

# Ex9I(Z)HV Series Switch-Disconnecter



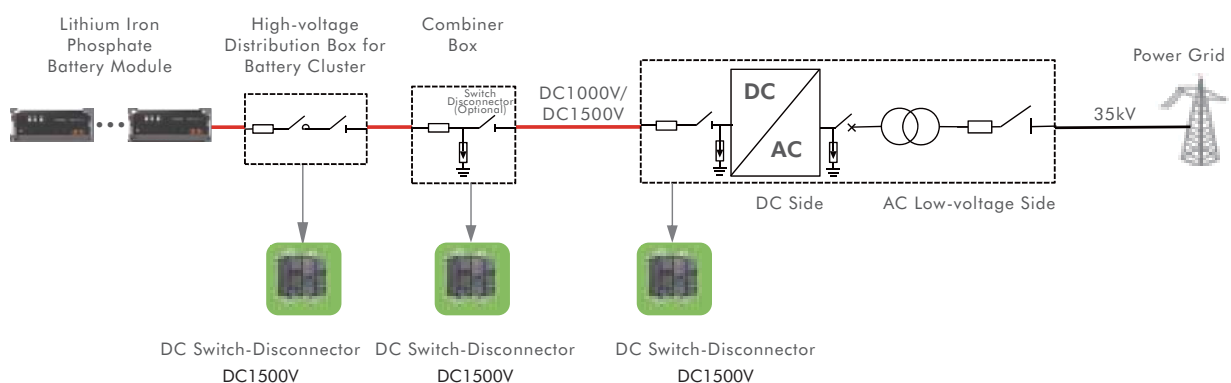
Ex9I / Ex9IZ HV and ExI / ExIZ HV E Series Switch-Disconnecter is designed solely for isolation and load breaking electrical circuits of AC 50Hz/60Hz electrical systems with maximum rated working voltage AC1140V, and any other systems with maximum DC voltage 1500V at maximum rated current of 1250A . As a supporting product in the energy storage industry, such as battery clusters and converters, the Product provides infrequent manual making and breaking and power isolation function.

Compliance with Standards:  
GB/T 14048.3, IEC 60947-3

## Service Conditions

- When the ambient air temperature is over +40°C, the relative humidity should not exceed 50%, and the average maximum relative humidity in the wettest month should not exceed 90%. At the same time, the average minimum temperature in that month should not exceed +25°C. Due to temperature changes, occasional condensation occurs, and User/s should take special protective measures;
- Pollution Class of the Surrounding Environment: Class 3;
- Installation Category: Class III and Class IV;
- Protection degree of the Product: IP20;
- Protection Degree of External operating Handle: IP65;
- Altitude of Installation Site: 2000m;
- Compliance with RoHS.

## Application Scenario Example

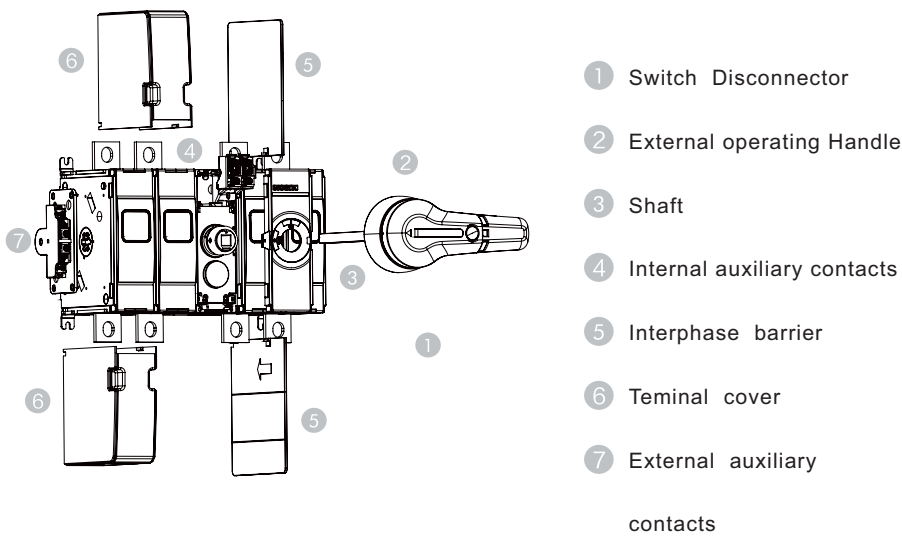


# Ex9I(Z)HV Series Switch-Disconnecter



Order Code	SKU
850676	Ex9IZ-630HV W11 350A IEC
850681	Ex9IZ-630HV W11 400A IEC
850686	Ex9IZ-630HV W11 500A IEC
850691	Ex9IZ-630HV W11 630A IEC
850706	ERH24-9I 200 IEC
850700	AX24W-9I 11 IEC
850701	AX24W-9I 22 IEC
850702	AX24-9I 11 IEC
850703	AX24-9I 22 IEC
850705	TCV24-9I IEC
850721	Ex9IZ-1250HV W11 800A IEC

