

BYH/BYT

Series DC Isolator Switches

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BYH Series Non-polarity DC Isolator Switches 4P 1000V 32A



- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 OFF
- 5 LOCK
- 6 Standard
- 7 Brand
- 8 Type
- 9 ON
- 10 Knob



Accessories

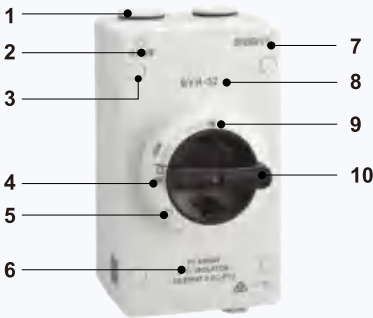
Application

BENY BYH-32 true DC isolator switch in IP66 enclosure is developed for solar residential and commercial PV rooftop systems, should be installed between solar panels and inverter for DC power isolation. The first DC isolator complies with DC-PV2 AS60947.3 2018 standard. The patent arc-extinguish chamber and qualify material ensure the DC isolator's reliable and long working life. Breather valve is attached on the enclosure bottom. Max voltage up to 1000V.

Feature

- IP66,UV Resistance
- Arcing Time < 3ms
- Earth Terminal
- IEC60947-3, AS60947.3
- 2 Poles, 4 Poles Available(Single | Double String)
- DC-PV2: 32A up to 1000VDC

Appearance Introduction

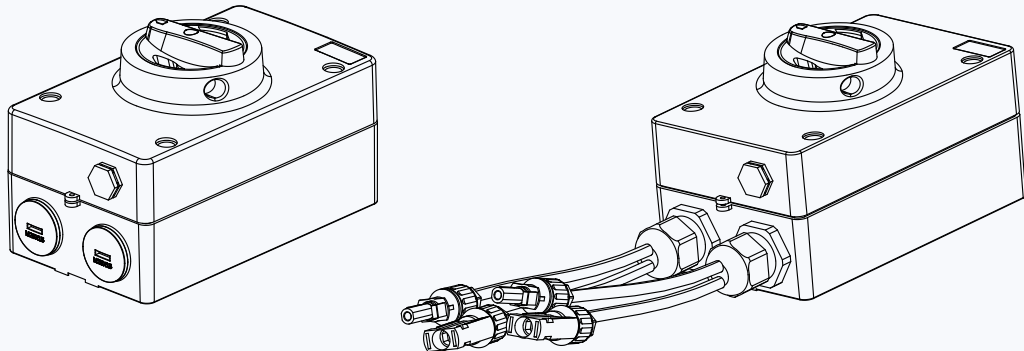


Parameter

Electrical Characteristics		
Type	BYH-32, BYH-32M1, BYH-32M2	
Function	Isolator, Control	
Standard	IEC60947-3, AS60947.3	
Utilization category	DC-PV2	
Pole	4P	
Rated frequency	DC	
Rated operational voltage (U_e)	300V, 500V, 600V, 800V, 1000V	
Rated operational current (I_n)	See the next page	
Rated insulation voltage (U_i)	1200V	
Conventional free air thermal current(I_{fa})	II	
Conventional enclosed thermal current(I_{be})	Same as I_e	
Rated short-time withstand current (I_{cw})	1kA, 1s (4,4B); 1.7kA, 1s (2H)	
Rated short-time making capacity (I_{cm})	1.7kA(4,4B); 3kA(2H)	
Rated conditional short-circuit current (I_{cn})	3kA	
Rated impuled withstand voltage (U_{imp})	8.0kV	
Overvoltage category	II	
Suitability for isolation	Yes	
Polarity	No polarity, "+" and "-" polarities could be interchanged.	
Service Life/Cycle Operation		
Mechanical	15000	
Electrical	1000	
Installation Environment		
Ingress Protection	Enclsoure	IP66
	Switch body	IP20
Storage Temperature	-50°C ~ +90°C	
Operation Temperature	-40°C ~ +85°C	
Mounting Type	Vertically or horizontally	
Pollution degree	3	
Suitable environment	Outdoor / Indoor	

BYH Series
Non-polarity DC Isolator Switches

Breathing Valve



Remarks:
ZJBENY DC Isolator has a breathing valve already, to avoid the condensation issue.

Identification	Rating data		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	BYH-32 IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number	/		
<i>I_m</i> rated thermal current, unenclosed, at 40°C shade ambient air temperature	32 amps		
<i>I_{the}</i> rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure	32 amps		
<i>I_{the}</i> rated thermal current outdoors at 40°C shade ambient air temperature without solar effects in a specific dedicated enclosure rated IP66NW	32 amps		
<i>I_{the}</i> solar current value outdoors at 60°C shade ambient air temperature (see D.8.3.11,table D3), with solar effects in a specific dedicated enclosure rated IP66NW	29 amps		
	<i>U_e</i> rated operational voltage DC Volts	<i>I_e</i> ; DC-PV2 rated operational current Amps	<i>I_(make)</i> and <i>I_(break)</i> DC-PV2 4 x <i>I_e</i> Amps
4-pole 2 pole in series 4	300	32	128
	500	32	128
	600	13	52
	800	9	36
	1000	9	36
2-pole 4 pole in series 4B	300	32	128
	500	32	128
	600	32	128
	800	32	128
	1000	32	128

Wiring Diagram for Rated operational voltage Ue(V) & Rated operational current Ie(A)

Contacts wiring diagram	300V	500V	600V	800V	1000V	Poles in series	Number of Strings	Type Number
	32A	32A	13A	9A	9A	2	2	4
	40A	40A	/	/	/	4	1	2H
	32A	32A	32A	32A	32A	4	1	4B
	32A	32A	32A	32A	32A	4	1	4S

Switching Configurations

Type	4-pole	2-pole 4 Paralleled Poles	4-pole with Input and Output bottom	4-pole with Input on top Output bottom
/	4	2H	4B	4S
Contacts Wiring graph				
Switching example				

Bridgion Links Installation



Installed incorrectly	Installed correctly

* Warning: You must ensure all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.

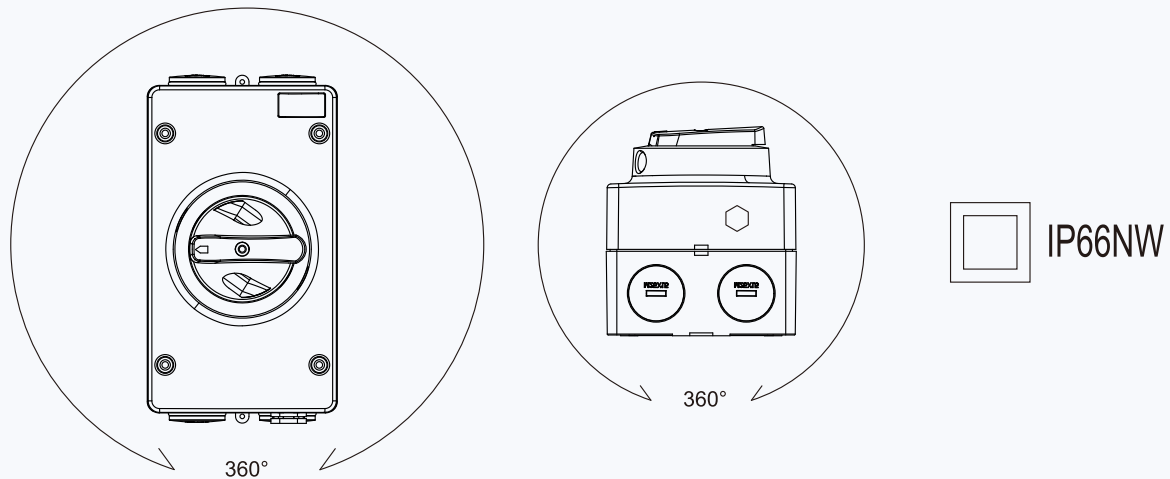
BYH Series

Non-polarity DC Isolator Switches

Terminals / connection

Type		BYH-32, BYH-32M1, BYH-32M2
Number of poles		4-pole
Terminal designation, main circuit		1; 3; 5; 7; 2; 4; 6; 8
Type of terminal, main circuit		Screw terminal
Rated cross section area, main circuit		4.0-16mm ²
Type of Conductor		4-16mm ² (Rigid: Solid or Stranded)
		4-10mm ² (Flexible)
Number of conductors per terminal		1
Required preparation of the conductor		Yes
Stripping length (mm), main circuit		8mm
Tightening torque (M4), main circuit		Min: 1.2Nm
		Max: 1.8Nm

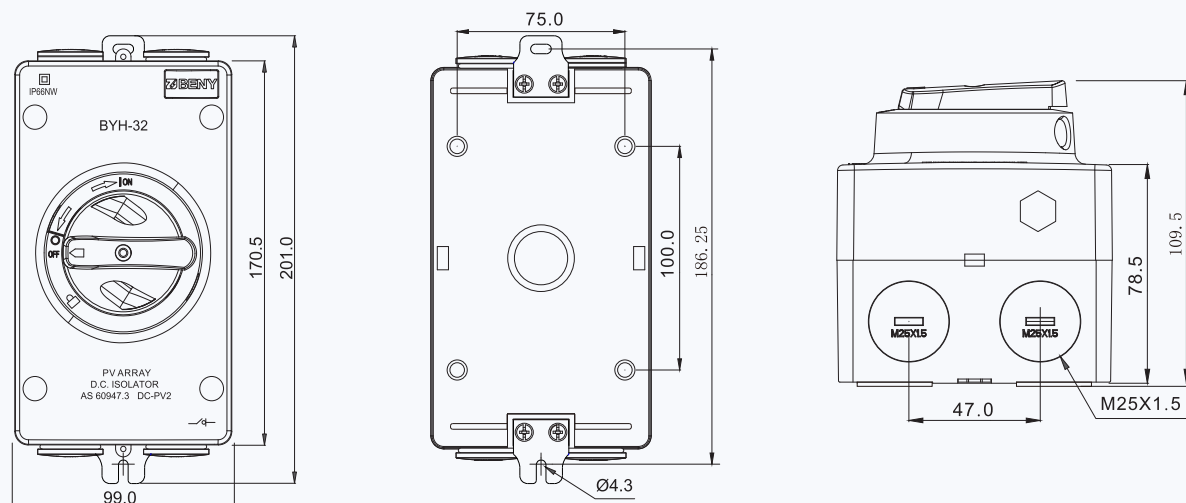
IP Rating




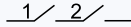
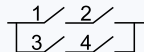
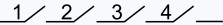
Remarks:

ZJBENY DC Isolator can be installed in any direction, but must do well performance for waterproof.

