

## DC Isolating Switch

User Manual



# NOARK

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ZEx9ASDDC202204CN

## Installation manual

1	Package identification	03	
2	Storage	04	
3	Operation tools	05	
4	Unpacking	06~07	
5	Transportation	08~10	
6	Installation	11~15	
7	Power connections	16~17	
8	Connection type	18~20	
9	Installation Dimension	21~64	
10	Auxiliary connections	65	
11	Operating principle	66~67	
12	Common faults and resolutions	68	





warning

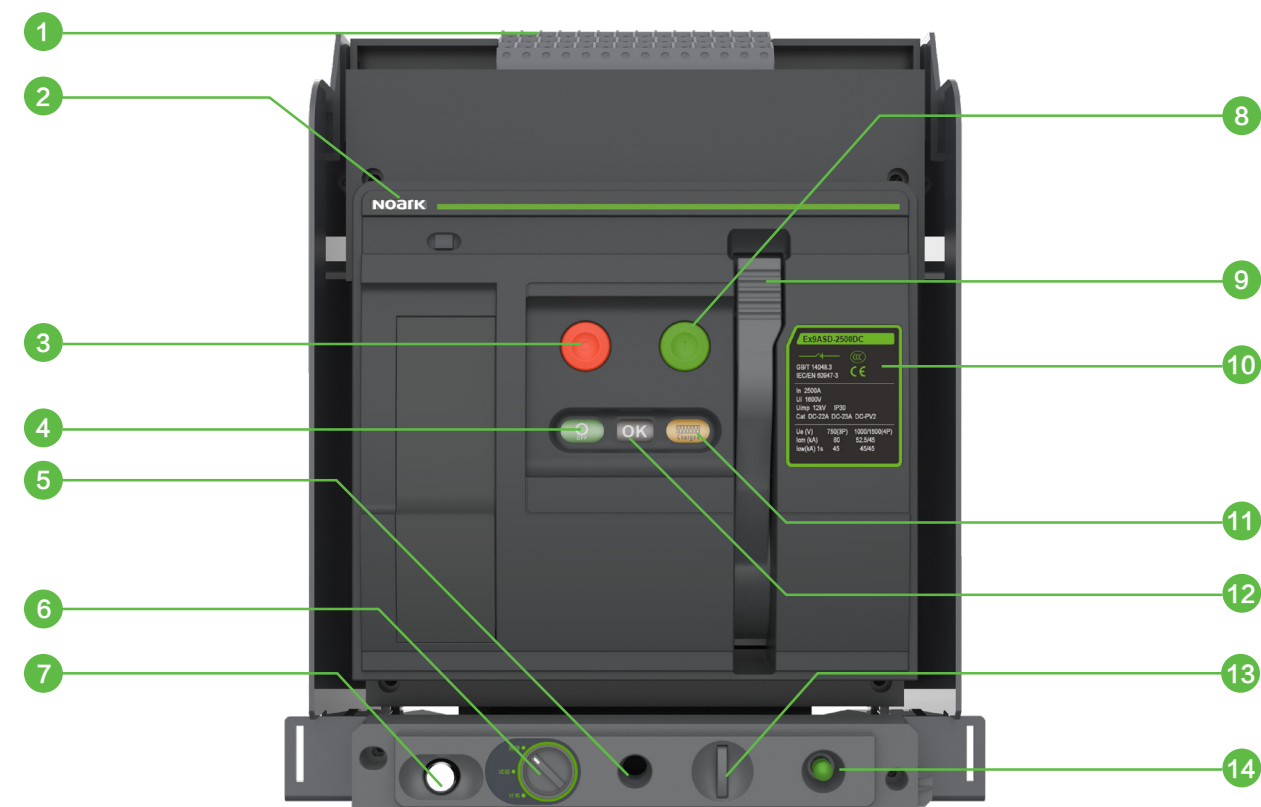
This equipment is to be installed only by qualified professionals. The manufacturer assumes no liability for any adverse consequences resulting from installation methods other than those specified in this manual.

- ★ Installation should be carried out in accordance with the specified installation conditions.
- ★ It is prohibited to install this product in an environment with flammable and explosive gases or damp environment. Do not handle the product with wet hands..
- ★ Do not touch the conductive part of the product while it is in operation.
- ★ Ensure th power is turn off before installing, maintaining or servicing the product.
- ★ Allow sufficient space and maintaining a safe distance around the product during installation.
- ★ Do not install product in a corrosive environment where metal parts can get corroded and insulation damaged.
- ★ Ensure appropriate cable / bus-bar size corresponds to load specification when installing the product.
- ★ To avoid any accidents, please follow the installation recommendations in this manual.
- ★ After unpacking, inspect the product for any damages (due to handling) to ensure it's integrity before use.
- ★ Failure to follow the above instructions may result in equipment damage and pose a risk to personal safety.

#### Environmental Protection

To protect the environment, please dispose of the product responsibly when it reaches the end of its lifecycle. Treat it as industrial waste or take it to a designated recycling station in compliance with relevant national regulations for classification, dismantling, recycling, and reuse.

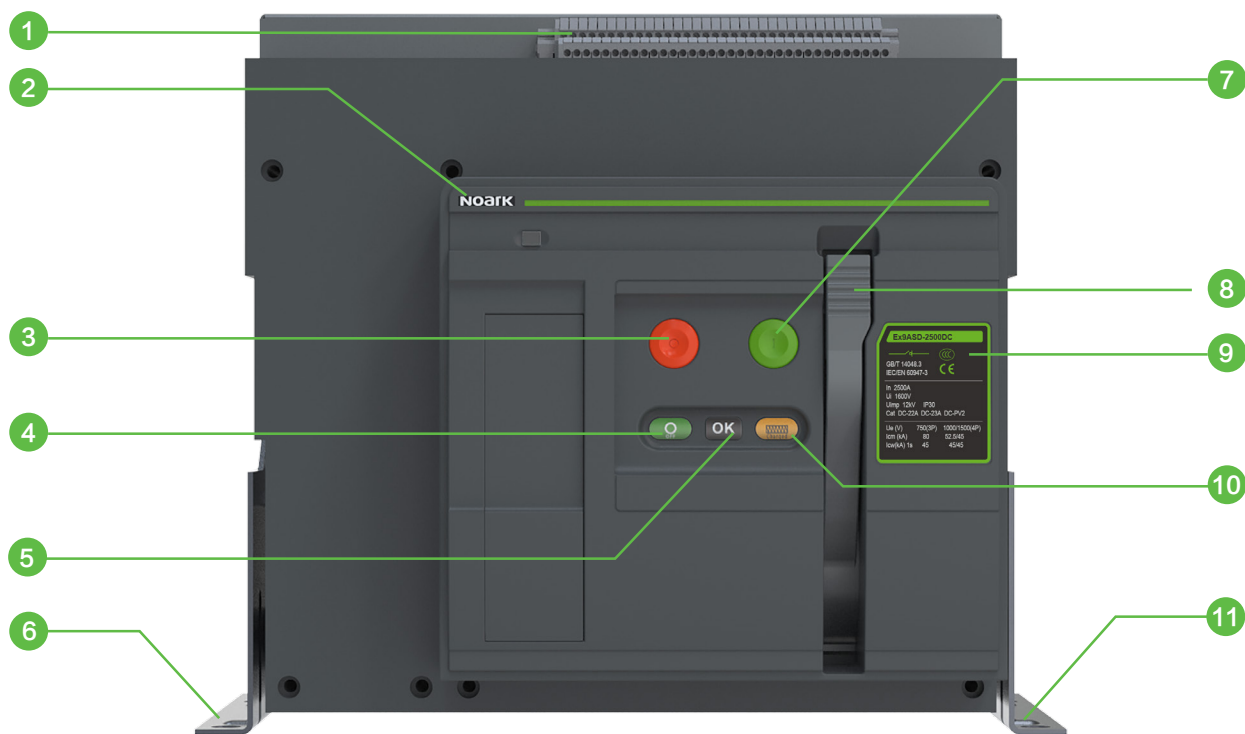
## Overview



No.	Item
1	Terminal blocks for electrical auxiliaries
2	Brand
3	Opening pushbutton(O)
4	Main contact position indicator a Opened b Closed
5	Racking handle socket
6	Disconnected, test & connected position indicator
7	Racking handle & storage space
8	Closing pushbutton(I)
9	Spring charging handle

No.	Item
10	Rating plate
11	Spring charged/discharged indicator a Charged b Discharged
12	Ready-to-close indicator a Ready b Not ready
13	Chassis locking by padlocks
14	Position release button

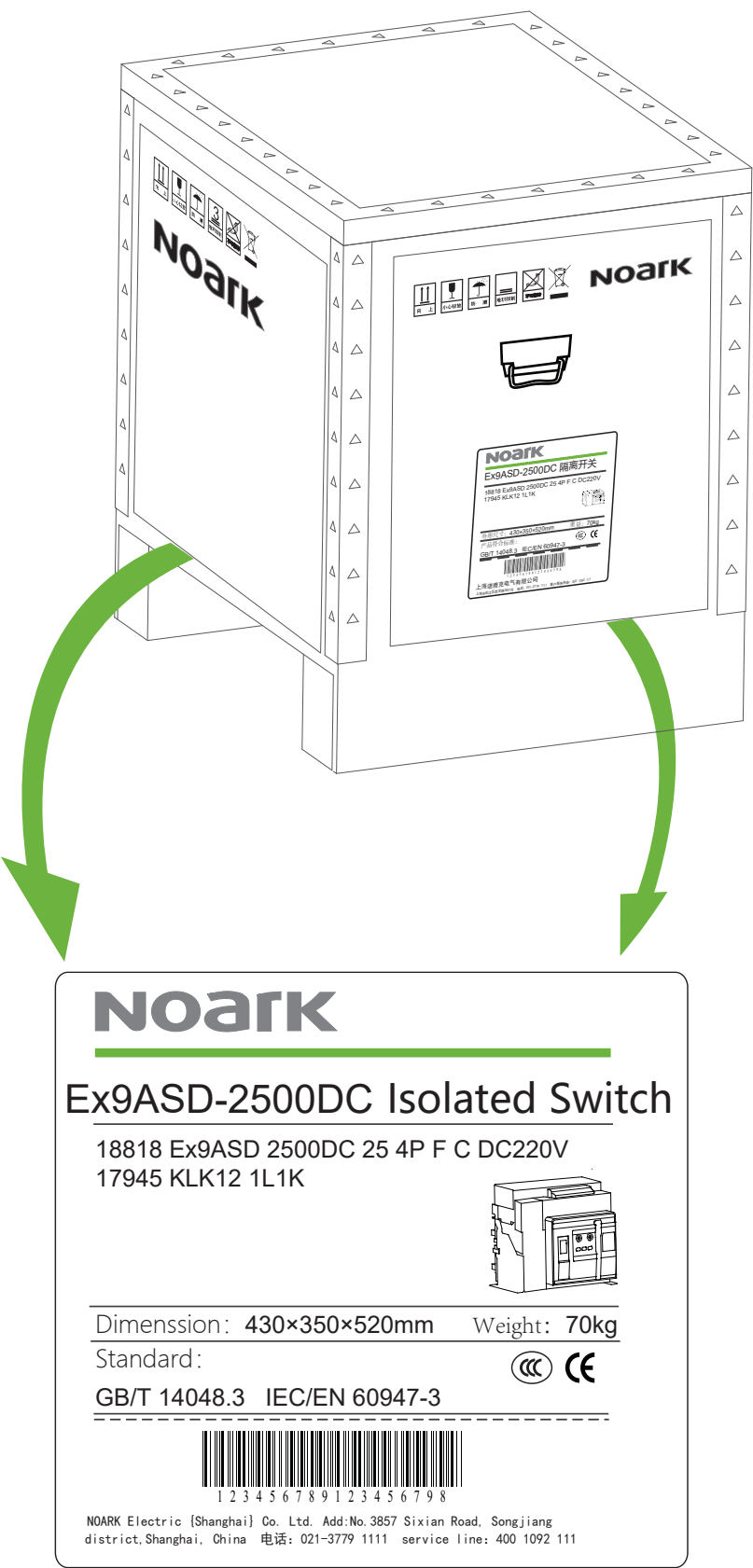
Overview



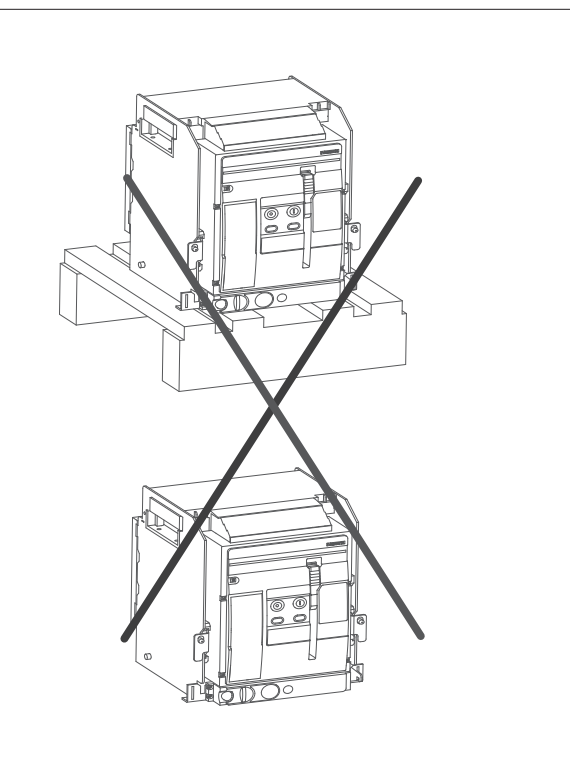
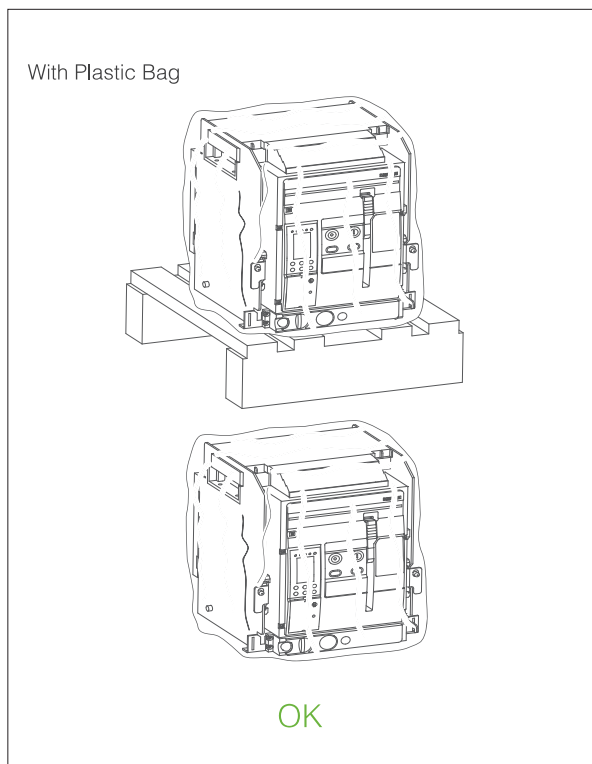
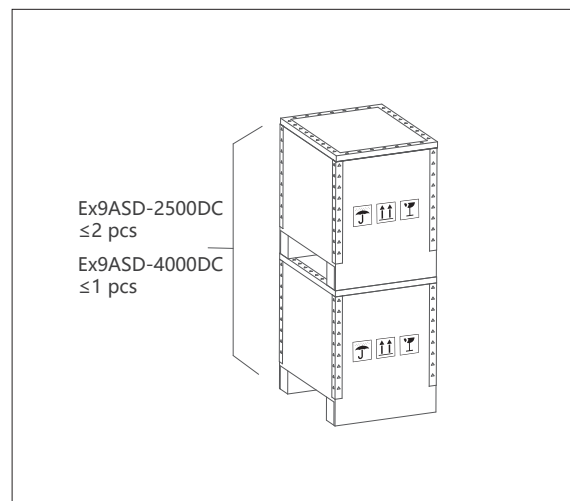
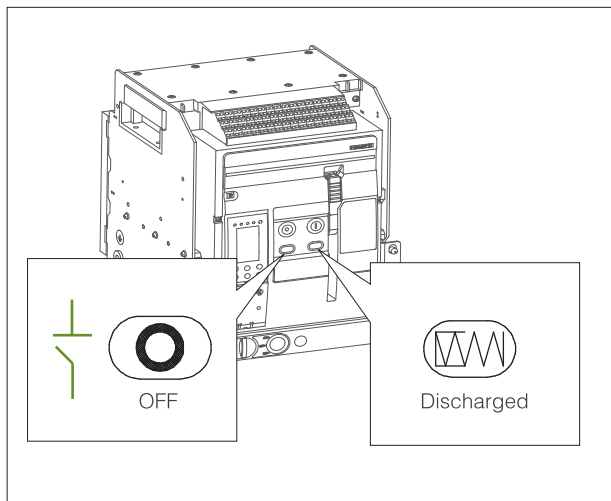
No.	Item
1	Terminal blocks for electrical auxiliaries
2	Brand
3	Opening pushbutton (O)
4	Main contact position indicator <div><div>a Opened</div><div>b Closed</div></div>
5	Ready-to-close indicator <div><div>a Ready</div><div>b Not ready</div></div>
6	Mounting side plate(Left)

No.	Item
7	Closing pushbutton(I)
8	Spring charging handle
9	Rating plate
10	Spring charged / discharged indicator <div><div>a Charged</div><div>b Discharged</div></div>
11	Mounting side plate(Right)

Package identification



## Storage

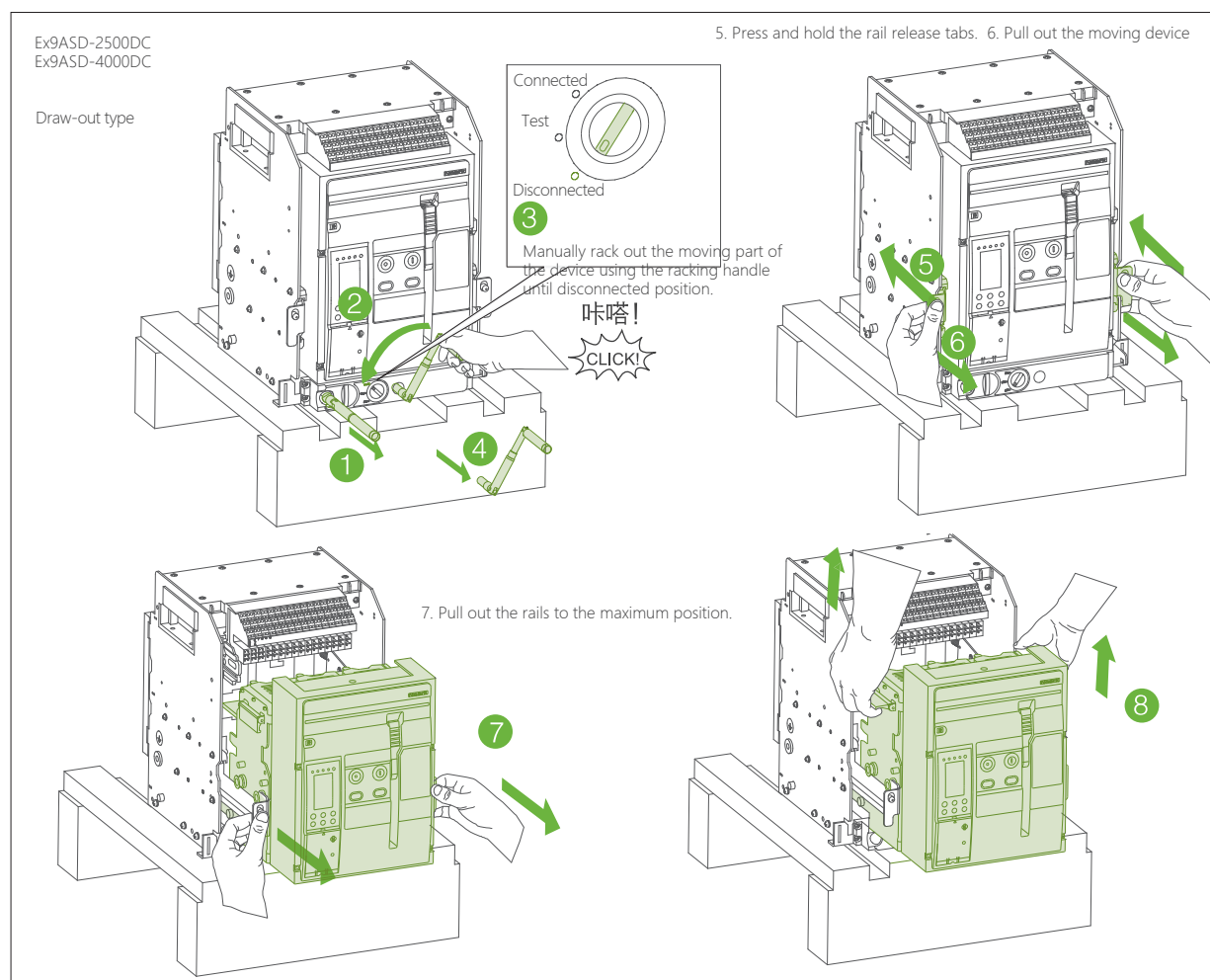
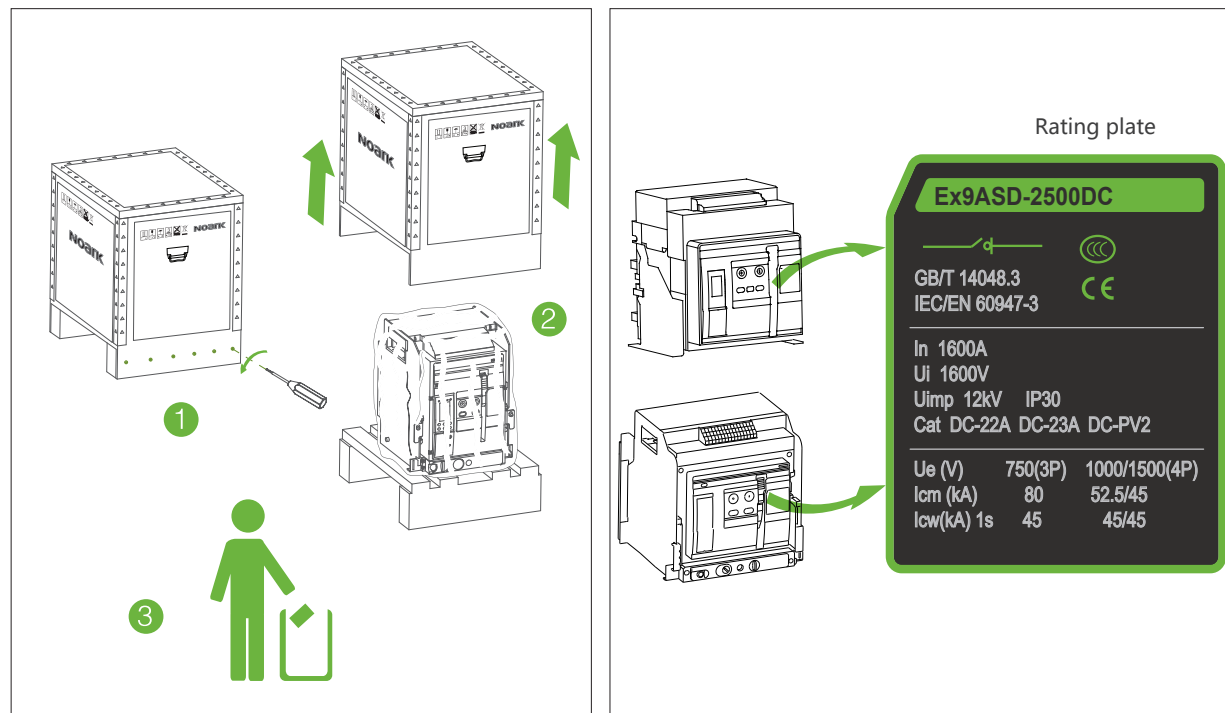


## Tool

Angled socket wrench, hex key, screwdriver

		<div>mm in.</div> <div>10 0.39</div> <div>17 0.67</div>
	M6	<div>Class 8.8</div> <div>6 0.24</div>
	M10	<div>FYWēa a YbX'fcfei Y:</div> <div>M6: (12~18) N·m</div> <div>M10: (25~40) N·m</div> <div>10 0.39</div>
		<div>Class 8.8</div> <div>6 0.24</div>
	M10	<div>FYWēa a YbX'fcfei Y:</div> <div>M10: (36~52) N·m</div> <div>10 0.39</div>
	<div>Application in Secondary Circuit Wiring</div> <div></div> <div>Recommend torque: M3: (0.5~0.7) N·m</div>	

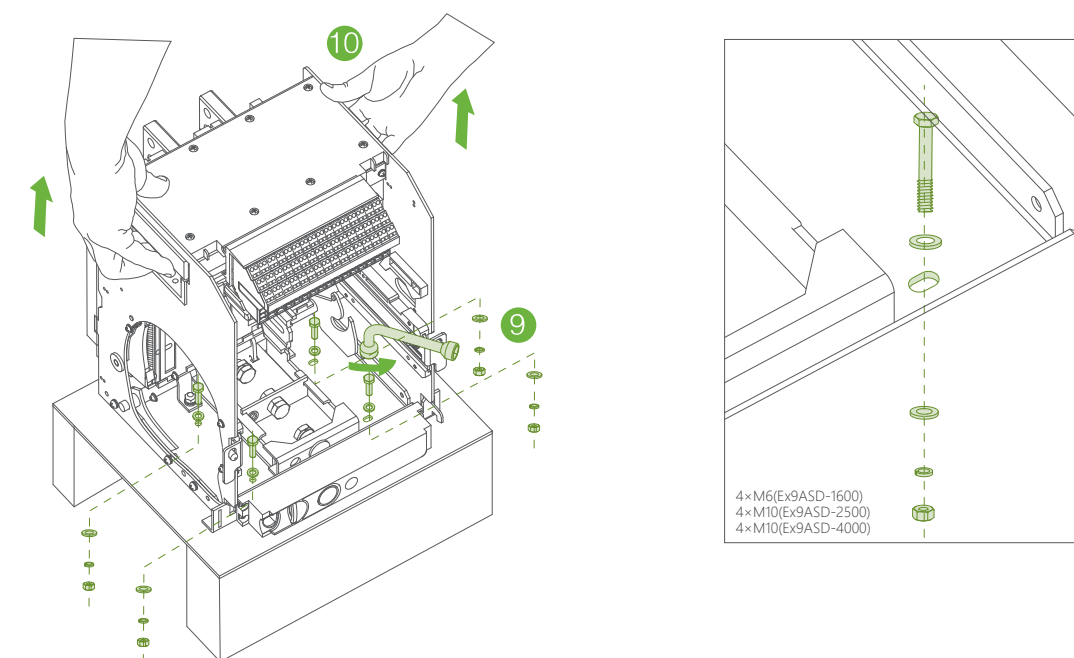
## Unpacking



## Unpacking

Ex9ASD-2500DC  
Ex9ASD-4000DC

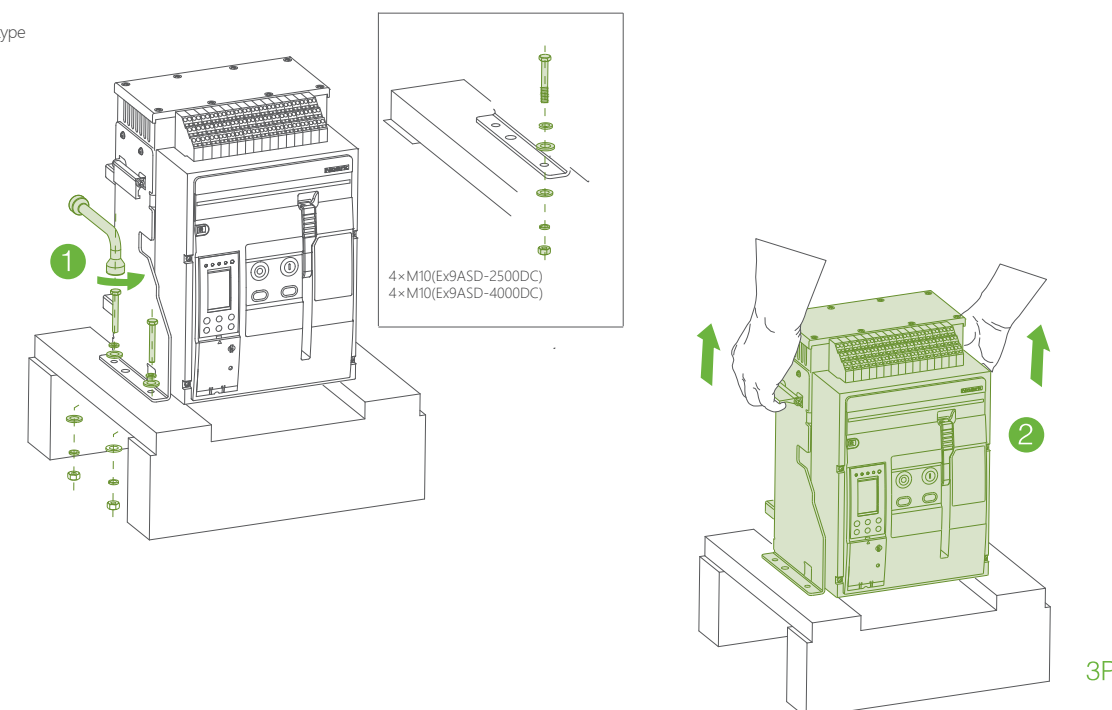
Draw-out type



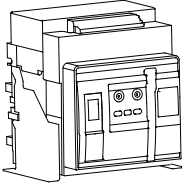
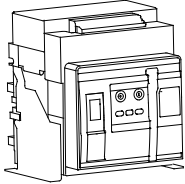
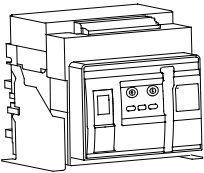
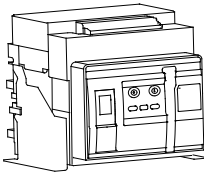
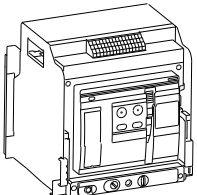
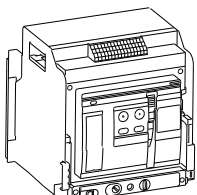
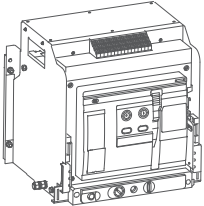
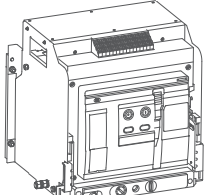
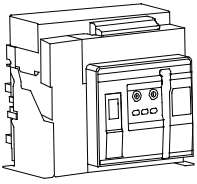
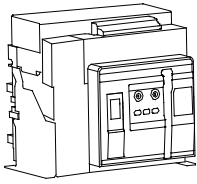
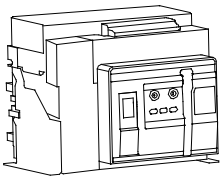
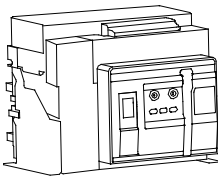
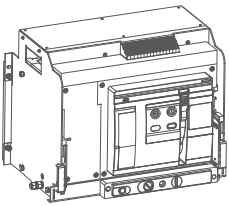
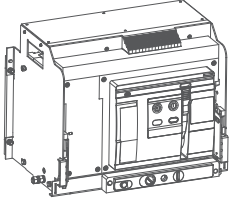
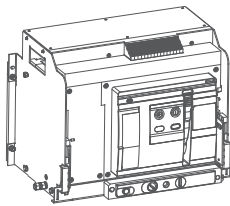
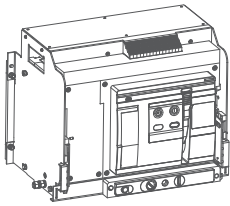
⚠ Kindly consider using lifting equipment with adequate lifting capacity for the device being lifted.

Ex9ASD-2500DC  
Ex9ASD-4000DC

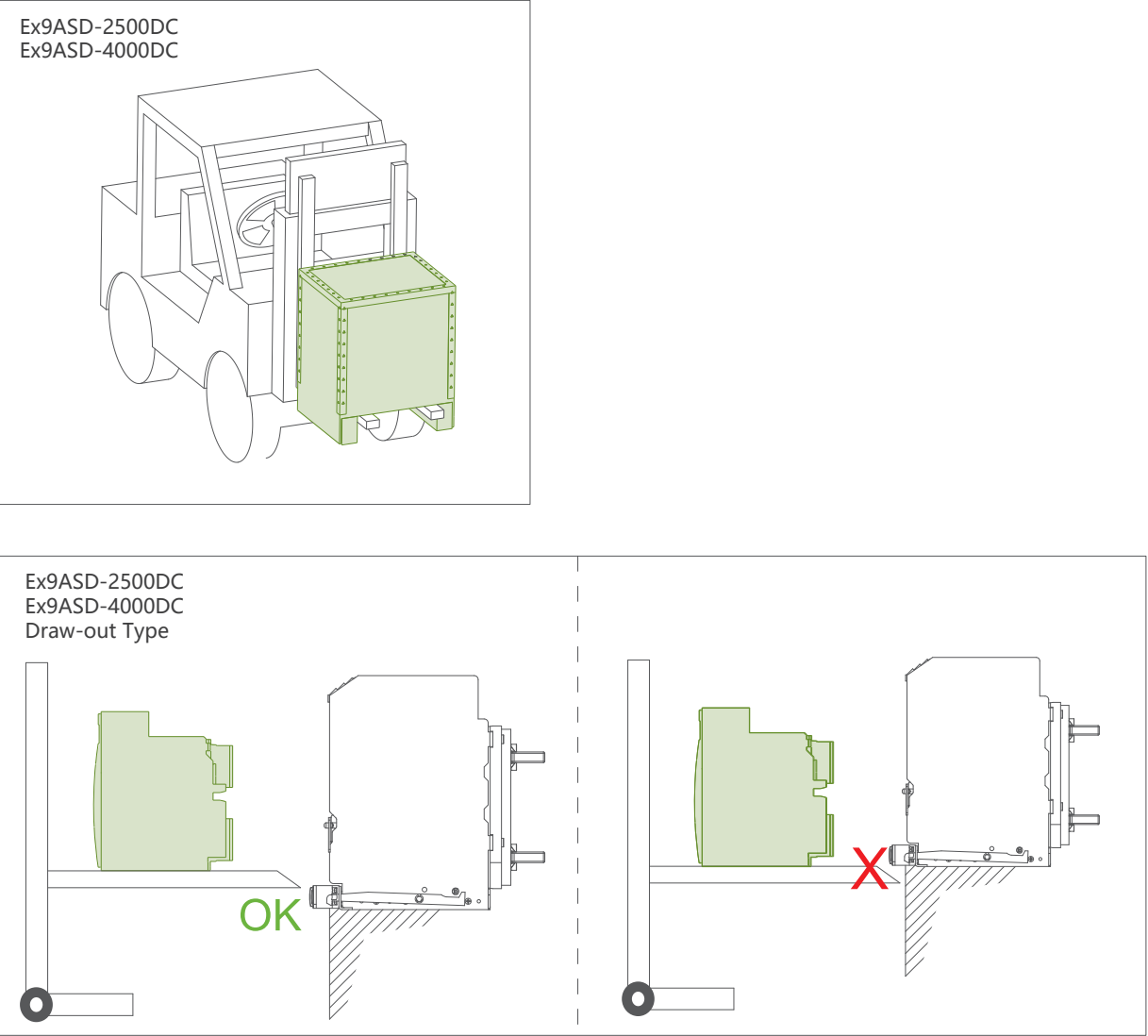
Fixed type



Transportation

		Ex9ASD-2500DC		Ex9ASD-4000DC	
		630A~1600A	2000A~2500A	1250A~2500A	3200A~4000A
3P	Fixed	 53kg	 55kg	 71kg	 75kg
	Draw-out Type	 86kg	 93kg	 102kg	 108kg
4P	Fixed	 58kg	 61kg	 85kg	 90kg
	Draw-out Type	 108kg	 113kg	 140kg	 153kg

Transportation

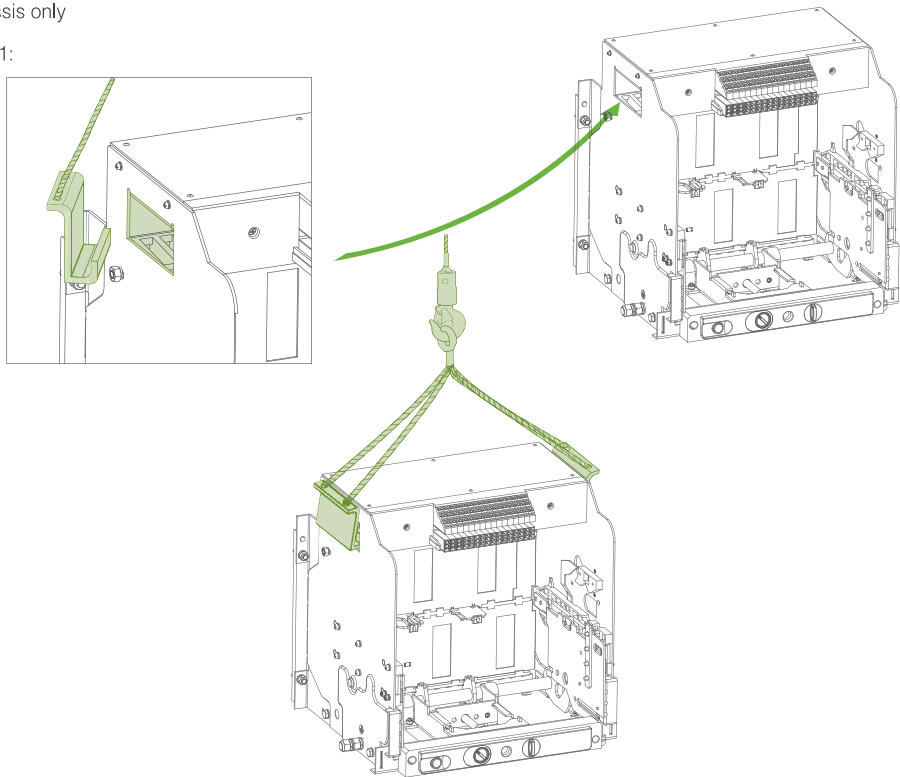




Transportation

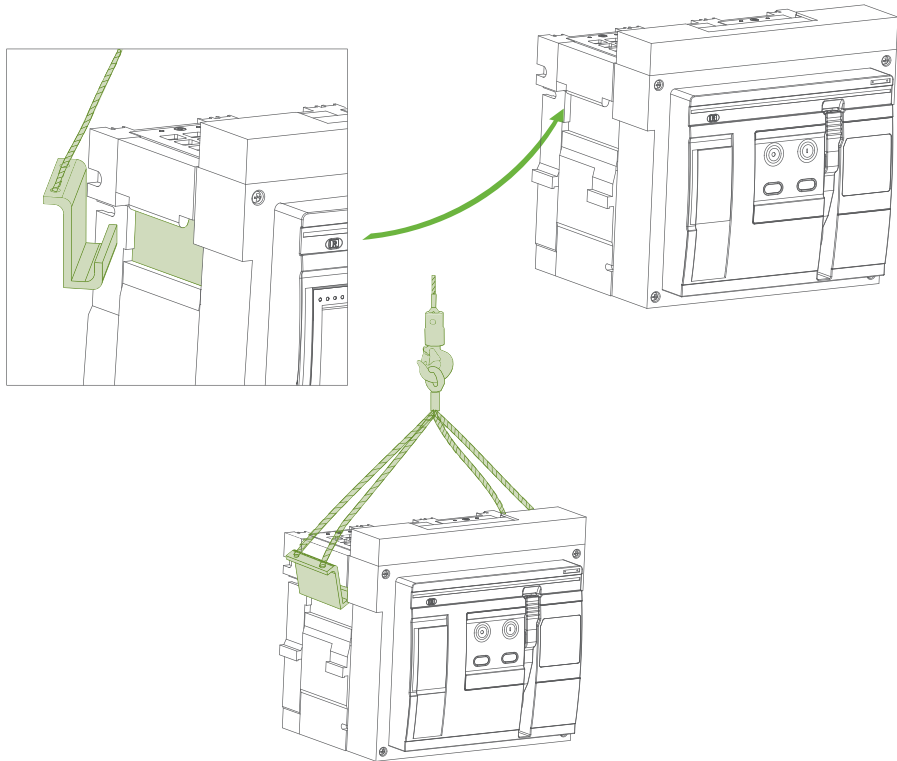
Ex9ASD-2500DC/4000DC  
/ Chassis only

Mode 1:



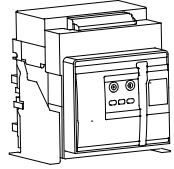
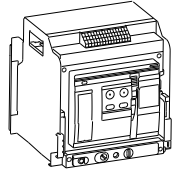
Ex9ASD-2500DC/4000DC  
Body only

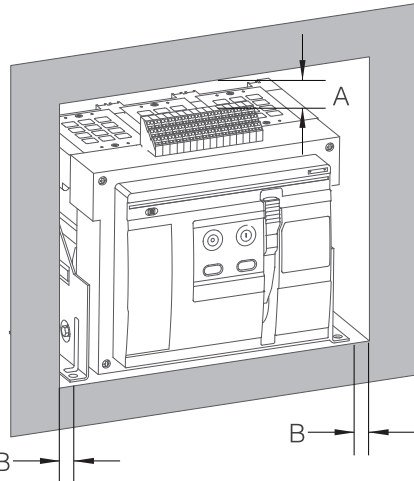
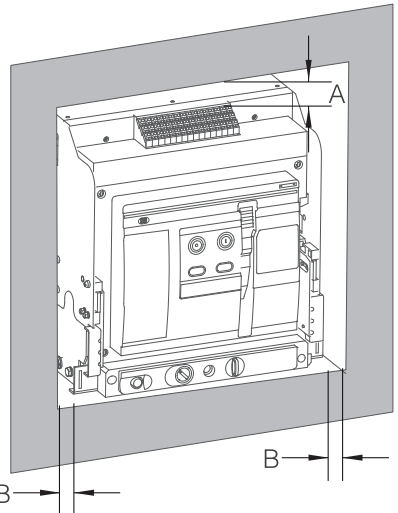
Mode 1:



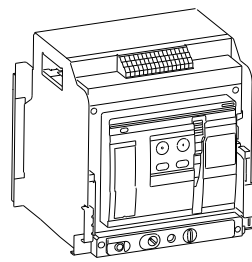
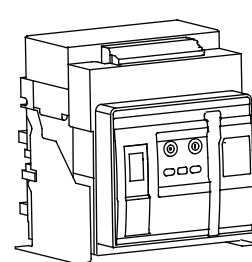
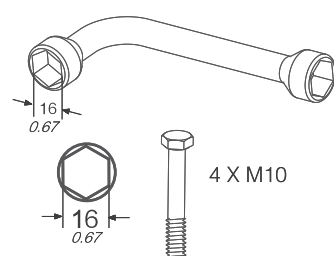
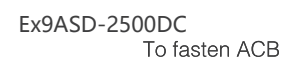
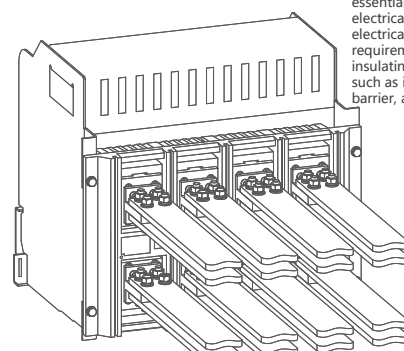
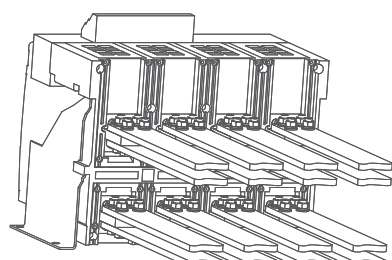
Installation

Safety distance

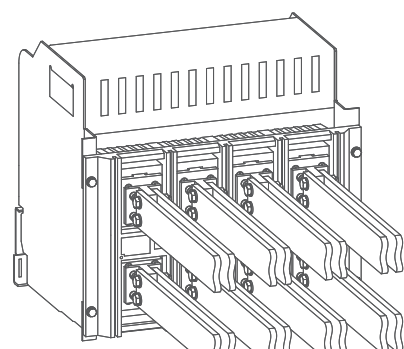
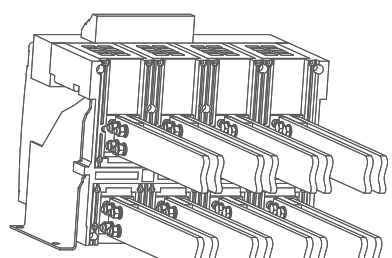
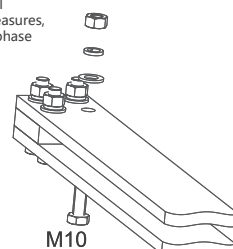
Safety distance (mm)	 Ex9ASD-2500DC/4000DC Fixed type		 Ex9ASD-2500DC/4000DC Draw-out type	
	A	B	A	B
Insulated	0	0	0	0
Uncharged metal	0	0	0	0
Live conductor	100	60	100	60

Ex9ASD-2500/4000DC	
Fixed	
Draw-out type	

## Installation

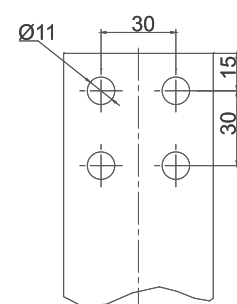
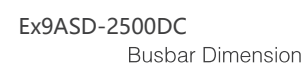
mm  
in.

**Note:**When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

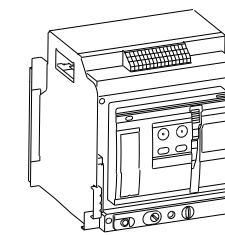
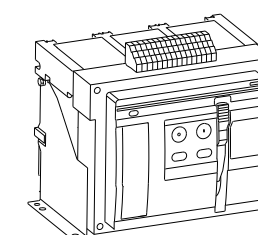
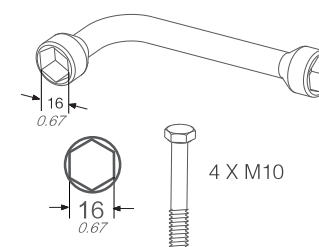
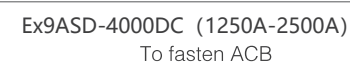
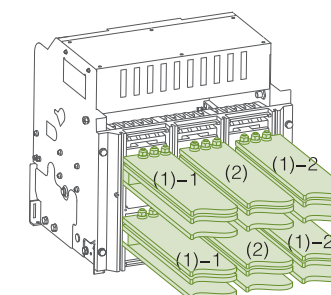
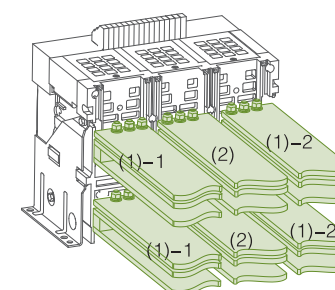


M10

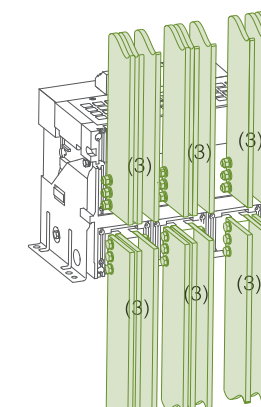
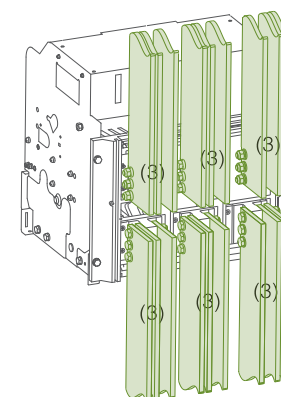
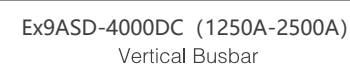
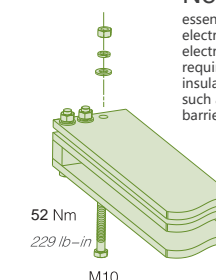
**Note:** When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.



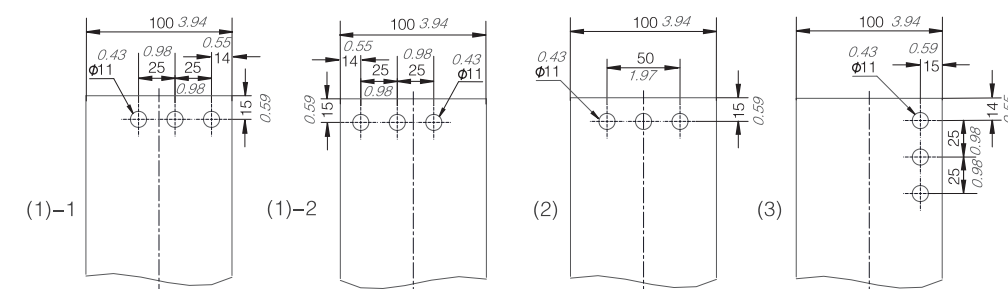
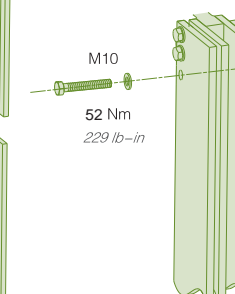
## Installation

mm  
in.

**Note:** When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

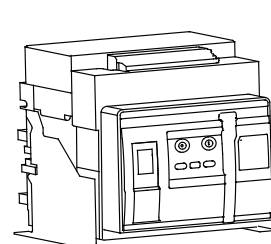
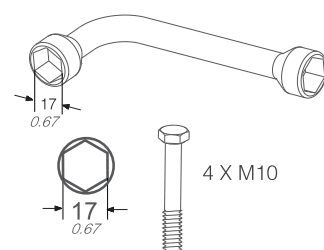


**Note:** When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

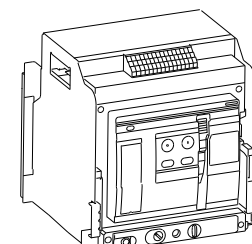
mm  
in.

## Installation

Ex9ASD-4000DC(3200-4000A)  
To fasten ACB



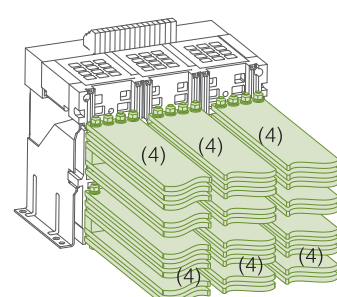
Fixed



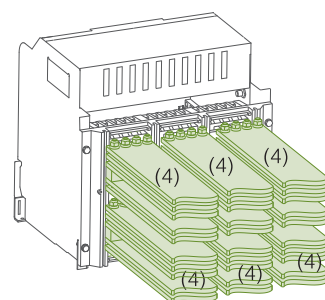
Draw-out type

mm  
in.

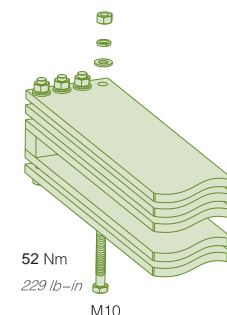
Ex9ASD-4000DC(3200-4000A)  
Horizontal Busbar



Fixed



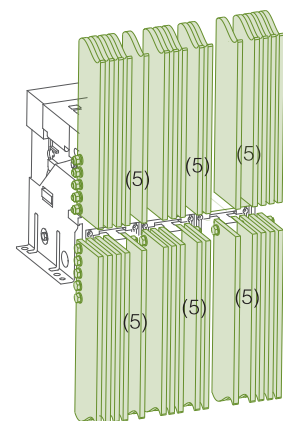
Draw-out type



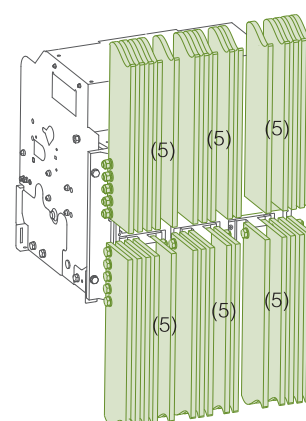
52 Nm  
229 lb-in  
M10

mm  
in.

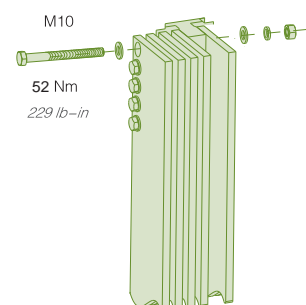
Ex9ASD-4000DC(3200-4000A)  
Vertical Busbar



Fixed



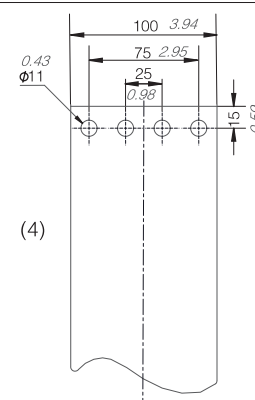
Draw-out type



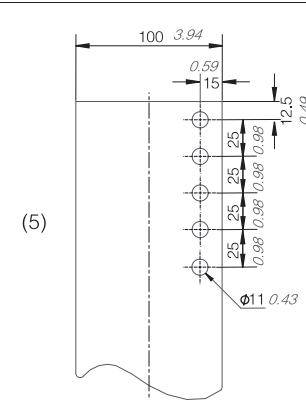
M10  
52 Nm  
229 lb-in

mm  
in.

Ex9ASD-4000DC(3200-4000A)  
Busbar Dimension



(4)

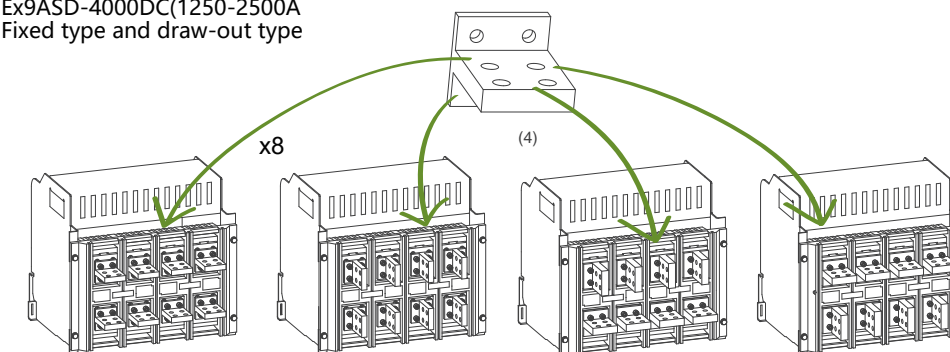


(5)

mm  
in.

## Power connections

Ex9ASD-4000DC(1250-2500A)  
Fixed type and draw-out type



Horizontal Connection

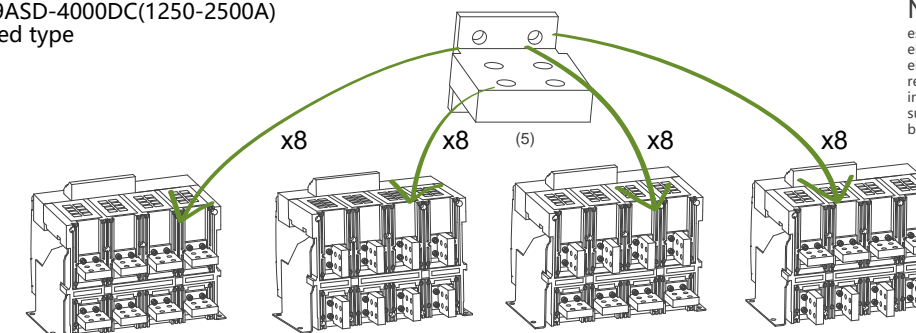
Vertical Connection

Mixed Connection (eg.)

Mixed Connection (eg.)

Note: When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

Ex9ASD-4000DC(1250-2500A)  
Fixed type



Horizontal Connection

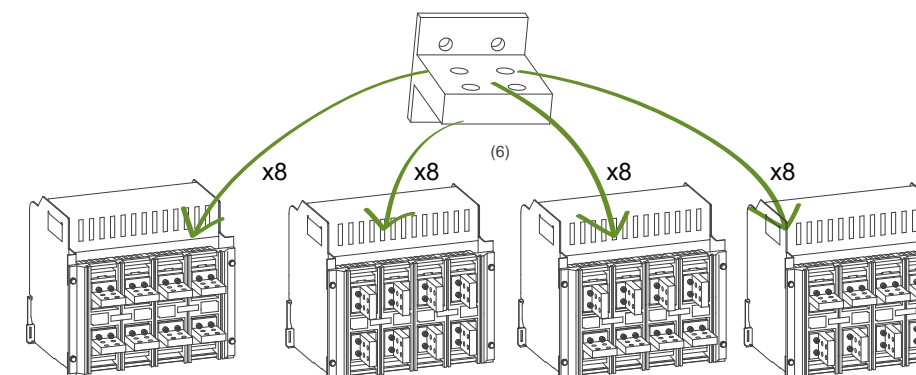
Vertical Connection

Mixed Connection (eg.)

Mixed Connection (eg.)

Note: When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

Ex9ASD-4000DC(1250-2500A)  
)Draw-out type



Horizontal Connection

Vertical Connection

Mixed Connection (eg.)

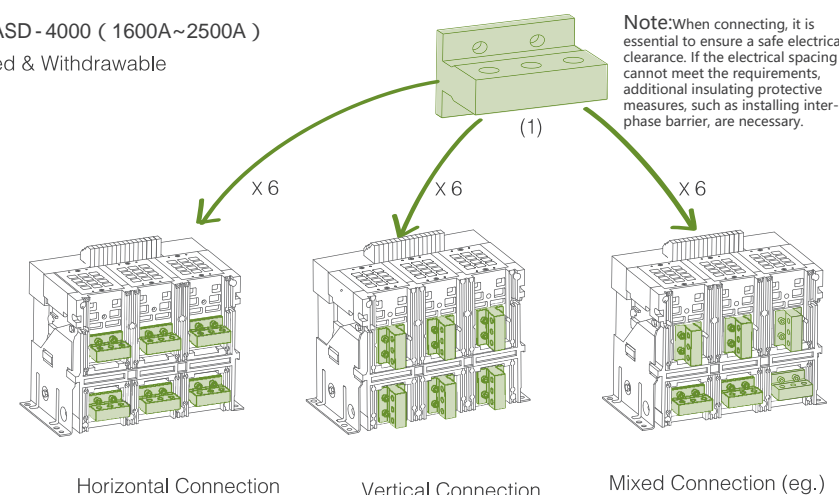
Mixed Connection (eg.)

Note: When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.



# Power connections

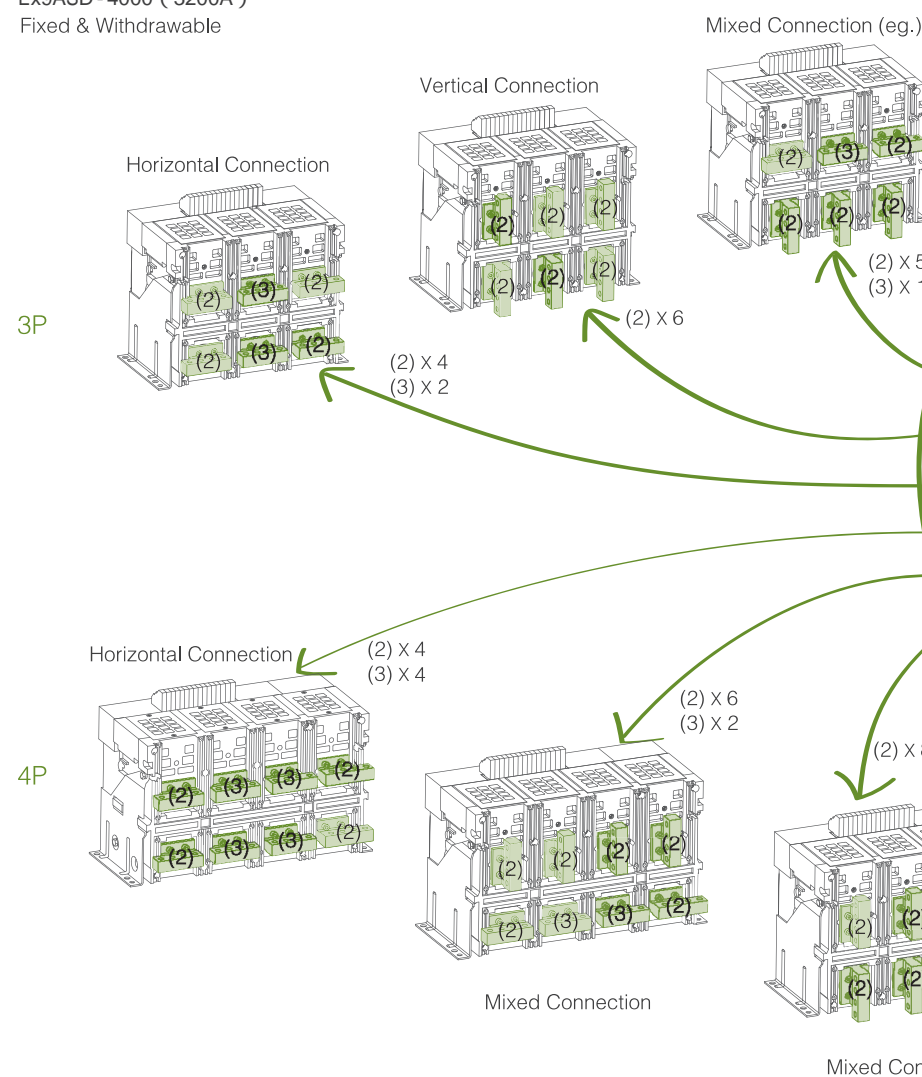
Ex9ASD - 4000 ( 1600A~2500A )  
Fixed & Withdrawable



Note: When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

NO.	Rated current	Thickness
(1)	1600A~2500A	25mm
(2)	3200A~4000A	10mm
(3)	3200A~4000A	10mm

Ex9ASD - 4000 ( 3200A )  
Fixed & Withdrawable



Note: When connecting, it is essential to ensure a safe electrical clearance. If the electrical spacing cannot meet the requirements, additional insulating protective measures, such as installing inter-phase barrier, are necessary.

# Connection type

The DC insulation switch connection diagram as below:

	Type A	Type B	Type C	Type D
Connection diagram				
up Connection				
Down Connection				

Connection type

Recommend busbar

The material is bare copper, the unit of thick and width is mm.

Recommend busbar for Isolated switch

Current frame	Rated current In (A)	Ambient temperature (-5~+40)°C			
		copper busbar specification			
		Width	Thickness	Quatity	Specification
2500	630~800	50	5	2	50×5×2
	1000	60	5	2	60×5×2
	1250	60	8	2	60×8×2
	1600	60	10	2	60×10×2
	2000	80	10	2	80×10×2
	2500	100	10	2	100×10×2
4000	1250	60	8	2	60×8×2
	1600	80	8	2	80×8×2
	2000	80	10	2	80×10×2
	2500	100	10	2	100×10×2
	3200	100	10	4	100×10×4
	4000	100	10	5	100×10×5

Note:

a,The table specifies the copper busbar dimensions used for an isolating switch operating in an ambient temperature of 40° C under open installation conditions, meeting the heating requirements stipulated in GB/T 14048.3. For ambient temperatures exceeding 40° C, consider increasing the number of copper busbars or reducing the current rating.

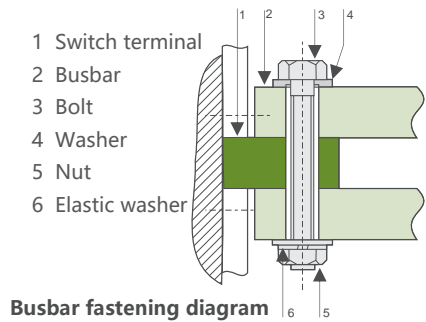
b, The maximum allowable temperature for the copper busbar must not exceed 120° C. After installing the busbar according to the recommendations in the table above, ensure that the electrical clearance between adjacent phases of the isolating switch is not less than 18 mm.

c,After installing the busbar, the electrical clearance between the tightening bolts of the upper and lower busbars must be no less than 20mm.

d, After installing the switch, the safety distance between different potential bodies and between live bodies and ground must not be less than 18mm.

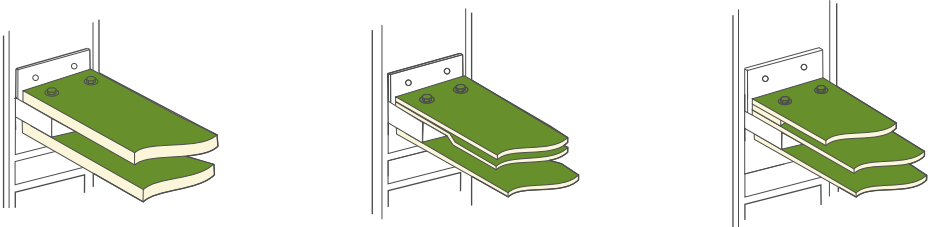
Busbar Fastening

The proper fastening of busbars depends on the appropriate torque of bolts and nuts. Torque that is too high or too low is not allowed. Excessive torque can cause the bolt to strip, failing to serve its purpose of securing; insufficient torque can result in inadequate tightening of the bolt and nut, also failing to secure properly, leading to excessive temperature rise. For the connection of isolating switches, steel bolts and nuts with a strength grade of ≥8.8 are used, with a tightening torque of 40 to 45 N.m.



Busbar fastening diagram

Recommend installation method



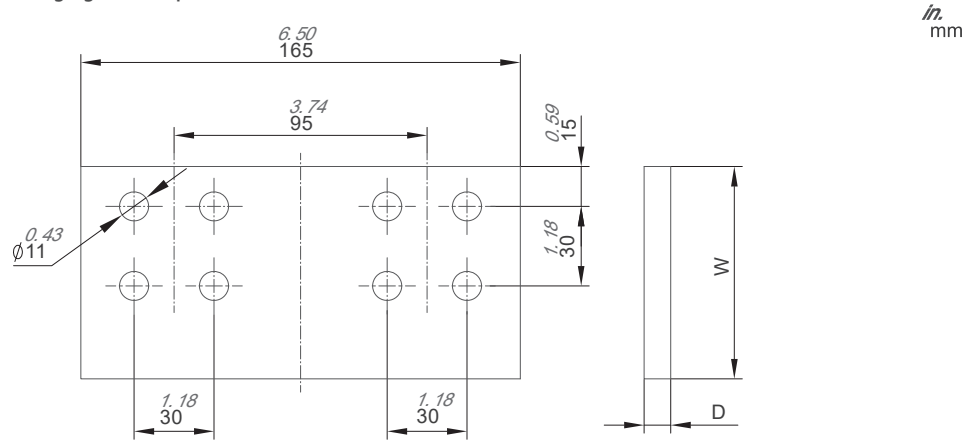
Recommend Busbar installation method

Connection type

Bridging Busbar

The bridging busbar is an optional accessory, with specific specifications shown below. If customers manufacture it separately, they should not use dimensions or craftsmanship below the manufacturer's recommendations. If the bridging busbar is directly connected in series or parallel with the isolating switch busbar, the continuous current of the isolating switch may not be able to meet the full load operation at the rated current due to heat generation. If the short circuit or parallel connection is made more than 1 meter away from the busbar, the isolating switch can operate at full load.

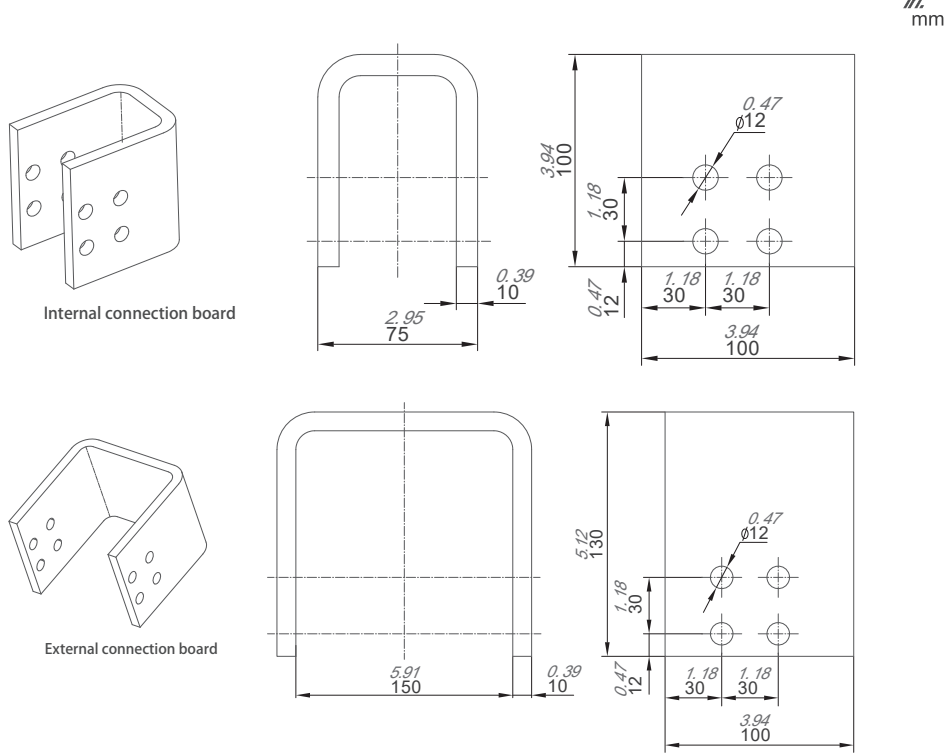
Bridging busbar specification of Rated current 630~2000A



Rated current	Depth	Width	Quantity	Specification	Technical requirement
630A ~ 800A	10mm	50mm	2	50×10×2	Silver coating,thickness≥3 μ
1000A ~ 1250A	10mm	60mm	2	60×10×2	Silver coating,thickness≥3 μ
1600A ~ 2000A	10mm	80mm	2	80×10×2	Silver coating,thickness≥3 μ

Specification of rated current 2500A bridging busbar :

The bridging busbar installation is vertical type and the surface with silver coating 6 μ.



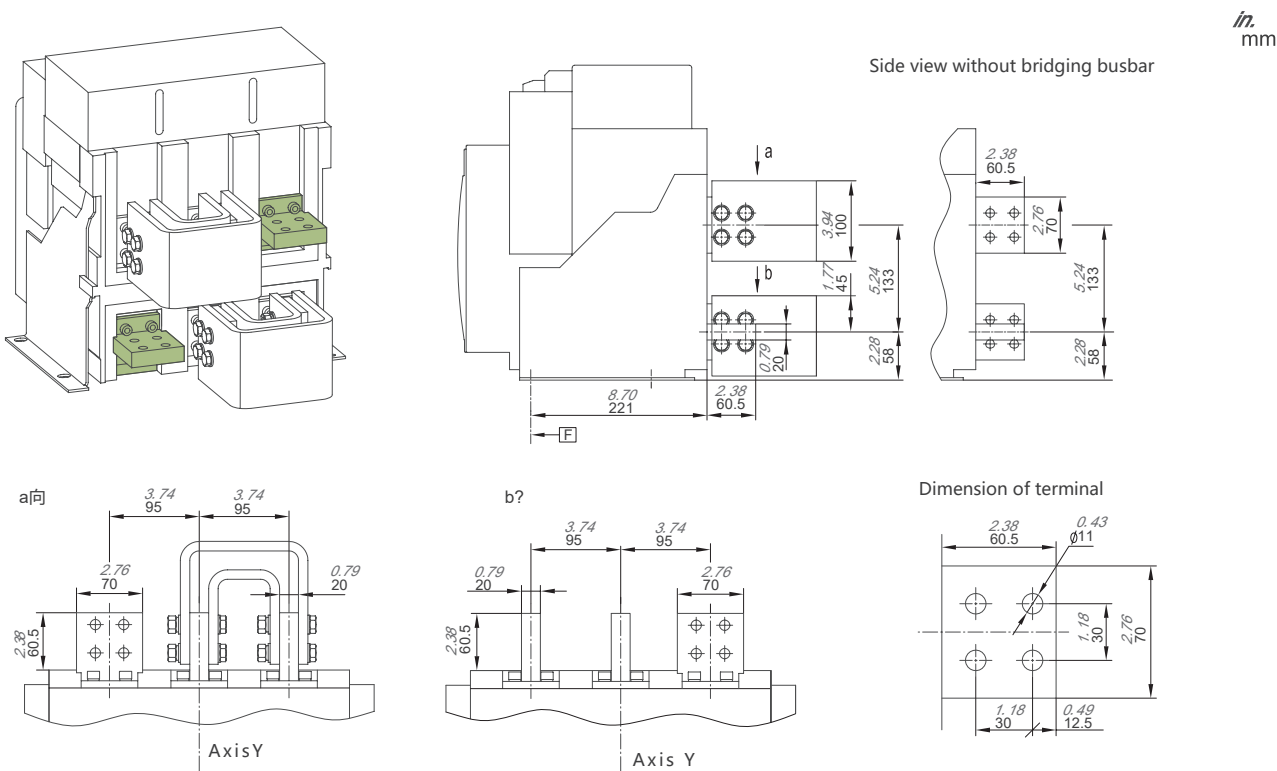


Installation Dimension

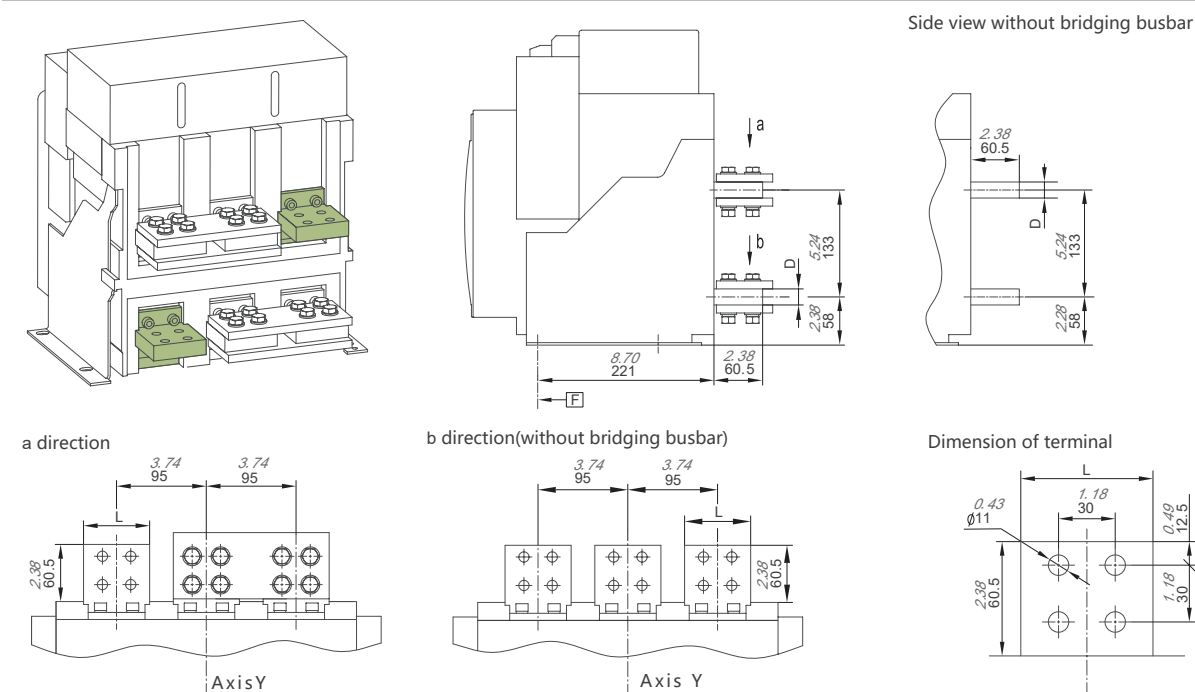
Ex9ASD-2500DC

Ex9ASD-2500DC fixed type (A type connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