## Switch Disconnecter and Accessories



## Product Model Selection

Ex9I	630	HV	E	W	11	400A
Product Code	Case Frame Grade Current	HV Performance	Series code	Operation Method Code	Operation Method Code	Rated current
Ex9I:AC Switch-Disconnecter Ex9IZ:DC Switch-Disconnecter ExI:AC Switch-Disconnecter ExIZ:DC Switch-Disconnecter	250 320 630 1250	HV	None: Other Series  E: New Energy E Series	Default: Front-Internal operating  W: Front-External operating  S: Side-External operating	2P:02,20,11; 3P:03,30,12,21; 4P:04,22,40; 6P:33  TIPS: The first digit is the number of pole on the left side of the mechanism; The second digit is the number of pole on the right side of the mechanism	125A, 160A, 200A, 250A 125A, 160A, 200A, 250A, 320A, 350A, 400A, 500A, 630A 800A, 1000A, 1250A

### Model Selection Example:

ExIZ-320 HV EW11 250  
+ERH22-9I 320

Ordering a New Energy E Series DC Switch-Disconnecter with the operation method of front-external operating, operating mechanism in the middle, rated current of 250A; Equipped with external operating handle and 320mm long extension shaft.


# Ex9I(Z)HV Series Switch-Disconnecter

## Accessories and Codes

Accessory Name	Model	Image	Remark
External Auxiliary Contact Block (AC250, DC320 Frame/One Auxiliary Contact Block)	AX22W-9I 11		Up to Two
External Auxiliary Contact Block (AC250, DC320 Frame/Two Auxiliary Contact Blocks)	AX22W-9I 22		Up to Two
Internal Auxiliary Contact Block (AC250, DC320 Frame/One Auxiliary Contact Block)	AX22-9I 11		Up to One
Internal Auxiliary Contact Block (AC250, DC320 Frame/Two Auxiliary Contact Blocks)	AX22-9I 22		Up to One
External Auxiliary Contact Block (630 Frame/One Auxiliary Contact Block)	AX24W-9I 11		Up to Two
External Auxiliary Contact Block (630 Frame/Two Auxiliary Contact Blocks)	AX24W-9I 22		Up to Two
Internal Auxiliary Contact Block (630 Frame/One Auxiliary Contact Block)	AX24-9I 11		Up to One
Internal Auxiliary Contact Block (630 Frame/Two Auxiliary Contact Blocks)	AX24-9I 22		Up to One

# Ex9I(Z)HV Series Switch-Disconnecter

## Accessories and Codes

Accessory Name	Model	Image	Remark
External Auxiliary Contact Block (1250 Frame/One Auxiliary Contact Block)	AX26W-9I 11		Up to Two
External Auxiliary Contact Block (1250 Frame/Two Auxiliary Contact Blocks)	AX26W-9I 22		Up to Two
External Auxiliary Contact Block (1250 Frame/One Auxiliary Contact Block)	AX26-9I 11		Up to One
Terminal Cover (AC250,DC320 Frame /Piece)	TCV22-9I		2P: 4 Optional 3P: 6 Optional 4P: 8 Optional 6P: 12 Optional
Terminal Cover (630 Frame /Piece)	TCV24-9I		2P: 4 Optional 3P: 6 Optional 4P: 8 Optional 6P: 12 Optional
Handle+Shaft (200mm)	ERH22-9I 200 (Applicable to AC250 Frame and DC320 Frame) ERH24-9I 200 (Applicable to AC630 Frame and DC630 Frame)		1 Piece/ Set (Shaft Length: 200); Obtained CCC and UL Certifications
Handle+Shaft (320mm)	ERH22-9I 320 (Applicable to AC250 Frame and DC320 Frame) ERH24-9I 320 (Applicable to AC630 Frame and DC630 Frame)		1 Piece/ Set (Shaft Length: 320); Obtained CCC and UL Certifications
Handle+Shaft (500mm)	ERH22-9I 500 (Applicable to AC250 Frame and DC320 Frame) ERH24-9I 500 (Applicable to AC630 Frame and DC630 Frame)		1 Piece/ Set (Shaft Length: 500); Obtained CCC and UL Certifications

TIPs: For the Product with a frame current of 250, 320 and 630A, shall be default equipped with interphase barrier and optional terminal cover; For the Product with frame current of 1250A: internal operating type default equipped with terminal cover; external operating type default equipped with interphase barrier.