Dimensions(mm)



Data according to AS60947-3:2018

Main Contacts		Type	BYH- 32	Appendix B5
Rated thermal current I _{the}		A	32	Making &
Rated insulation voltage U _i		V	1000	Breaking
Distance of contacts (per pole)		mm	8	5x
Rated operational current Ie (DC-PV2)				operations
1 pole 1 	300V	A	25	100
	400V	A	10	40
	500V	A	8	32
	600V	A	8	32
	800V	A	3	12
	1000V	A	2	8
4-pole 2 pole in series 4 	500V	A	32	128
	600V	A	13	52
	700V	A	9	36
	800V	A	9	36
	900V	A	9	36
	1000V	A	9	36
2-pole 4 parallel poles 2H 	500V	A	40	160
	600V	A	/	/
	700V	A	/	/
	800V	A	/	/
	900V	A	/	/
	1000V	A	/	/
2-pole 4 pole in series 4B 	500V	A	32	128
	600V	A	32	128
	700V	A	32	128
	800V	A	32	128
	900V	A	32	128
	1000V	A	32	128



- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 OFF
- 5 LOCK
- 6 Standard
- 7 Brand
- 8 Type
- 9 ON
- 10 Knob

BYT-32 BYT-32 with MC4



Accessories

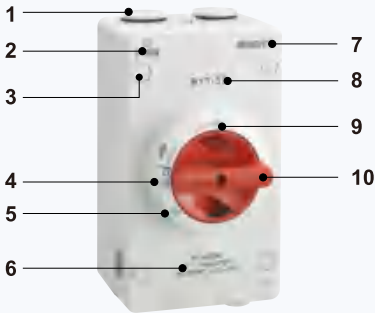
Application

ZBENY BYT-32 true DC isolator switch in IP66 enclosure is developed for solar residential and commercial PV rooftop systems, should be installed between solar panels and inverter for DC power isolation. The first DC isolator complies with DC-PV2 AS60947.3 2018 standard. The patent arc-extinguish chamber and qualify material ensure the DC isolator's reliable and long working life. Breather valve is attached on the enclosure bottom. Max voltage up to 1200V.

Feature

- IP66, UV Resistance
- Arcing Time < 3ms
- Earth Terminal
- IEC60947-3, AS60947.3
- 2 Poles, 4 Poles Available(Single | Double String)
- DC-PV2: 32A up to 1200VDC

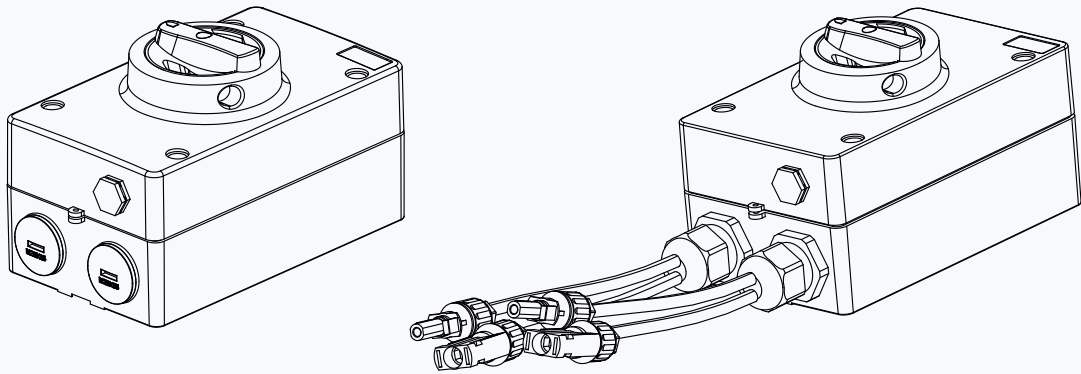
Appearance Introduction



Parameter

Electrical Characteristics		
Type	BYT-32, BYT-32M1, BYT-32M2	
Function	Isolator, Control	
Standard	IEC60947-3, AS60947.3	
Utilization category	DC-PV2	
Pole	4P	
Rated frequency	DC	
Rated operational voltage (U_e)	600V, 800V, 1000V, 1200V	
Rated operational current (I_e)	See the next page	
Rated insulation voltage (U_i)	1200V	
Conventional free air thermal current(I_{fr})	II	
Conventional enclosed thermal current(I_{the})	Same as I_e	
Rated short-time withstand current (I_{cw})	1kA, 1s (4, 4B); 1.7kA, 1s (2H)	
Rated short-time making capacity (I_{cm})	1.7kA, (4, 4B); 3kA, (2H)	
Rated conditional short-circuit current (I_{cn})	3kA	
Rated impuled withstand voltage (U_{imp})	8.0kV	
Overvoltage category	II	
Suitability for isolation	Yes	
Polarity	No polarity, "+" and "-" polarities could be interchanged.	
Service Life/Cycle Operation		
Mechanical	15000	
Electrical	1000	
Installation Environment		
Ingress Protection	Enclsoure	IP66
	Switch body	IP20
Storage Temperature	-50°C ~ +90°C	
Operation Temperature	-40°C ~ +85°C	
Mounting Type	Vertically or horizontally	
Pollution degree	3	
Suitable environment	Outdoor / Indoor	

Breathing Valve

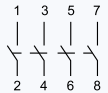
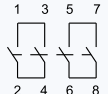
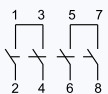
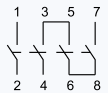


Remarks:
ZJBENY DC Isolator has a breathing valve already, to avoid the condensation issue.

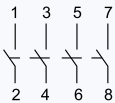
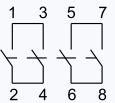
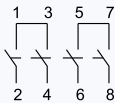
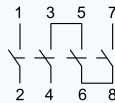
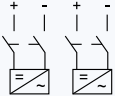
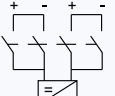
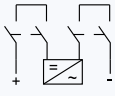
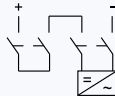
Identification		Rating data		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)		BYT-32 IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number		/		
I_{fr} rated thermal current, unenclosed, at 40°C shade ambient air temperature		32 amps		
I_{the} rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure		32 amps		
I_{the} rated thermal current <u>outdoors</u> at 40°C shade ambient air temperature <u>without solar effects</u> in a specific dedicated enclosure rated IP66NW		32 amps		
I_{the} solar current value outdoors at 60°C shade ambient air temperature (see D.8.3.11,table D3), with solar effects in a specific dedicated enclosure rated IP66NW		29 amps		
4-pole 2 pole in series 4	(_ 1 / _ 2 / _)	U_e rated operational voltage DC Volts	I_e ; DC-PV2 rated operational current Amps	$I_{(make)}$ and $I_{(break)}$ DC-PV2 4 x I_e Amps
		300	32	128
		500	32	128
		600	32	128
		800	13	52
		1000	9	36
		1200	9	36
		300	32	128
		500	32	128
		600	32	128
2-pole 4 pole in series 4B	(_ 1 / _ 2 / _ 3 / _ 4 / _)	800	32	128
		1000	32	128
		1200	32	128
		300	32	128
		500	32	128

BYT Series
Non-polarity DC Isolator Switches

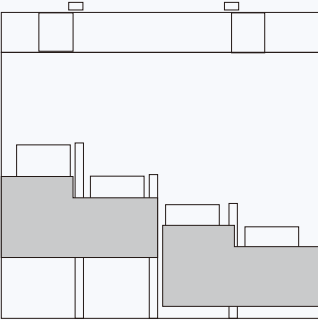
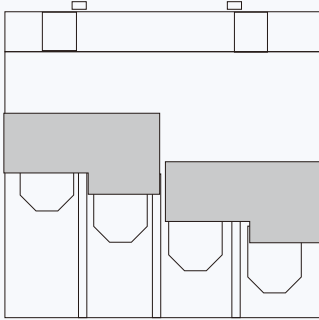
Wiring Diagram for Rated operational voltage Ue(V) & Rated operational current Ie(A)

Contacts wiring diagram	300V	500V	600V	800V	1000V	Poles in series	Number of Strings	Type Number
	32A	32A	13A	9A	9A	2	2	4
	40A	40A	/	/	/	4	1	2H
	32A	32A	32A	32A	32A	4	1	4B
	32A	32A	32A	32A	32A	4	1	4S

Switching Configurations



Type	4-pole	2-pole 4 Paralleled Poles	4-pole with Input and Output bottom	4-pole with Input on top Output bottom
/	4	2H	4B	4S
Contacts Wiring graph				
Switching example				

Bridgion Links Installation

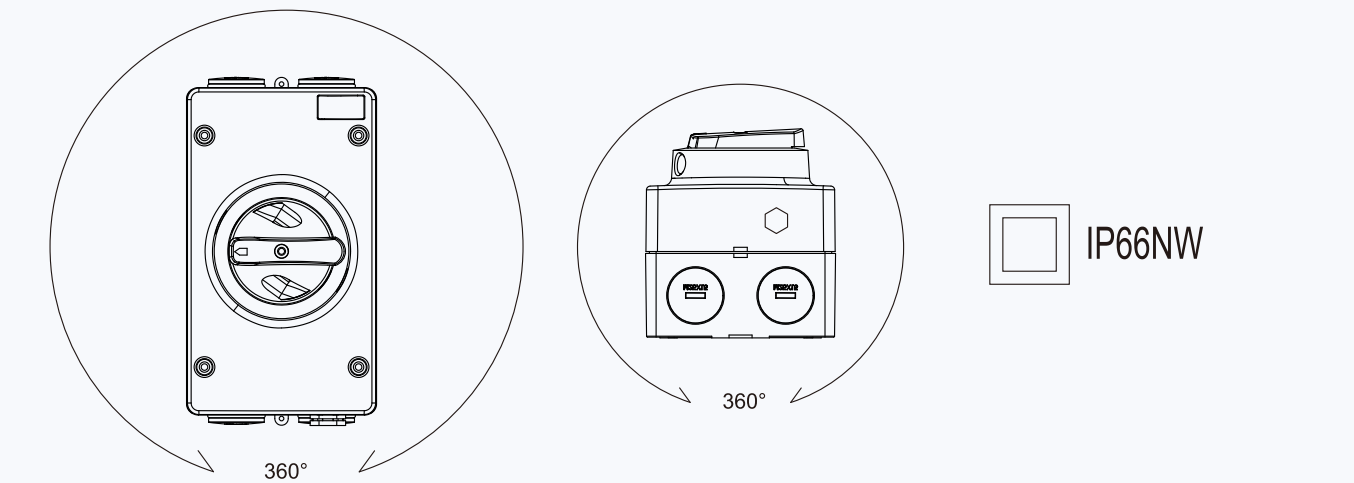
Installed incorrectly	Installed correctly
	

* Warning: Verify that all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.