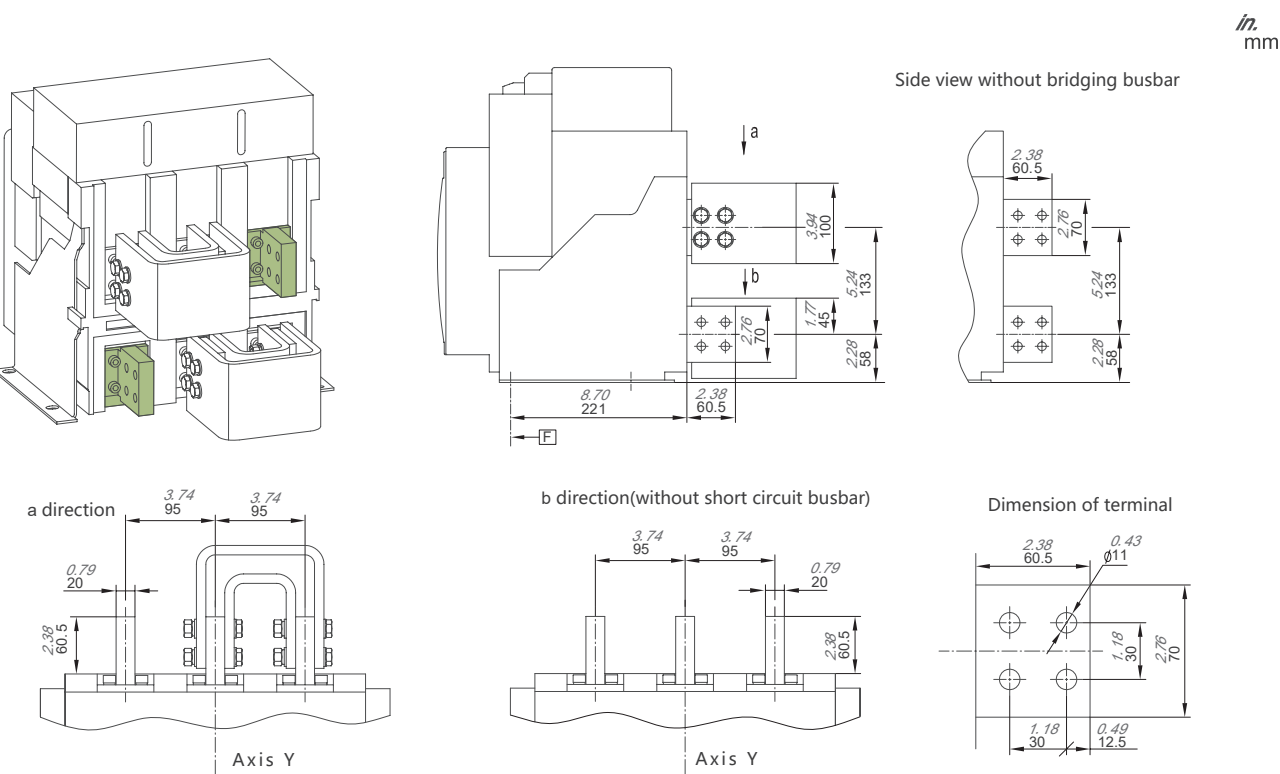


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

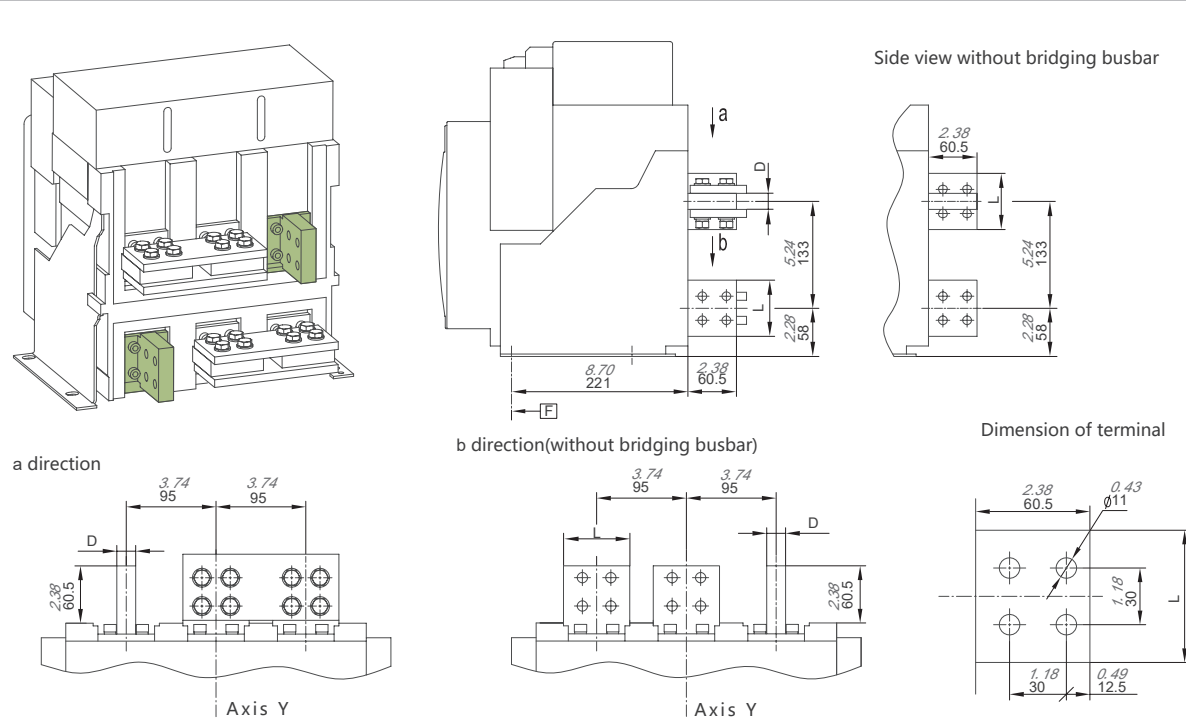
Installation Dimension

Ex9ASD-2500DC fixed type (type A connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



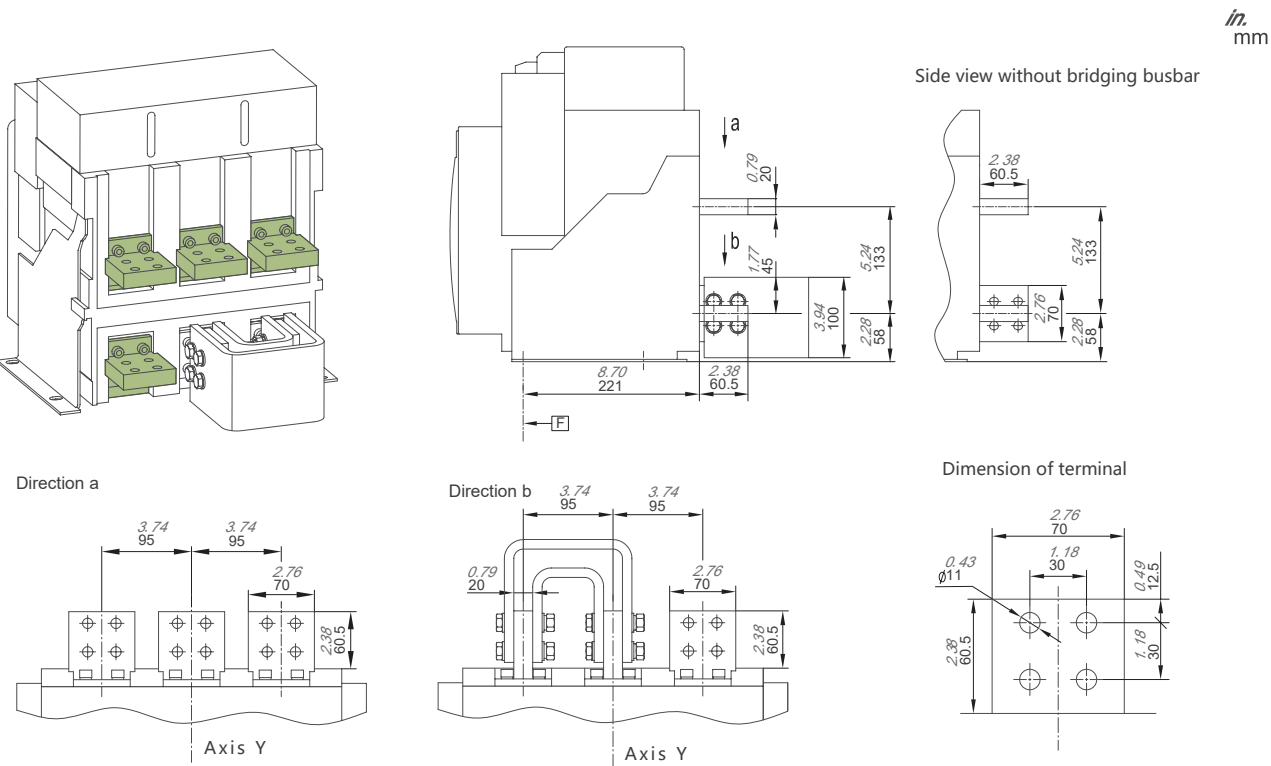
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

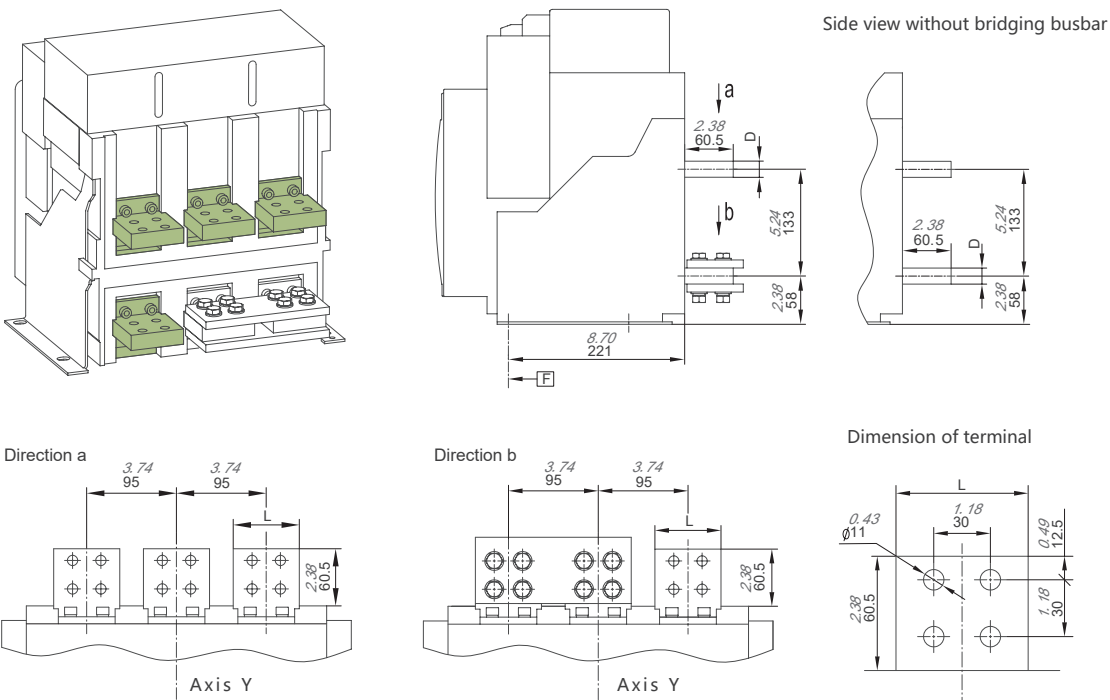
Ex9ASD-2500DC

Ex9ASD-2500DC fixed type(type B connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

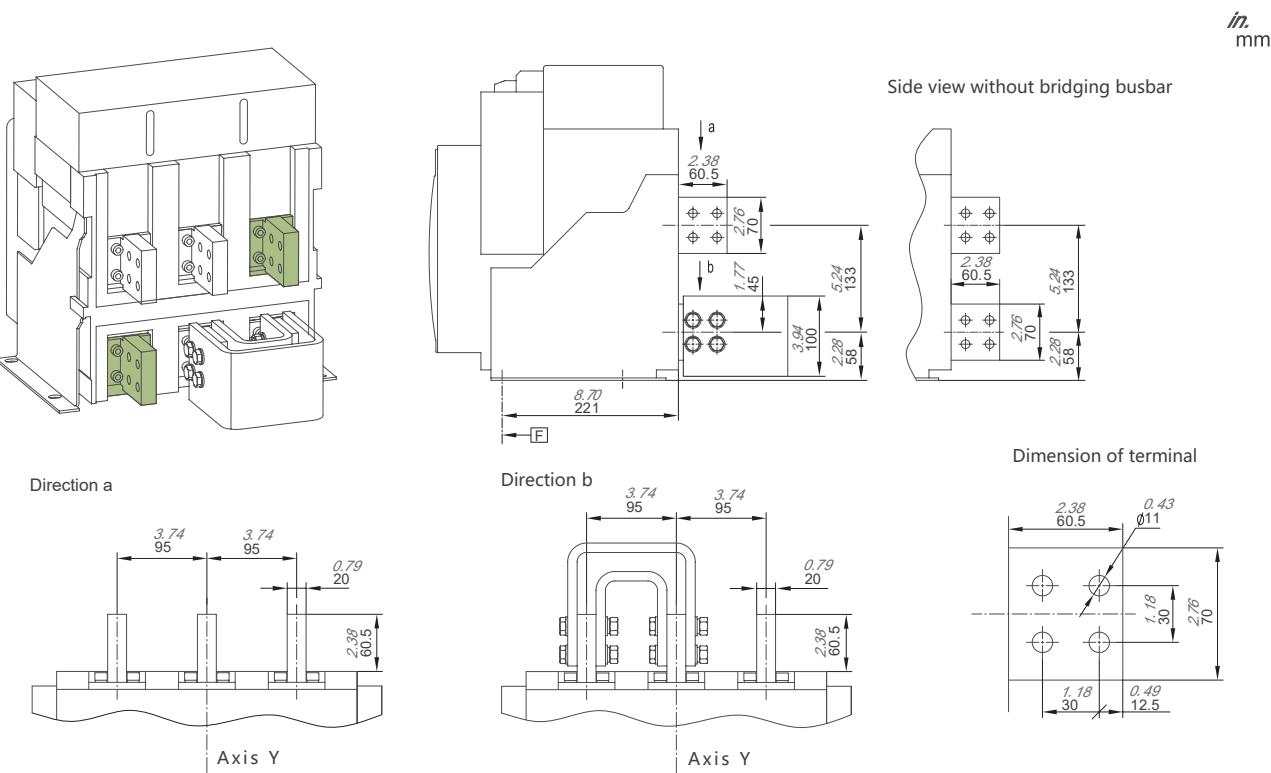


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

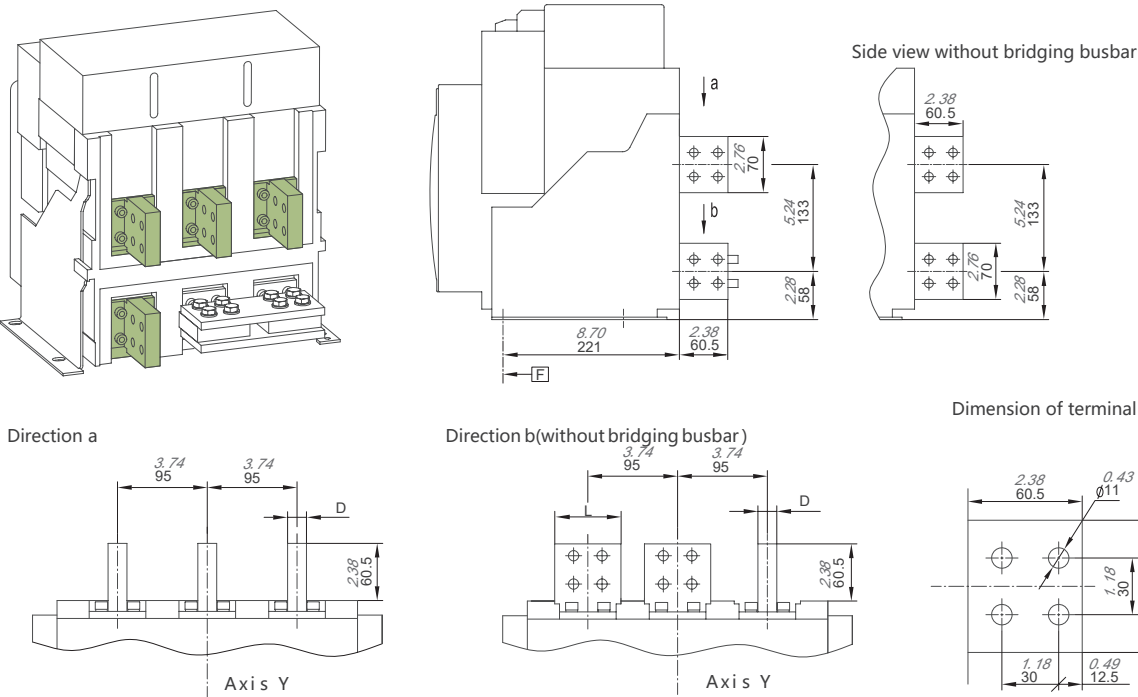
Installation Dimension

Ex9ASD-2500DC fixed type (type B connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



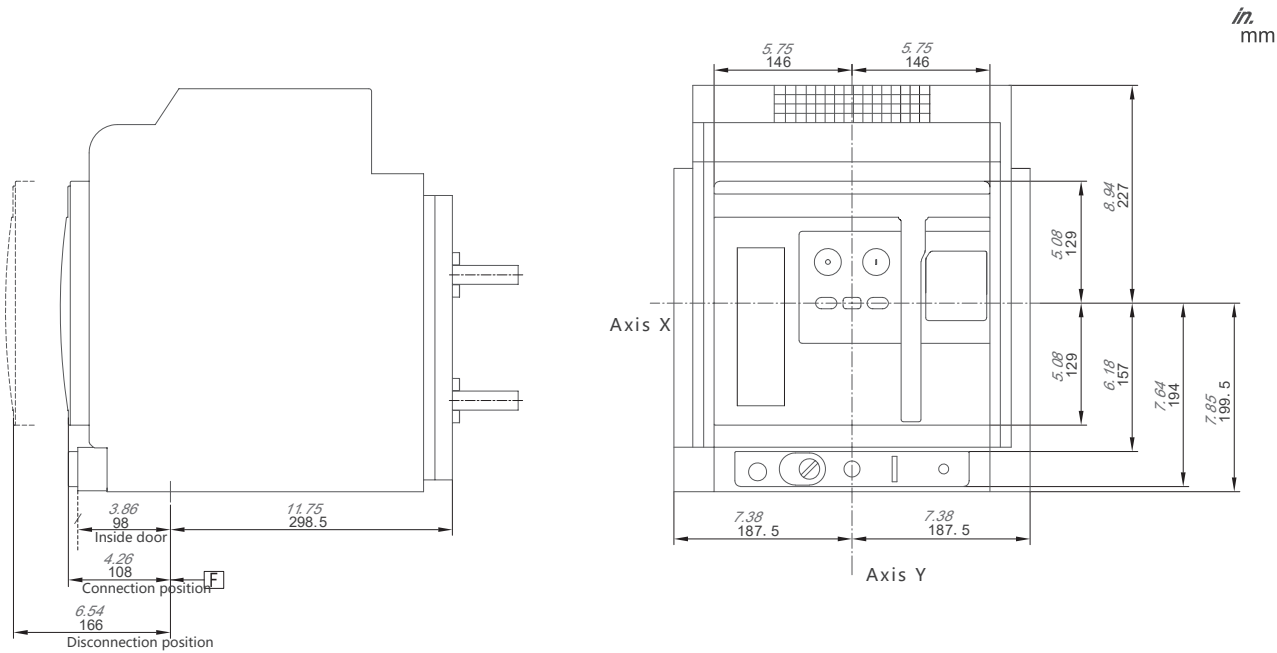
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm



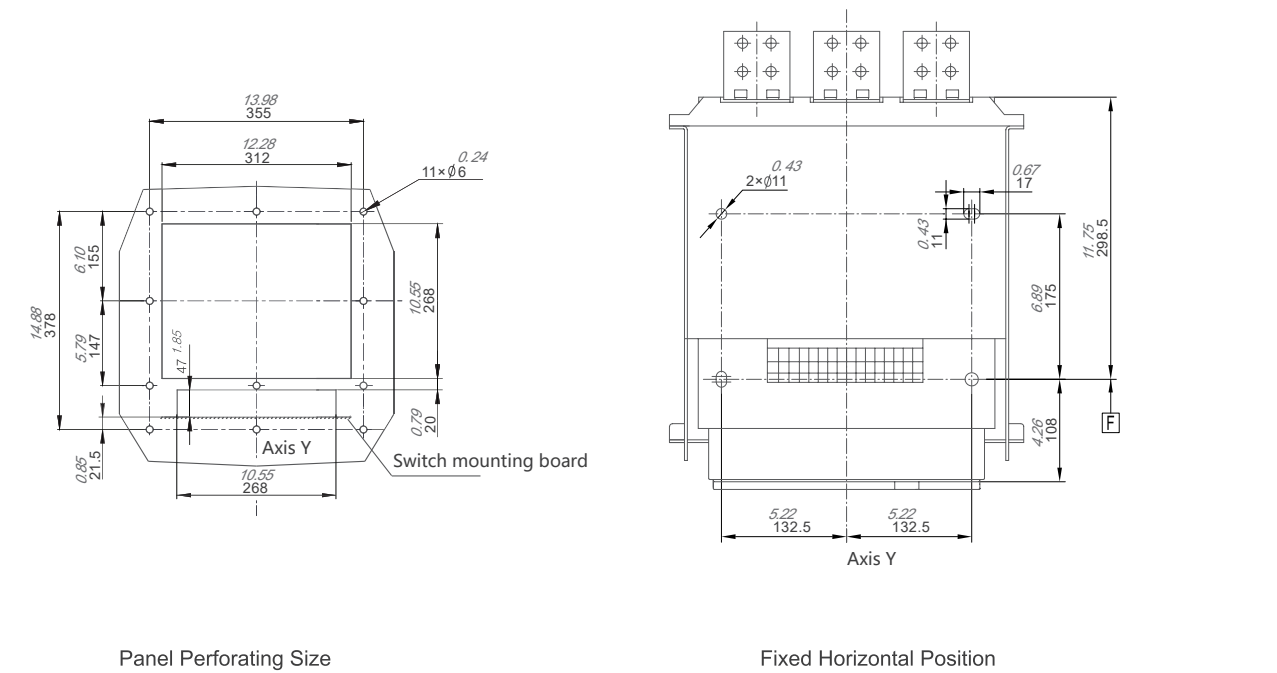
Installation Dimension

Ex9ASD-2500DC

Ex9ASD-2500DC Draw-out type(type A, B connection)  
Overall dimension

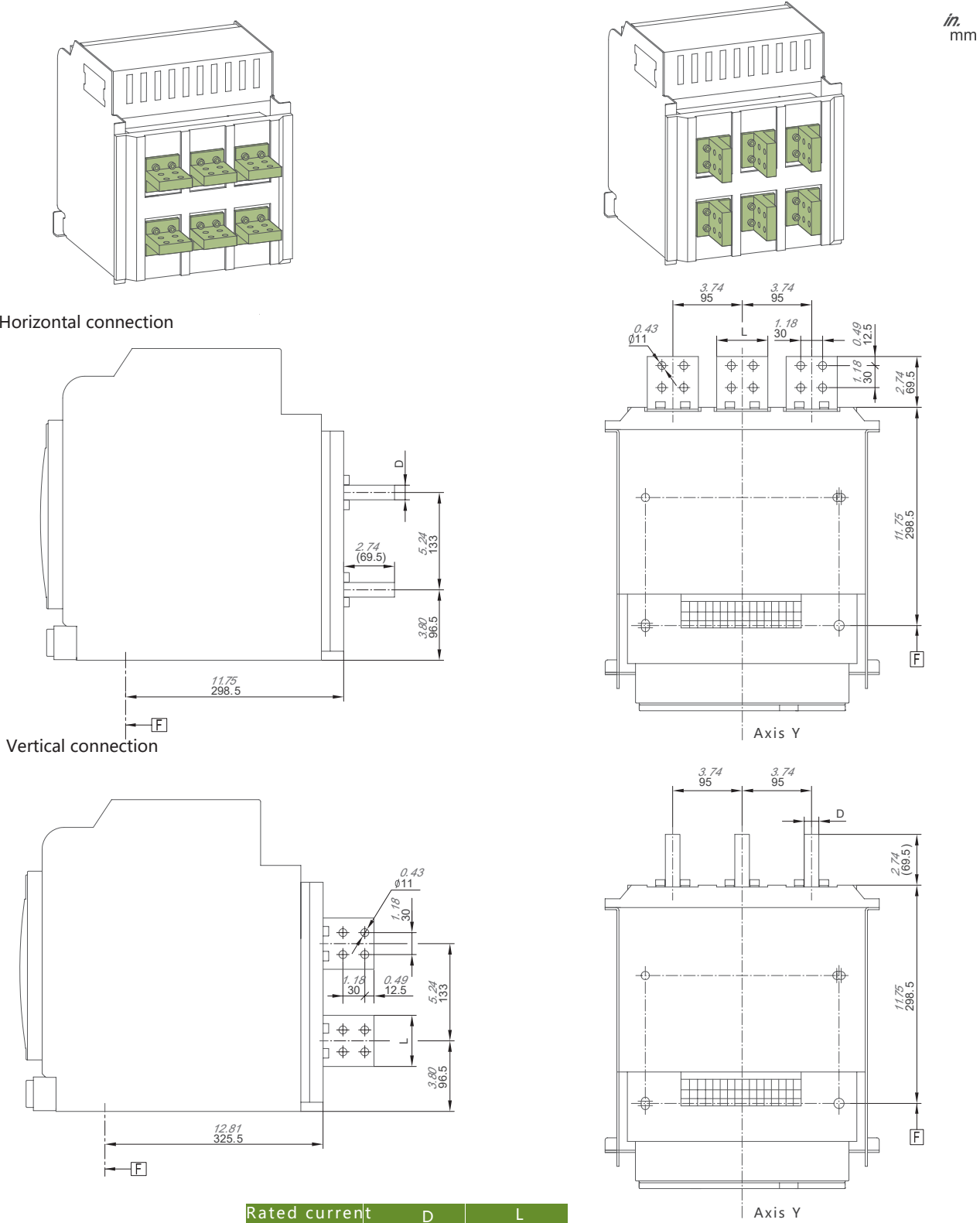


Installation dimension



Installation Dimension

Ex9ASD-2500DC Draw-out type(Type A, B connection)  
Busbar dimension without bridging busbar



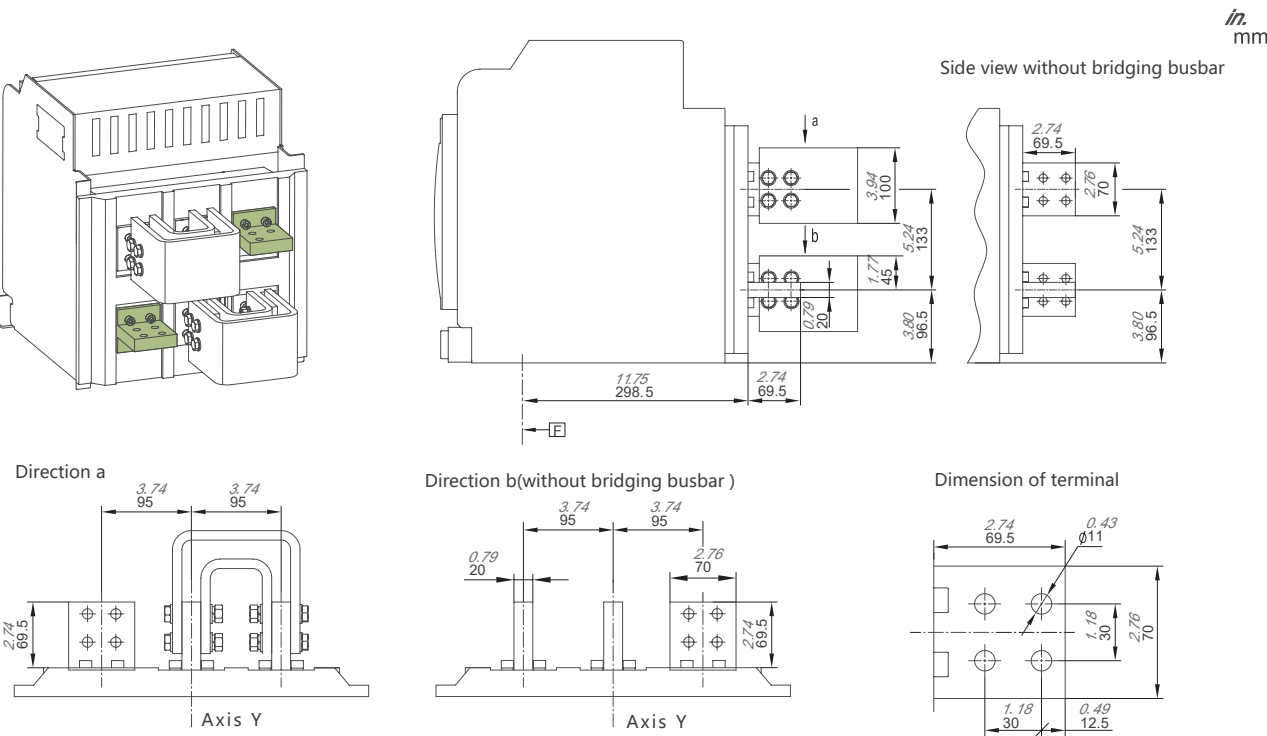
Rated current	D	L
630A~1600A	15mm	60mm
2000A~2500A	20mm	70mm

Installation Dimension

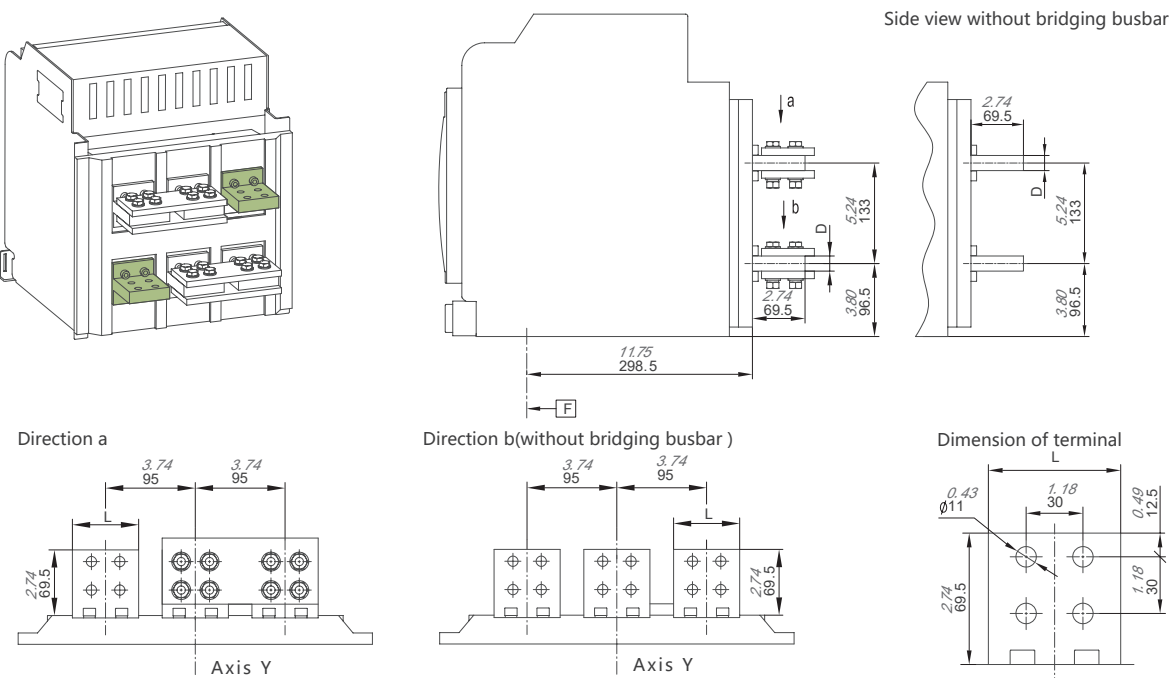
Ex9ASD-2500DC

Ex9ASD-2500DC Draw-out type(type A connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

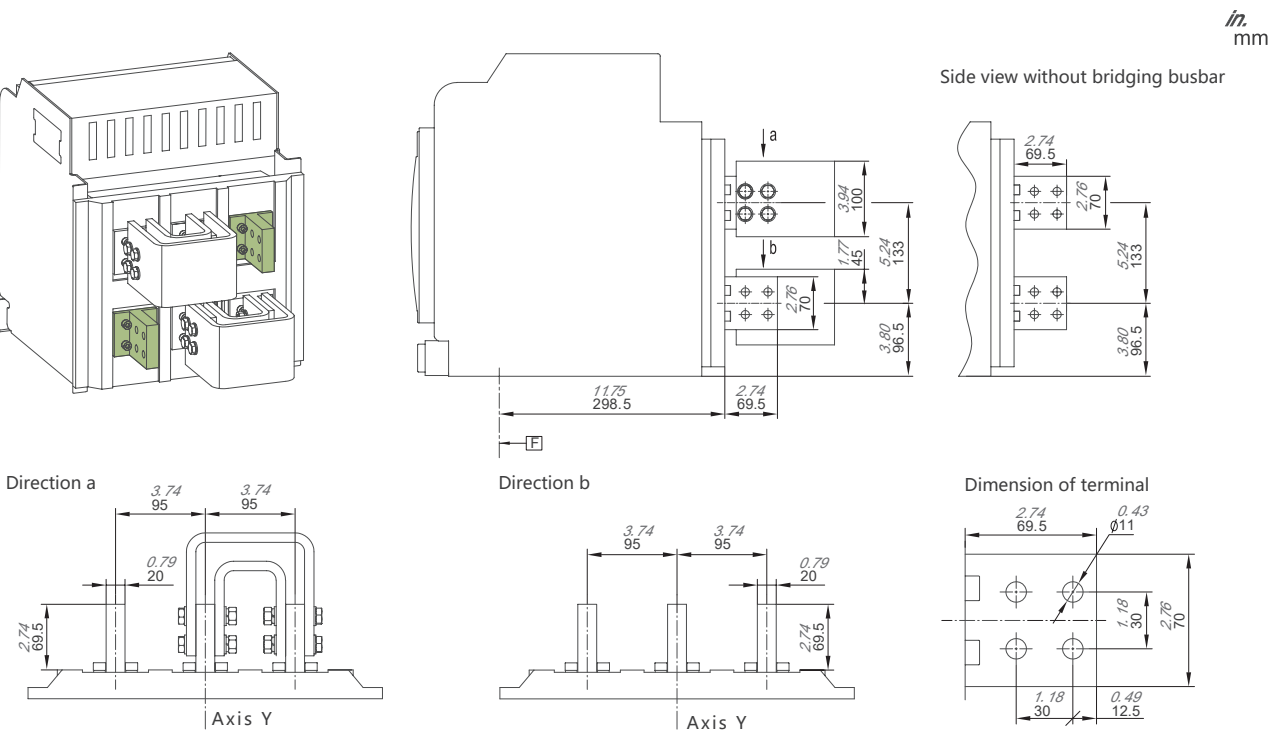


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

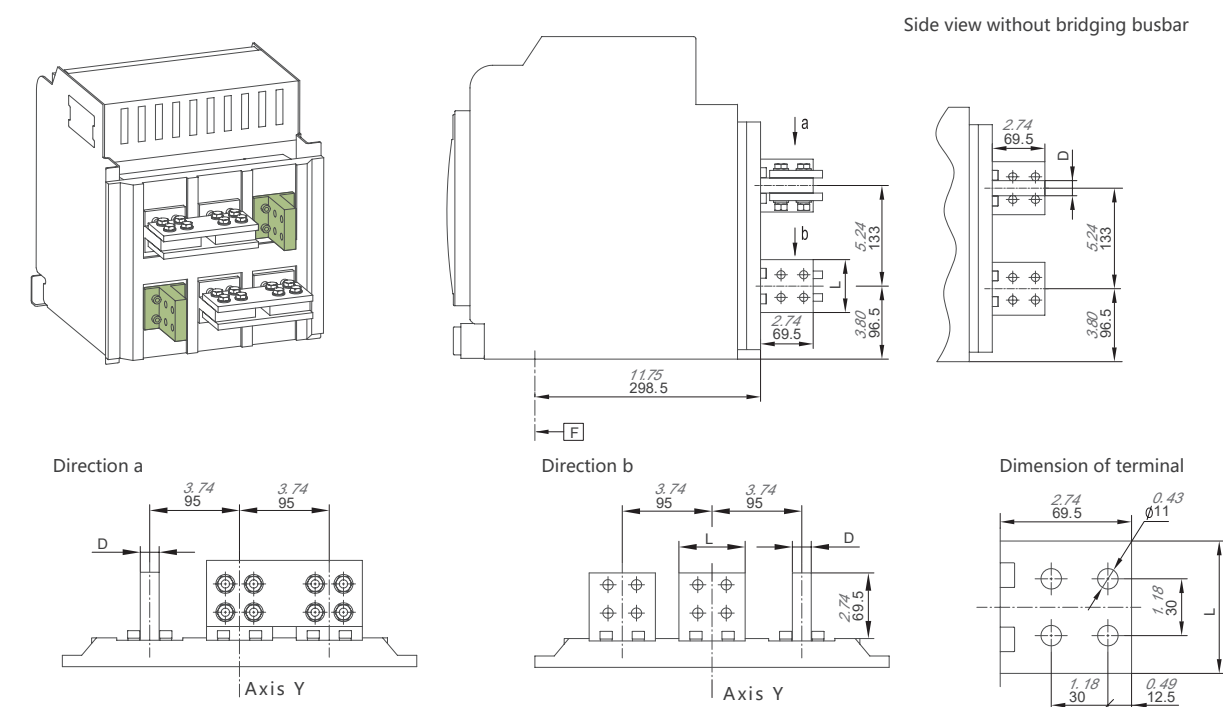
Installation Dimension

Ex9ASD-2500DC Draw-out type(type A connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



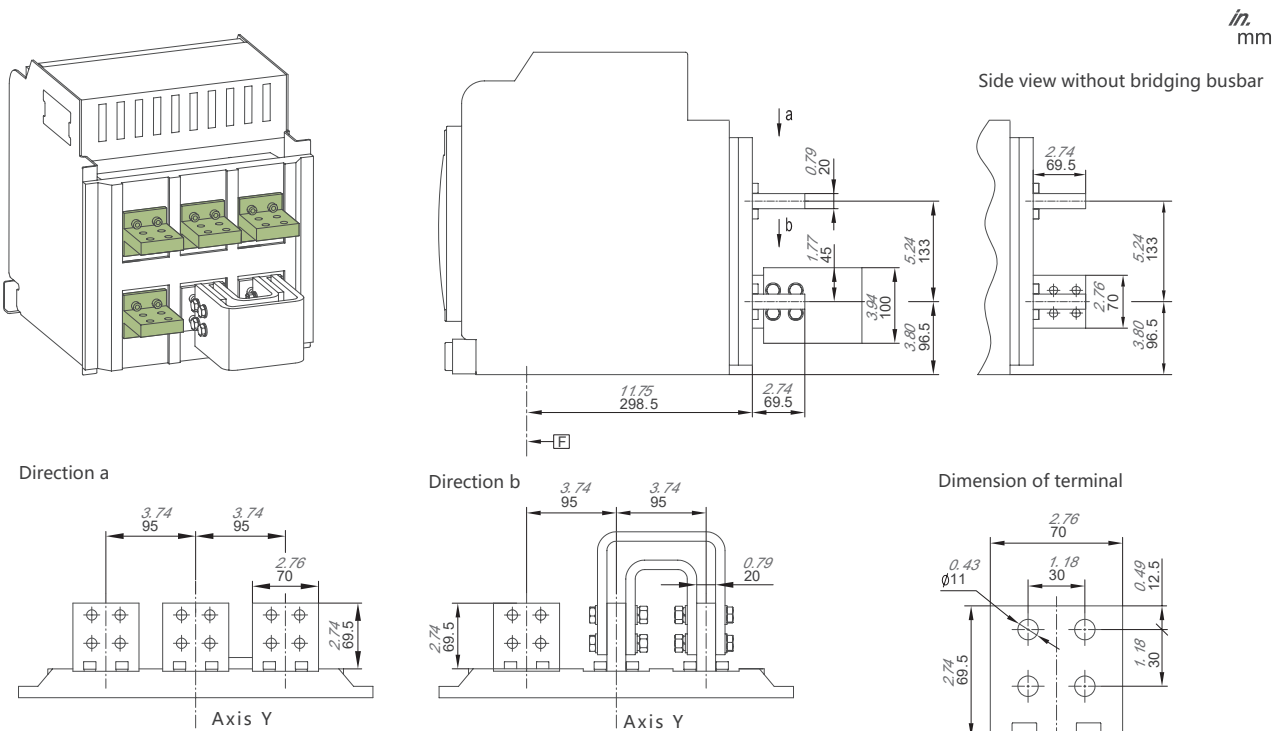
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