# Technical Data Ex9I(Z)HV Series

## Parameters and Functions Table

Rated Working Voltage Ue(V)		DC 1000/1500												
Rated Insulation Voltage Ui(V)		1500												
Rated Impulse Withstand Voltage Uimp(kV)		12												
Frame Current (A)		320					630				1250			
Rated Current Ie (A)	Frame Current (A)	125	160	200	250	320	350	400	500	630	800	1000	1250	
	DC-21B/DC-PV1	DC 1000/1500V	125	160	200	250	320	350	400	500	630	800	1000	1250
	DC-PV2 <sup>1</sup>	DC 1000/1500V	/	/	/	/	/	350	400	500	630	800	800 <sup>2</sup>	800 <sup>2</sup>
	DC-22B <sup>1</sup>	DC 1000/1500V	/	/	/	/	/	350	400	500	500 <sup>2</sup>	800	800 <sup>2</sup>	800 <sup>2</sup>
Rated Short-time Withstand Current Icw		10kA/50ms					10kA/1s				25kA/1s			
Rated Short-circuit Making Capacity Icm (Peak)		10kA									30kA			
Operation Method		Front-External operating/Side-External operating									Front-Internal operating/ Front External operating			
Ingress Protection		Complete Machine with IP20/ External Handle with IP65												
Position Indication		Dual Indication of Handle and Contact												
Mechanical Endurance (Cycle)		8000					5000				500			
Electrical Endurance (Cycle)		200									100			
Working Environment Temperature		(Derating Capacity for Use within 85°C)												
Altitude (m)		(Derating Capacity for Use within 5000 Meters)												
Certifications Obtained		CCC/CE/CB/TUV/RoHS									CCC/CE			
Minimum Cross-sectional Area of Copper Cable (mm <sup>2</sup> )		50mm <sup>2</sup> x 1 (Piece)					120mm <sup>2</sup> x 1 (Piece)				80mmx5mmx2 (Piece)			
Maximum Cross-sectional Area of Copper Cable (mm <sup>2</sup> )		185mm <sup>2</sup> x 1 (Piece)					185mm <sup>2</sup> x 1 (Piece)				/			
Maximum copper bus bar Width (mm)		/					40mmx5mmx2 (Piece)				80mmx5mmx2 (Piece)			
Terminal Tightening Torque (Nm)		15 22					30 44				25 33			

① For the Product with frame current of 320A, there are no DC-PV2 and DC-22B utilization categories; For the Product with frame current of 630A, DC-PV2 and DC-22B only have one circuit or two circuits; For the Product with frame current of 1250A, DC-PV2 and DC-22B only have one circuit.

② The maximum rated current Ie under this Switch-Disconnecter specification corresponding to DC-PV2 and DC-22B.