Terminals / connection

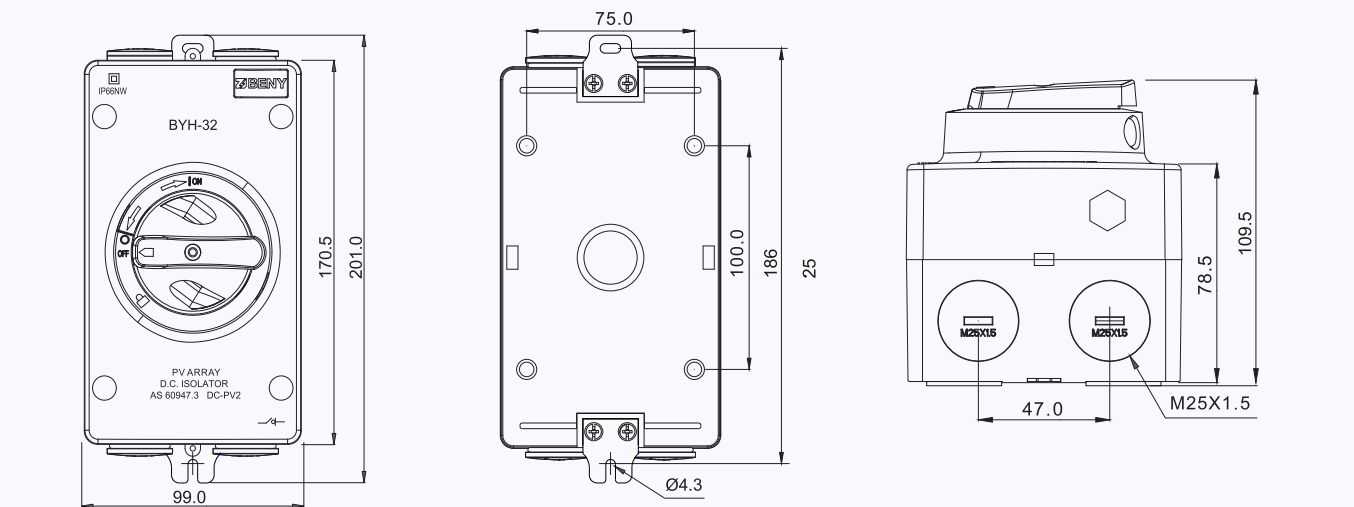
Type	BYT-32, BYT-32M1, BYT-32M2	
Number of poles	4-pole	
Terminal designation, main circuit	1; 3; 5; 7; 2; 4; 6; 8	
Type of terminal, main circuit	Screw terminal	
Rated cross section area, main circuit	4.0-16mm ²	
Type of Conductor		4-16mm ² (Rigid: Solid or Stranded)
		4-10mm ² (Flexible)
Number of conductors per terminal	1	
Required preparation of the conductor	Yes	
Stripping length (mm), main circuit	8mm	
Tightening torque (M4), main circuit	Min: 1.2Nm	
	Max: 1.8Nm	

IP Rating



Remarks:
ZJBENY DC Isolator can be installed in any direction, but must do well performance for waterproof.

Dimensions(mm)

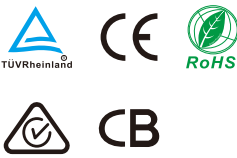


BYT Series
Non-polarity DC Isolator Switches

Data according to AS60947-3:2018

Main Contacts		Type	BYT-32	Appendix B5
Rated thermal current I_{th}		A	32	Making &
Rated insulation voltage U_i		V	1200	Breaking
Distance of contacts (per pole)		mm	8	5x
Rated operational current I_e (DC-PV2)				operations
1 pole 1 <div><div>1</div></div>	300V	A	25	100
	400V	A	10	40
	500V	A	8	32
	600V	A	8	32
	800V	A	3	12
	1000V	A	2	8
4-pole 2 pole in series 4 <div><div>1</div><div>2</div></div>	500V	A	32	128
	600V	A	32	128
	700V	A	13	52
	800V	A	13	52
	900V	A	9	36
	1000V	A	9	36
	1200V	A	9	36
2-pole 4 parallel poles 2H <div><div>1</div><div>2</div><div>3</div><div>4</div></div>	500V	A	40	160
	600V	A	40	160
	700V	A	/	/
	800V	A	/	/
	900V	A	/	/
	1000V	A	/	/
	1200V	A	/	/
2-pole 4 pole in series 4B <div><div>1</div><div>2</div><div>3</div><div>4</div></div>	500V	A	32	128
	600V	A	32	128
	700V	A	32	128
	800V	A	32	128
	900V	A	32	32
	1000V	A	32	32
	1200V	A	32	32

BYSS Series
Non-polarity
DC Isolator Switches
4P 1500V 35A



- 1 Waterproof Plug
- 2 IP66 Ingress Protection
- 3 Sealed Plug
- 4 Knob
- 5 Standard
- 6 Brand
- 7 Type
- 8 LOCK
- 9 ON
- 10 OFF

BYSS-50



Application

ZBENY BYSS-50 true DC isolator switch in IP66 enclosure is developed for 1000V 1500V commercial solar rooftop, should be installed between solar panels and inverter for DC power isolation. Each poles up to 35A at 1500V or 50A at 1000V. A breather valve is attached on the enclosure bottom. Patent arc-extinguish chamber and UL listed qualify material ensure a highest level quality and solar DC safety.

Feature

- IP66, UV Resistance
- Arcing Time < 3ms
- Earth Terminal
- IEC60947-3, AS60947.3
- 2 Poles, 4 Poles Available(Single | Double String)
- DC-PV2 / DC-21B: 35A up to 1500VDC

Appearance Introduction

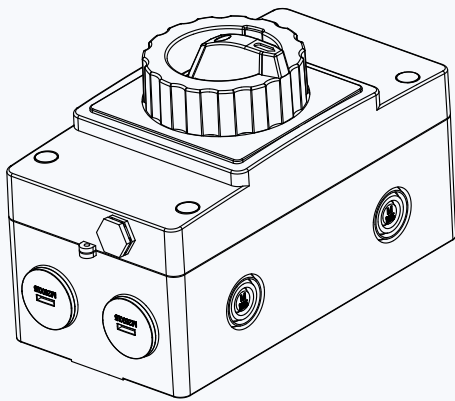


Parameter

Electrical Characteristics		
Type	BYSS-50	
Function	Isolator, Control	
Standard	IEC60947-3, AS60947.3	
Utilization category	DC-PV2	
Pole	4P	
Rated frequency	DC	
Rated operational voltage (U_e)	300V, 600V, 1000V, 1200V, 1500V	
Rated operational current (I_e)	See the next page	
Rated insulation voltage (U_i)	1200V	
Conventional free air thermal current(I_{fa})	II	
Conventional enclosed thermal current(I_{pe})	Same as I_e	
Rated short-time withstand current (I_{cw})	1.5kA, 1s	
Rated short-time making capacity (I_{cm})	2kA	
Rated conditional short-circuit current (I_{cs})	3kA	
Rated impulsed withstand voltage (U_{imp})	8.0kV	
Overvoltage category	II	
Suitability for isolation	Yes	
Polarity	No polarity, “+” and “-” polarities could be interchanged.	
Service Life/Cycle Operation		
Mechanical	10000	
Electrical	1000	
Installation Environment		
Ingress Protection	Enclsoure	IP66
	Switch body	IP20
Storage Temperature	-40°C ~ +85°C	
Operation Temperature	-40°C ~ +85°C	
Mounting Type	Vertically or horizontally	
Pollution degree	3	
Suitable environment	Outdoor / Indoor	

BYSS Series
Non-polarity DC Isolator Switches

Breathing Valve



Remarks:
ZJBENY DC Isolator has a breathing valve already, to avoid the condensation issue.

Identification	Rating data		
Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating)	BYSS-50 IP66NW		
Assembly of switch and specific dedicated individual enclosure - catalogue number	/		
I_{th} rated thermal current, unenclosed, at 40°C shade ambient air temperature	50 amps		
I_{the} rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure	50 amps		
I_{the} rated thermal current <u>outdoors</u> at 40°C shade ambient air temperature <u>without solar effects</u> in a specific dedicated enclosure rated IP66NW	50 amps		
I_{the} solar current value outdoors at 60°C shade ambient air temperature (see D.8.3.11,table D3), with solar effects in a specific dedicated enclosure rated IP66NW	50 amps		
	U_e rated operational voltage DC Volts	I_e ; DC-PV2 rated operational current Amps	$I_{(make)}$ and $I_{c(break)}$ DC-PV2 4 x I_e Amps
2 pole (1 / 2 / _)	≤300	50	200
	600	50	200
	1000	50	200
	1200	32	128
	1500	16	64
4 pole (1 / 2 / 3 / 4 / _)	≤300	50	200
	600	50	200
	1000	50	200
	1200	50	200
	1500	35	140

Wiring Diagram for Rated operational voltage $U_e(V)$ & Rated operational current $I_e(A)$

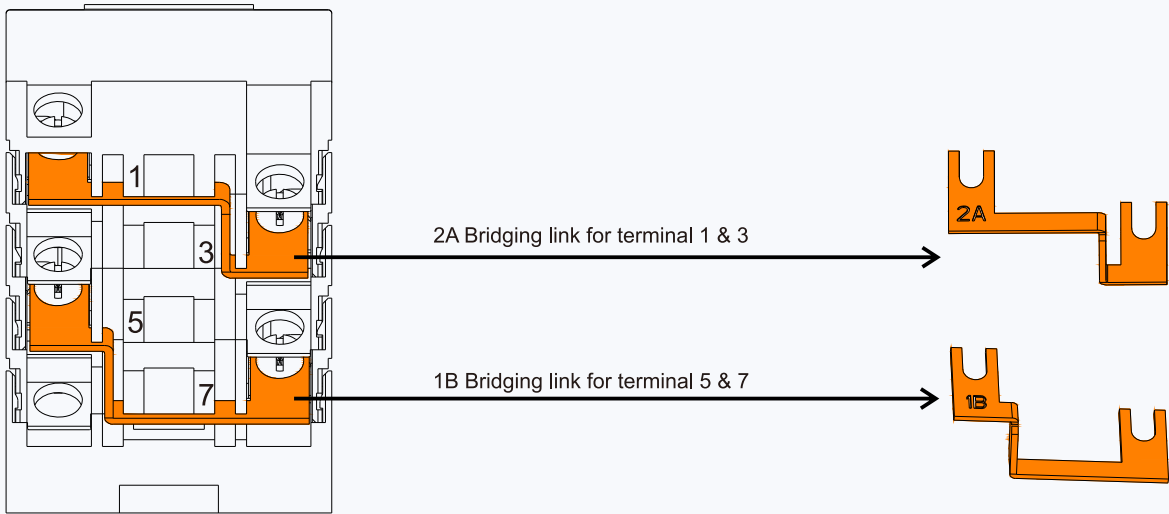
Contacts wiring diagram	300V	600V	1000V	1200V	1500V	Poles in series	Number of Strings	Type Number
	50A	50A	50A	32A	16A	2	2	4
	50A	50A	50A	50A	35A	4	1	4B

Switching Configurations

Type	4-pole	4-pole with Input and Output bottom
/	4	4B
Contacts Wiring graph		
Switching example		

Bridgion Links Installation



Installed incorrectly



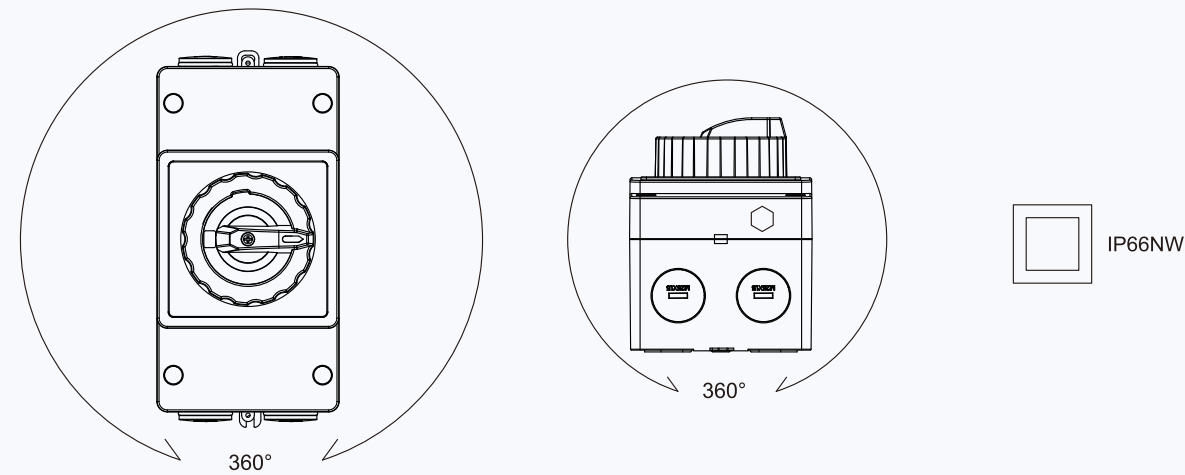
* Warning: You must ensure all connections (including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.