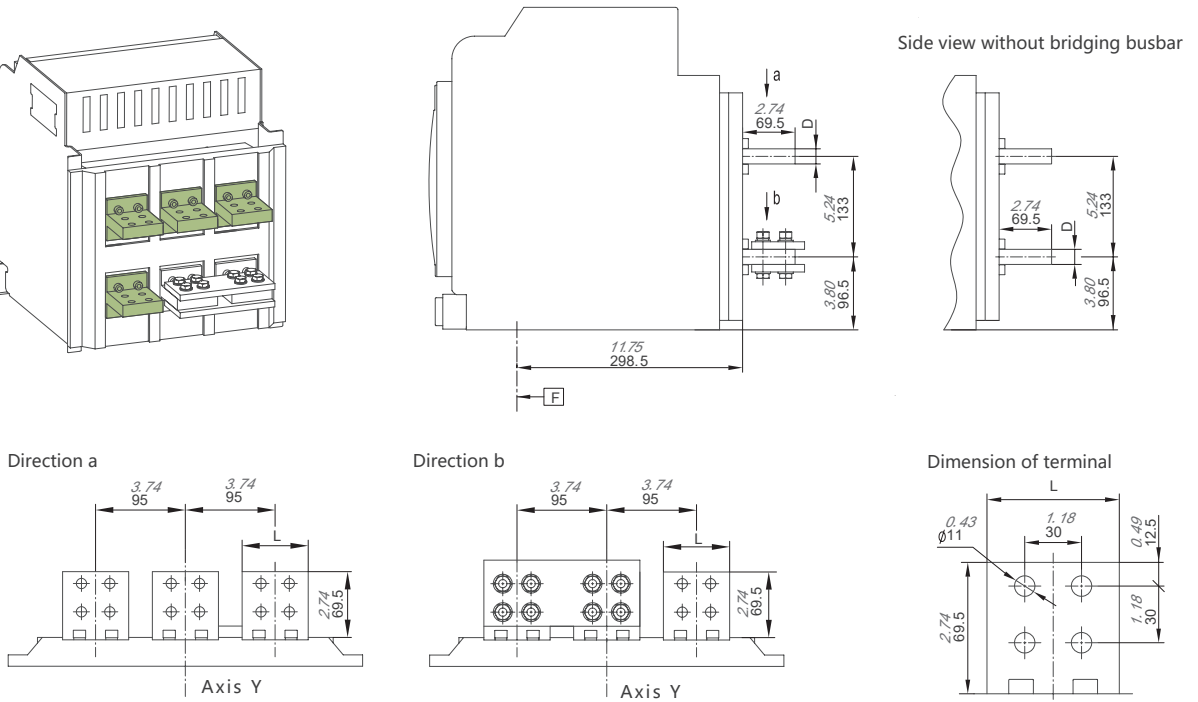
Ex9ASD-2500DC

Ex9ASD-2500DC Draw-out type(type B connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

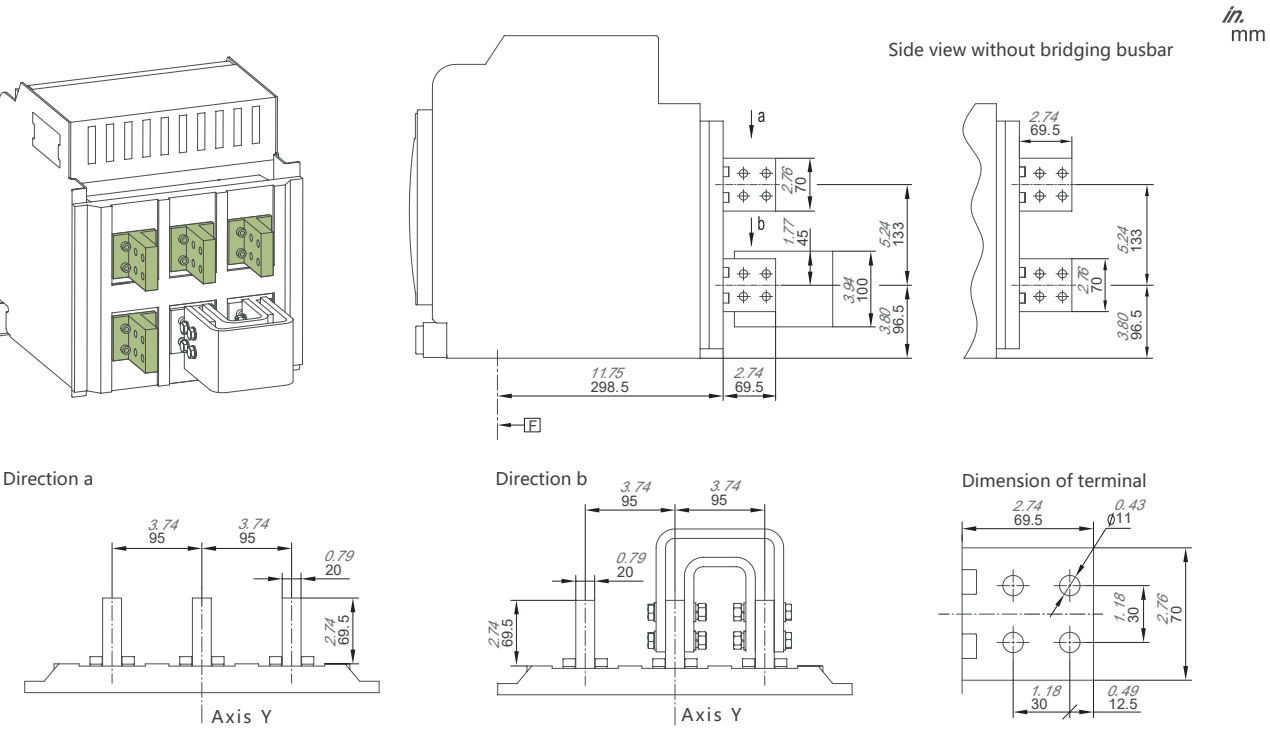


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

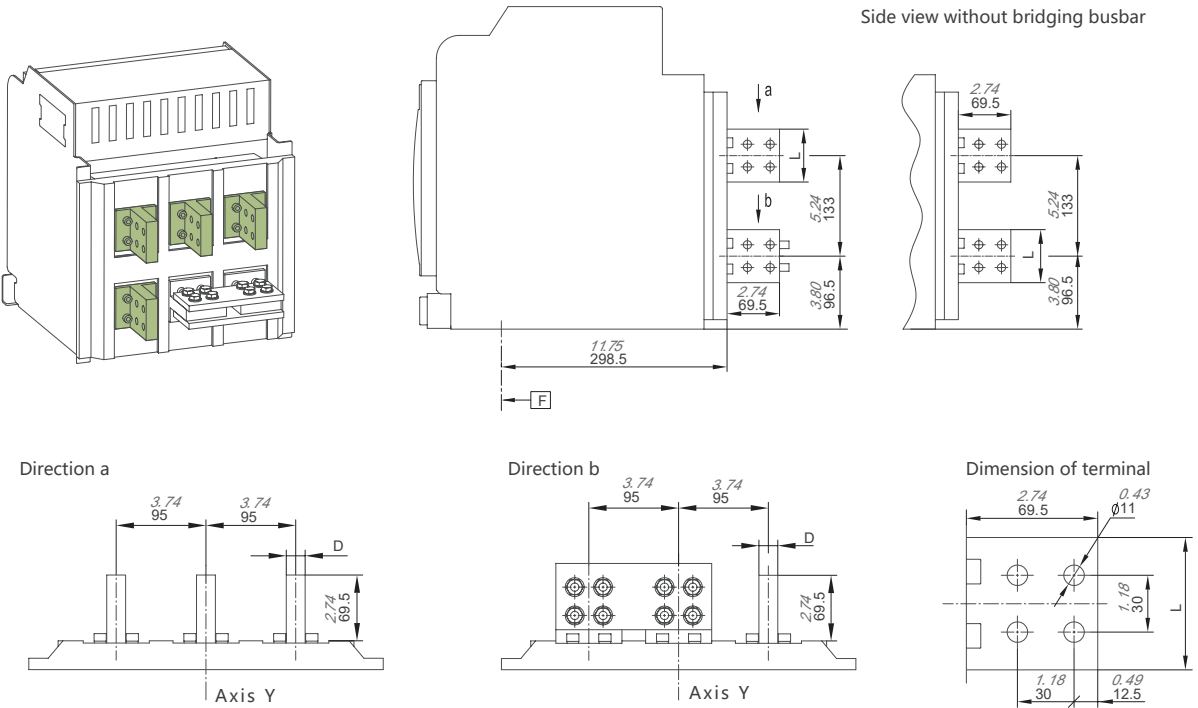
Installation Dimension

Ex9ASD-2500DC Draw-out type(type B connection)

Vertical connection, In=2500A



Vertical connection, In=630~2000A



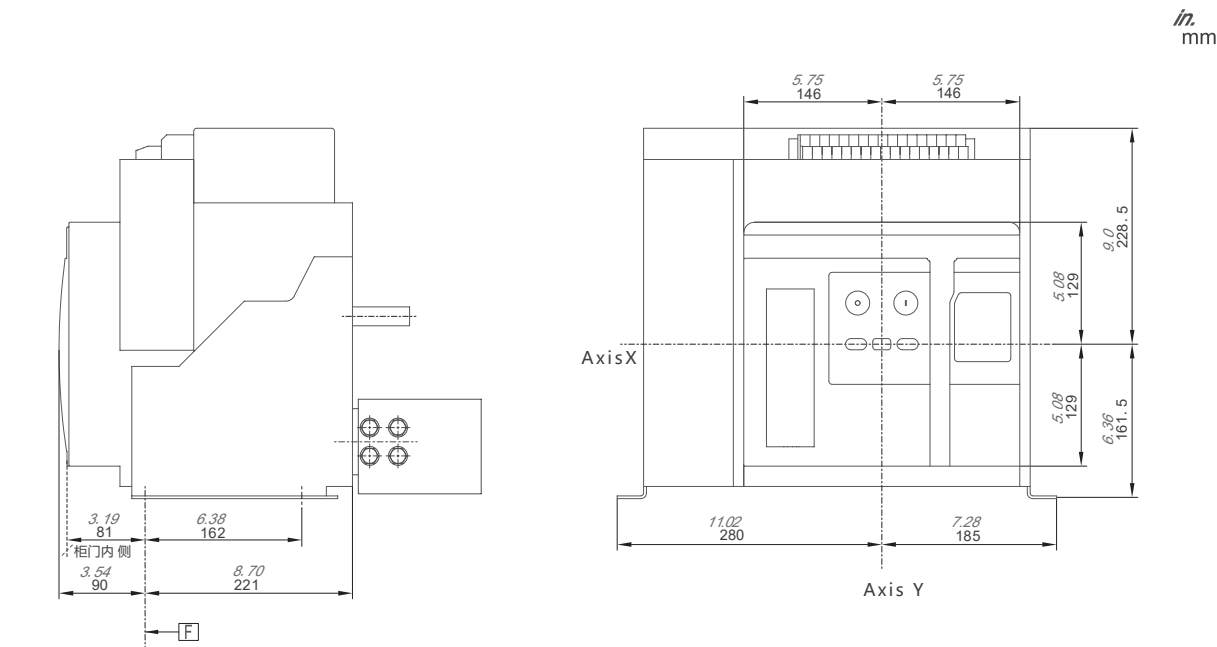
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm



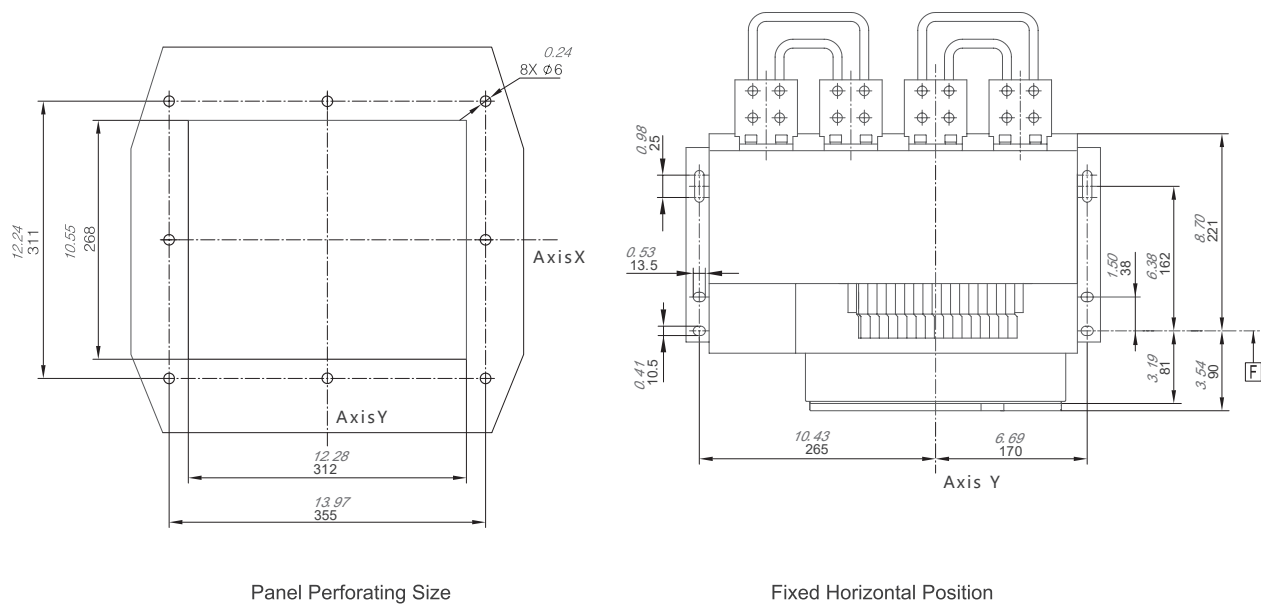
Installation Dimension

Ex9ASD-2500DC

Ex9ASD-2500DC fixed type(type C、 D connection)  
Overall dimension

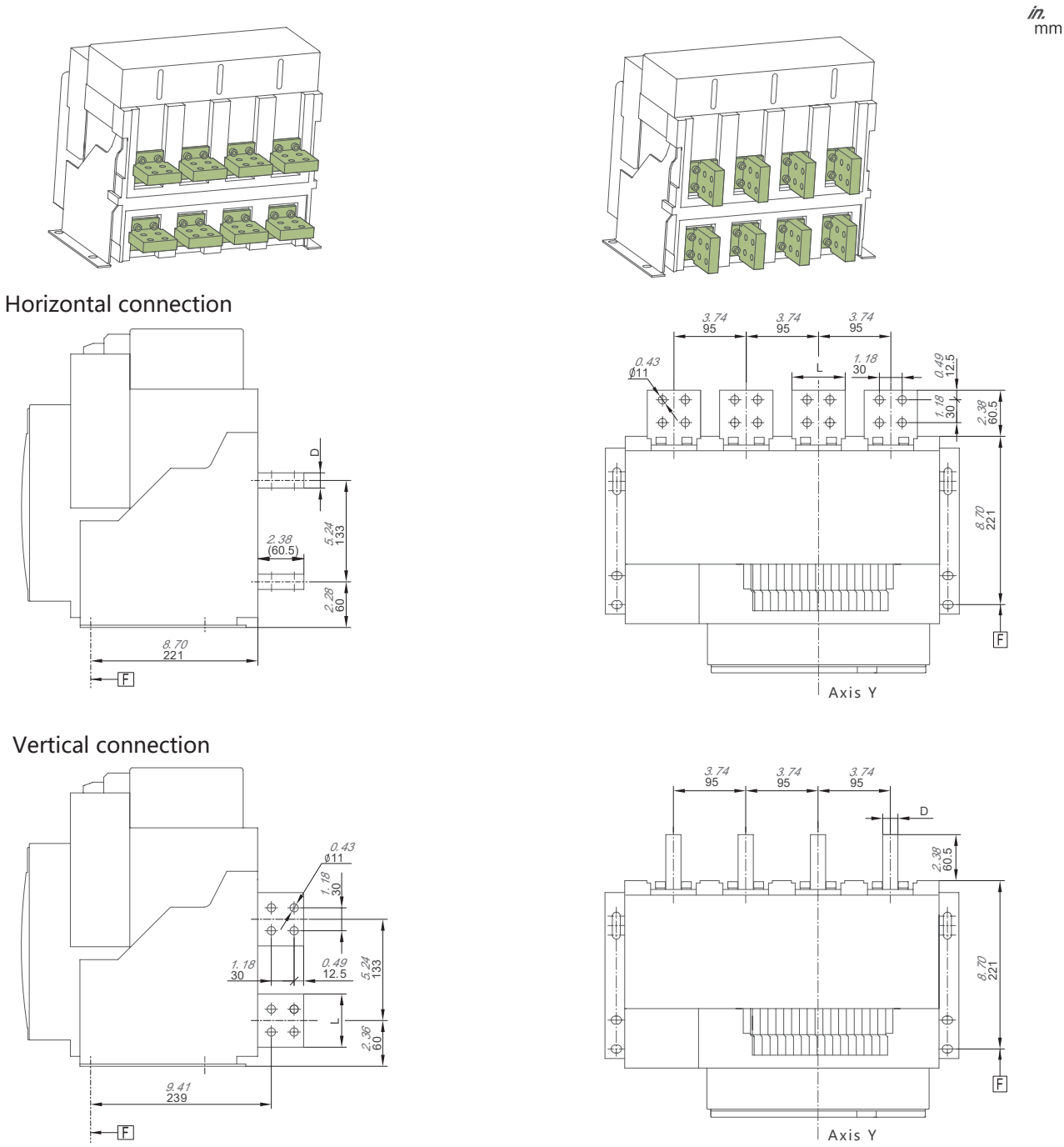


Installation dimension



Installation Dimension

Ex9ASD-2500DC fixed type(type C、 D connection)  
Installation dimension of busbar without bridging busbar



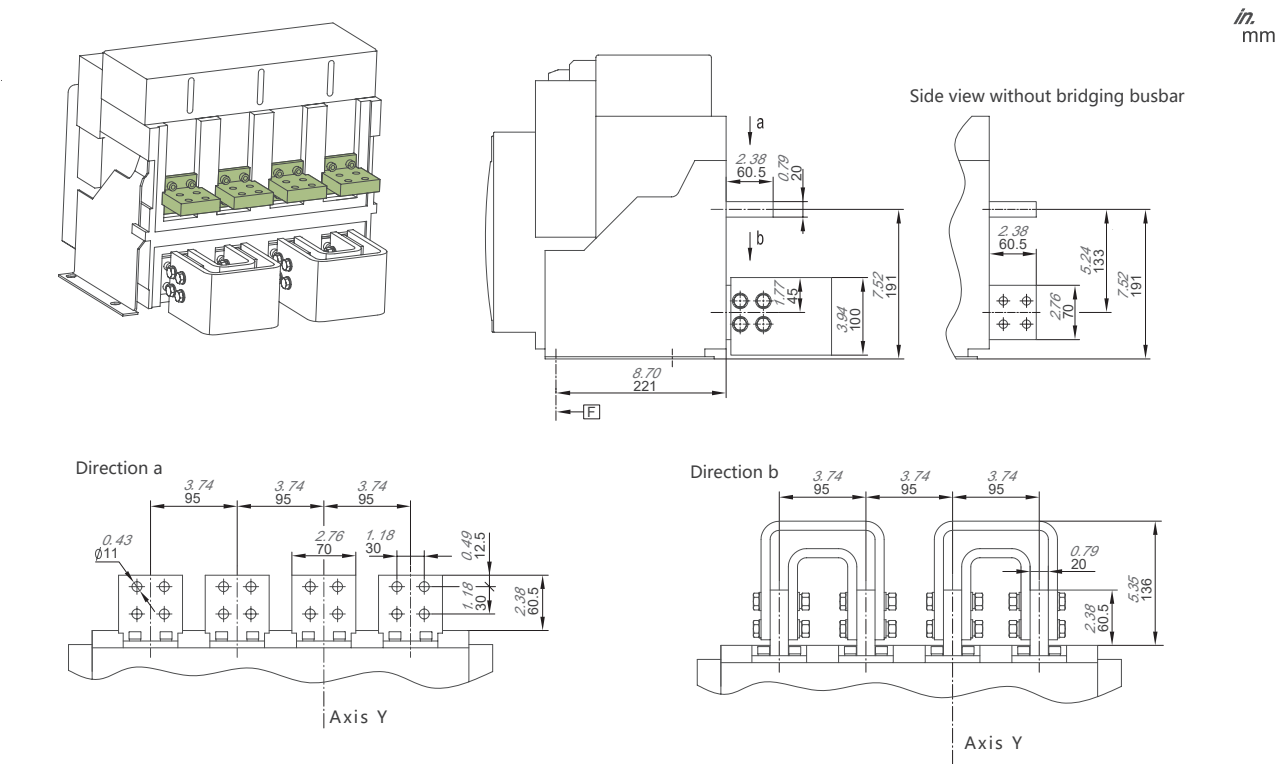
Rated current	D	L
630A~1600A	15mm	60mm
2000A~2500A	20mm	70mm

Installation Dimension

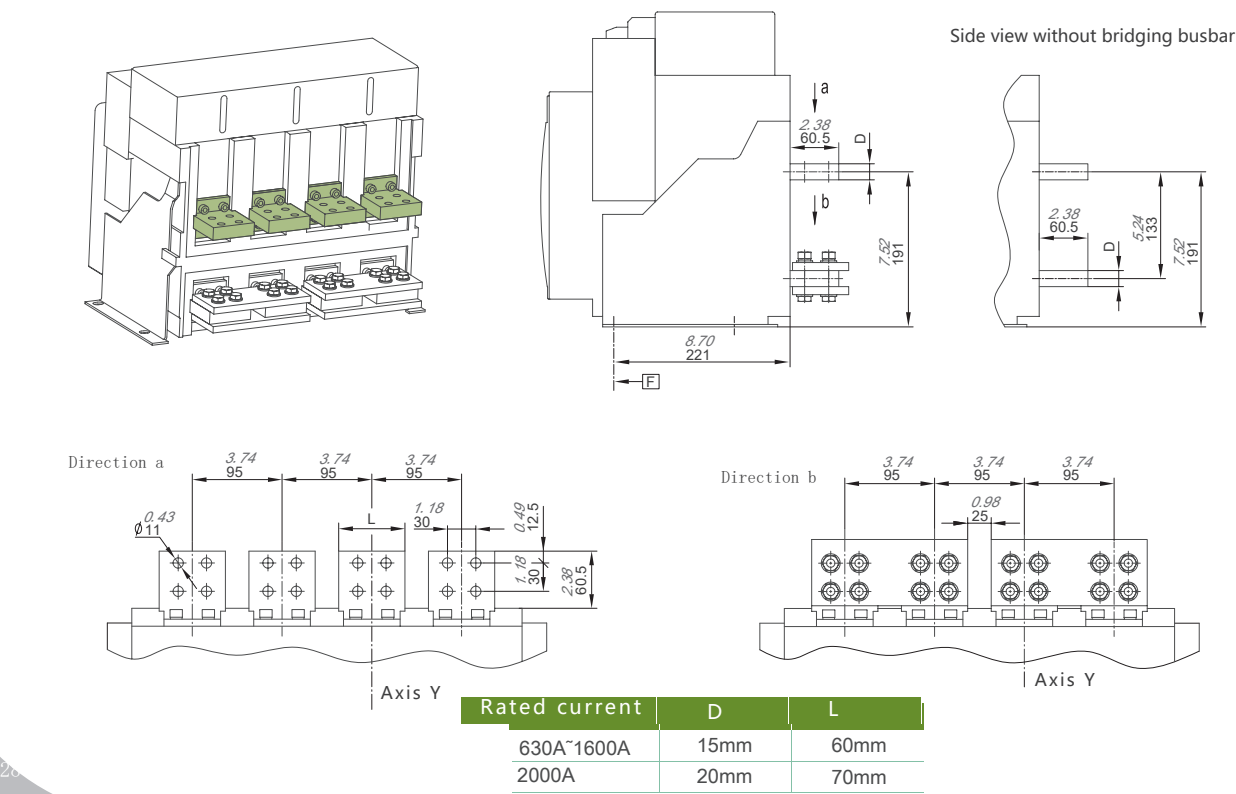
Ex9ASD-2500DC

Ex9ASD-2500DC fixed type(type C connection)

Horizontal connection, In=2500A



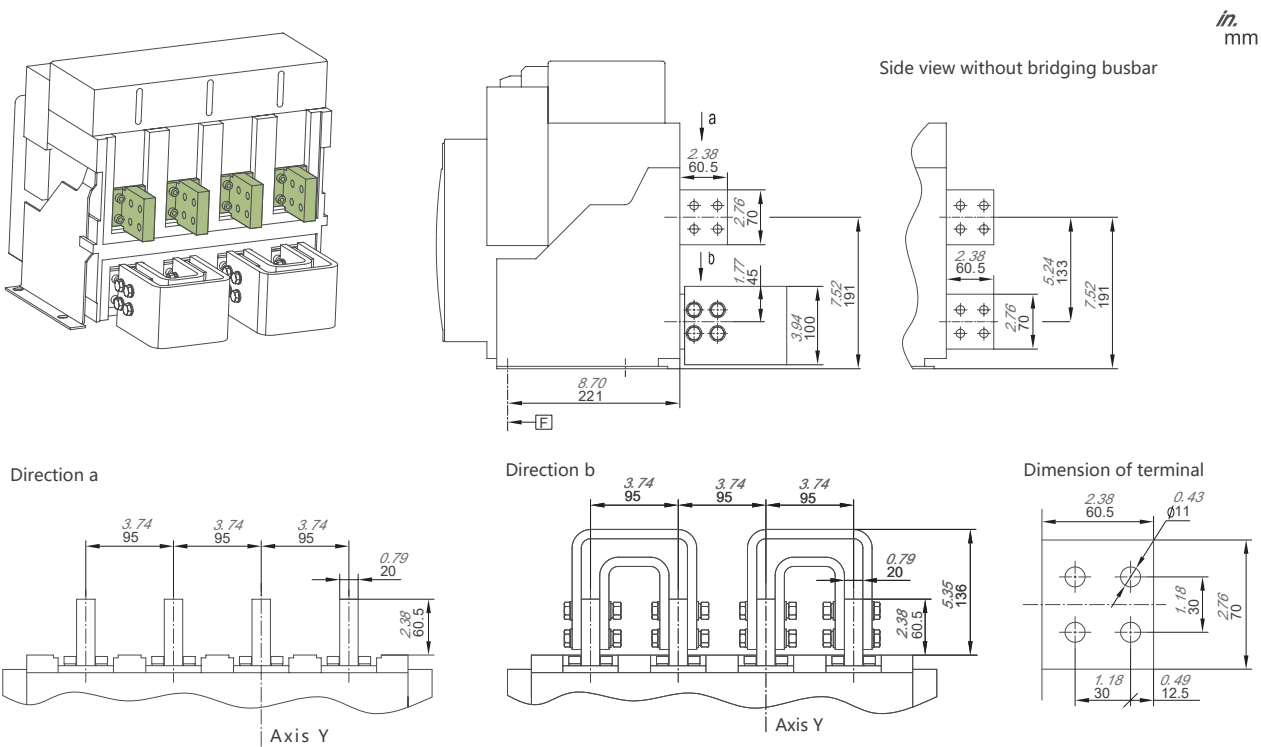
Horizontal connection, In=630A~2000A



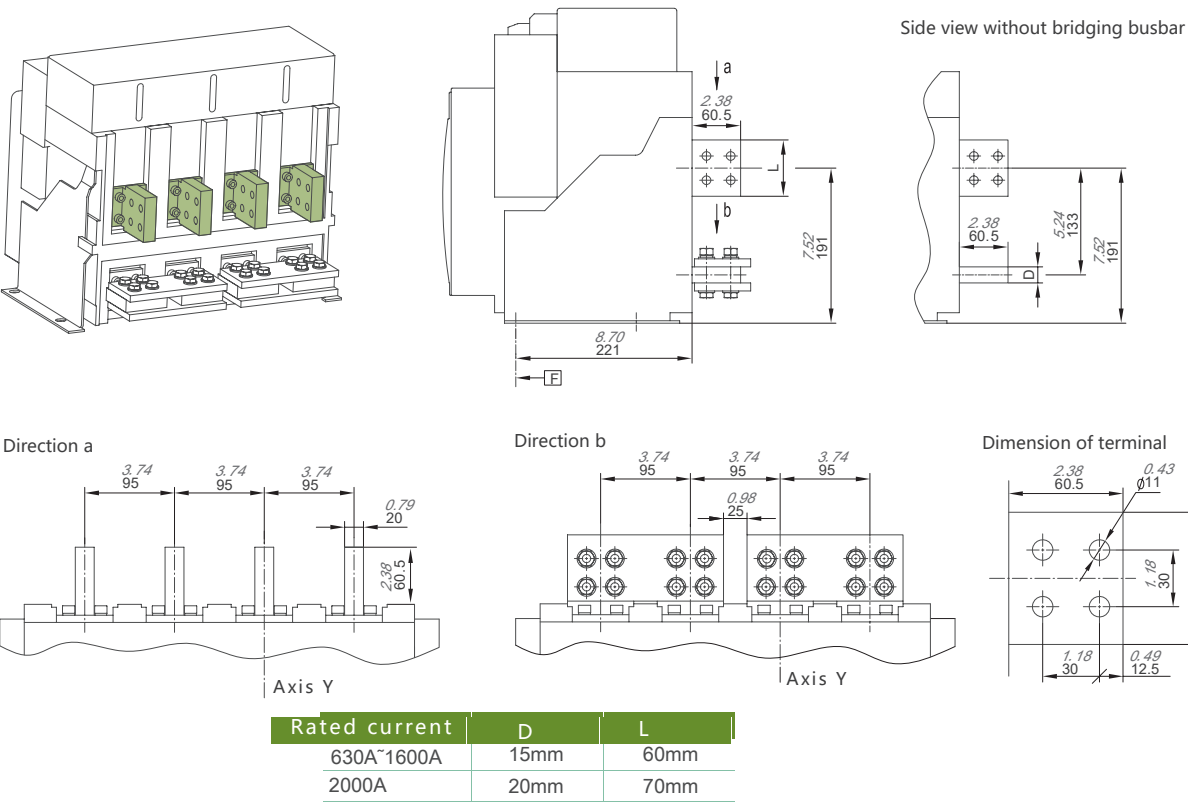
Installation Dimension

Ex9ASD-2500DC fixed type(type C connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A

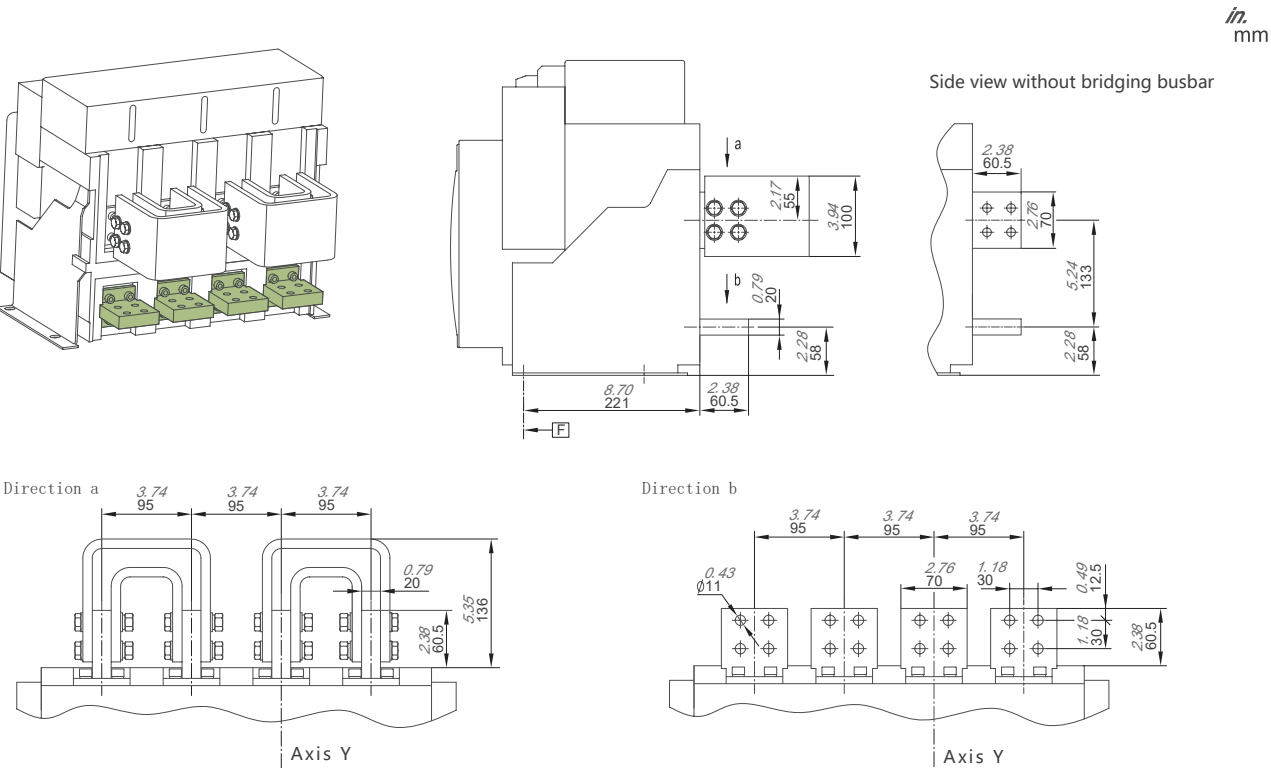


Installation Dimension

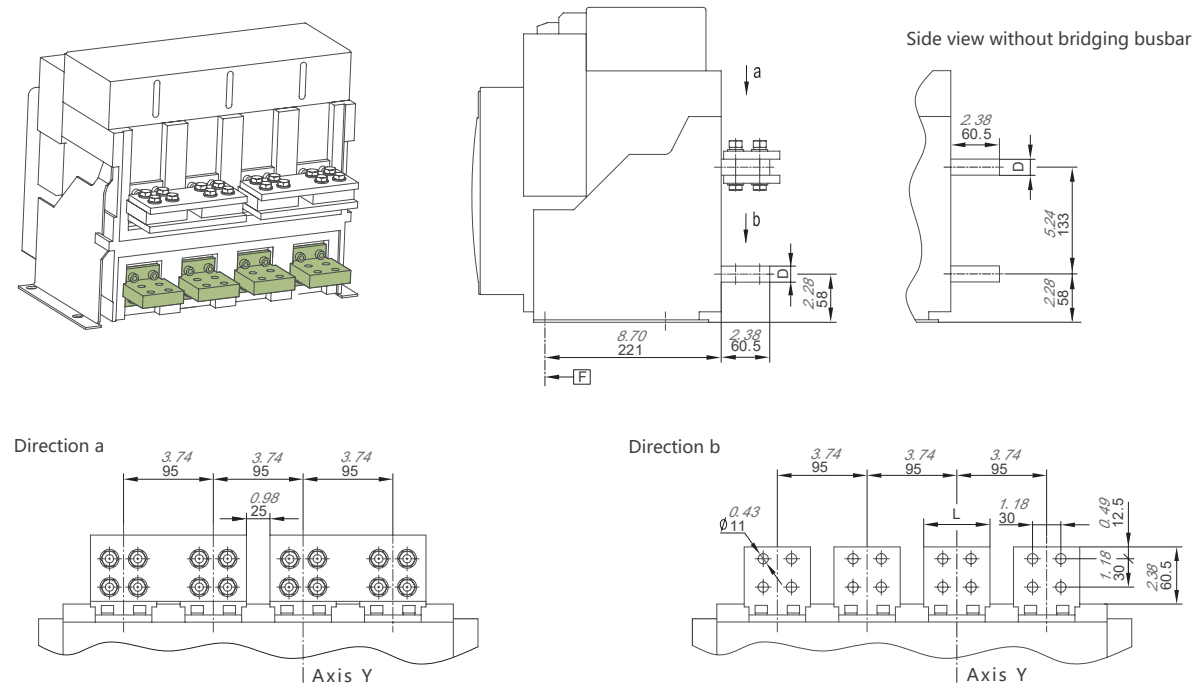
Ex9ASD-2500DC

Ex9ASD-2500DC fixed type(type C connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

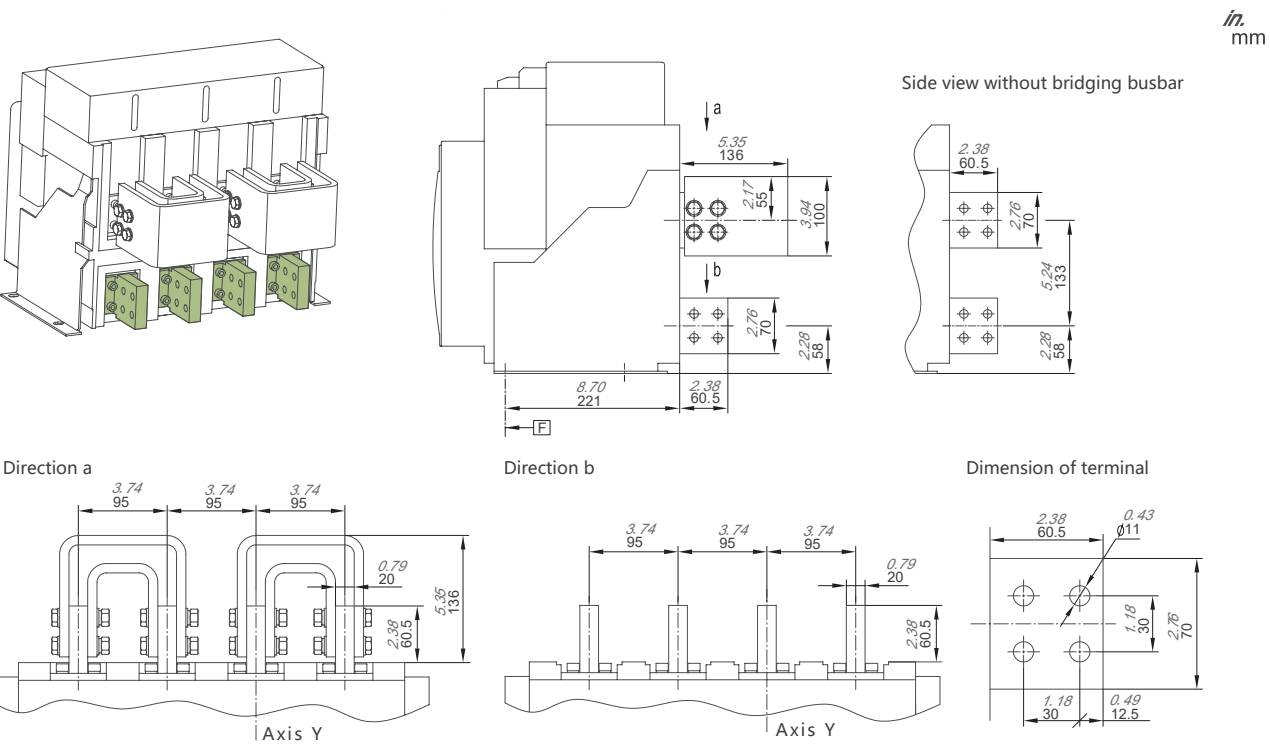


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

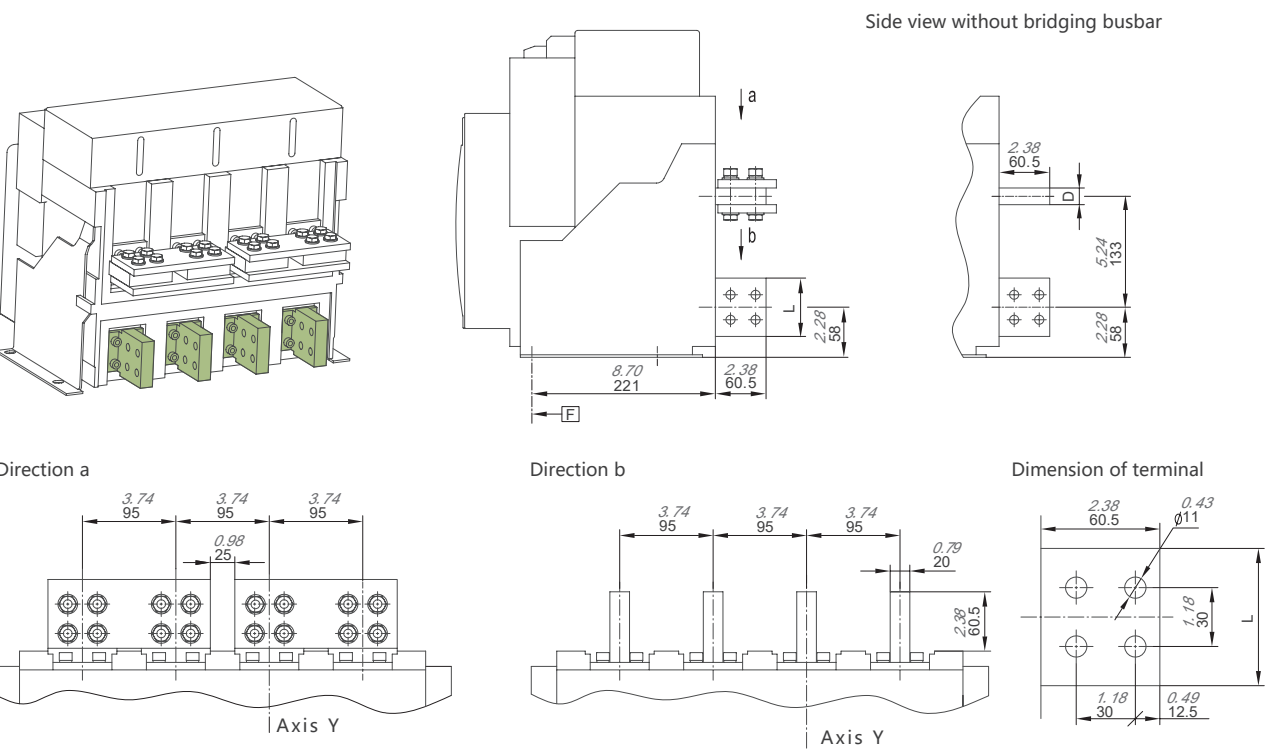
Installation Dimension

Ex9ASD-2500DC fixed type(type C connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A