# Technical Data Ex9I(Z)HV Series

## Parameters and Functions Table

Rated Working Voltage U <sub>e</sub> (V)		AC 415/690/800/1000/1140												
Rated Insulation Voltage U <sub>i</sub> (V)		1500												
Rated Impulse Withstand Voltage U <sub>imp</sub> (kV)		12												
Frame Current (A)		250						630						
Rated Current I <sub>e</sub> (A)	Frame Current (A)	125	160	200	250	350	400	500	630	630	800	1000	1250	
	AC-415 1140V	125	160	200	250	350	400	500	630	630	800	1000	1250	
	21A/22A AC-415 1140V	125	160	200	250	350	400	500	630	630	800	800	800	
	AC-23A AC415 690V	125	160 <sup>2</sup>	160 <sup>2</sup>	160 <sup>2</sup>	350	400	400	400	60	60	60 <sup>2</sup>	60 <sup>2</sup>	
	AC-23A AC800V	125 <sup>2</sup>	125 <sup>2</sup>	125 <sup>2</sup>	125	350	350	350	350	500	800 <sup>2</sup>	800 <sup>2</sup>	800 <sup>2</sup>	
Number of Poles		3P/4P												
Rated Short-time Withstand Current I <sub>cw</sub>		10kA/50ms						10kA/1s						
Rated Short-circuit Making Capacity I <sub>cm</sub> (Peak)		17kA												
Operation Method		Front-External operating/Side-External operating												
Protection		Complete Machine with IP20/ External Handle with IP65												
Position Indication		Dual Indication of Handle and Contact												
Mechanical Endurance (Cycle)		8000						5000						
Electrical Endurance (Cycle)		200												
Working Environment Temperature		(Derating Capacity for Use within 85°C)												
Altitude (m)		(Derating Capacity for Use within 5000 Meters)												
Certifications Obtained		CCC/CE/CB/TUV/RoH												
Minimum Cross-sectional Area of Copper Cable (mm <sup>2</sup> )		50mm <sup>2</sup> x 1 (Piece)						120mm <sup>2</sup> x 1 (Piece)						
Maximum Cross-sectional Area of Copper Cable (mm <sup>2</sup> )		185mm <sup>2</sup> x 1 (Piece)						185mm <sup>2</sup> x 1 (Piece)						
Maximum copper bus bar Width (mm)		/						40mmx5mmx2 (Piece)						
Terminal Tightening Torque (Nm)		15 22						30 44						

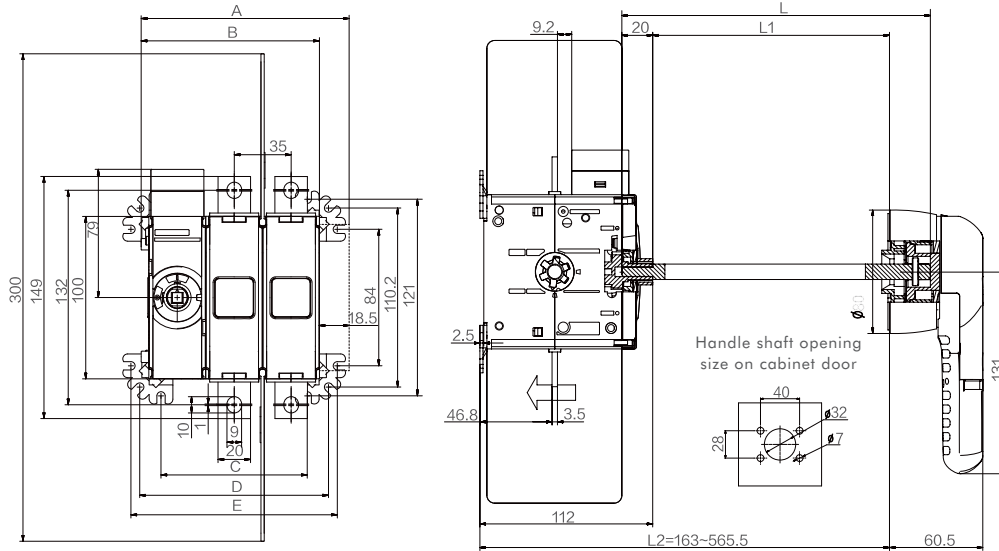
③ The maximum rated current I<sub>e</sub> under this Switch-Disconnecter specification corresponding to AC-23A (AC800V) and AC-23A (AC1000~1140V).

# Technical Data Ex9I(Z)HV Series

## Dimensions and Installation

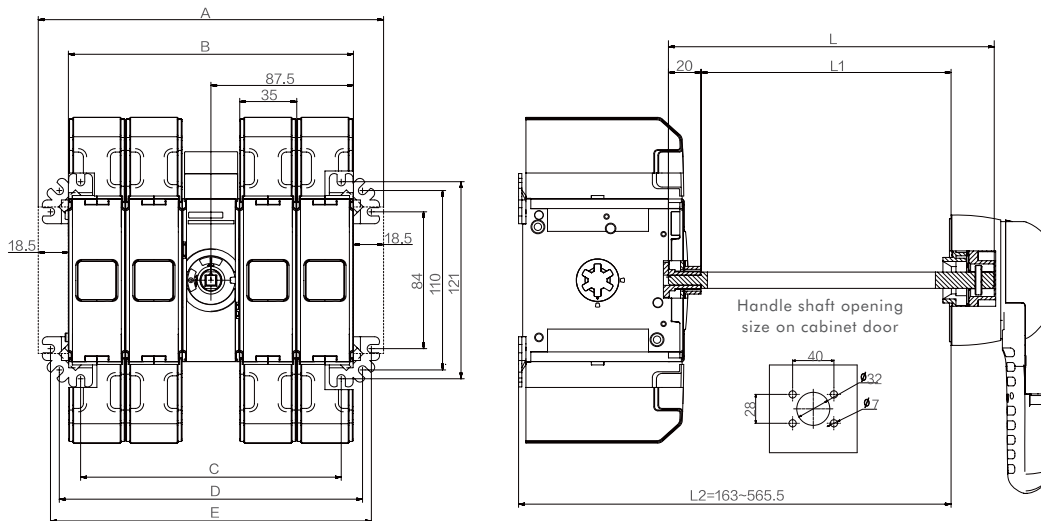
### Ex9I Ex9IZ HV and ExI ExIZ HV E Series Switch-Disconnecter