BYSS Series
Non-polarity DC Isolator Switches

Terminals / connection

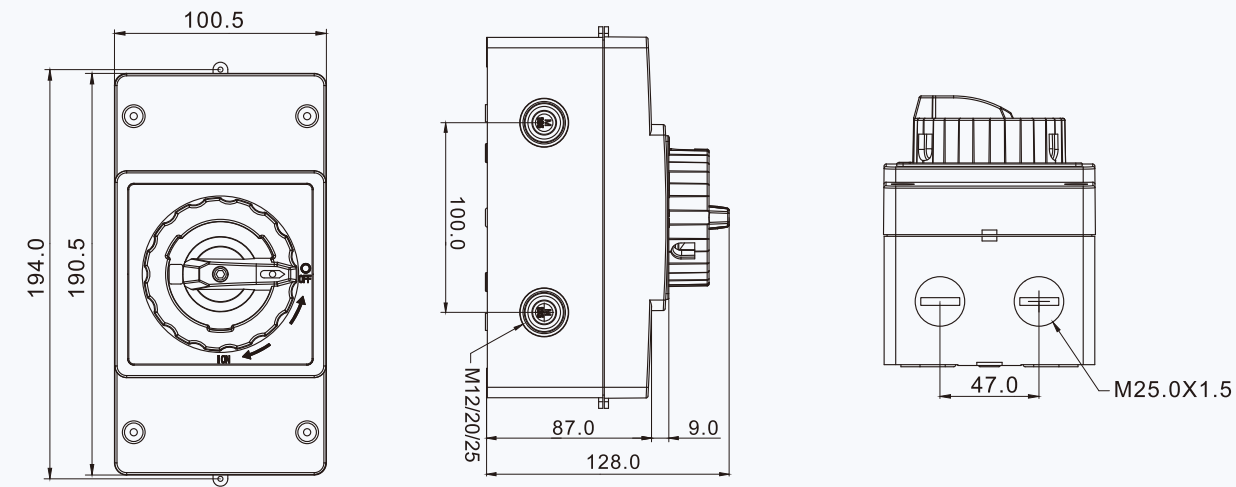
Type		BYSS-50, BYSS.1-50, BYSS.2-50
Number of poles		4-pole
Terminal designation, main circuit		1; 3; 5; 7; 2; 4; 6; 8
Type of terminal, main circuit		Screw terminal
Rated cross section area, main circuit		4.0-16mm²
Type of Conductor		4-16mm² (Rigid: Solid or Stranded)
		4-10mm² (Flexible)
Number of conductors per terminal		1
Required preparation of the conductor		Yes
Stripping length (mm), main circuit		8mm
Tightening torque (M4), main circuit		Min: 1.2Nm
		Max: 1.8Nm

IP Rating



Remarks:
ZJBENY DC Isolator can be installed in any direction, but must do well performance for waterproof.

Dimensions(mm)



BYT.2
Series DC Isolator Switches

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www.beny.com





Accessories

Application

BYBENY BYT.2 series DC Isolator Switches are applied to 1-20KW Inverter, Controller, DC Combiner Box, used for Residential or Commercial PV solar power system(on-grid/off-grid). Arcing time less than 3ms, that make PV solar system effectively disconnected.

BYT.2-32 DC Isolator Switches

- DIN Rail Mounting
- BYT.2 -32 Rated Voltage 1200V DC
- OFF LOCKABLE
- Flame-Retardant
- Arcing Time < 3ms
- IEC60947-3
- 4Poles(Single|Double Strings Available)
- DC-PV2: 16A,25A,32A up to 1200V DC

BYT.2-32 DC Isolator Switches

- DIN Rail Mounting Door Clutch
- BYT.2-32 Rated Voltage 1200V DC
- OFF LOCKABLE
- Flame-Retardant
- Arcing Time < 3ms
- IEC60947-3
- 4 poles(Single|Double Strings Available)
- DC-21B: 16A,25A,32A up to 1200V DC

Parameter

Electrical Characteristics	
Type	BYT.2-32
Function	Isolator, Control
Standard	IEC60947-3, AS60947.3
Utilization category	DC-PV2
Pole	4P
Rated frequency	DC
Rated operational voltage (U_e)	300V, 600V, 800V, 1000V, 1200V
Rated operational current (I_e)	See the next page
Rated insulation voltage (U_i)	1200V
Conventional free air thermal current(I_{fn})	II
Conventional enclosed thermal current(I_{fne})	Same as I_e
Rated short-time withstand current (I_{cw})	1kA, 1s (4, 4S, 4B); 1.7kA, 1s (2H)
Rated short-time making capacity (I_{cm})	1.7kA,(4, 4S, 4B); 3kA,(2H)
Rated conditional short-circuit current (I_{cn})	3kA
Rated impulsed withstand voltage (U_{imp})	8.0kV
Overvoltage category	II
Suitability for isolation	Yes
Polarity	No polarity, “+” and “-” polarities could be interchanged.
Service Life/Cycle Operation	
Mechanical	15000
Electrical	1000
Installation Environment	
Ingress Protection	IP20
Storage Temperature	-40℃ ~ +85℃
Mounting Type	Vertically or horizontally
Pollution degree	3
Suitable environment	Indoor

Identification	Rating data		
Switch, unenclosed - catalogue number (with DC-PV2 rating)	BYT.2-32		
Assembly of switch and specific dedicated individual enclosure - catalogue number	/		
I_{th} rated thermal current, unenclosed, at 40°C shade ambient air temperature	32 amps		
I_{the} rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure	32 amps		
I_{the} rated thermal current outdoors at 40°C shade ambient air temperature <u>without solar effects</u> in a specific dedicated enclosure rated IP66NW	32 amps		
I_{the} solar current value outdoors at 60°C shade ambient air temperature (see D.8.3.11,table D3), with solar effects in a specific dedicated enclosure rated IP66NW	29 amps		
	U_e rated operational voltage DC Volts	I_e ; DC-PV2 rated operational current Amps	$I_{(make)}$ and $I_{c(break)}$ DC-PV2 4 x I_e Amps
2 pole (_ 1 / _ 2 / _)	≤600	32	128
	800	13	52
	1000	9	36
	1200	9	36
4 pole (_ 1 / _ 2 / _ 3 / _ 4 / _)	≤600	32	128
	800	32	128
	1000	32	128
	1200	32	128

- NOTE 1 The rating data in the table is example data, it is intended to be replaced by the relevant actual data.
- NOTE 2 The ratings section of this table for U_e , I_e and $I_{(make)}$ and $I_{c(break)}$ may have other number of poles or pole configurations than that shown, based on the test evidence obtained.
- NOTE 3 The other data required in D.5.2.4 need not be in a table format.

Wiring Diagram for Rated operational voltage U_e (V) & Rated operational current I_e (A)

Contacts wiring diagram	600V	800V	1000V	1200V	Poles in series	Number of Strings	Type Number	Weight kg/PCS
	32A	13A	9A	9A	2	2	4	0.70
	40A	/	/	/	2	1	2H	0.70
	32A	32A	32A	32A	2	1	4B	0.70
	32A	32A	32A	32A	4	1	4S	0.70

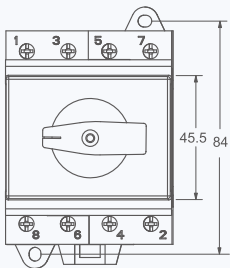
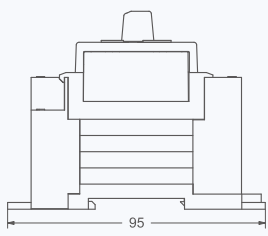
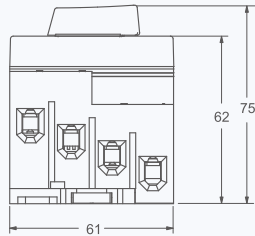
**BYT.2 Series
PV DC Isolator Switches**

Switching Configurations

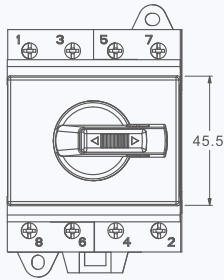
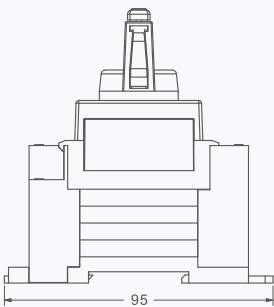
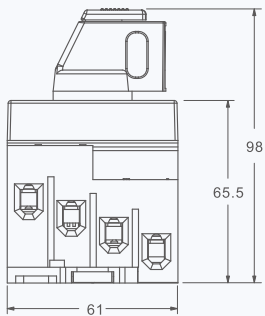
Type	4-pole	2-pole 4 Paralleled Poles	4-pole with Input and Output bottom	4-pole with Input on top Output bottom
/	4	2H	4B	4S
Contacts Wiring graph				
Switching example				

Dimensions(mm)

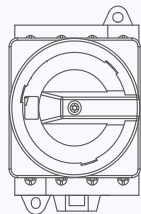
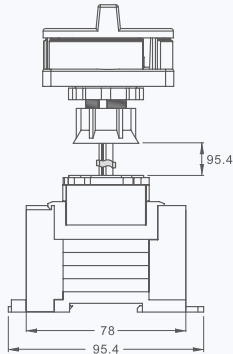
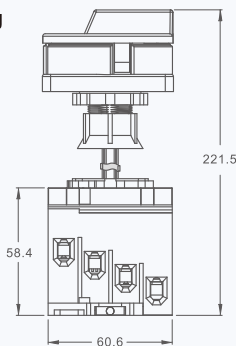
BYT.2-32
DIN Rail Mounting