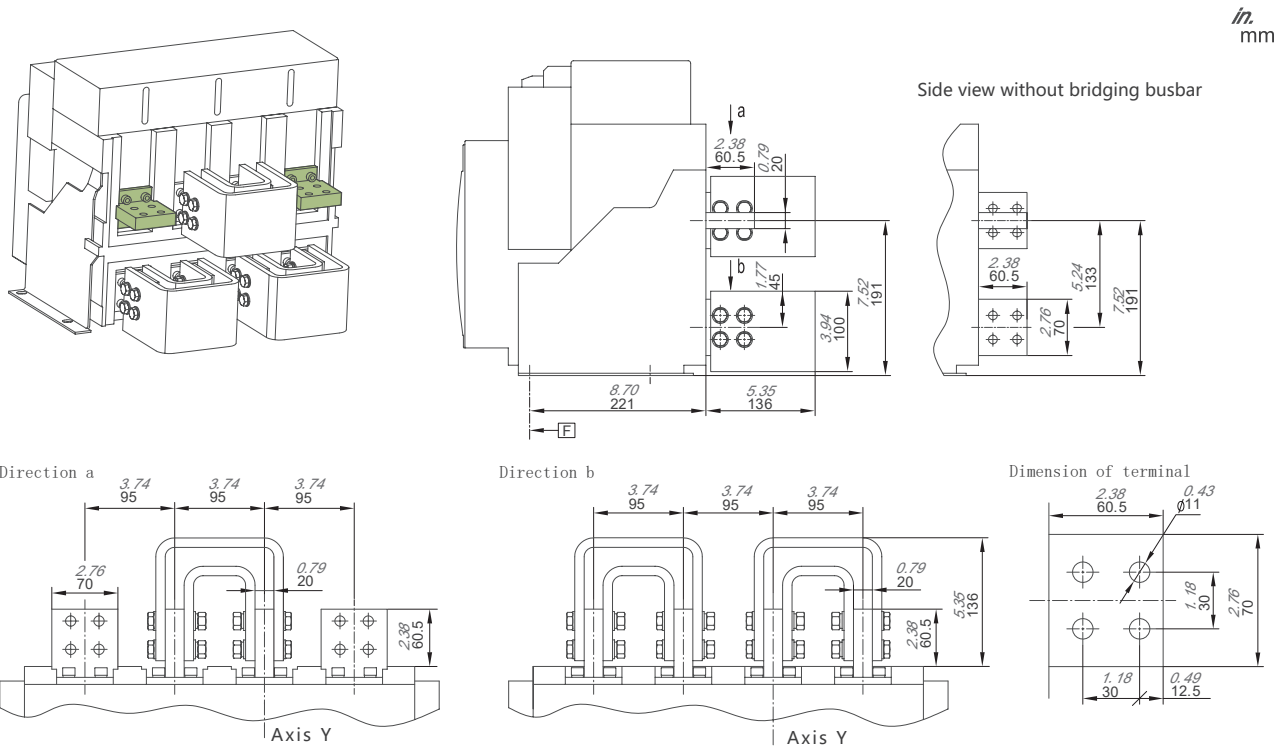


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

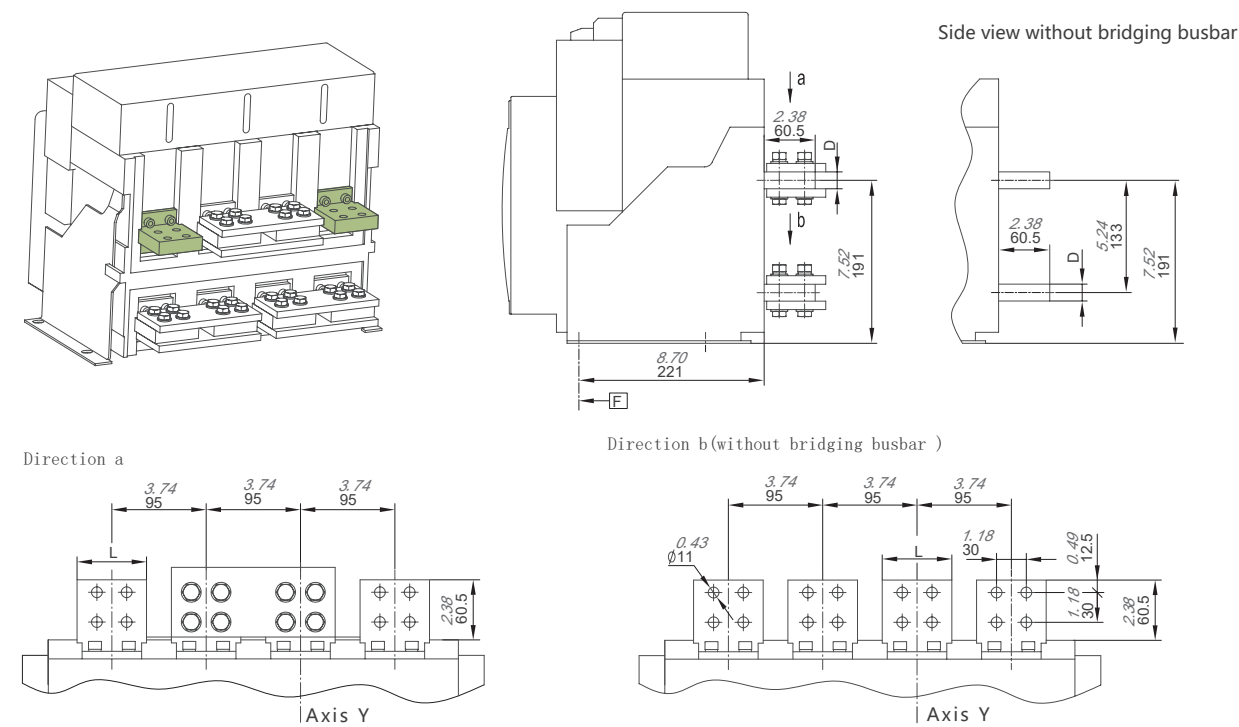
Installation Dimension

Ex9ASD-2500DC

Ex9ASD-2500DC fixed type(type D connection)  
Horizontal connection, In=2500A



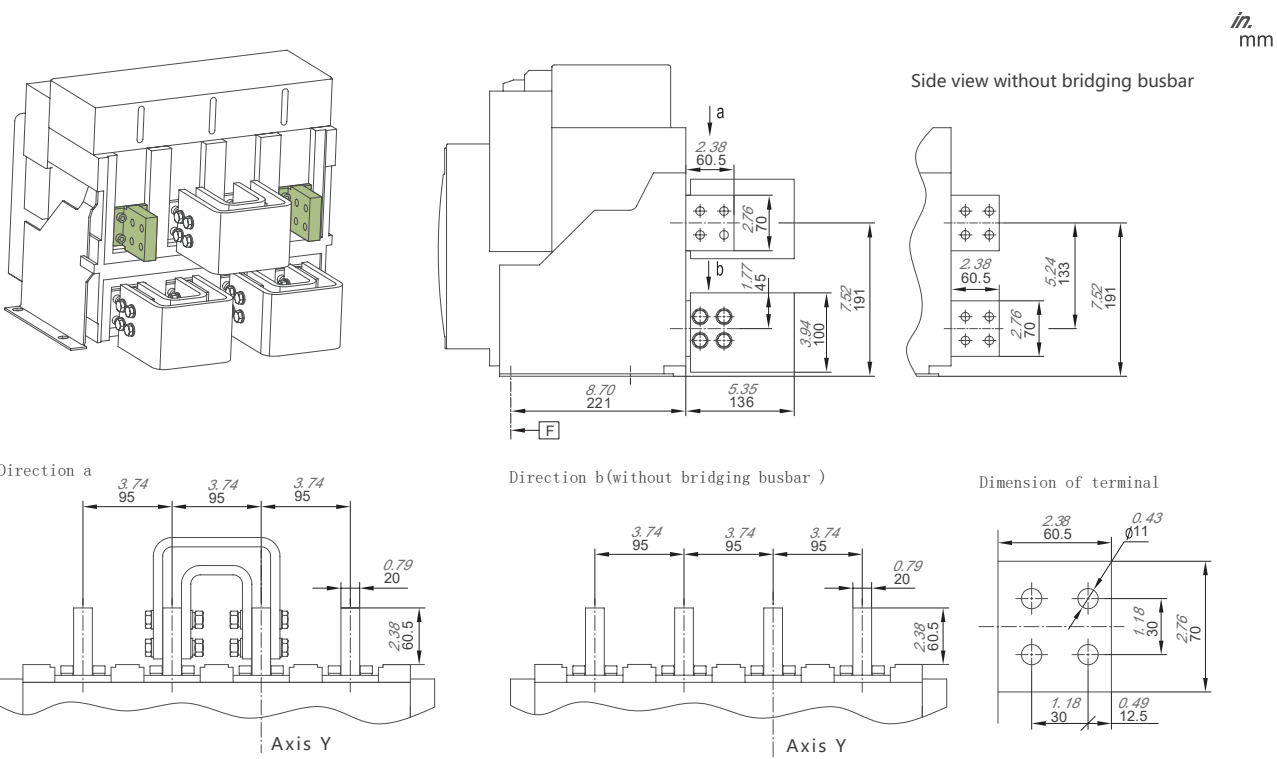
Horizontal connection, In=630A~2000A



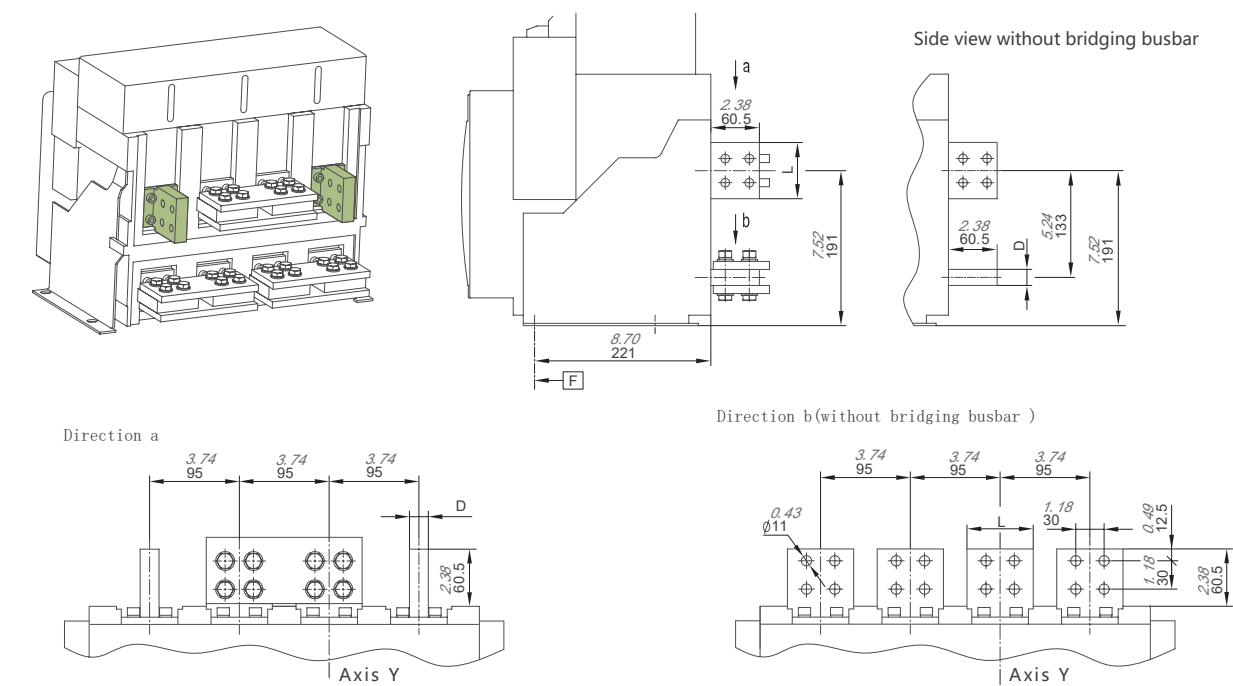
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

Ex9ASD-2500DC fixed type(type D connection)  
Vertical connection, In=2500A



Vertical connection, In=630A~2000A



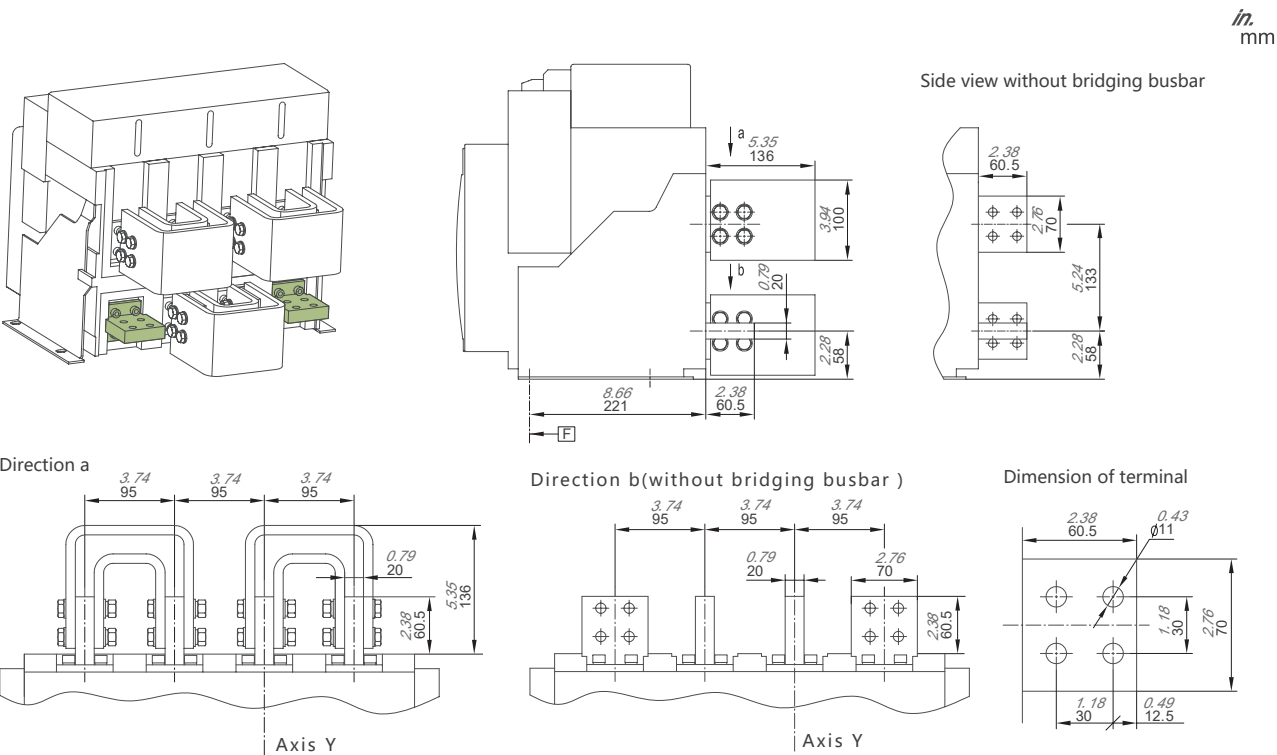
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

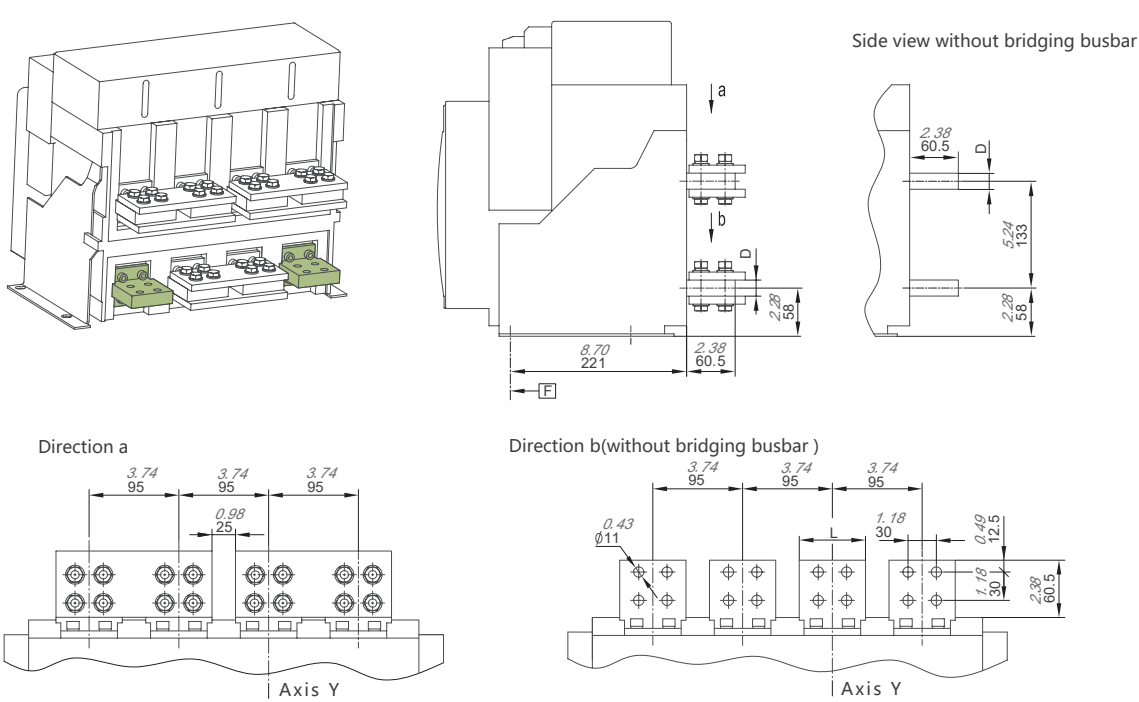
Ex9ASD-2500DC

Ex9ASD-2500DC fixed type(type D connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

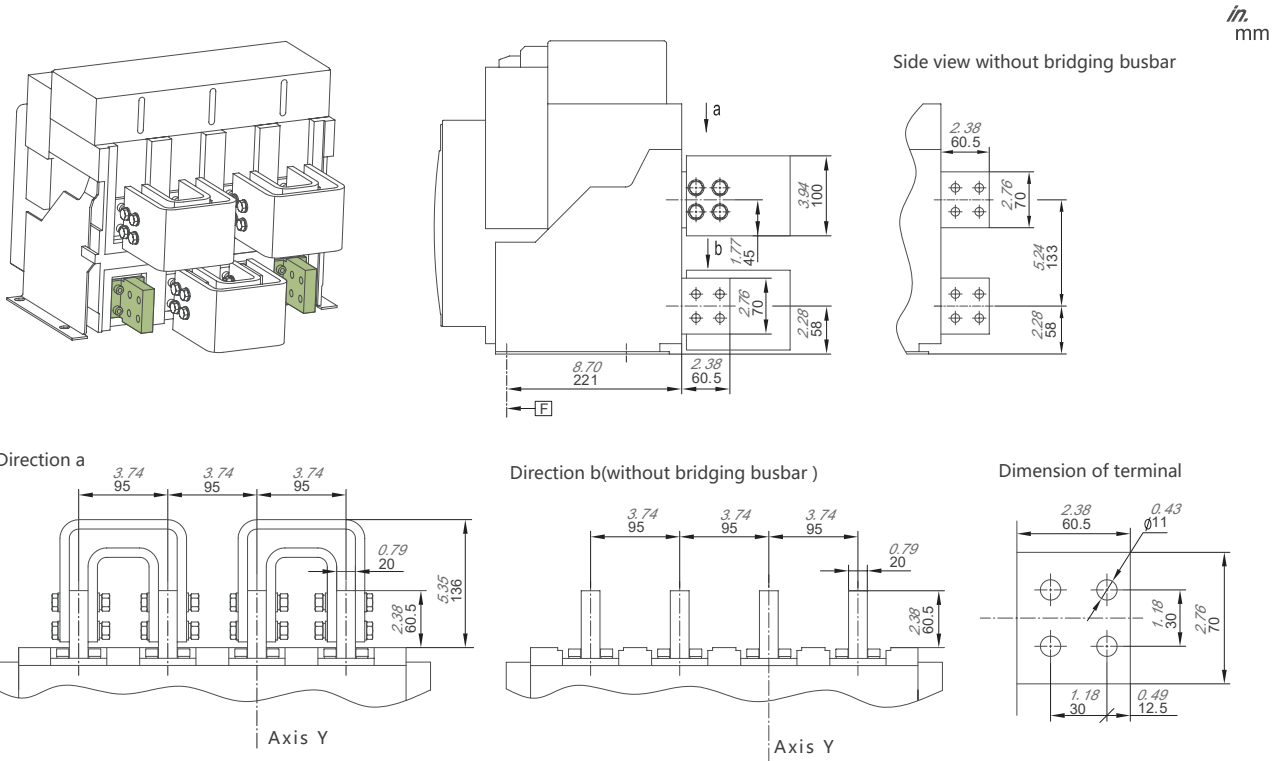


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

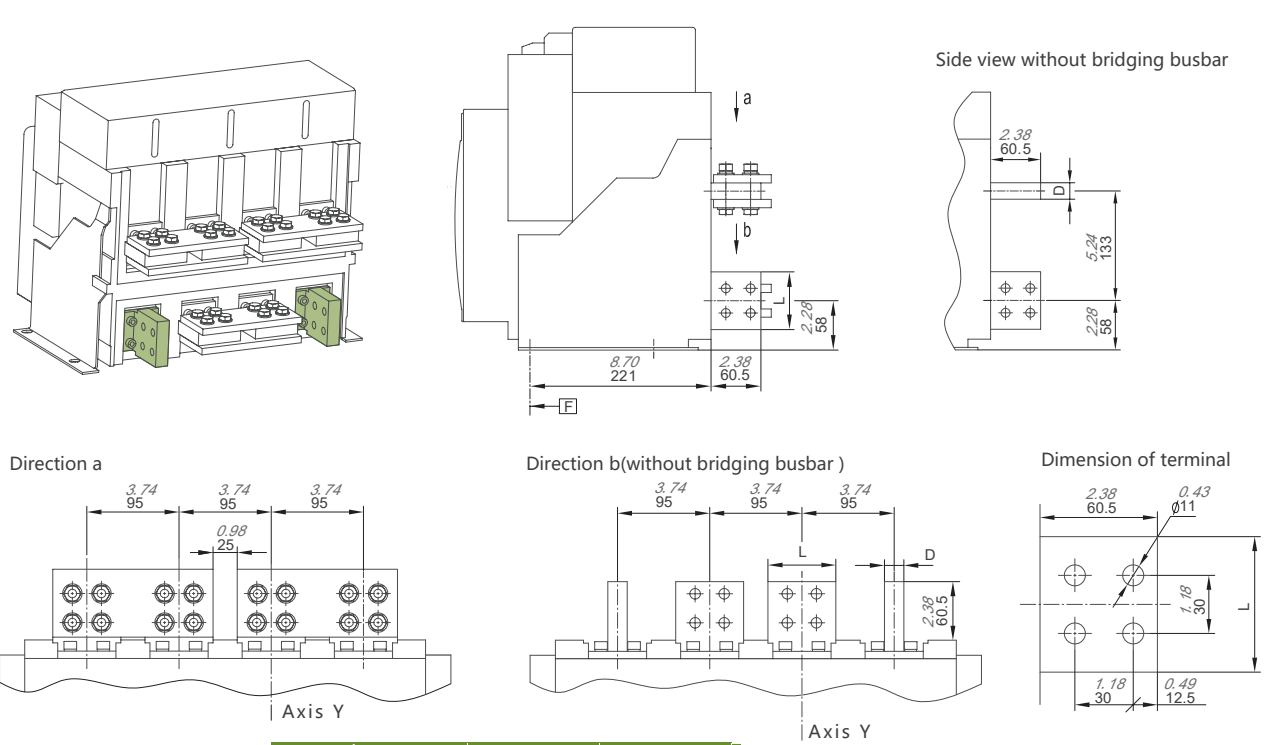
Installation Dimension

Ex9ASD-2500DC fixed type(type D connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



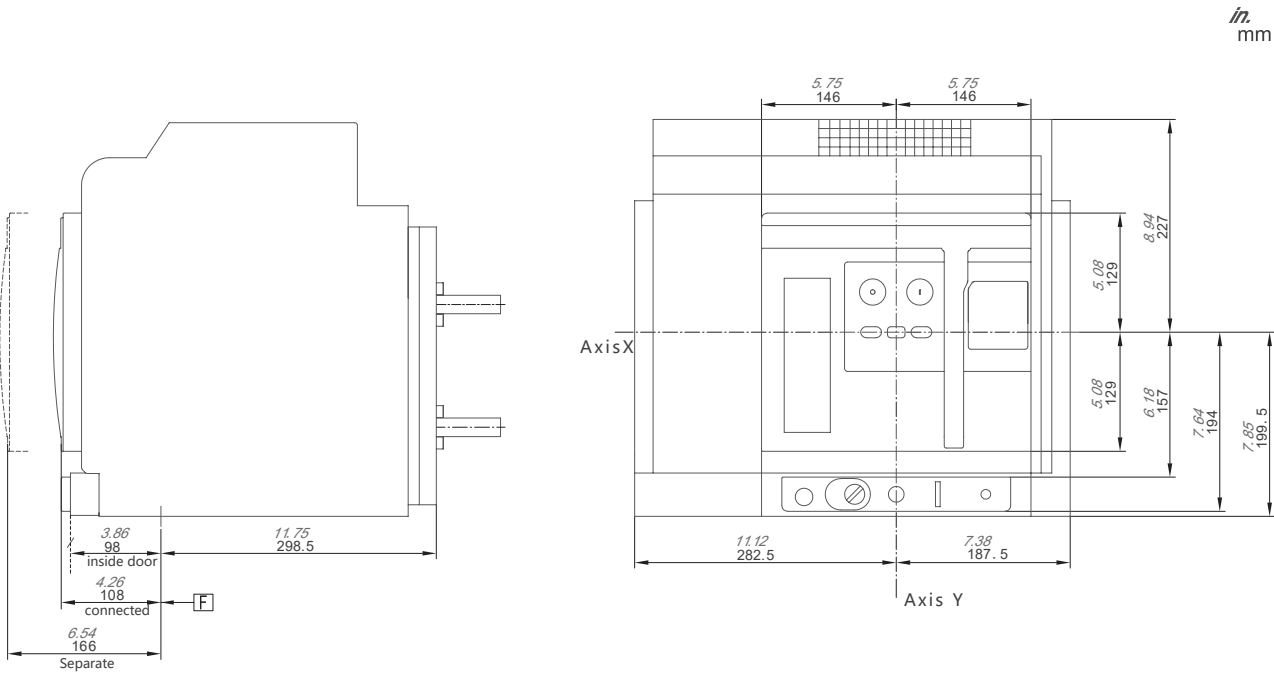
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm



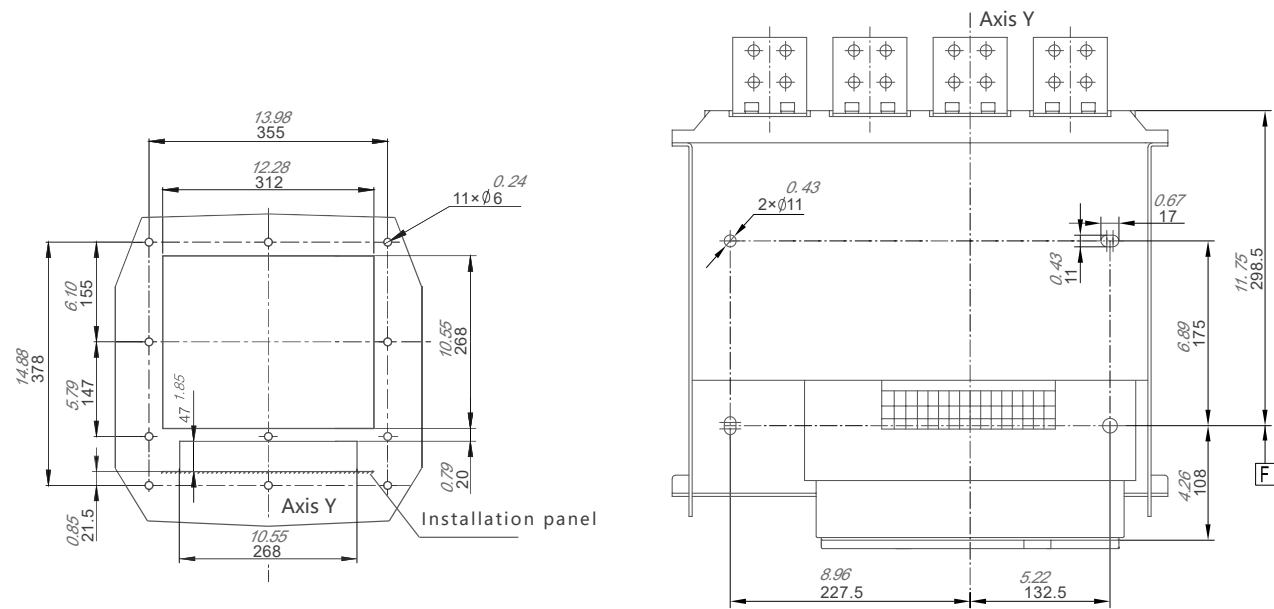
Installation Dimension

Ex9ASD-2500DC

Ex9ASD-2500DC draw-out type(type C、 D connection)  
Overall dimension



Installation dimension

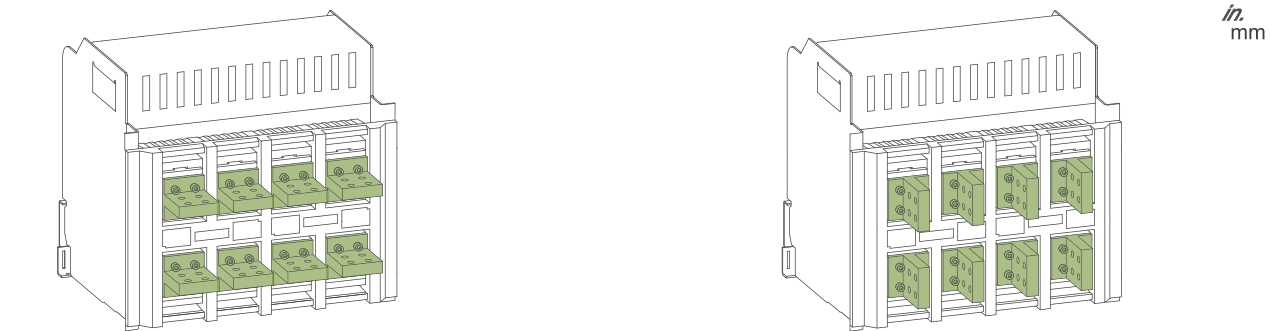


Panel Perforating Size

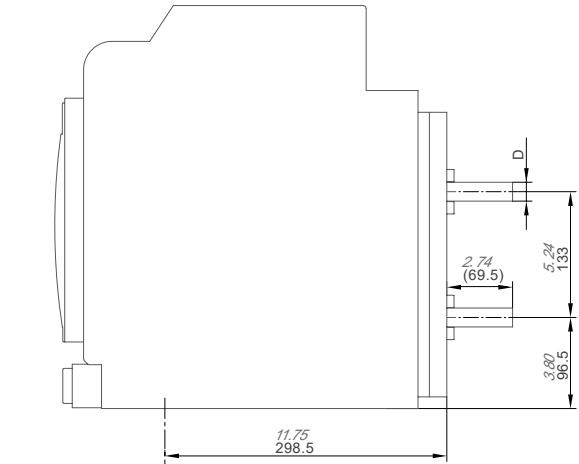
Fixed Horizontal Position

Installation Dimension

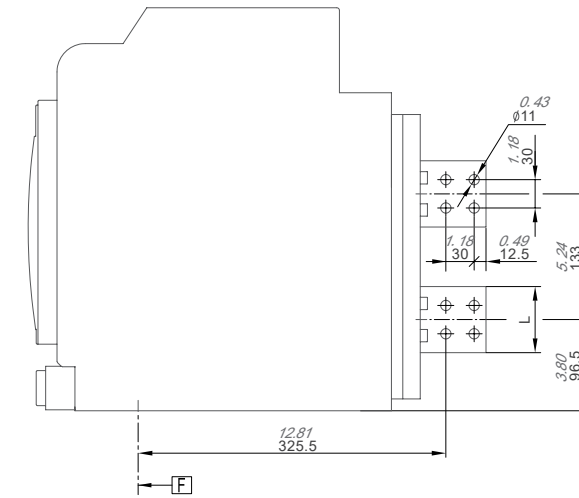
Ex9ASD-2500DC draw-out type(type C、 D connection)  
installation dimension of busbar without bridging busbar.