#### Ex9IZ-320HV/Ex9I-250HV/ExIZ-320HVE/ExI-250HV E Series (Mechanism on one side)



Number of Poles	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	L&L1 (mm)
2P	128.2	109.7	90	116.2	127	① L=200,L1=153.5 ② L=320,L1=273.5 ③ L=500,L1=453.5
3P	163.2	144.7	125	151.2	162	
4P	198.2	179.7	160	186.2	197	

#### Ex9IZ-320HV/Ex9I-250HV/ExIZ-320HV E/ExI-250HVE Series (Mechanism in the middle)



Number of Poles	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	L&L1 (mm)
2P	142	105	90	116.2	127	① L=200,L1=153.5 ② L=320,L1=273.5 ③ L=500,L1=453.5
4P	212	175	160	186.2	197	

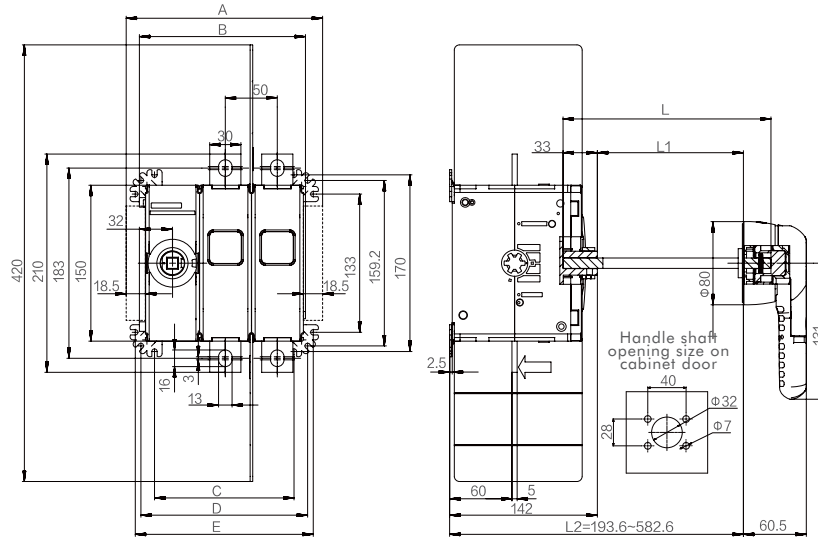
TIP: The dashed box represents the external auxiliary contact block.

# Technical Data Ex9I(Z)HV Series

## Dimensions and Installation

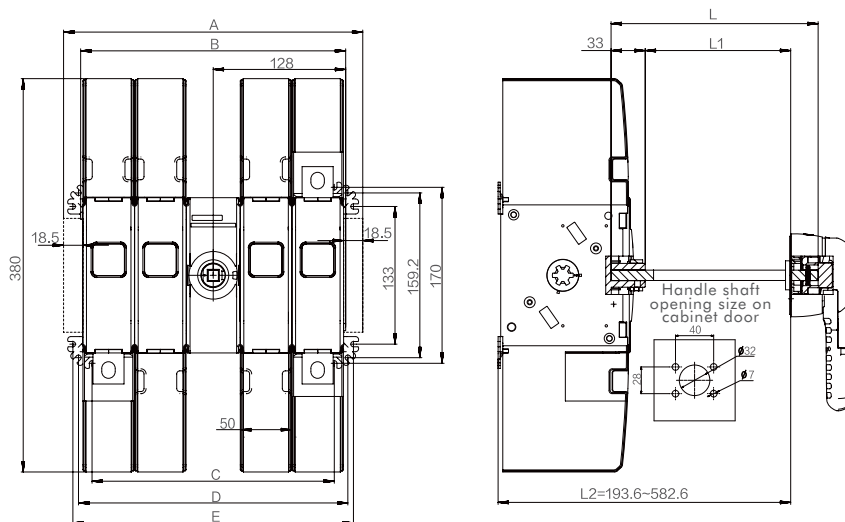
### Ex9I Ex9IZ HV and ExI ExIZ HV E Series Switch-Disconnecter