BYT.2-32
DIN Rail Mounting
Lockable handle



BYT.2-32
DIN Rail Mounting
Door Clutch
Lockable handle



BYSS.1

Series DC Isolator Switches

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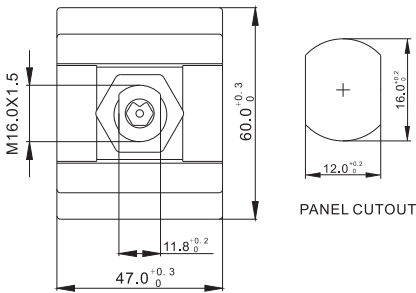




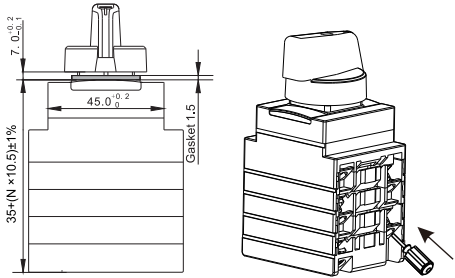
IEC/EN 60947-3:2015

- 1 Brand
- 2 Type
- 3 OFF
- 4 Application
- 5 Insulation voltage
- 6 Rated impulse withstand voltage
- 7 Rated Current
- 8 ON
- 9 Knob

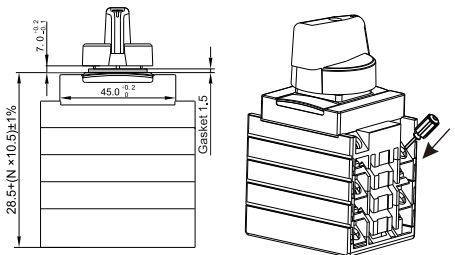
Dimensions(mm)



BYSS.1-X



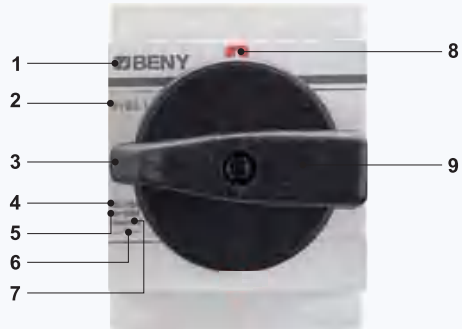
BYSS.1-X/T



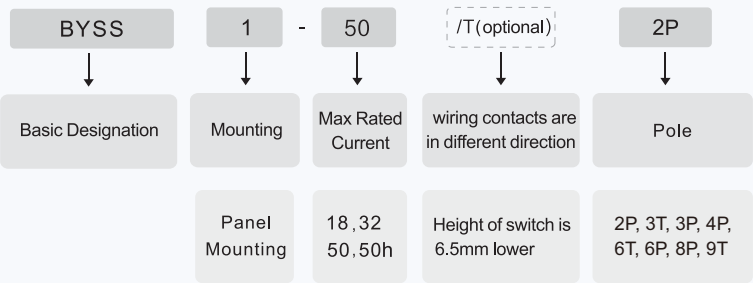
Application

BENY BYSS Series DC disconnect switch is used in 1-200KW solar inverter, 2P for 1 load up to 1200V 50A or 1600V 16A. low temperature rising, long worklife and short arcing time. For Multiple independent MPPTs.

Appearance Introduction



Type Instruction



Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	Details in diagram
Rated Current	Ie	Details in diagram
Conventional free air thermal current	Ith	50A 60A(50h)
Rated impulse withstand voltage	Uimp	8kV
Rated short-time withstand current(1s)	Icw	1.5kA
Rated short-circuit making capacity	Icm	2.0kA
Rated conditional short-circuit current(kA)		8kA
Installation Environment		
Utilizatin category DC		DC-PV2
Number of cycles of operation(with current)		300
Number of cycles of operation(without current)		10000
Operation rate		120/h
Pole		2/3/4/6/8/9
Mounting		Panel mounting
Tightening torque terminal screws M4, min.-max.		1.2N·m~1.8N·m
Tightening torque panel mounting nut, min.-max.		2.0N·m~2.5N·m
Tightening torque M3 screw in the knob,min.-max.		0.5N·m~0.7N·m
Ambient temperature allowed between		-40°C ~ +85°C
Storage temperature allowed between		-40°C ~ +85°C
Relative Humidity		90%
Pollution degree		2
IP rating terminals		IP20
IP rating panel		IP66
Wiring rating	14 AWG-8 AWG, Stranded	2.5mm²~10.0mm²

Wiring Diagram

	Type	Contact Configuration									Poles in series	Number of Strings
			800V	1000V	1100V	1200V	1350V	1400V	1500V	1600V		
	BYSS.1-18 2P		25A	18A		15A					2	1
	BYSS.1-32 2P		40A	32A		25A					2	1
	BYSS.1-50 2P		50A	50A		40A			16A		2	1
	BYSS.1-50h 2P				60A	50A	40A	35A	30A	16A	2	1
	BYSS.1-32-3P		25A	20A		16A					2	2
	BYSS.1-50-3P		32A	25A		20A					2	2
	BYSS.1-50 3T					50A			40A		3	1
	BYSS.1-18 4P		25A	18A		15A					2	2
	BYSS.1-32 4P		40A	32A		25A					2	2
	BYSS.1-50 4P		50A	50A		40A			16A		2	2
	BYSS.1-50h 4P				60A	50A	40A	35A	30A	16A	2	2
	BYSS.1-18 6P		25A	18A		15A					2	3
	BYSS.1-32 6P		40A	32A		25A					2	3
	BYSS.1-50 6P		50A	50A		40A			16A		2	3
	BYSS.1-50h 6P				60A	50A	40A	35A	30A	16A	2	3
	BYSS.1-50 6T					50A			40A		3	2
	BYSS.1-18 8P		25A	18A		15A					2	4
	BYSS.1-32 8P		40A	32A		25A					2	4
	BYSS.1-50 8P		50A	50A		40A			16A		2	4
	BYSS.1-50h 8P				60A	50A	40A	35A	30A	16A	2	4
	BYSS.1-50 9T					50A			40A		3	3

Switching Configurations

Type	2P	3P	3T	4P	6P	6T	8P	9T
Contacts Wiring diagram								
Switching example								



- 1 Brand
- 2 Type
- 3 OFF
- 4 Application
- 5 Insulation voltage
- 6 Rated impulse withstand voltage
- 7 Rated Current
- 8 ON
- 9 Knob


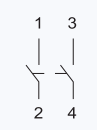

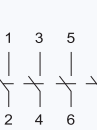





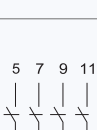
ZIBENY BYSS Series DC disconnect switch is used in 1-200KW solar inverter, 2P for 1 load up to 1200V 50A or 1600V16A. low temperature rising, long work life and short arcing time. For Multiple independent MPPTs.

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









BYSS	2	-	50	2P
↓	↓		↓	↓
Basic Designation	Mounting		Max Rated Current	Pole
	Standard Din rail		18, 32 50, 50h	2P, 4P, 6P 6P, 8P

Electrical Characteristics		
Rated Working Voltage	Ue	Details in diagram
Rated Current	Ie	Details in diagram
Conventional free air thermal current	Ith	50A60A(50h)
Rated impulse withstand voltage	Uimp	8kV
Rated short-time withstand current(1s)	Icw	1.5kA
Rated short-circuit making capacity	Icm	2.0kA
Rated conditional short-circuit current(kA)		8kA
Installation Environment		
Utilizatin category DC		DC-PV2
Number of cycles of operation(with current)		300
Number of cycles of operation(without current)		10000
Operation rate		120/h
Pole		2/4/6/8
Mounting		Standard Din rail
Tightening torque terminal screws M4, min.-max.		1.2N·m~1.8N·m
Tightening torque panel mounting nut, min.-max.		2.0N·m~2.5N·m
Tightening torque M3 screw in the knob,min.-max.		0.5N·m~0.7N·m
Ambient temperature allowed between		-40°C ~ +85°C
Storage temperature allowed between		-40°C ~ +85°C
Relative Humidity		90%
Pollution degree		2
IP rating terminals		IP20
IP rating panel		IP66
Wiring rating	14 AWG-8 AWG, Stranded	2.5mm²~10.0mm²

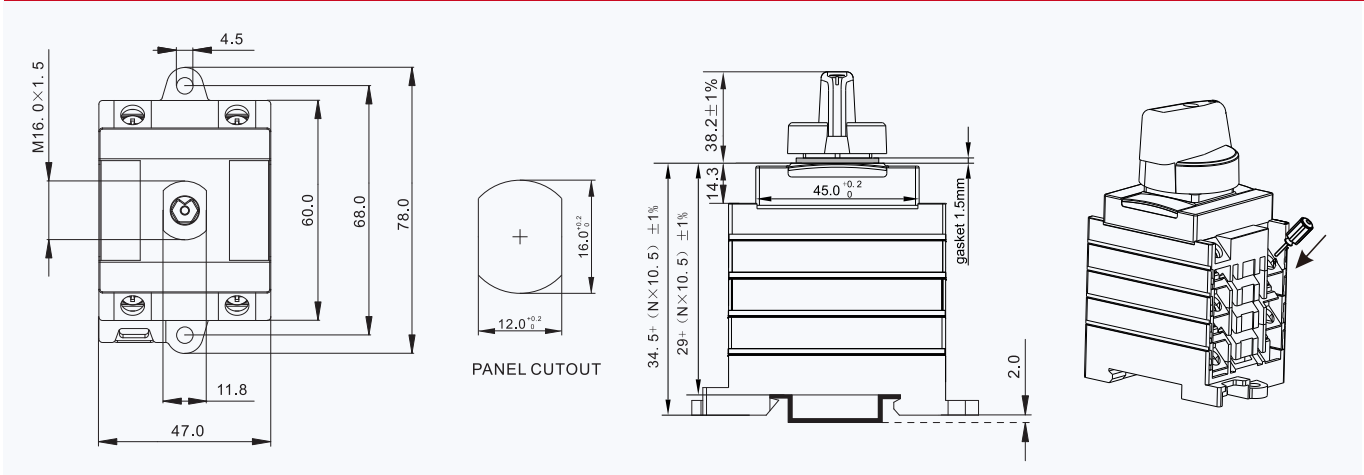
Wiring Diagram

	Type	Contact Configuration									Poles in series	Number of Strings
			800V	1000V	1100V	1200V	1350V	1400V	1500V	1600V		
	BYSS.2-18 2P		25A	18A		15A					2	1
	BYSS.2-32 2P		40A	32A		25A					2	1
	BYSS.2-50 2P		50A	50A		40A			16A		2	1
	BYSS.2-50h 2P				60A	50A	40A	35A	30A	16A	2	1
	BYSS.2-18 4P		25A	18A		15A					2	2
	BYSS.2-32 4P		40A	32A		25A					2	2
	BYSS.2-50 4P		50A	50A		40A			16A		2	2
	BYSS.2-50h 4P				60A	50A	40A	35A	30A	16A	2	2
	BYSS.2-18 6P		25A	18A		15A					2	3
	BYSS.2-32 6P		40A	32A		25A					2	3
	BYSS.2-50 6P		50A	50A		40A			16A		2	3
	BYSS.2-50h 6P				60A	50A	40A	35A	30A	16A	2	3
	BYSS.2-50 6T					50A			40A		3	2
	BYSS.2-18 8P		25A	18A		15A					2	4
	BYSS.2-32 8P		40A	32A		25A					2	4
	BYSS.2-50 8P		50A	50A		40A			16A		2	4
	BYSS.2-50h 8P				60A	50A	40A	35A	30A	16A	2	4