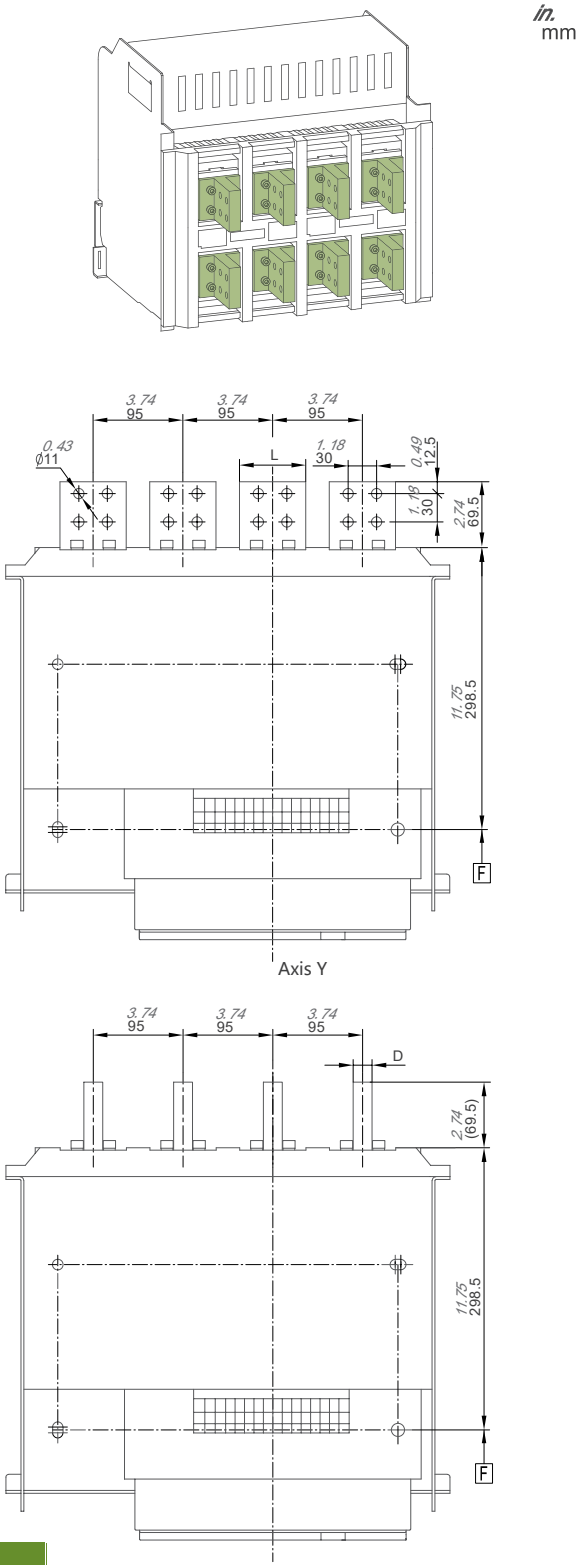
Horizontal connection



Vertical connection



Rated current	D	L
630A~1600A	15mm	60mm
2000A~2500A	20mm	70mm

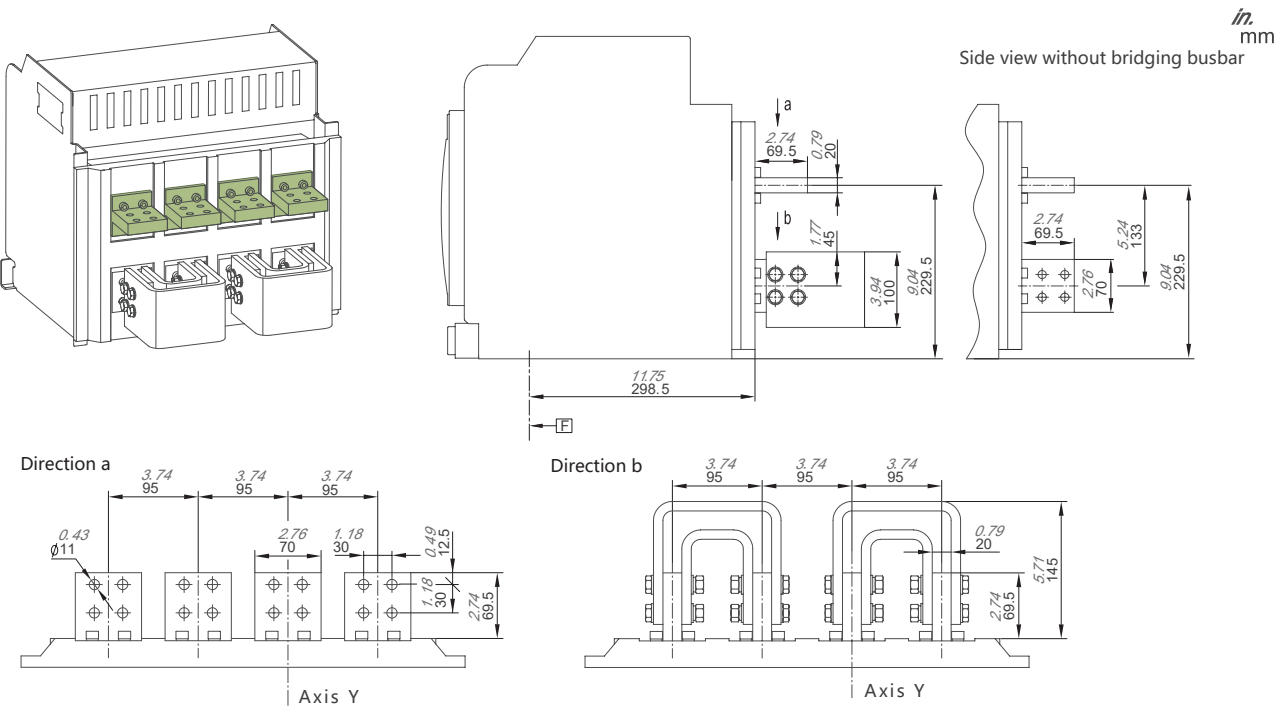


Installation Dimension

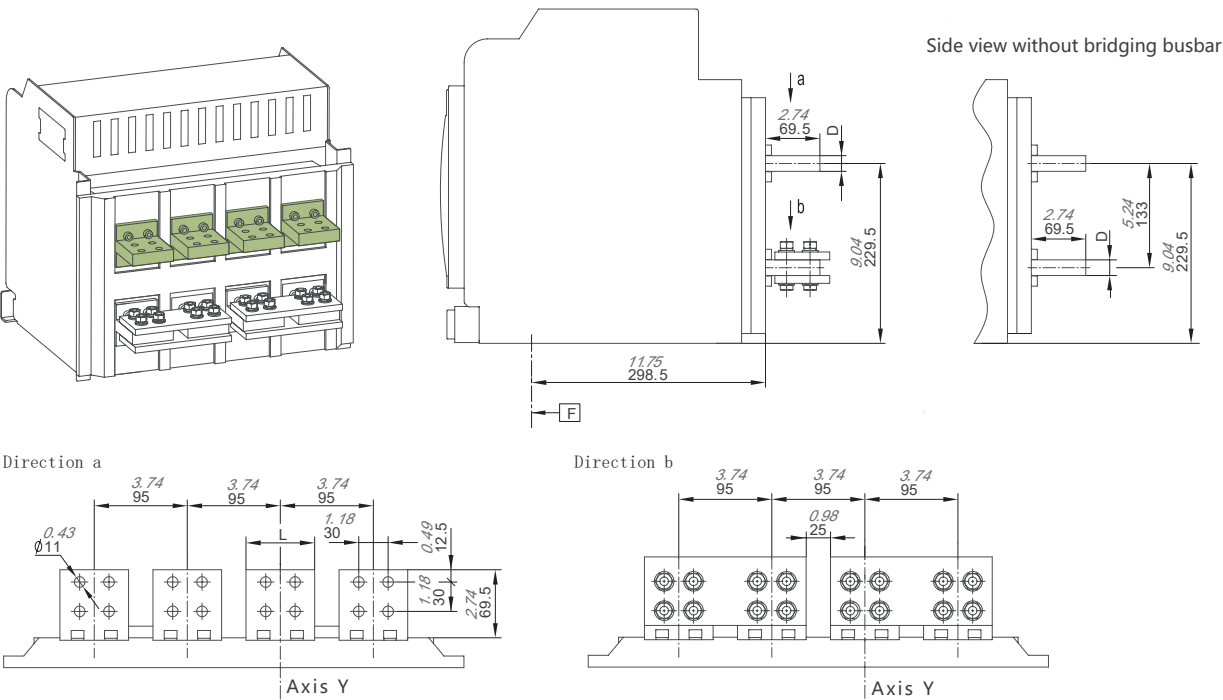
Ex9ASD-2500DC

Ex9ASD-2500DC draw-out type(type C connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

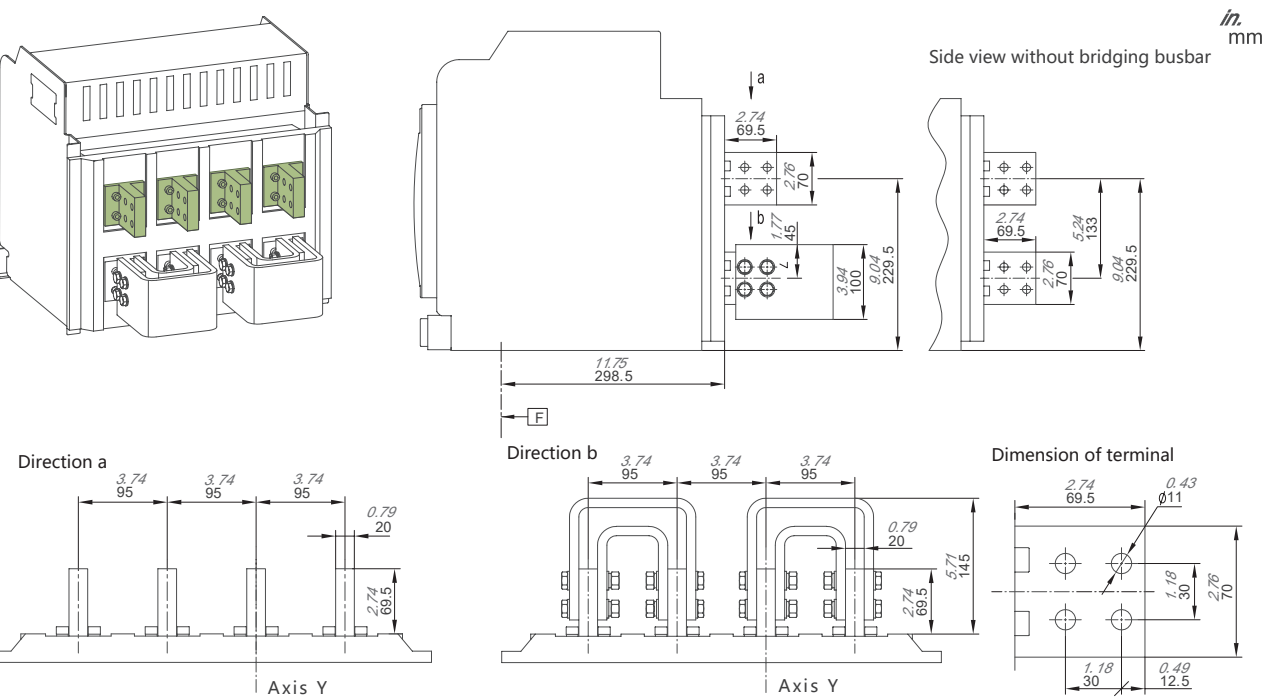


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

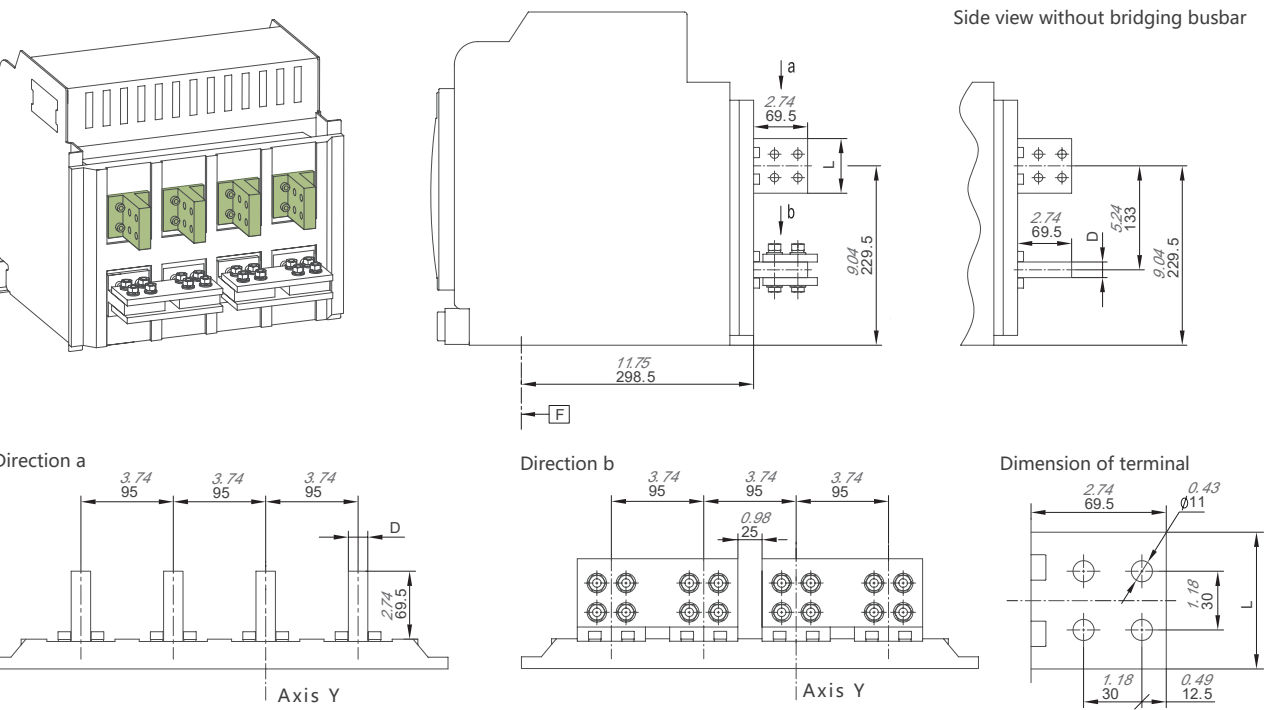
Installation Dimension

Ex9ASD-2500DC draw-out type(type C connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



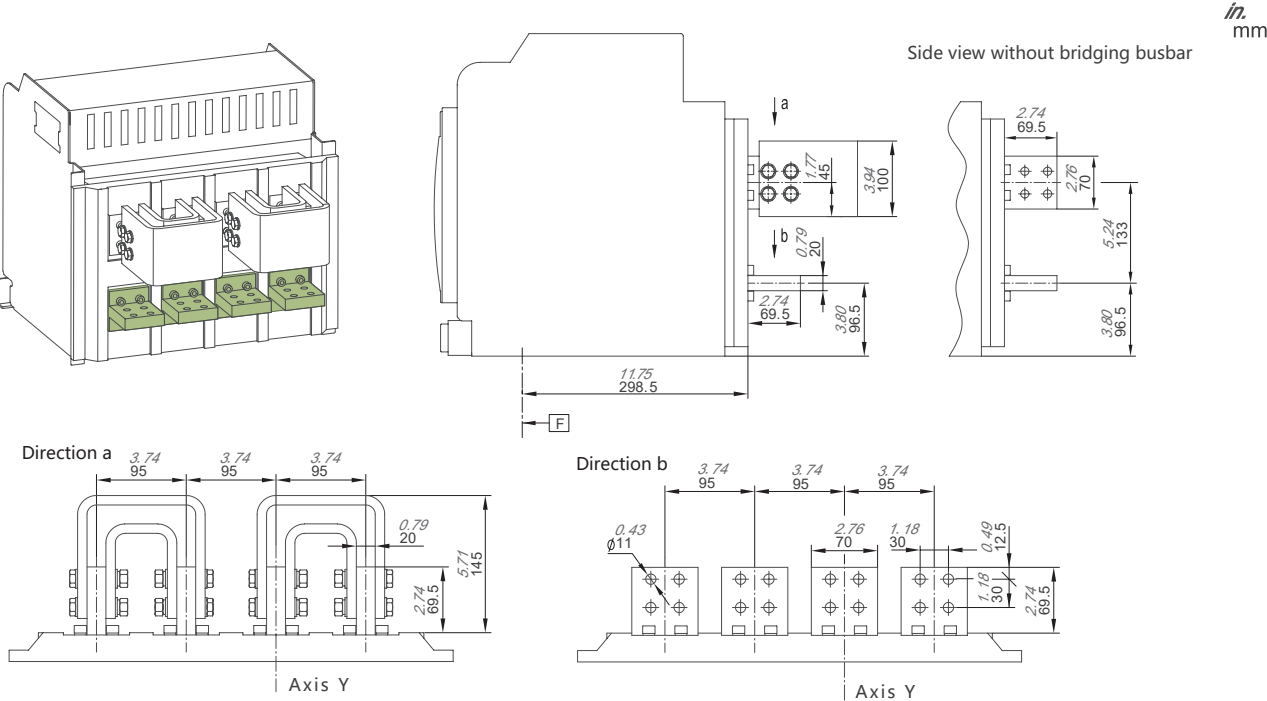
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

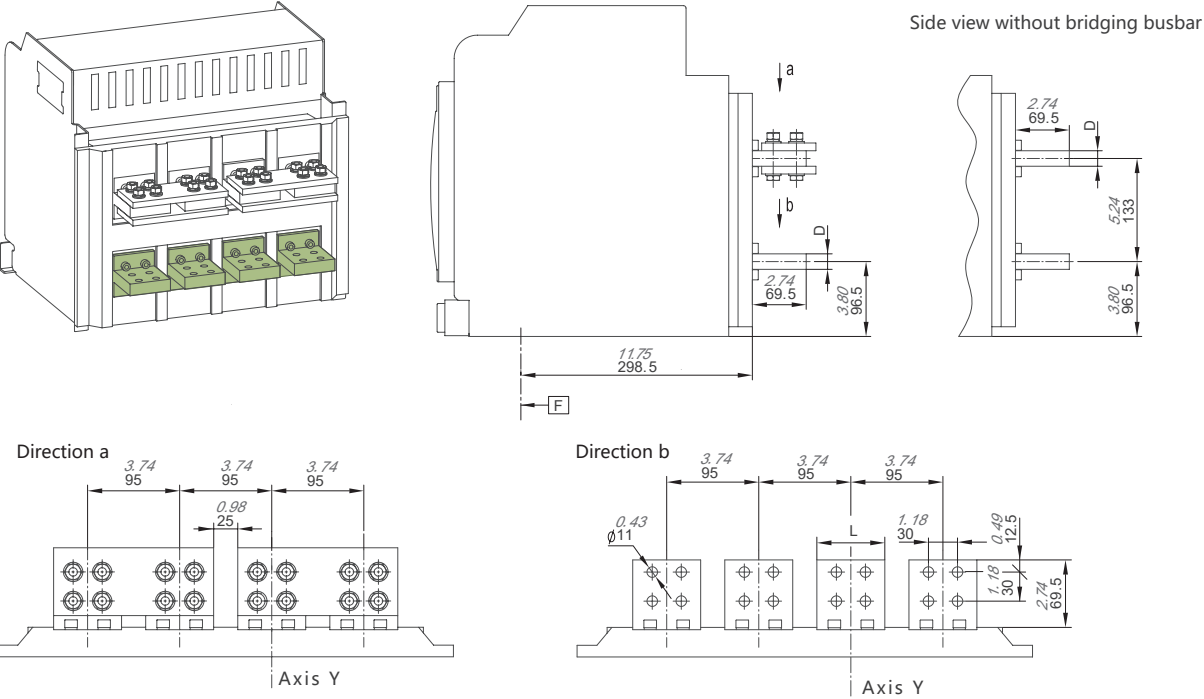
Ex9ASD-2500DC

Ex9ASD-2500DC draw-out type(type C connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

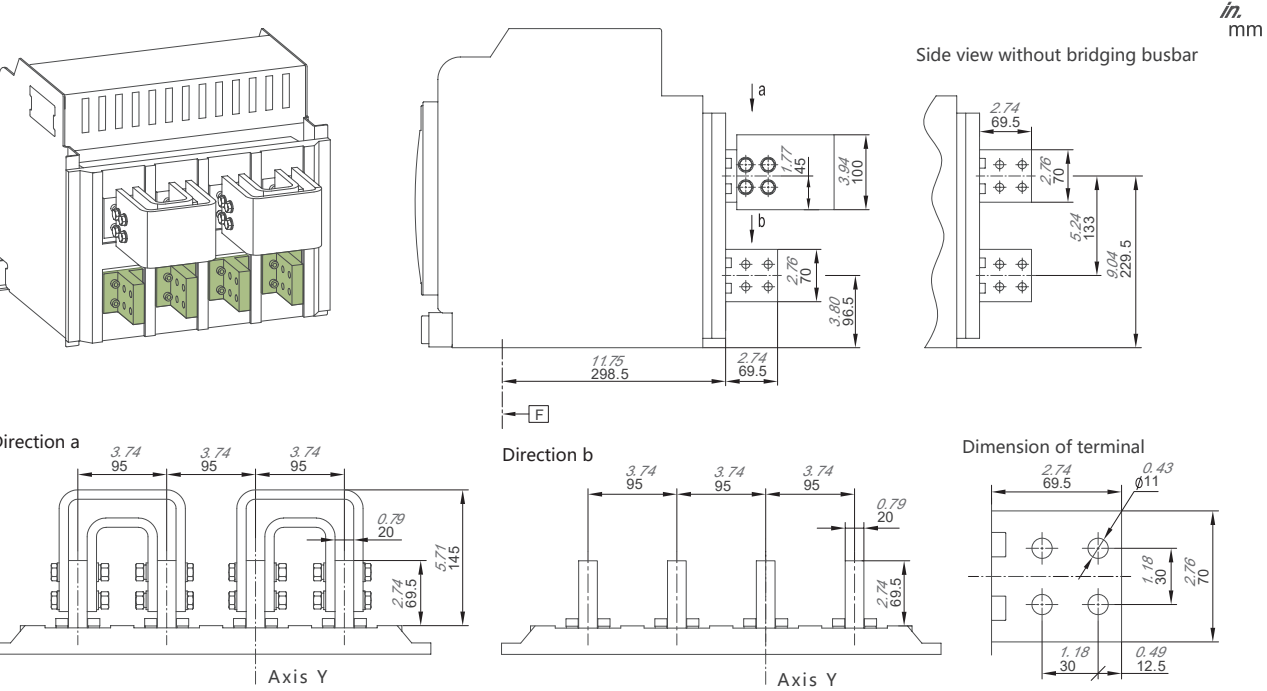


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

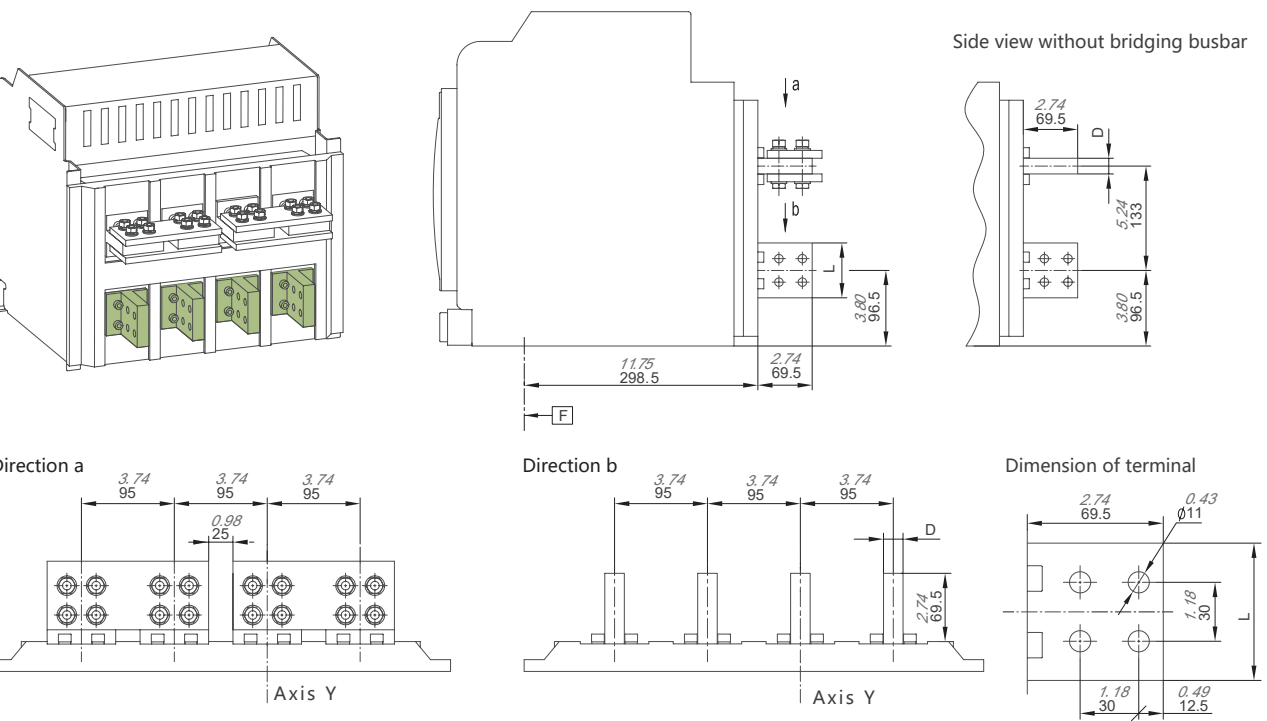
Installation Dimension

Ex9ASD-2500DC draw-out type(type C connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

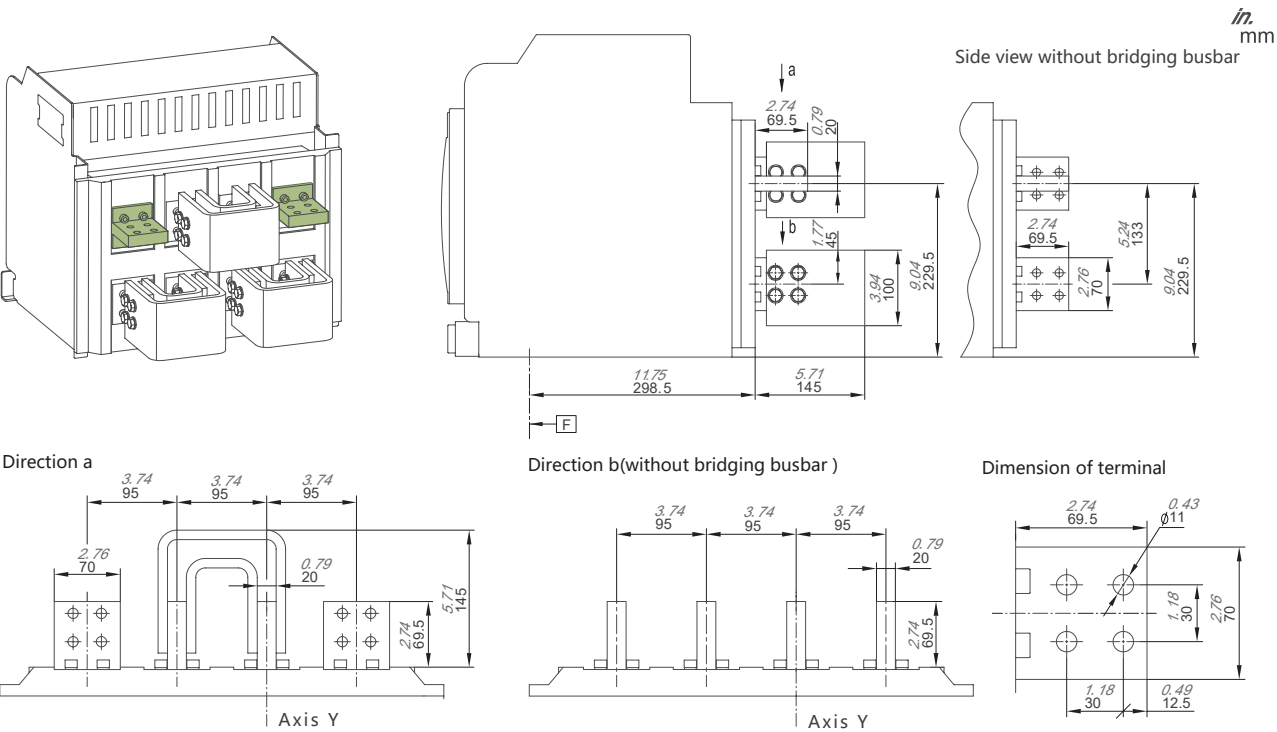


Installation Dimension

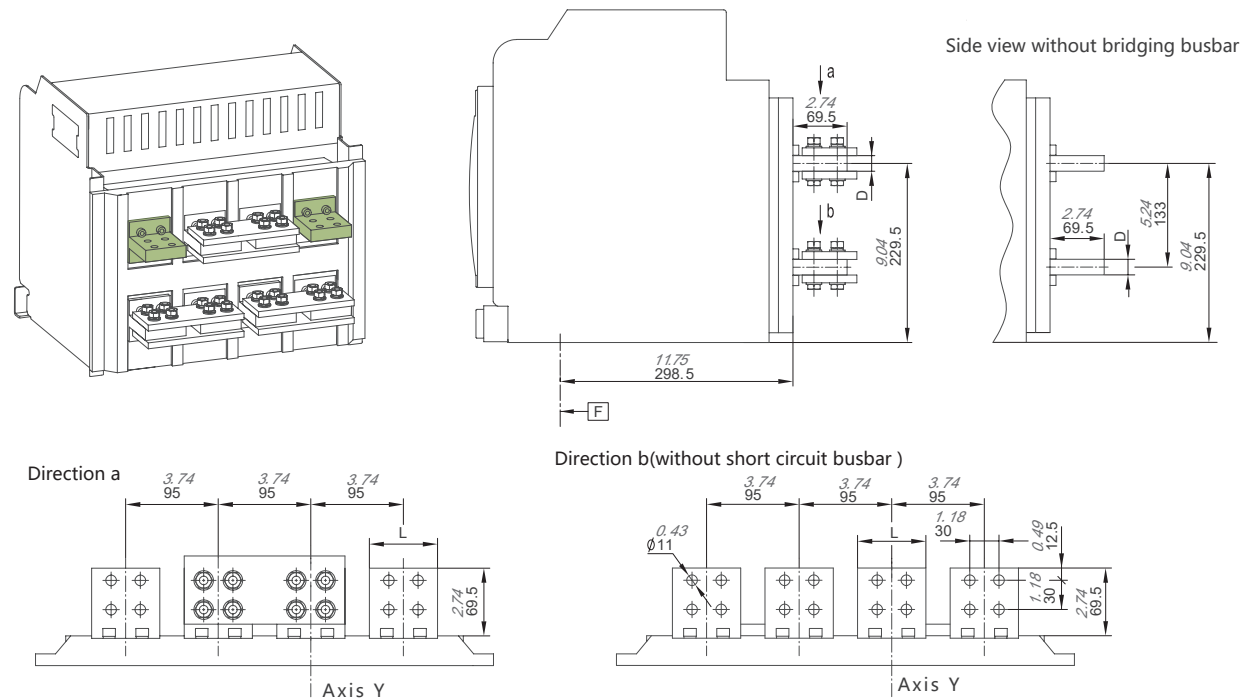
Ex9ASD-2500DC

Ex9ASD-2500DC draw-out type(type D connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

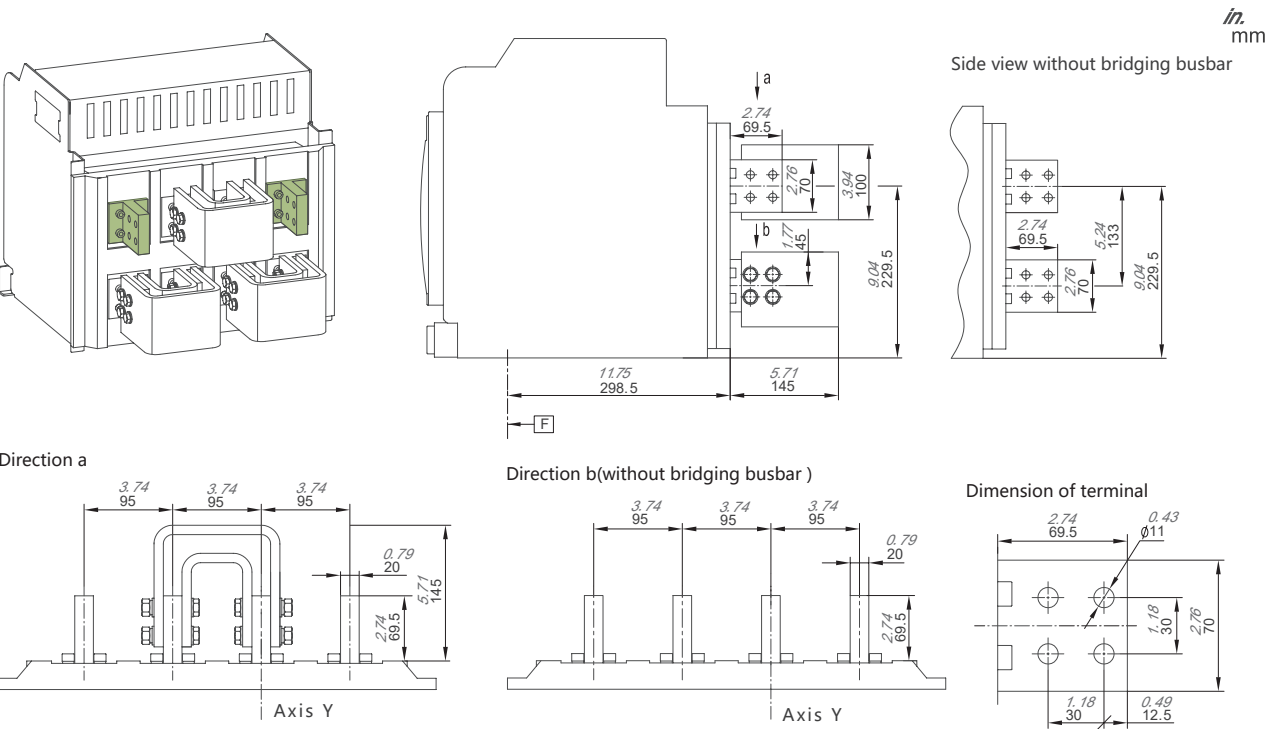


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

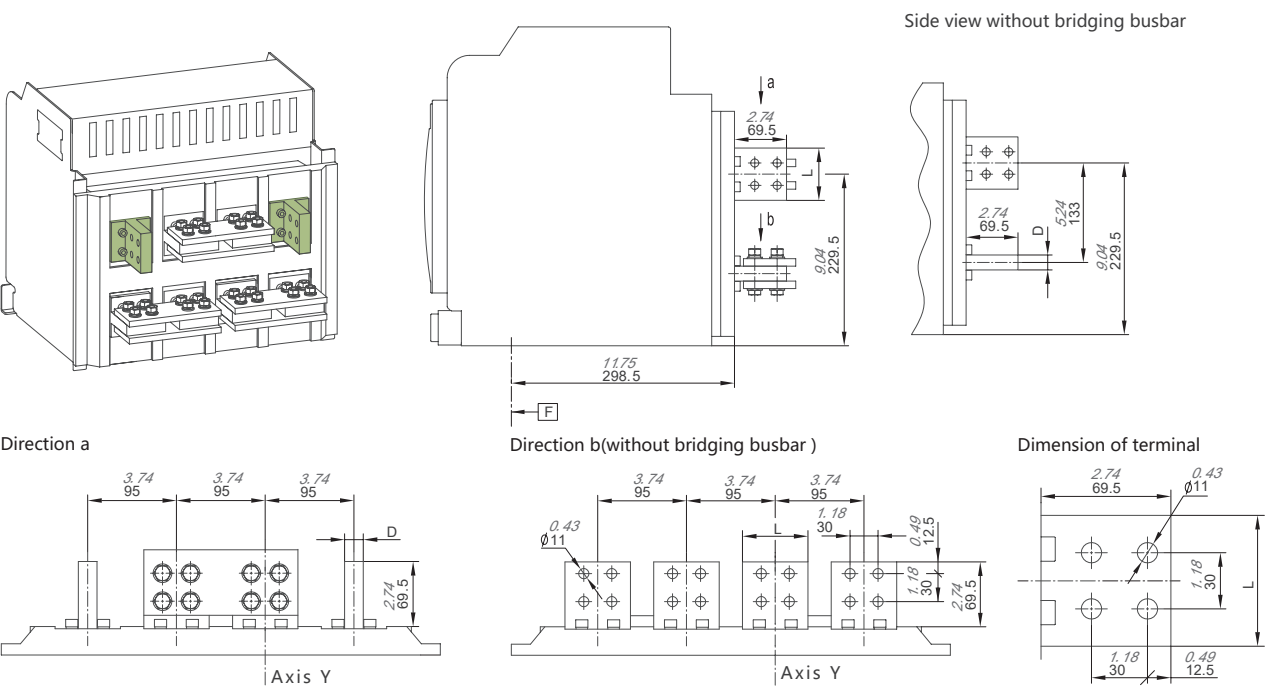
Installation Dimension

Ex9ASD-2500DC draw-out type(type D connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



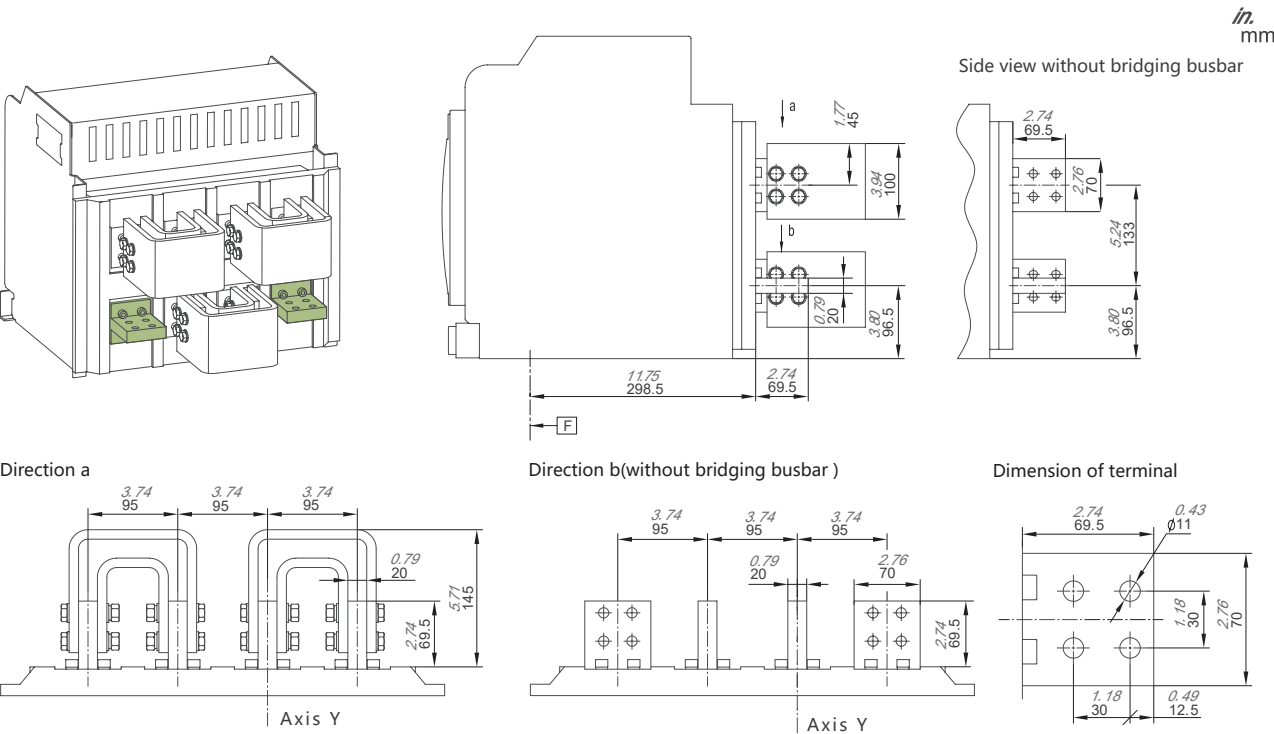
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

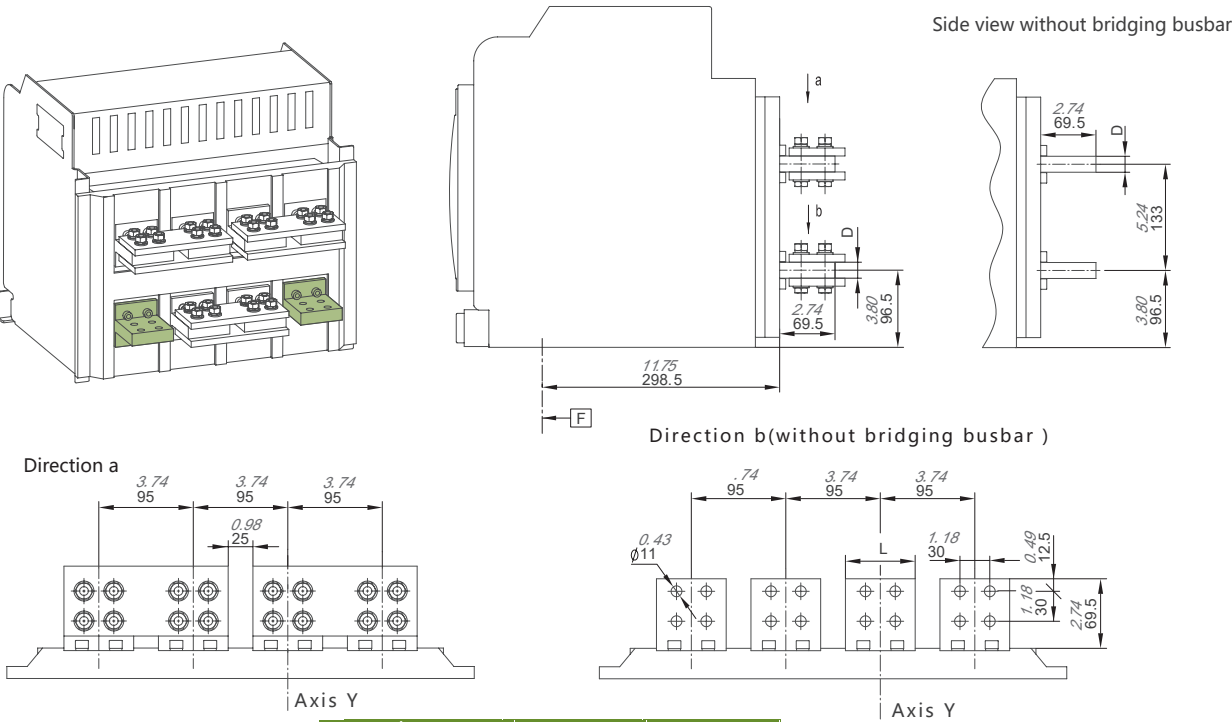
Ex9ASD-2500DC

Ex9ASD-2500DC draw-out type(type D connection)