#### Ex9IZ-630HV/Ex9I-630HV/ExIZ-630HVE Series (Mechanism on one side)



Number of Poles	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	L&L1 (mm)
2P	1	1	134.2	160.5	171.2	① L=200, L1=140.5
3P	2	2	184.2	210.5	221.2	② L=320, L1=260.5
4P	2	2	234.2	260.5	271.2	③ L=500, L1=440.5

#### Ex9IZ-630HV/Ex9I-630HV/ExIZ-630HV E/ExI-630HV E Series (Mechanism in the middle)



Number of Poles	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	L&L1 (mm)
2P	189	156	134	160.2	171	① L=200, L1=140.5
4P	289	256	234	260.2	271	② L=320, L1=260.5
6P	389	356	334	360.2	371	③ L=500, L1=440.5

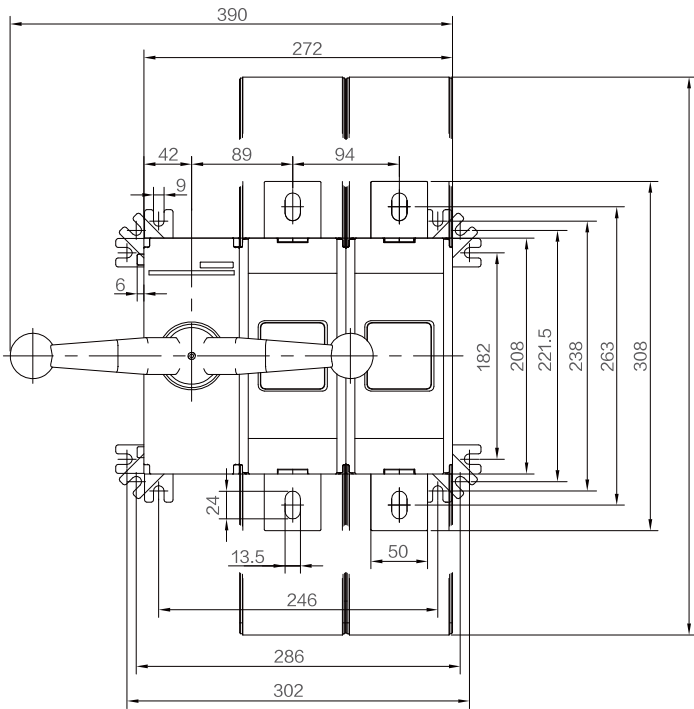