Switching Configurations

Type	2P	4P	6P	6T	8P
Contacts Wiring diagram					
Switching example					

Dimensions(mm)



BYSS Series
DC Isolator Switches



UL508i Certificate Number: E482690

- 1 Brand
- 2 Type
- 3 OFF
- 4 ON
- 5 Electrical symbol

BYSS.1-50/T



BYSS.2-50



BYSS.2-50
with S type handle knob



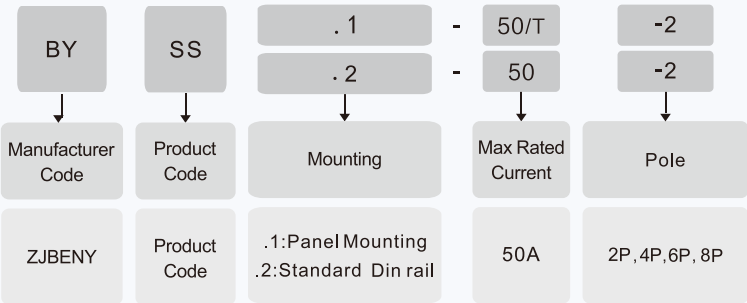
Application

- BYSS series DC disconnect switch in UL version is the best DC switch solution for solar inverter integrated.
- The first DC switch UL508i certificate in China.
 - 2P switch at max DC 1000V/30A or 750V/50A per conductor.
 - With special arcing extinguish instruction and patent, for reliable and fastcutting off the DC arcing.
 - The series are suitable for multiple independent MPPTs.
 - Lockable handle for safer application and system maintain.

Appearance Introduction



Type Instruction





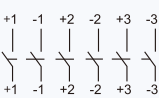
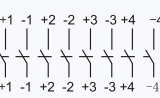




Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	Details in diagram
Rated Current	Ie	Details in diagram
Rated impulse withstand voltage	Uimp	8kV
Rated short-time withstand current (1s)	Icw	1.5kA
Rated short-circuit making capacity	Icm	2.0kA
Standard Short Circuit Rating		5kA
High-Fault Short Circuit Rating		8kA
Installation Environment		
Number of cycles of operation(With current)		6000
Number of cycles of operation(Without current)		10000
Pole		2/4/6/8
Mounting	Panel Mounting	Standard Din rail
Tightening torque terminal screws M4 , min. - max.M4		1.2N • m-1.8N • m
Tightening torque panel mountig nut, min. - max.		2.4N • m-2.6N • m
Tightening torque M3 screw in the standard black knob,min.-max.		0.5N • m-0. 7N • m
Tightening torque M3 screw in the Extension rod type knob,min.-max.		1.5N • m-1. 8N • m
Ambient temperature allowed between		-40°C ~ +85°C
Storage temperature allowed between		-40°C ~ +85°C
Relative Humidity		90%
Pollution degree		2
IP Class Protection		≥IP66 (Type 4X)

Parameter

Type		Rated Current(UL508i)			Poles in series	Number of Strings
		350V / 500V / 600V	750V	1000V		
 BYSS.1-50/T-2	 BYSS.2-50-2 <small>Type S knob available</small>	16A	50A	16A	2	1
		18A				
		20A				
		25A		22A		
		32A		25A		
		38A				
		40A		30A		
		45A				
 BYSS.1-50/T-4	 BYSS.2-50-4 <small>Type S knob available</small>	16A	50A	16A	2	2
		18A				
		20A				
		25A		22A		
		32A		25A		
		38A				
		40A		30A		
		45A				
 BYSS.1-50/T-6	 BYSS.2-50-6 <small>Type S knob available</small>	16A	50A	16A	2	3
		18A				
		20A				
		25A		22A		
		32A		25A		
		38A				
		40A		30A		
		45A				
 BYSS.1-50/T-8	 BYSS.2-50-8 <small>Type S knob available</small>	16A	50A	16A	2	4
		18A				
		20A				
		25A		22A		
		32A		25A		
		38A				
		40A		30A		
		45A				

Switching Configurations

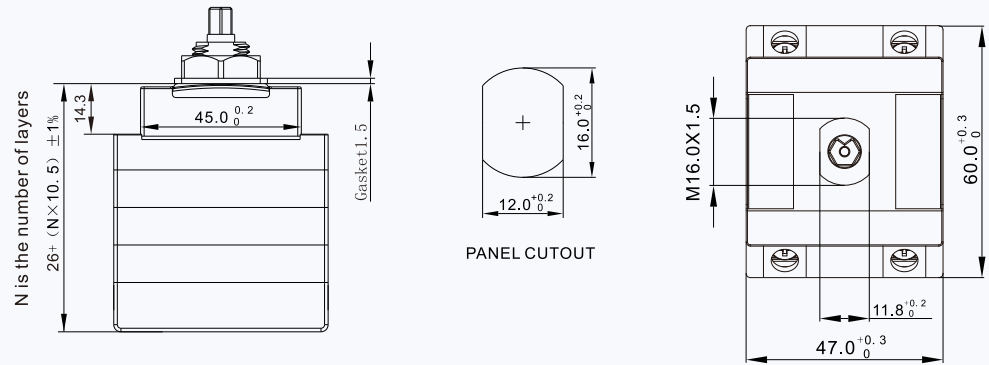
Type	2P	4P	6P	8P
Contacts Wiring diagram				
Switching example				

Operation Knob Type

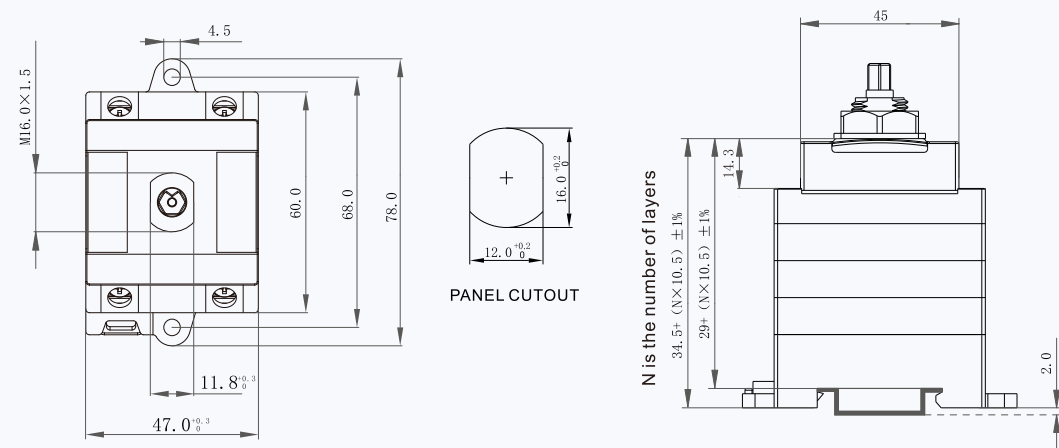
Picture	Suitable Type	Strucrure details										
	BYSS.1-50/T BYSS.2-50	<div><div>Lockable</div><div>Mounting panel</div><div>1.5~3mm</div><div>Lock position (Switch Off, then Shift forth r the indicator)</div><div></div></div>										
 S type handle konb	Only for BYSS.2-50	<div><div></div><div></div><div>H</div><div><table><tr><th>Type</th><th>H(min.-max)</th></tr><tr><td>2P</td><td>130mm-280mm</td></tr><tr><td>4P</td><td>150mm-300mm</td></tr><tr><td>6P</td><td>170mm-320mm</td></tr><tr><td>8P</td><td>190mm-340mm</td></tr></table></div></div>	Type	H(min.-max)	2P	130mm-280mm	4P	150mm-300mm	6P	170mm-320mm	8P	190mm-340mm
Type	H(min.-max)											
2P	130mm-280mm											
4P	150mm-300mm											
6P	170mm-320mm											
8P	190mm-340mm											

Dimensions(mm)

BYSS.1-50/T Seriesmm

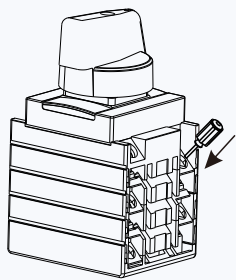


BYSS.2-50 Seriesmm

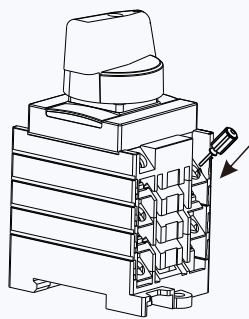


Wiring direction

BYSS.1-50/T



BYSS.2-50



Wiring Diagram

Wires per pole	Conductor material	Wire size(AWG,mm²)	Torque
1	Copper (Cu)	12 AWG-6 AWG / 2.5mm²~10.0mm²	1.8N·m

BYSS Series
DC Isolator Switches



UL508i Certificate Number: E482690

- 1 Brand
- 2 Type
- 3 OFF
- 4 ON
- 5 Electrical symbol

BYSS.1-50/T-1500V



BYSS.2-50-1500V



BYSS.2-50-1500V
with S type handle knob



Application

- BYSS series DC disconnect switch in UL version is the best DC switch solution for solar inverter integrated.
- The first DC switch UL508i certificate in China.
 - 2P switch at max DC 1500V/13A per conductor.
 - With special arcing extinguish instruction and patent, for reliable and fast cutting off the DC arcing.
 - The series are suitable for multiple independent MPPTs.
 - Lockable handle for safer application and system maintain.