Horizontal connection, In=2500A



Horizontal connection, In=630A~2000A

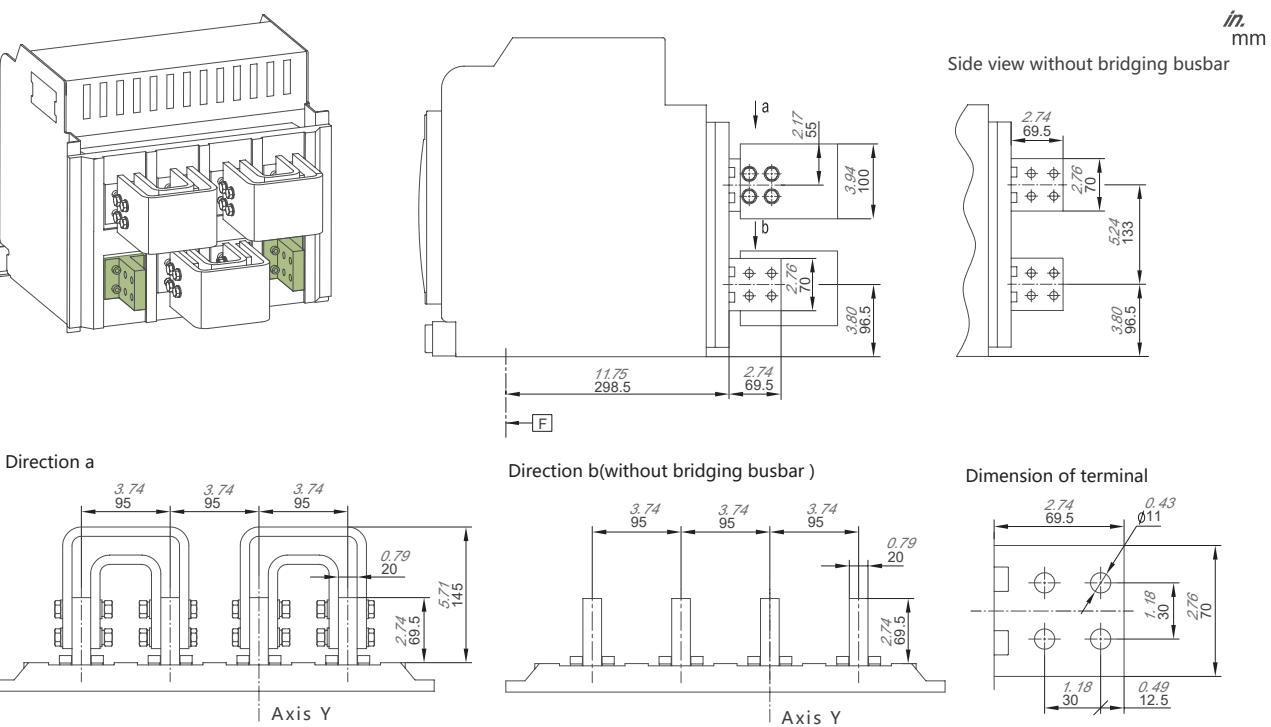


Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

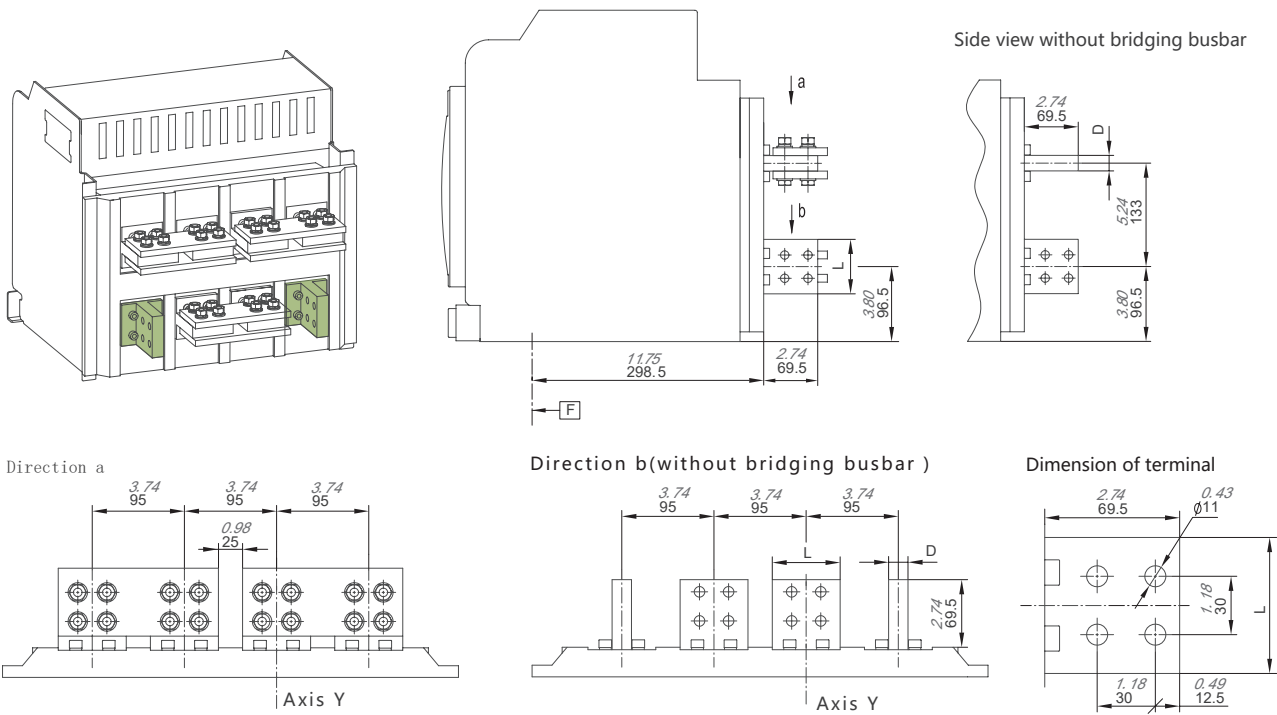
Installation Dimension

Ex9ASD-2500DC draw-out type(type D connection)

Vertical connection, In=2500A



Vertical connection, In=630A~2000A



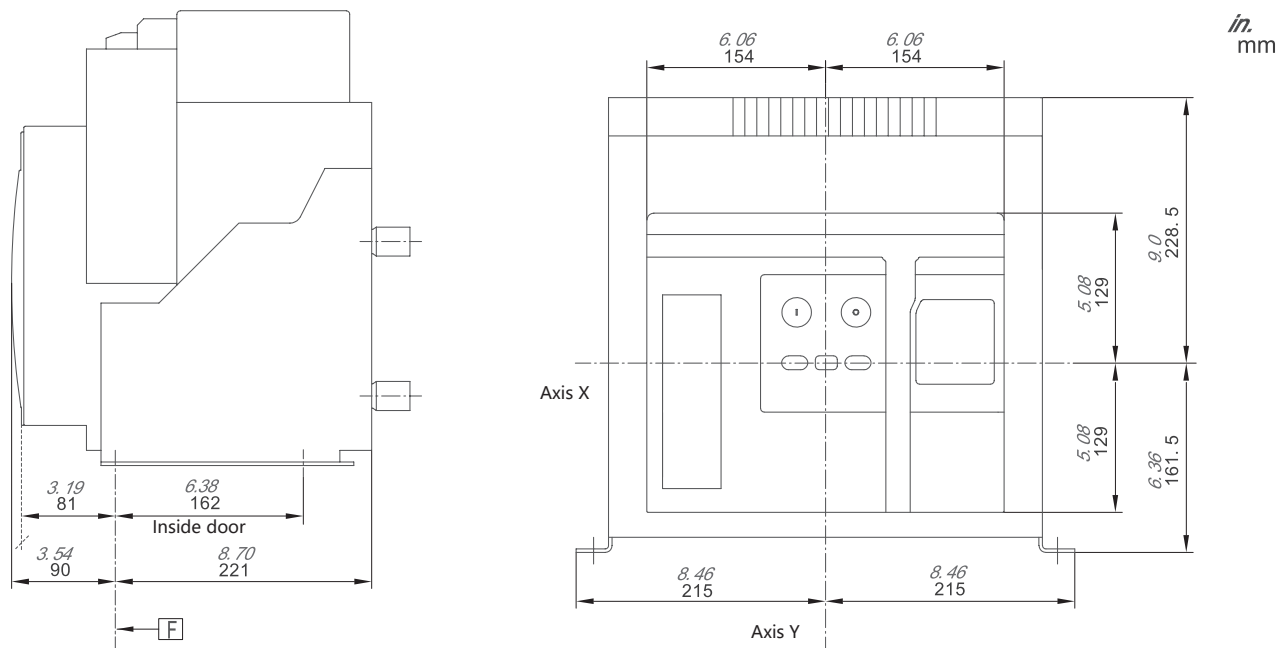
Rated current	D	L
630A~1600A	15mm	60mm
2000A	20mm	70mm

Installation Dimension

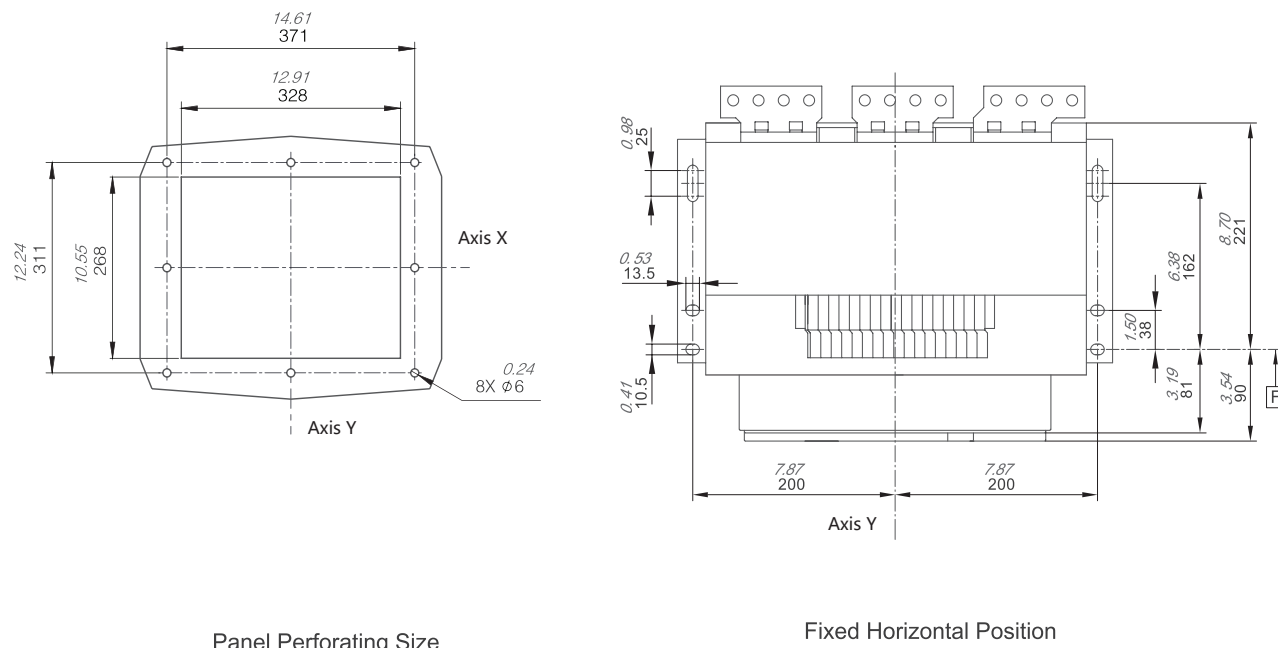
Ex9ASD-4000DC

Ex9ASD-4000DC fixed type (type A, B connection)

Overall dimension



Installation dimension



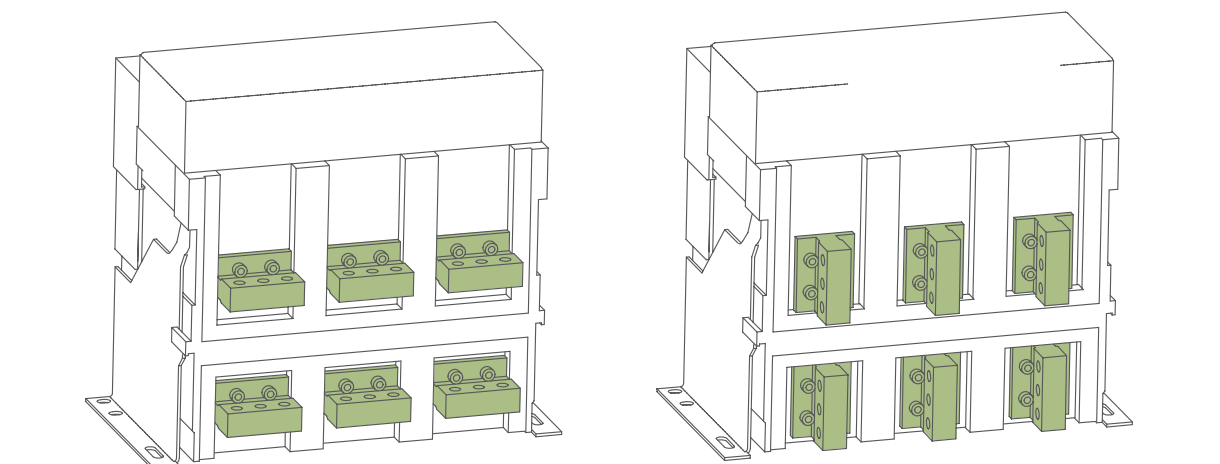
Panel Perforating Size

Fixed Horizontal Position

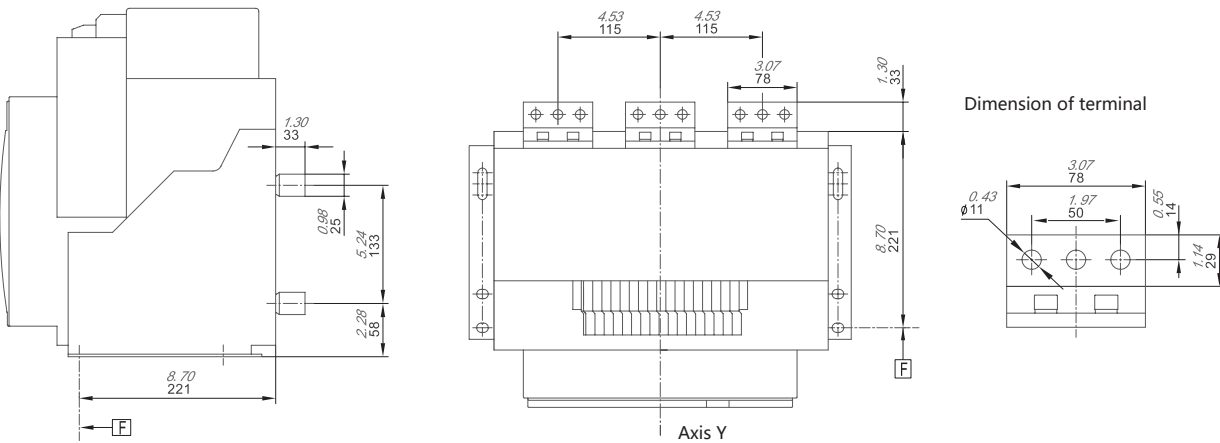
Installation Dimension

Ex9ASD-4000DC fixed type (type A, B connection)

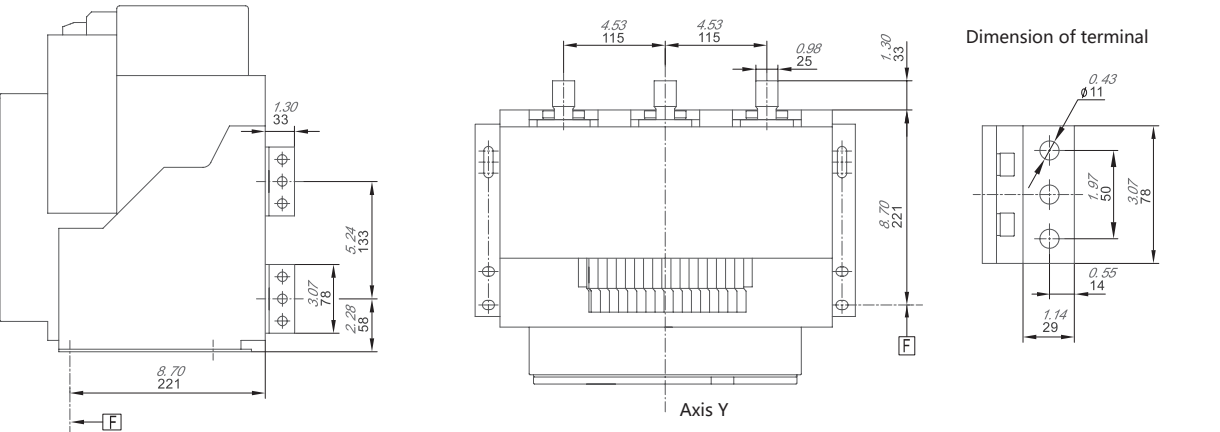
installation dimension of busbar without bridging.



Horizontal connection



Vertical connection



Dimension of terminal

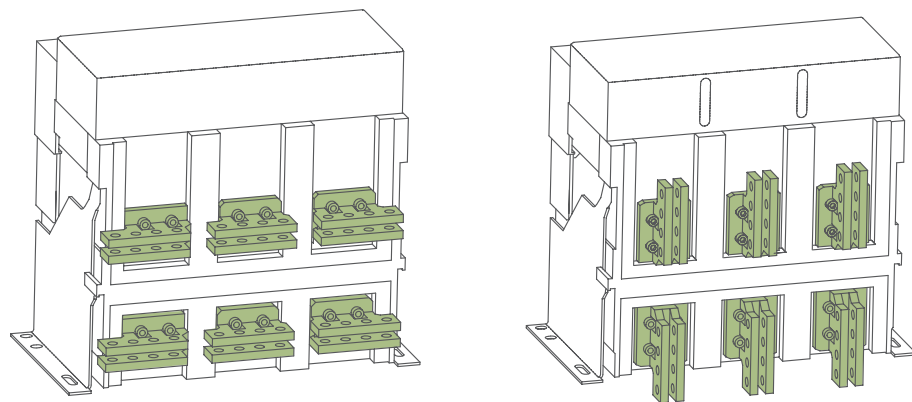
Dimension of terminal

Installation Dimension

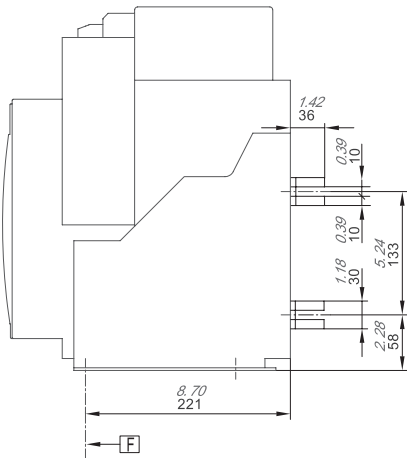
Ex9ASD-4000DC

Ex9ASD-4000DC fixed type (type A, B connection)

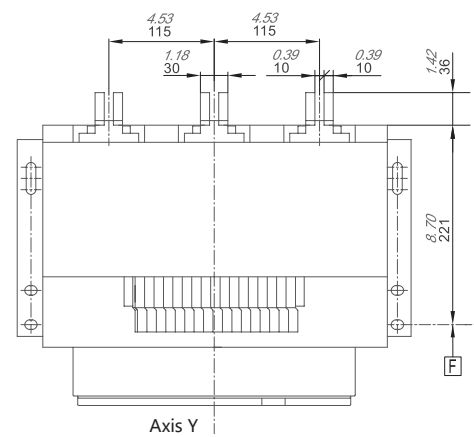
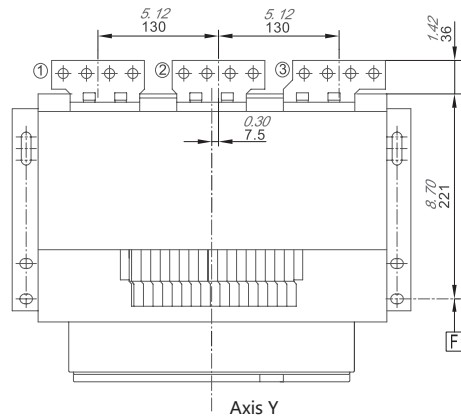
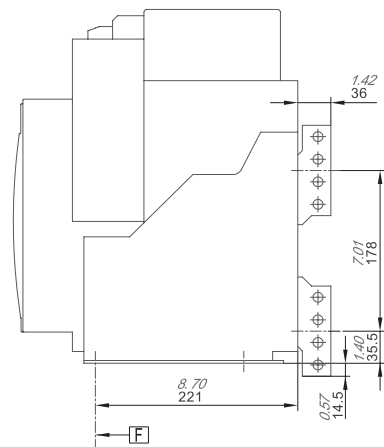
Installation dimension of busbar without bridging.



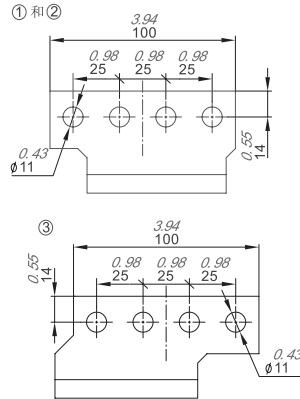
Horizontal connection



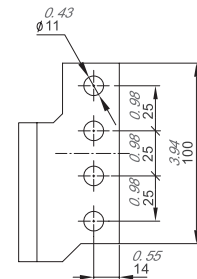
Vertical connection



Dimension of terminal



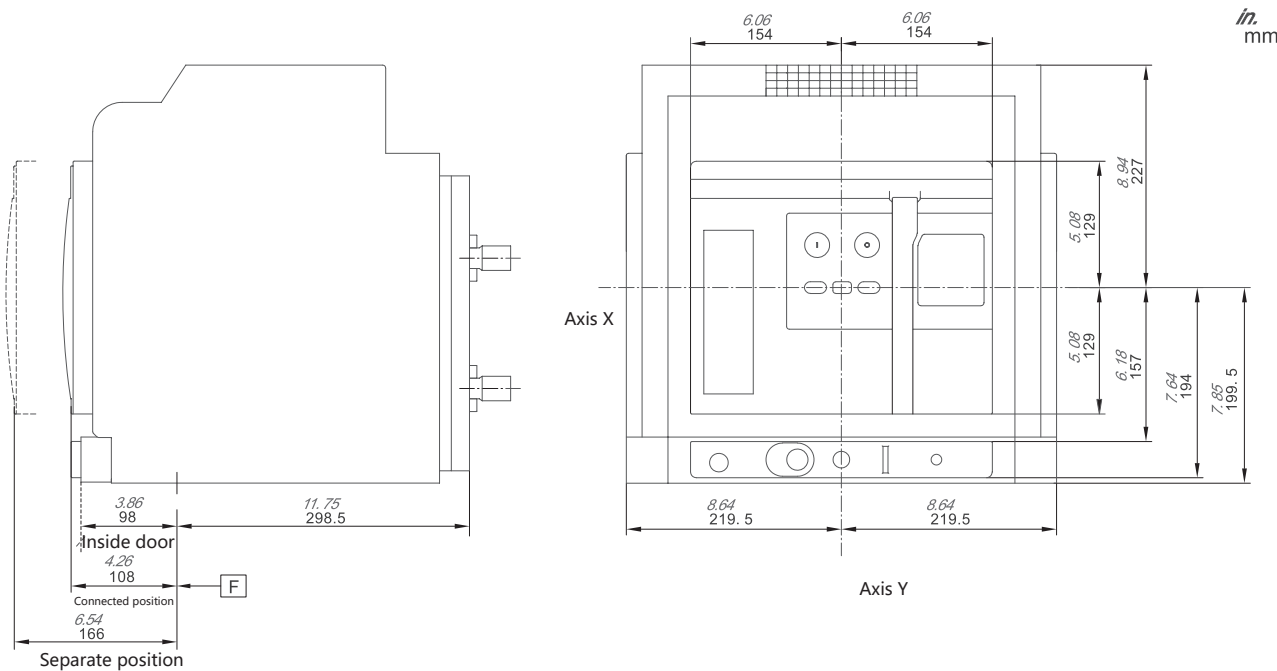
Dimension of terminal



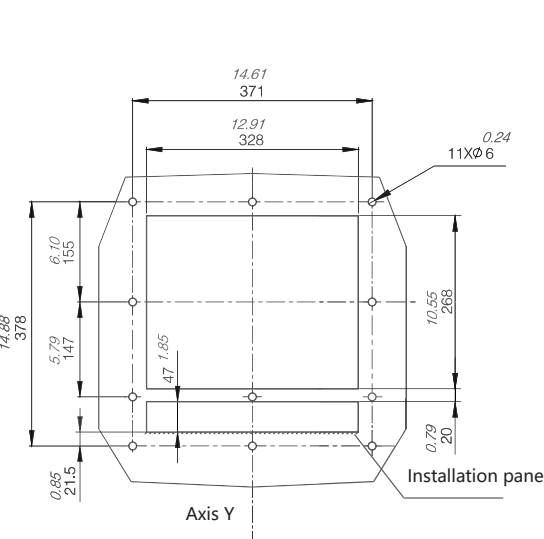
Installation Dimension

Ex9ASD-4000DC draw-out type (type A, B connection)

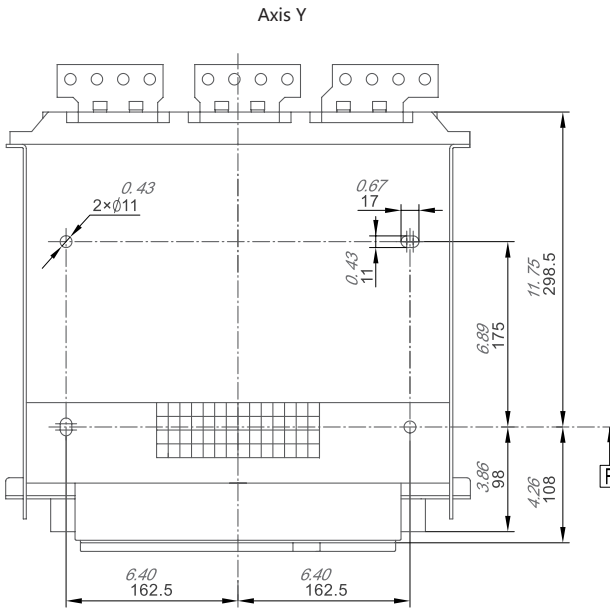
Overall dimension



Installation dimension



Panel Perforating Size



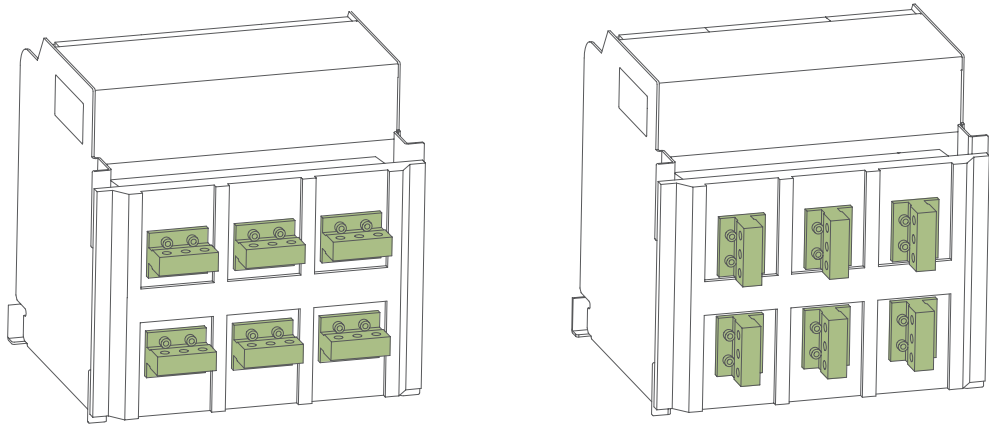
Fixed Horizontal Position

Installation Dimension

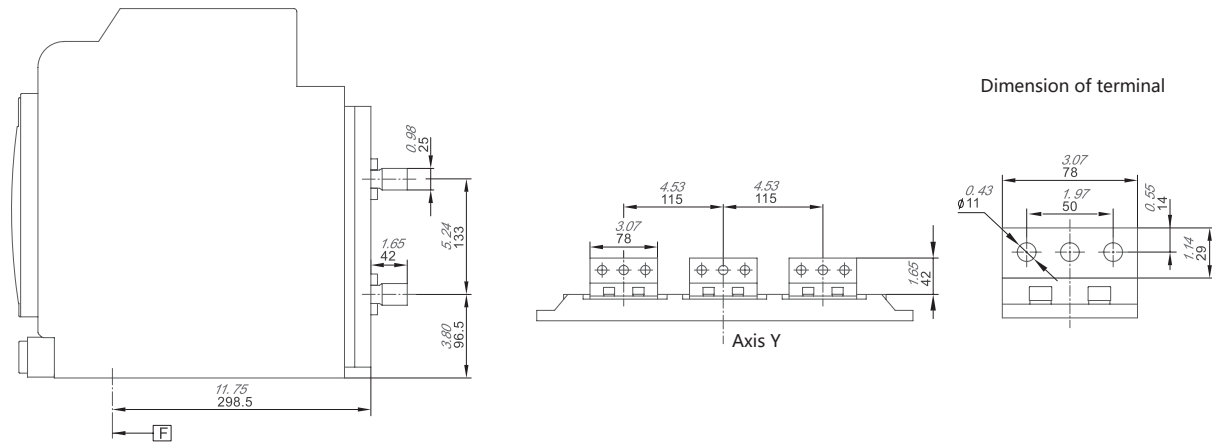
Ex9ASD-4000DC

Ex9ASD-4000DC draw-out type (type A, B connection)

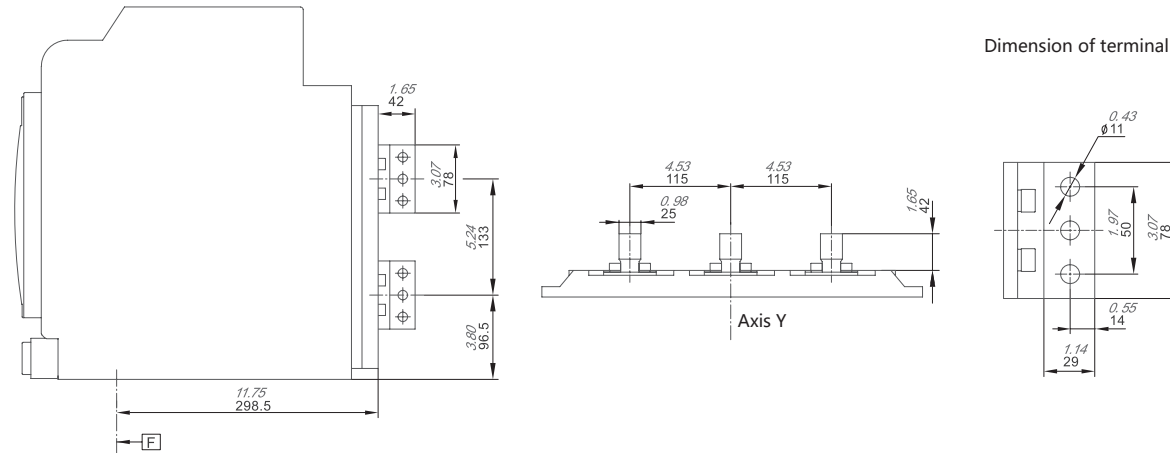
Horizontal installation dimension of busbar without bridging.



Horizontal connection



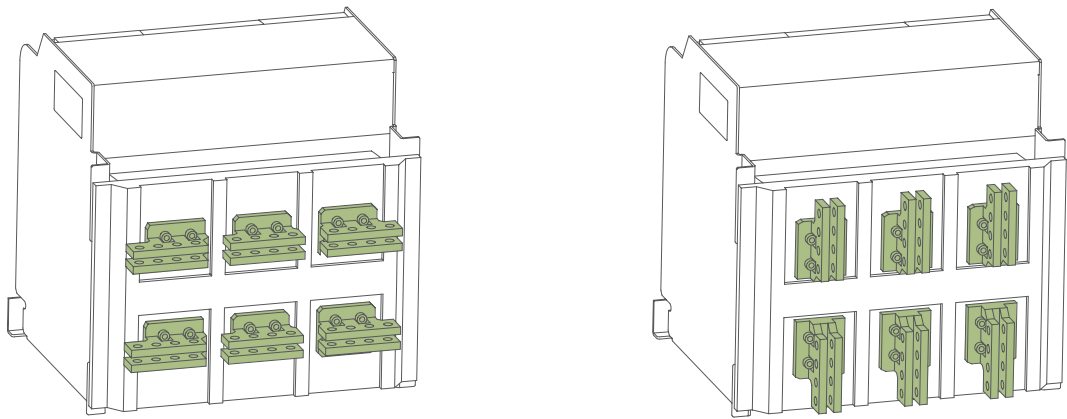
Vertical connection



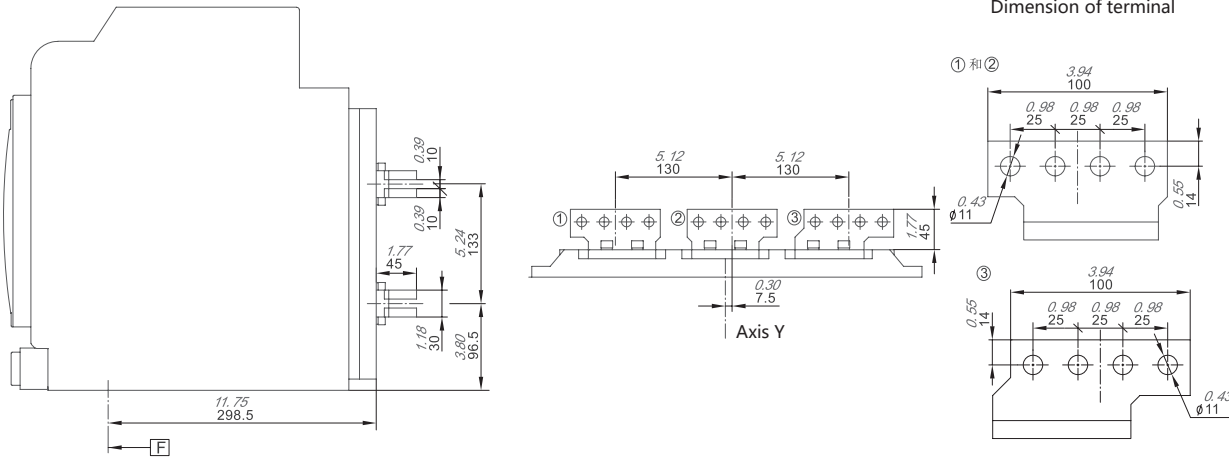
Installation Dimension

Ex9ASD-4000DC draw-out type (type A, B connection)

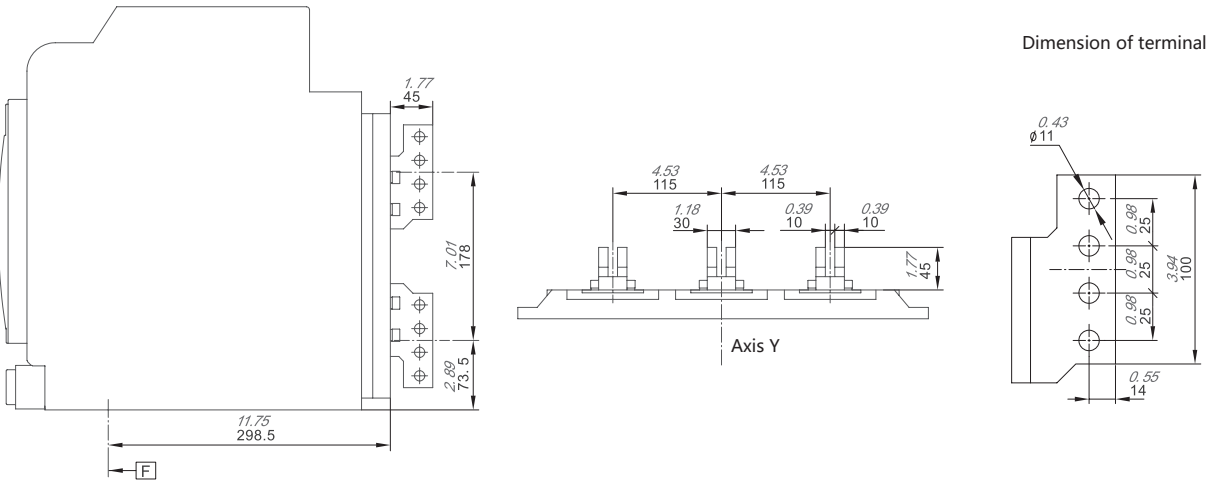
Vertical installation dimension of busbar without bridging.