# Technical Data Ex9I(Z)HV Series

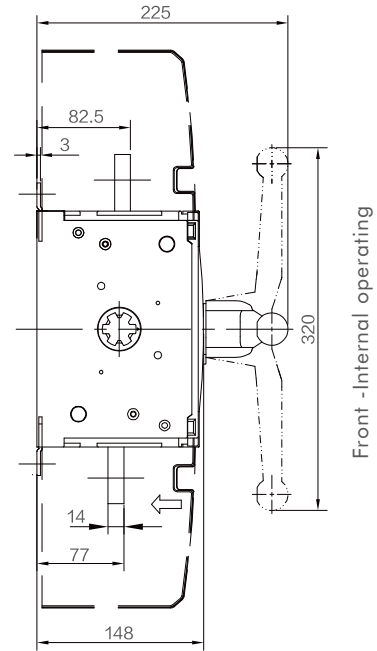
## Dimensions and Installation

### Ex9I Ex9IZ HV and ExI ExIZ HV E Series Switch-Disconnecter

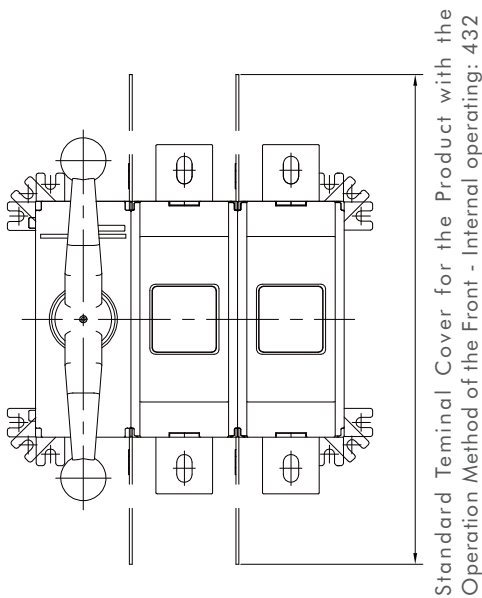
#### Ex9IZ-1250HV/ExIZ-1250HVE Series (Mechanism on one side)



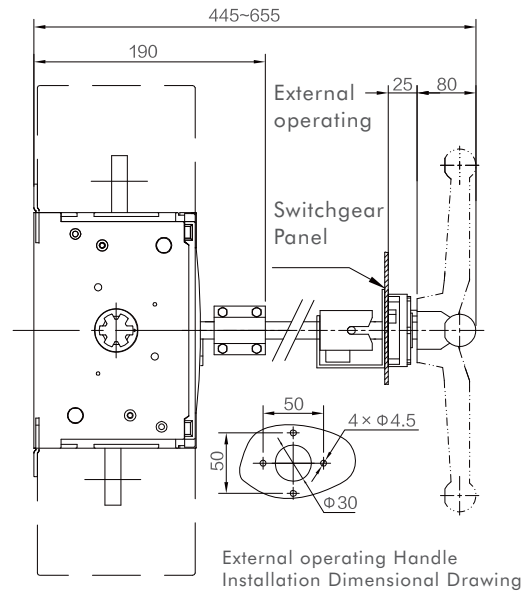
Standard Terminal Cover for the Product with the Operation Method of the Front-Internal operating: 492



Front - Internal operating



Standard Terminal Cover for the Product with the Operation Method of the Front - Internal operating: 432



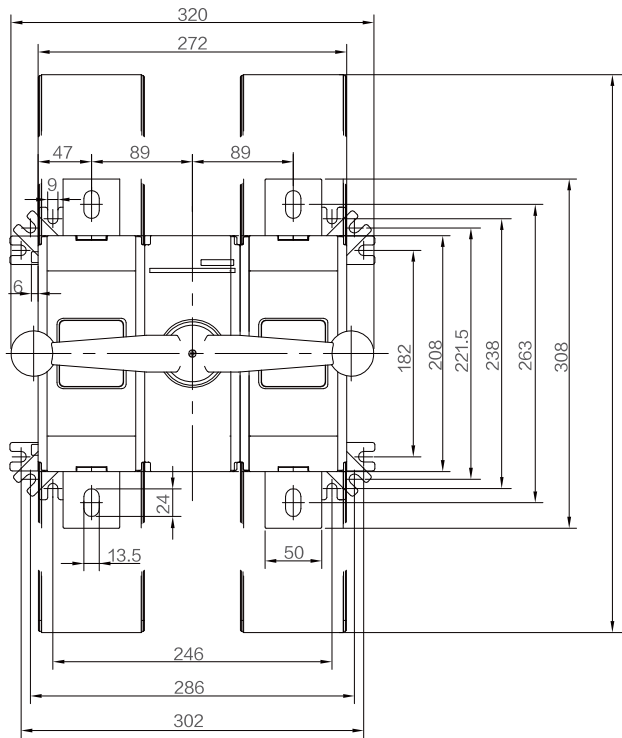
External operating Handle Installation Dimensional Drawing