Appearance Introduction











Type Instruction

BY	SS	. 1	- 50/T	-2	- 1500V
Manufacturer Code	Product Code	Mounting	Max Rated Current	Pole	Rated Voltage
ZJBENY	Product Code	.1:Panel Mounting .2:Standard Din rail	50A	2P,4P,6P, 8P	1500V









Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	Details in diagram
Rated Current	Ie	Details in diagram
Rated impulse withstand voltage	Uimp	8kV
Rated short-time withstand current (1s)	Icw	1.5kA
Rated short-circuit making capacity	Icm	2.0kA
Standard Short Circuit Rating		5kA
High-Fault Short Circuit Rating		8kA
Installation Environment		
Number of cycles of operation(With current)		6000
Number of cycles of operation(Without current)		10000
Pole		2/4/6/8
Mounting	Panel Mounting	Standard Din rail
Tightening torque terminal screws M4 , min. - max.M4		1.2N • m~1.8N • m
Tightening torque panel mounting nut, min. - max.		2.4N • m~2.6N • m
Tightening torque M3 screw in the standard black knob,min.-max.		0.5N • m~0. 7N • m
Tightening torque M3 screw in the Extension rod type knob,min.-max.		1.5N • m~1. 8N • m
Ambient temperature allowed between		-40°C ~ +85°C
Storage temperature allowed between		-40°C ~ +85°C
Relative Humidity		90%
Pollution degree		2
IP Class Protection		≥IP66 (Type 4X)

Parameter

Type		Rated Current(UL508i)	Poles in series	Number of Strings
		1500V		
 BYSS.1-50/T-2-1500V	 BYSS.2-50-2-1500V <small>Type S knob available</small>	13A	2	1
 BYSS.1-50/T-4-1500V	 BYSS.2-50-4-1500V <small>Type S knob available</small>	13A	2	2
 BYSS.1-50/T-6-1500V	 BYSS.2-50-6-1500V <small>Type S knob available</small>	13A	2	3
 BYSS.1-50/T-8-1500V	 BYSS.2-50-8-1500V <small>Type S knob available</small>	13A	2	4

Switching Configurations

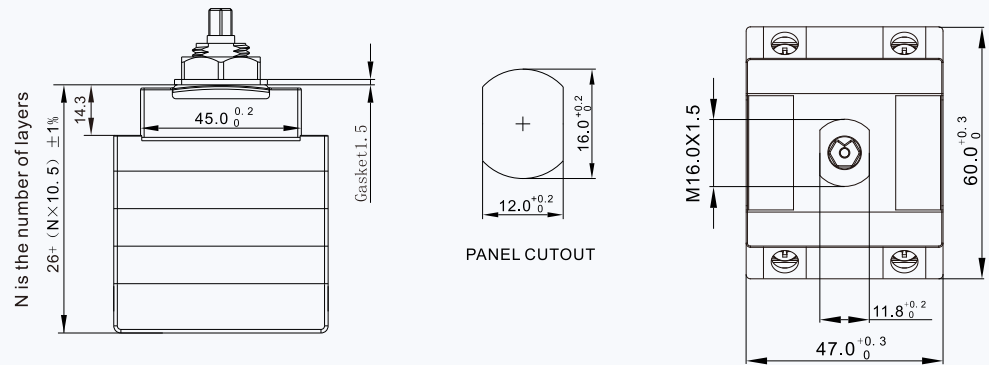
Type	2P	4P	6P	8P
Contacts Wiring diagram				
Switching example				

Operation Knob Type

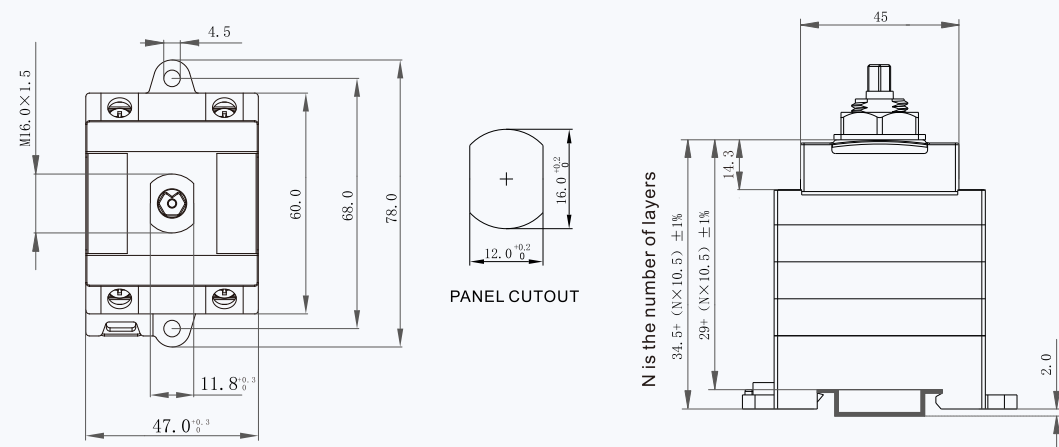
Picture	Suitable Type	Strucrure details										
	BYSS.1-50/T-1500V BYSS.2-50-1500V	<div><div></div><div><p>Lockable</p><p>Mounting panel</p><p>1.5~3mm</p></div></div> <div><p>Lock position (Switch Off, then Shift forth r the indicator)</p></div>										
 <p>S type handle knob</p>	Only for BYSS.2-50-1500V	<div></div> <div><p>H</p><table><tr><th>Type</th><th>H(min.-max)</th></tr><tr><td>2P</td><td>130mm-280mm</td></tr><tr><td>4P</td><td>150mm-300mm</td></tr><tr><td>6P</td><td>170mm-320mm</td></tr><tr><td>8P</td><td>190mm-340mm</td></tr></table></div>	Type	H(min.-max)	2P	130mm-280mm	4P	150mm-300mm	6P	170mm-320mm	8P	190mm-340mm
Type	H(min.-max)											
2P	130mm-280mm											
4P	150mm-300mm											
6P	170mm-320mm											
8P	190mm-340mm											

Dimensions(mm)

BYSS.1-50/T Series mm

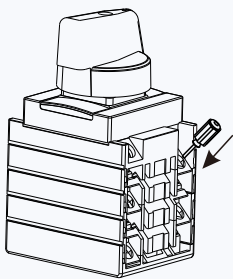


BYSS.2-50 Series mm

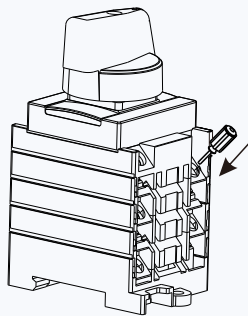


Wiring direction

BYSS.1-50/T-1500V



BYSS.2-50-1500V



Wiring Diagram

Wires per pole	Conductor material	Wire size(AWG,mm²)	Torque
1	Copper (Cu)	12 AWG-6 AWG / 2.5mm²~10.0mm²	1.8N·m

BB1H

Series DC Isolator Switches

Welcome to your website for more information:

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- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Standard Code
- 6 Indicator
- 7 Wiring Diagram

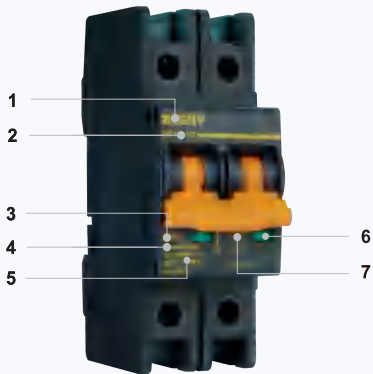
- Nonpolarity
- High short-circuit/breaking capacity
- Overload, Short circuit, Unfrequent operation and Anti-reflux protection
- Rated Voltage: 1200V DC
- Body lengthening, Increase electrical clearance and creepage distance
- Rated Current: 63A
- Comply with: IEC60947-3/GB/T14048.3



Application

BENY BB1H-63 series PV DC Isolator switches are mainly be used in PV power generation and distribution system, that is, photovoltaic bus box, inverter and other DC electrical equipment. Rated working voltage up to 1200V DC, rated working current up to 63A, scientific arc extinguishing and current limiting system, can quickly disconnect the DC distribution system fault current, and can achieve countercurrent protection, to ensure the reliable operation of photovoltaic power generation system.

Appearance Introduction



Type Instruction

BB1H	-	63	-	4P	-	63A	-	1200V	-	MF
↓		↓		↓		↓		↓		↓
Product Code		Max Rated Current		Pole		Rated Current		Rated Voltage		Accessory
PV DC Isolator Switches		63A		2P 3P 4P		25A,40A,63A		600V 900V 1200V		MX:Shunt Release OF:Auxiliary Contact MF:Shunt Release& Auxiliary Contact

Parameter

Electrical Characteristics				
Type		BB1H-63		
Comply With		IEC 60947-3 /GB/T 14048.3		
Pole		2P	3P	4P
Rated Working Voltage	Ue	600V DC	900V DC	1200V DC
Max Rated Current		63A		
Rated Current	In	25A,40A,63A		
Rated Insulated Voltage	Ui	1200V DC		
Rated Impulsed Voltage	Uimp	6KV		
Rated short-time withstand current(1s)	Icw	12Ie		
Rated short-circui making capacity	Icm	20Ie		
Utilizatin category DC		DC-21B		
Service Life&Cycle Operation				
Mechanical	Actual Value	10000		
	Standard Value	9700		
Electrical	Actual Value	1000		
	Standard Value	300		
Installation Environment				
Ingress Protection		All Sides IP40 ,Connection Terminal IP20		
Terminal Cross Section		2.5-25mm		
Product wiring torque M5		2N·m-2.5N·m		
Working Temperature		-25°C ~ +70°C		
Storage Temperature		-40°C ~ +85°C		
Resistance to Humidityand Heat		II (Humidity 55°C, relative humidity 95%)		
Fixed installation		Fixed to the 35mm guide rail		

Wiring Diagram

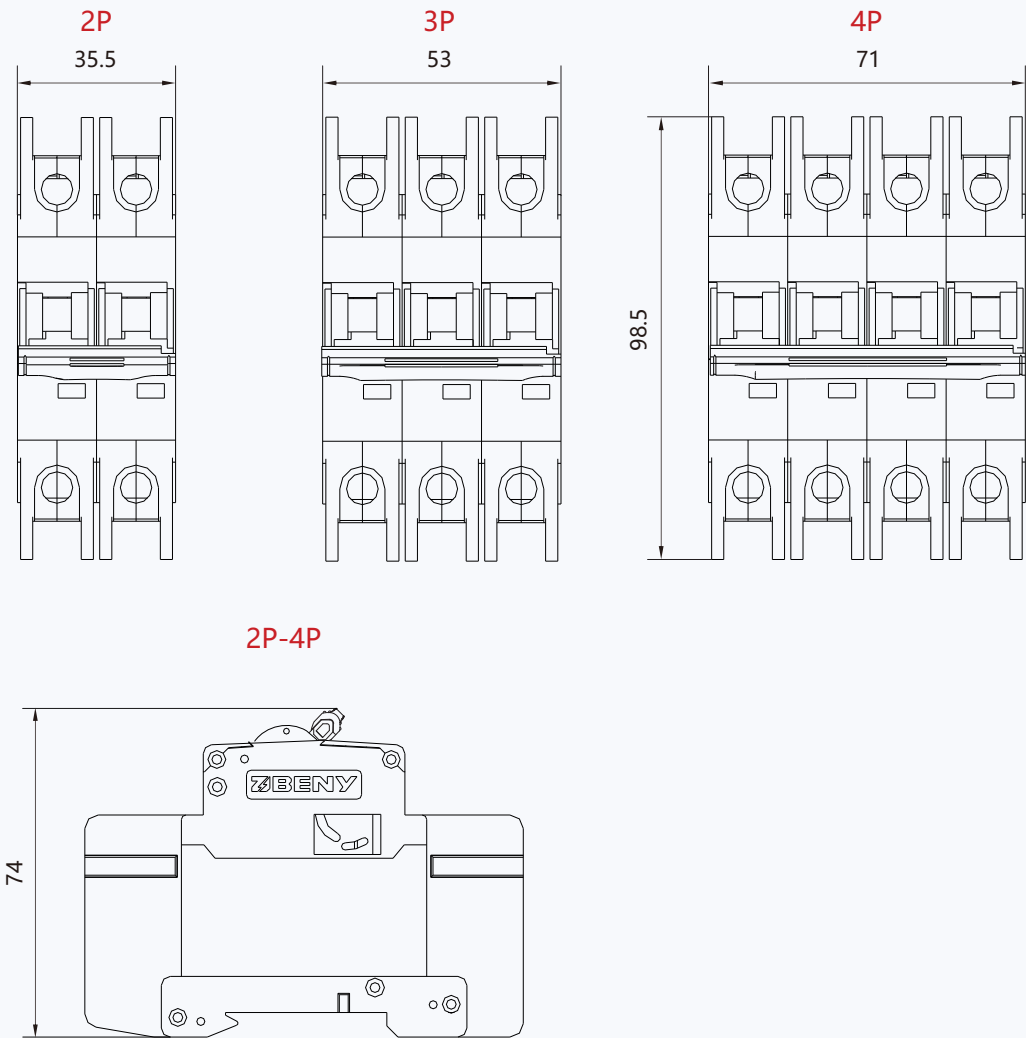
Type	Pole	Wiring Diagram	
	2P	2A	
		2B	
		2C	
	3P	3A	
		3B	
		3C	
		3D	
	4P	4A	
		4B	
		4C	
		4D	

