the right side

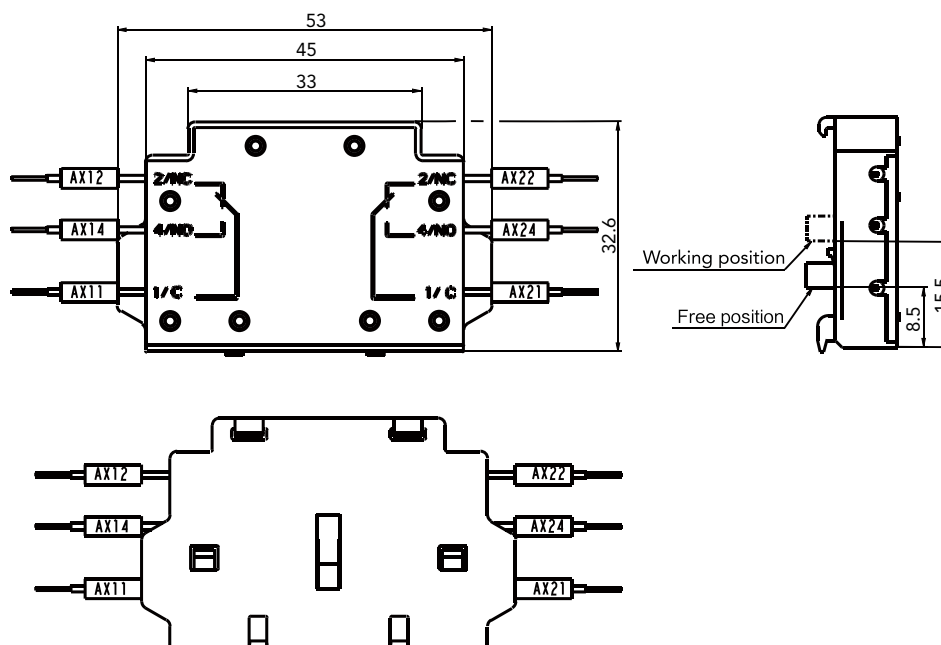


	Product	Part Number	Description
Auxiliary contact	AX1511L	1003004	1NO+1NC, mounting on the left side
	AX1511R	1003005	1NO+1NC, mounting on the right side
	AX1522L	1003006	2NO+2NC, mounting on the left side
	AX1522R	1003007	2NO+2NC, mounting on the right side

Auxiliary contact	When switch is off	When switch is on
Diagram		

### Auxiliary contact


Unit: mm




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