# Technical Data Ex9I(Z)HV Series

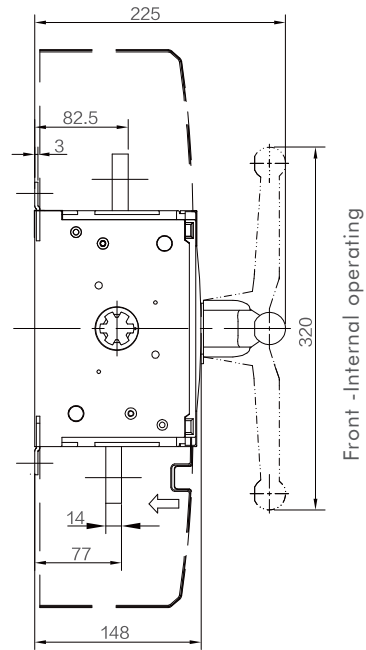
## Dimensions and Installation

### Ex9I Ex9IZ HV and ExI ExIZ HV E Series Switch-Disconnecter

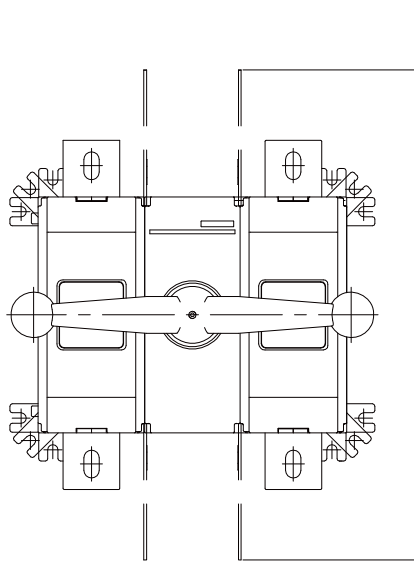
#### Ex9IZ-1250HV/ExIZ-1250HVE Series (Mechanism in the middle)



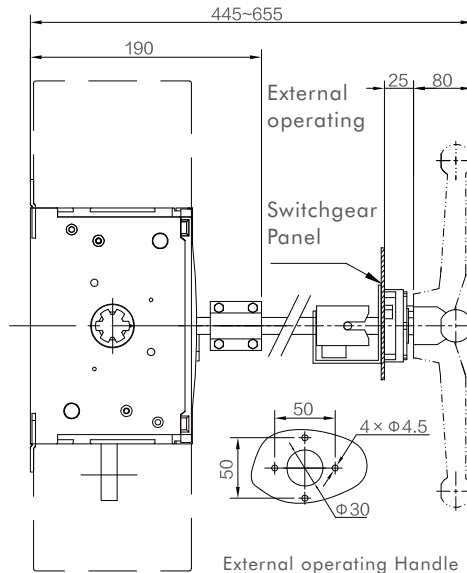
Standard Terminal Cover for the Product with the Operation Method of the Front- Internal operating: 492



Front -Internal operating

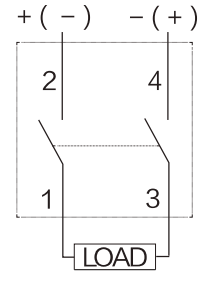
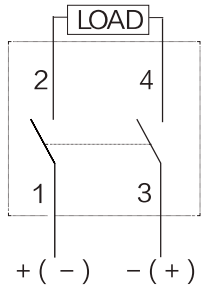


Standard Terminal Cover for the Product with the Operation Method of Front-Internal operating : 432

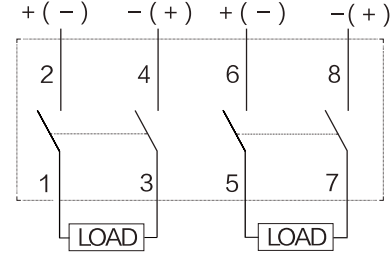
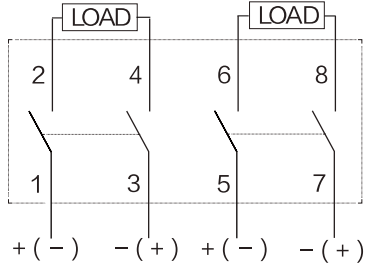


External operating Handle Installation Dimensional Drawing

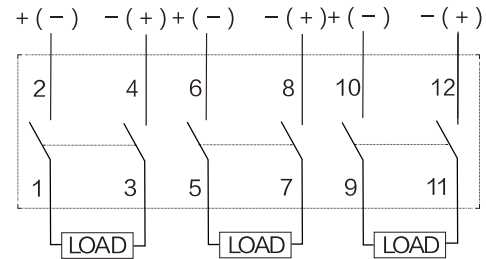
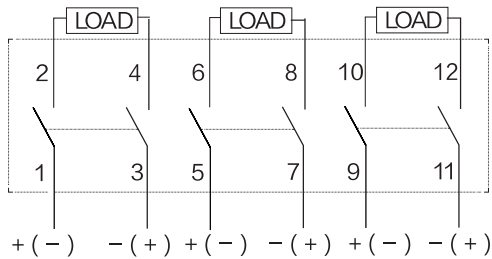
2P



3P



4P



No polarity, the "+" and "-" poles can be reversed.