Horizontal connection



Vertical connection

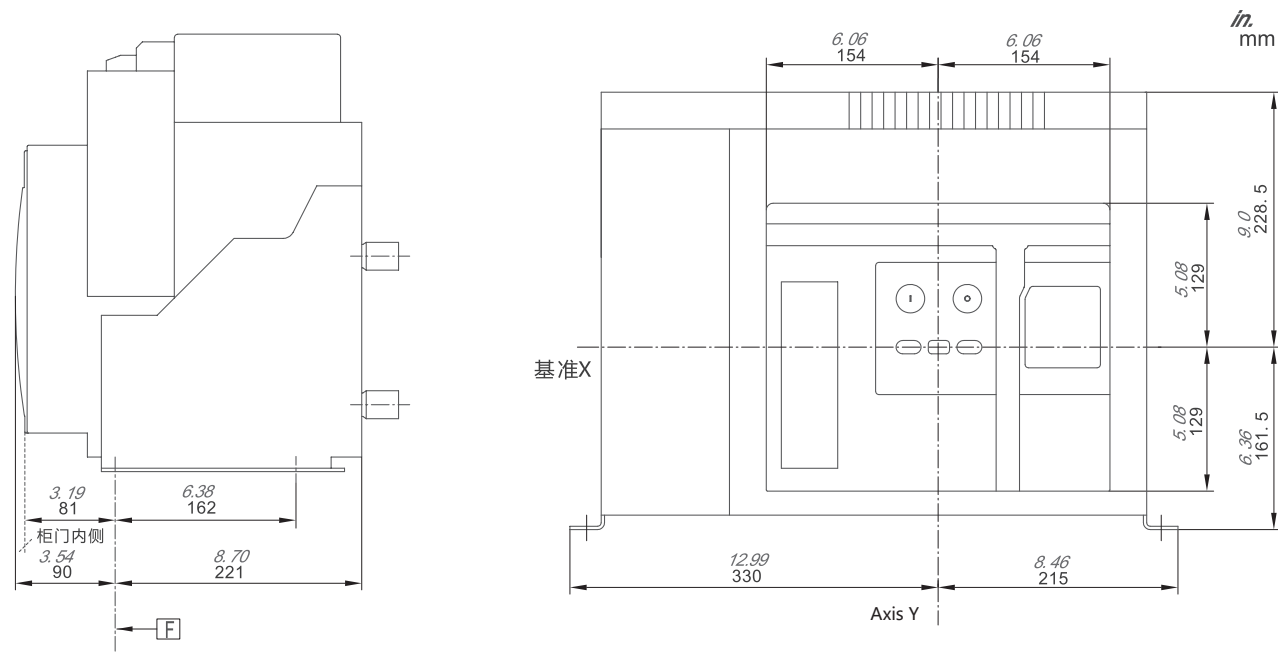


Installation Dimension

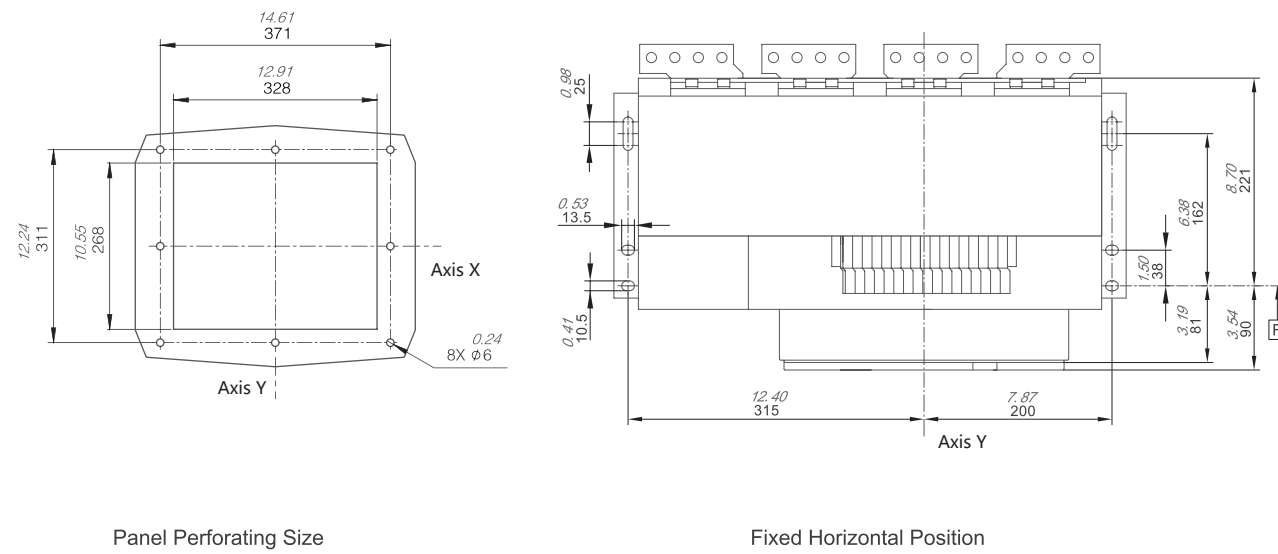
Ex9ASD-4000DC

Ex9ASD-4000DC draw-out type (type C、D connection)

Overall dimension



Installation dimension



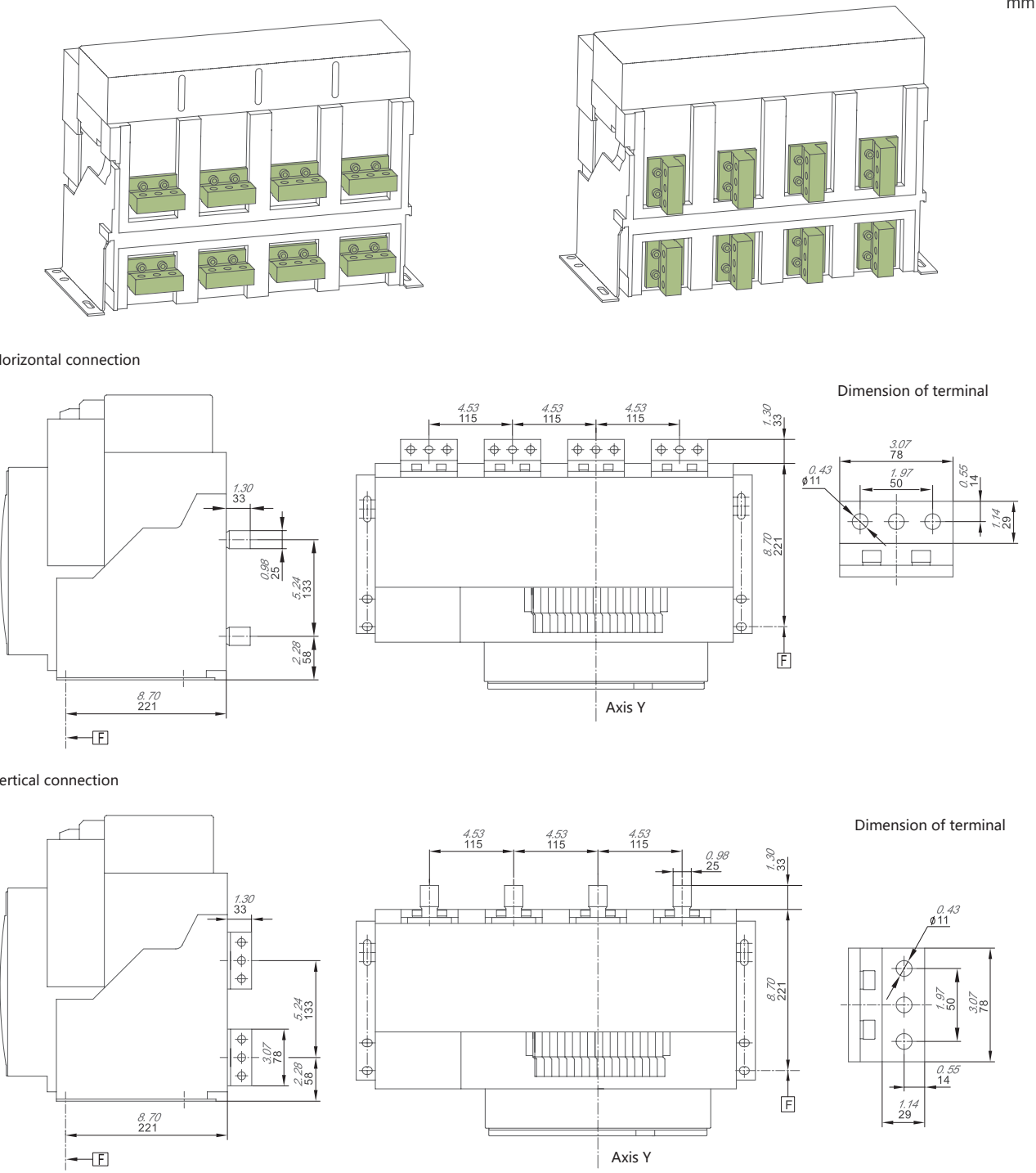
Panel Perforating Size

Fixed Horizontal Position

Ex9ASD-4000DC draw-out type (type C、D connection)

Dimension of horizontal connection busbar without bridging.

Installation Dimension



Horizontal connection

Vertical connection

Dimension of terminal

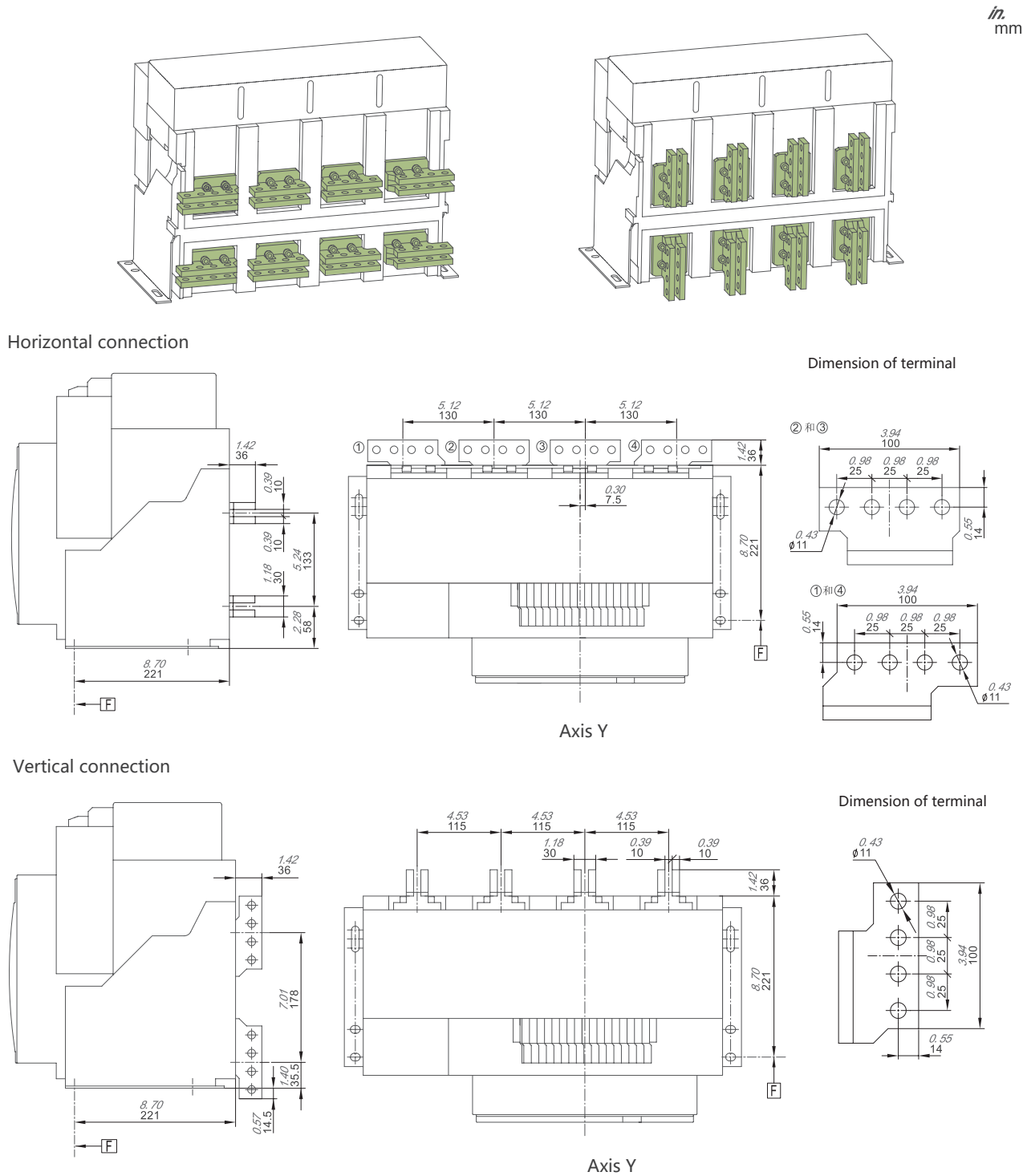
Dimension of terminal



Installation Dimension

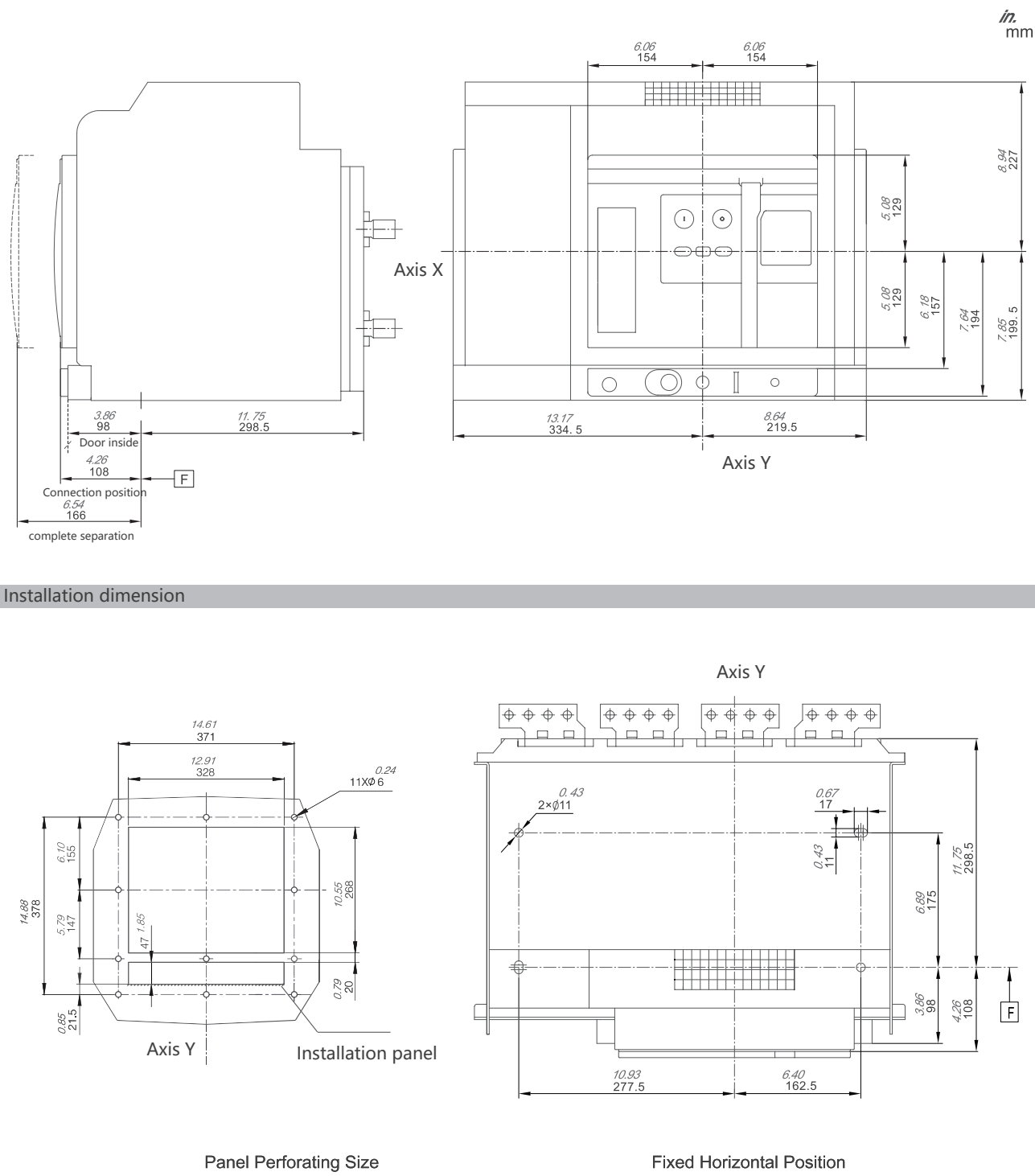
Ex9ASD-4000DC

Ex9ASD-4000DC fixed type (type C、D connection)  
Dimension of vertical connection busbar without bridging



Installation Dimension

Ex9ASD-4000DC draw-out type (type C、D connection)  
Overall dimension



Installation Dimension

Ex9ASD-4000DC

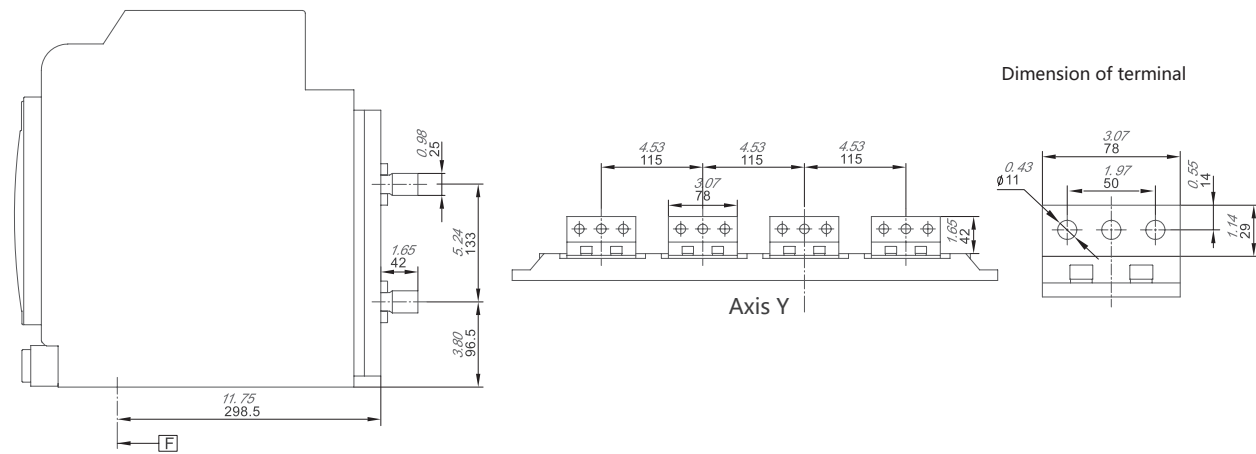
Ex9ASD-4000DC draw-out type (type C、D connection)

Dimension of horizontal connection busbar without bridging.

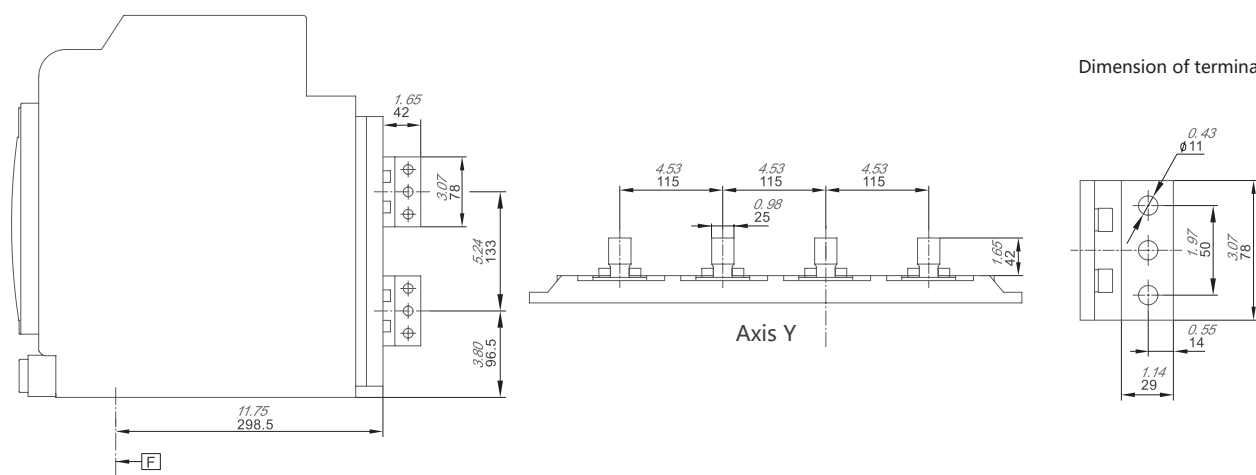
in.  
mm



Horizontal connection



Vertical connection

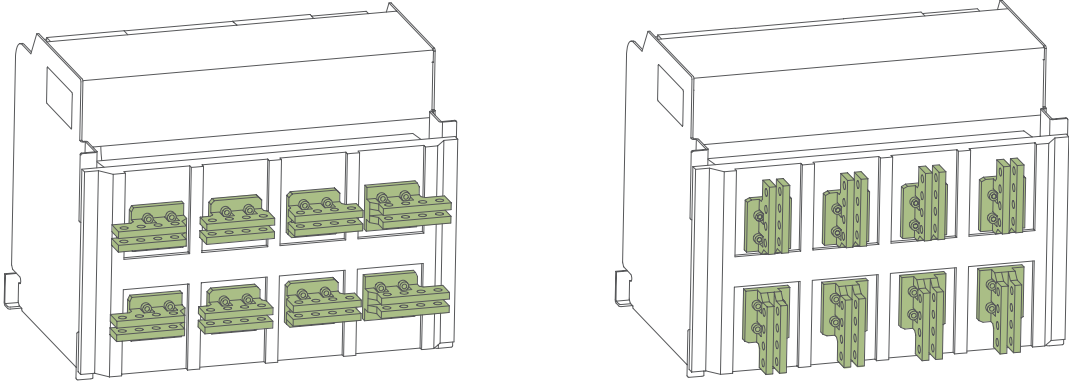


Installation Dimension

Ex9ASD-4000DC draw-out type (type C、D connection)

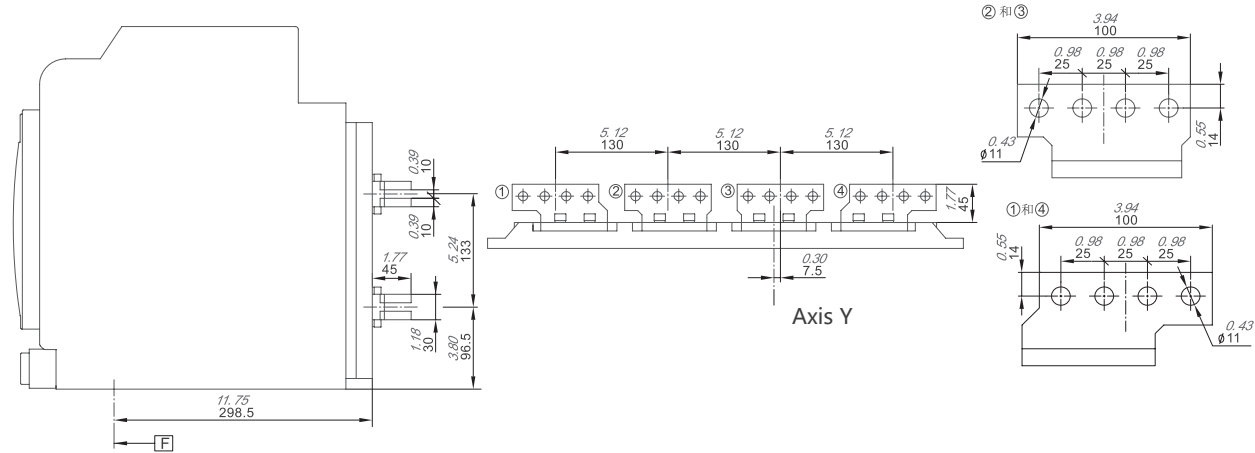
Dimension of vertical connection busbar without bridging.

in.  
mm



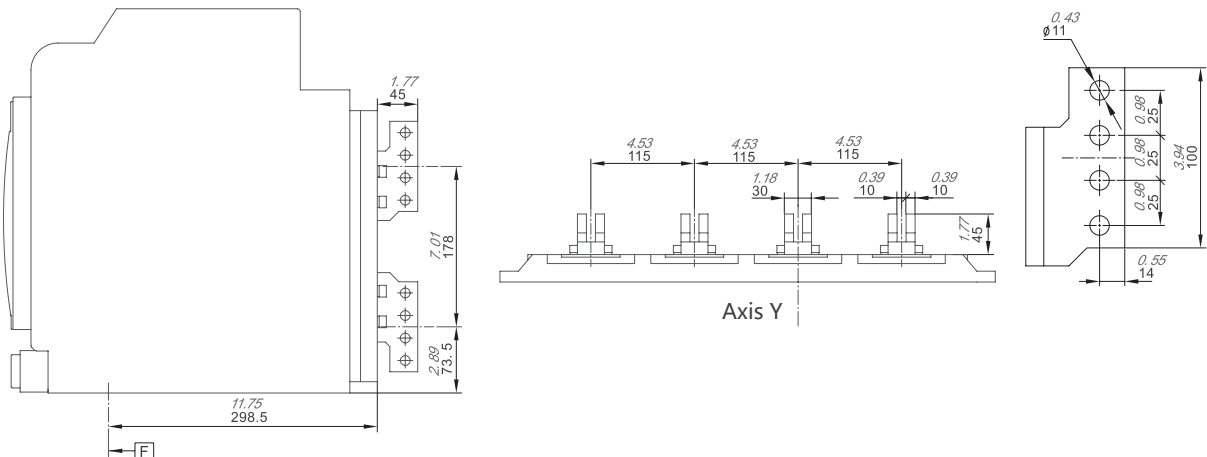
Horizontal connection

Dimension of terminal



Vertical connection

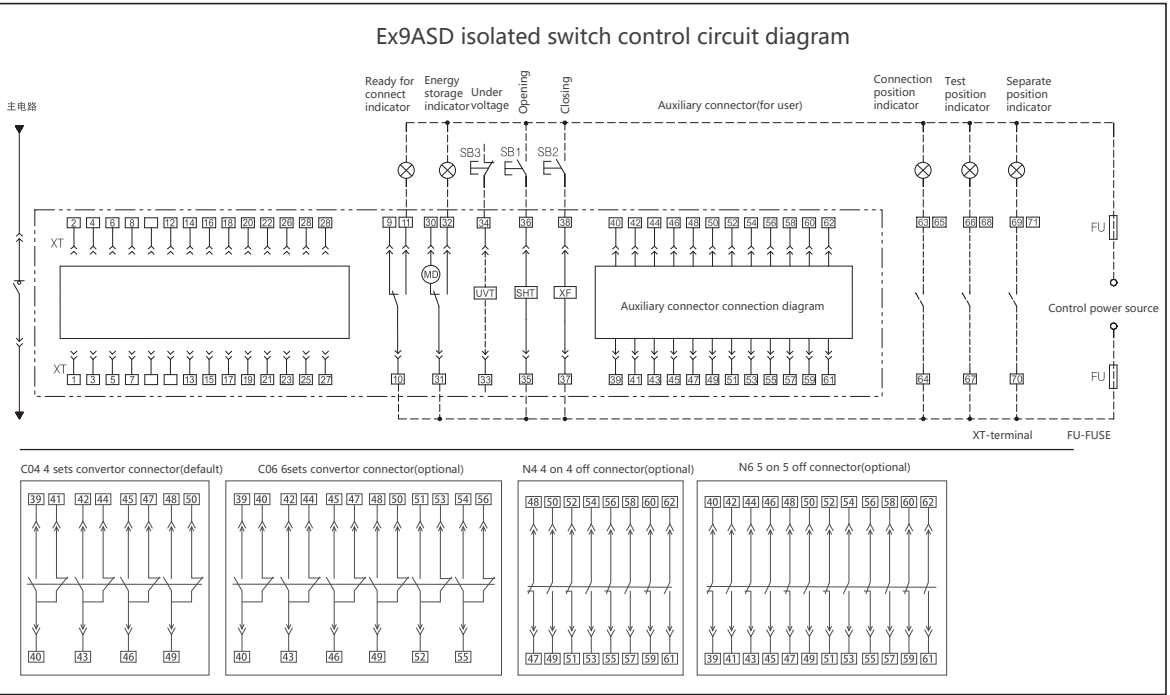
Dimension of terminal





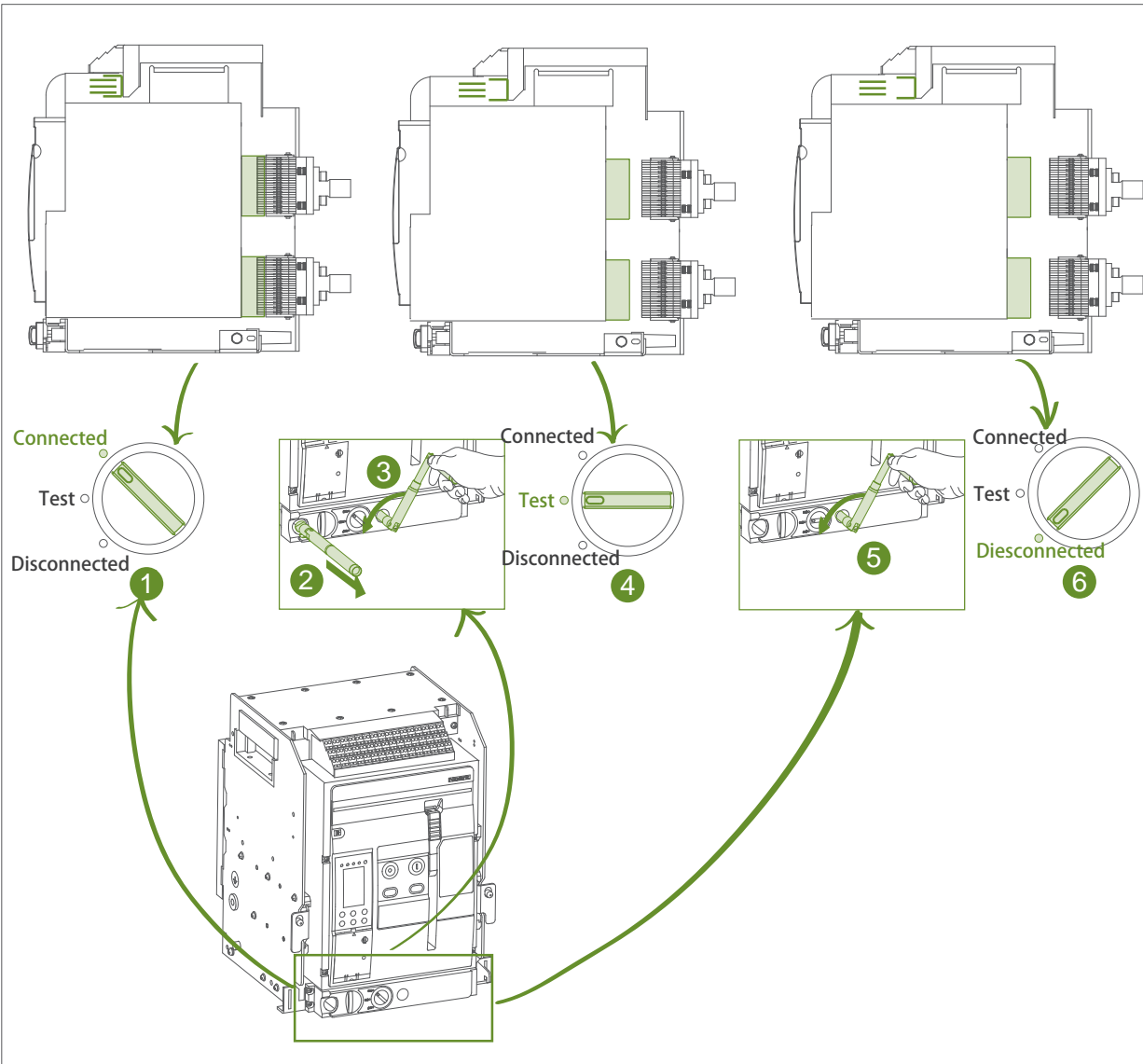
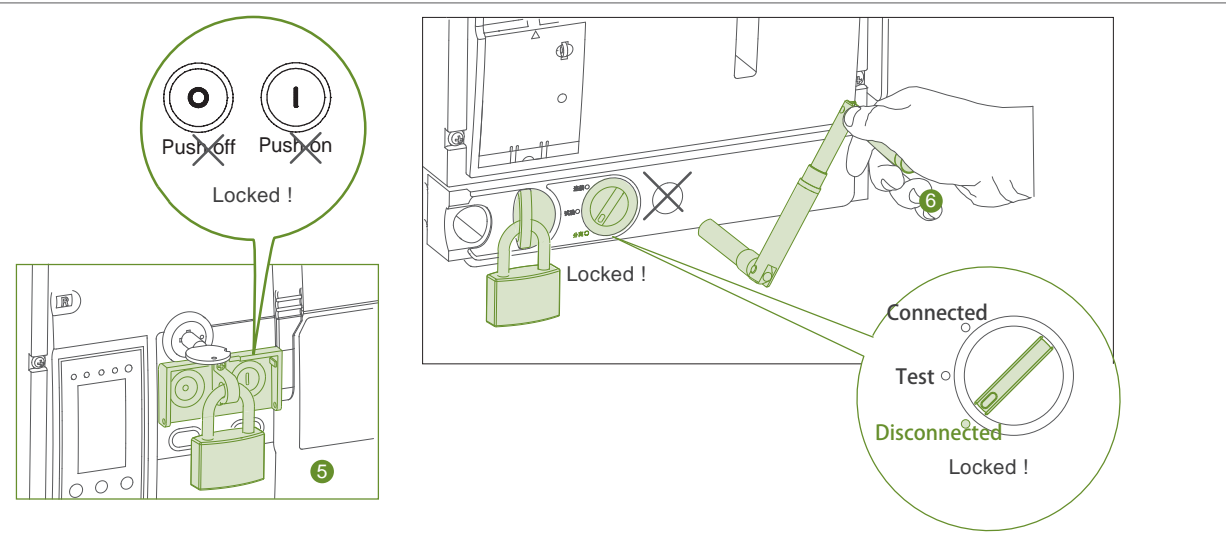
# Auxiliary Connections

## Ex9ASD isolated switch auxiliary connection

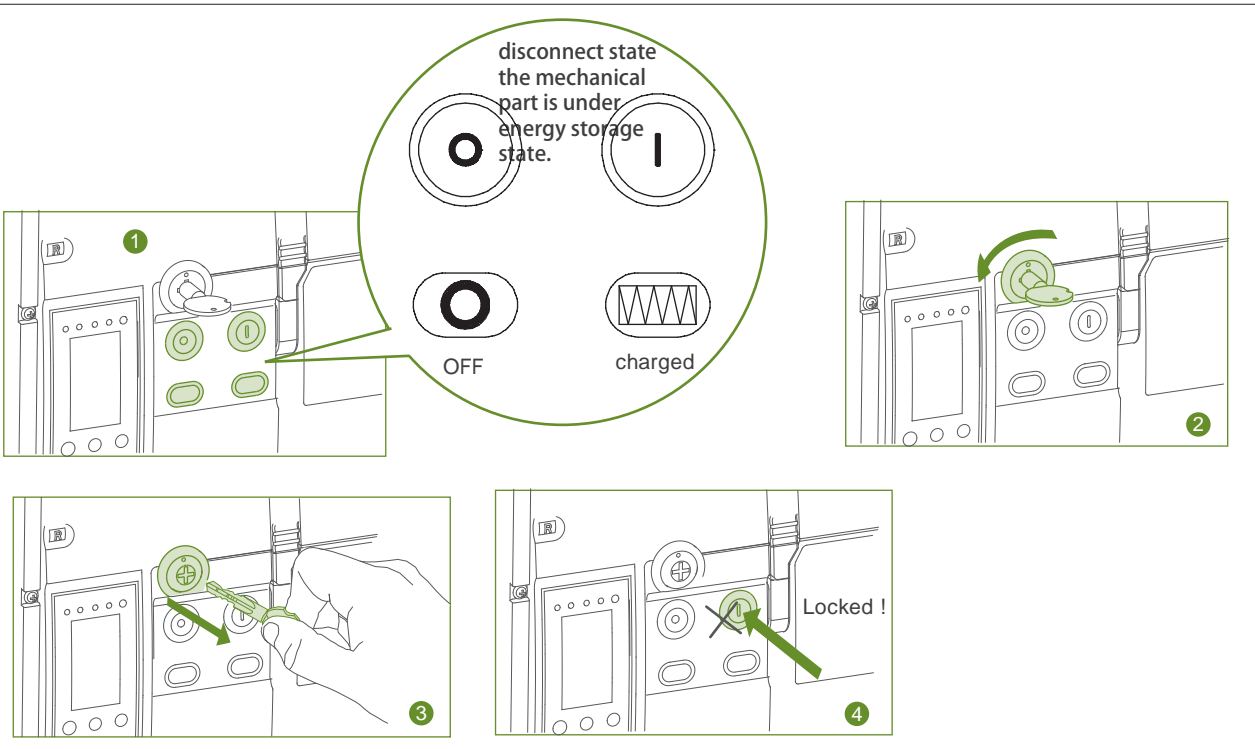
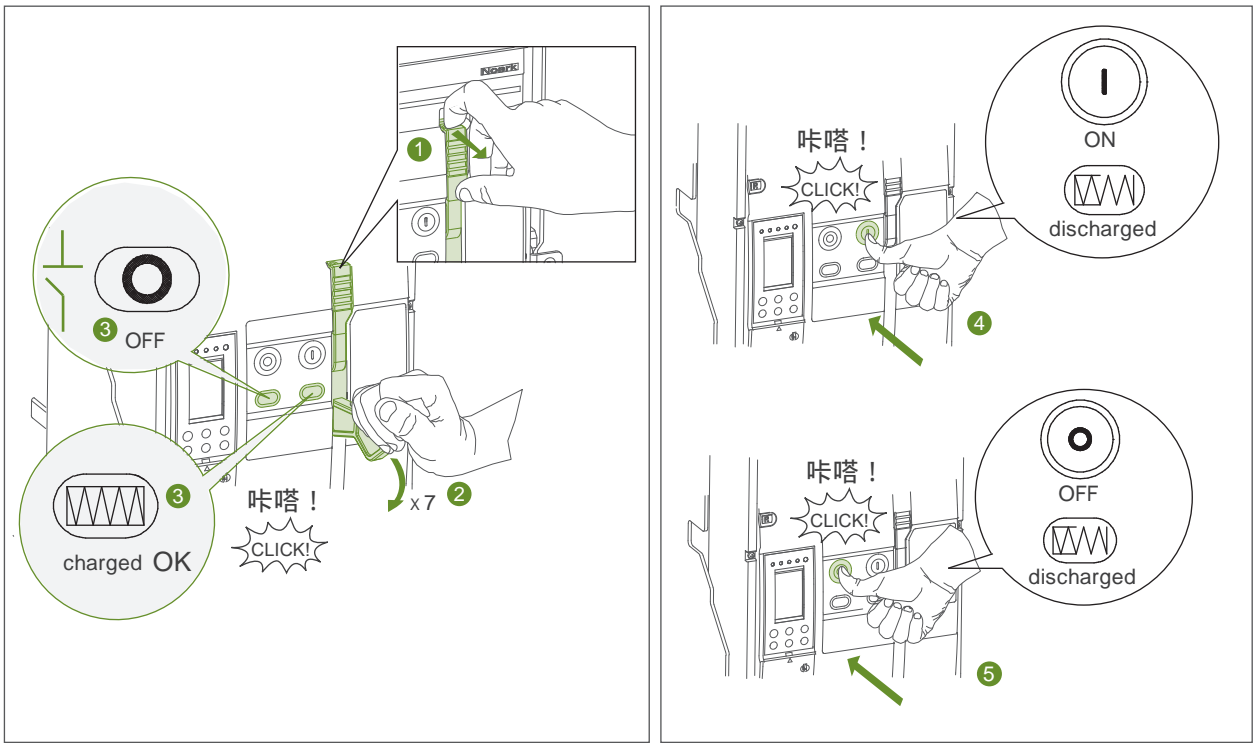


- PF reconnect ready indicator(optional)  
59#-71#: connect ready electronic indicator;  
indicator need to be prepared by user.  
this is optional function
- MD energy restore motor  
30#-32#: energy restore motor input power source  
indicator need to be prepared by user.
- UVT under voltage tripping device  
33#-34#:under voltage tripping device  
input power source;  
SB3 urgently disconnect push button need  
to be prepared by user.  
it is optional part.
- SHT shunt tripping device  
35#-36#:Shunt tripping device input power  
source.  
SB1 disconnect button need to be  
prepared by the user.
- XF closing magnetic coil  
37#-38#:closing magnetic coil input power  
source  
SB2 disconnect push button need to be  
prepared by user.
- AX auxiliary contact  
39#-62#:cable connection for auxiliary  
C04 is default, C06,N4,N6 need to special  
order
- EF draw-out type isolated switch three position indicator(optional)  
63#-71#: draw-out type indicator of connected, test and  
disconnected. The indicator need to be prepared by the user.  
Only available for the draw-out type product.

# Operation Principle



Operation Principle



Trouble shooting

common issue and resolution

1	Device cannot be closed locally or remotely.	Unable to open / trip device with an under voltage coil. Device is interlocked mechanically in a source changeover system. under voltage tripping device can not close The draw-out switch is not fully engaged in connected position. Improper / poor connection of the auxiliaries circuit between chassis and switch body of a drawout type isolator.	Check the under voltage coil if it still functional. Replaced if necessary. There are no associated controller for an isolator switch. Check the status of the other device in the changeover system. Check the proper installation of the mechanical interlock kit, readjust and align where necessary. 1 Check if the under voltage coil is supplied and above 85% of coil operating voltage. 2 Check the under voltage coil if it still functional. Replaced if necessary. 3 There are no associated controller for an isolator switch. Depress the position release button (if it popped out) and rack in the switch into connected position. Ensure switch body is in test or connected position. Check for proper terminations of the auxiliary circuits..
		Unable to charged the stored energy mechanism.	1 Charge the device manually using the spring charging handle. If the device is equip with a motor control unit, check there is supply to the unit and $\geq 85\%$ of the control voltage. 2 If the problem persists, replace the motor control unit.
		Problem with the closing coil	1.Check there is supply to the closing coil and $\geq 85\%$ of the control voltage. 2.If the problem persists, replace the closing coil.
	2	Device cannot be opened locally or remotely.	Unable to open remotely. Unable to open locally. 2 check the mechanical part if there are some issues.
	3	The switch can't storage energy	can't automatically store energy. can't manual store energy 1 Check the control power supply voltage of the electric energy storage device to ensure it is connected and should be $\geq 85\%$ of $U_s$ ; inspect for any issues with the circuit connections. 2 check if the motor fail check if the mechanical part failure
4	Unable to remove switch from it chassis.	The switch is not fully rack out into disconnected position.	Ensure to rack out the device fully until the position release button pops out.
5	Unable to rack in device into connected position.	1.Presence of foreign object inside the chassis. 2.The racking mechanism or the rack & pinion gear had been damaged. 3.Chassis is locked in the disconnected position.	Inspect and remove any foreign objects if any. Check for any damage on the rack and pinion gear. Disable the chassis locking function.