Derating Date

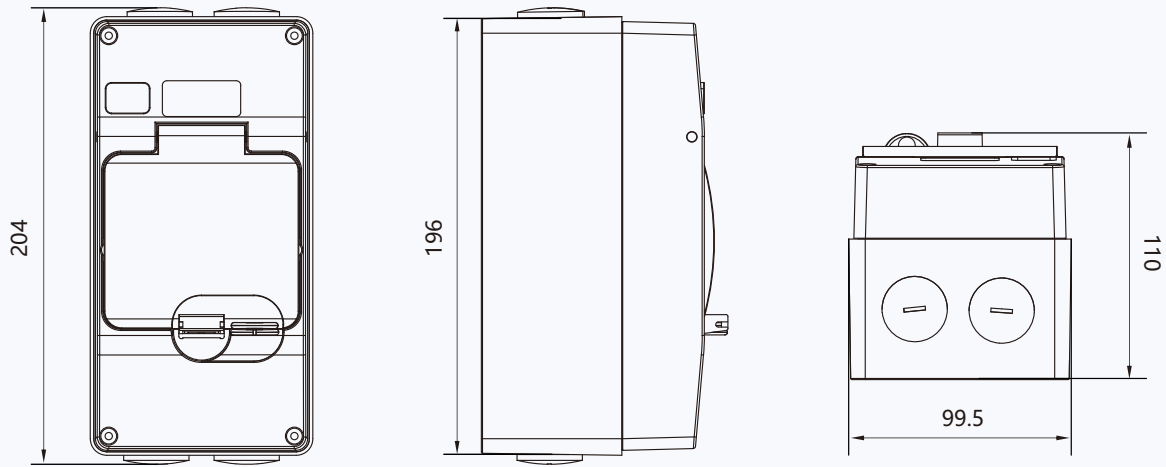
Derating Temperature											
Tem Proportion Type	-25℃	-20℃	-10℃	0℃	10℃	20℃	30℃	40℃	50℃	60℃	70℃
BB1H-63	115%	110%	105%	100%	100%	100%	100%	100%	95%	90%	85%

Altitude of Derating				
Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	100%	100%	100%	100%
Ui	100%	100%	100%	100%
In	100%	100%	90%	80%
Ue	N/A			

Dimensions(mm)



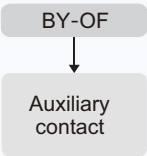
Dimensions with IP65 Waterproof Enclosure(mm)



BY-OF

The auxiliary contact needs to access the control loop and act synchronously with the circuit breaker. It can be used to indicate breaker opening and closing, and can be used to remotely monitor the current status of the circuit breaker. Auxiliary contact is only a switch, can only load small current, can not play a large current cut-off function, rated current can not be greater than 3A, so it can only be used for control loop.

Type Instruction



- Auxiliary contact synchronnous with main contacts of device
- According IEC/EN 62019

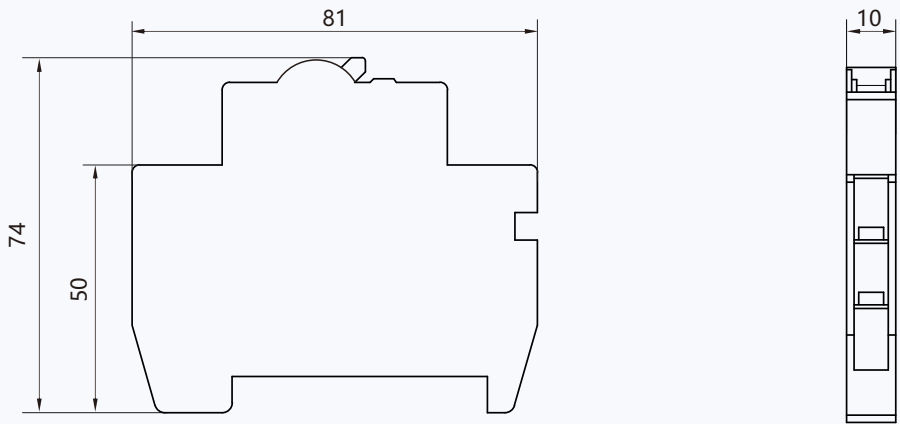
Electrical Parametes

Contact function	Auxiliary Contact	
According	IEC/EN 62019	
Product parameters	AC 13	Ie=3A Ue=250V
	AC 15	Ie=2A Ue=250V
	DC 12	Ie=0.5A Ue=110V
Min.op.current per contact I _{min}	10mA	
Min.op.voltage per contact U _{min}	11V DC	
Rated frequency	50/60Hz	

Mechanical parameters

Mounting	Fixed to the 35mm guide rail
Degree of protection	(DIN)IP20
Terminals capacity	≤1mm²
Fastening torque of terminals	0.8N·m-1N·m
Working tempreture	-25~+70℃

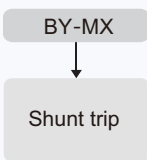
Dimensions(mm)



BY-MX

Shunt trip An accessory to a remotely operated mini-circuit breaker that reliably disconnects the breaker when the supply voltage is equal to any voltage between 75% and 110% of the rated voltage of the shunt trip. Shunt trip is a short-time operation, the coil energized time generally cannot exceed 1s, otherwise the coil will be burned out.

Type Instruction



- Shunt trip synchronnous with main contacts of device
- According IEC/EN 60947-5-1

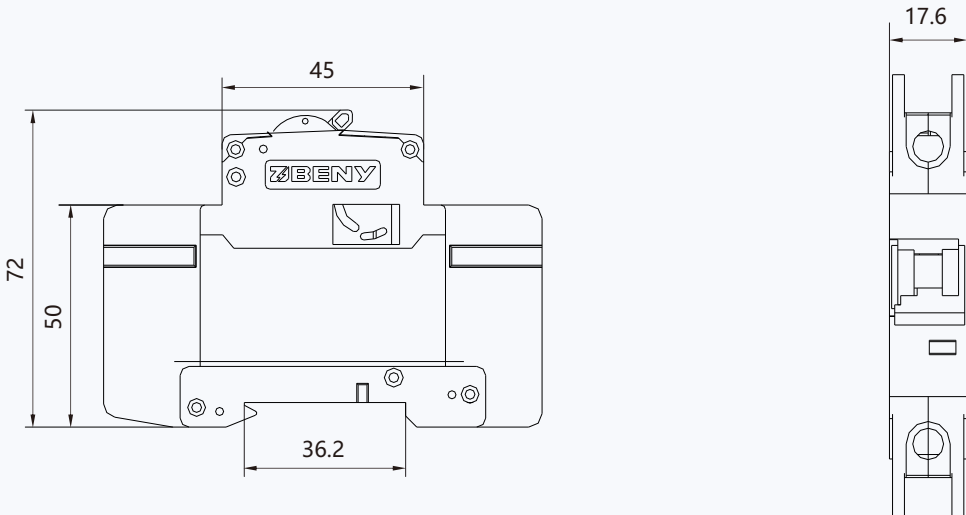
Electrical Parametes

Contact function	Shunt trip	
According	IEC/EN 60947-5-1	
Rated op. voltage	AC	Ue=220/415V
		Ue=24/48V
	DC	Ue=24/48V
Conduction time	< 1s	
Min.op.voltage	Ue*75%	
Max. op. voltage	Ue*110%	
Working current	> 0.5A	
Operation frequency	6 times per minute	

Mechanical parameters

Mounting	Fixed to the 35mm guide rail
Degree of protection	(DIN)IP20
Terminals capacity	2.5-25mm²
Fastening torque of terminals	2N·m-2.5N·m
Working tempreture	-25~+70℃

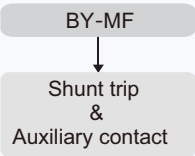
Dimensions(mm)



BY-MF

The shunt auxiliary unit integrates the shunt tripping device and auxiliary contact, providing both shunt tripping device and auxiliary contact functions.

Type Instruction



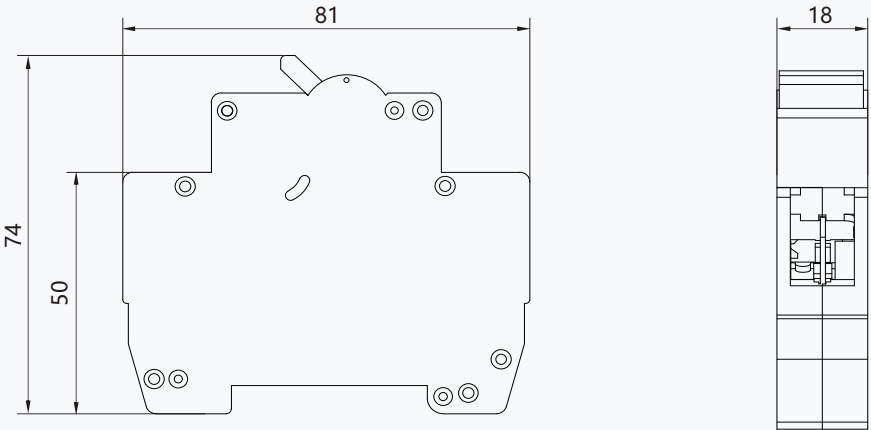
Electrical Parametes

Contact function		Shunt trip&Auxiliary contact		
Product parameters		Shunt trip	AC	Ue=220/415V
				Ue=24/48V
		DC	Ue=24/48V	
		Auxiliary contact	AC	Ie=3A Ue=250V
			Ie=2A Ue=250V	
DC	Ie=0.5A Ue=110V			
Shunt trip parameters	Conduction time	< 1s		
	Min.op.voltage	Ue*75%		
	Max. op. voltage	Ue*110%		
	Working current	>0.5A		
	Operation frequency	6 times per minute		

Mechanical parameters

Mounting	Fixed to the 35mm guide rail
Degree of protection	(DIN)IP20
Terminals capacity	≤1mm²
Fastening torque of terminals	0.8N·m-1N·m
Working tempreture	-25~+70℃

Dimensions(mm)



BDH Series PV DC Moulded Case Isolator Switch

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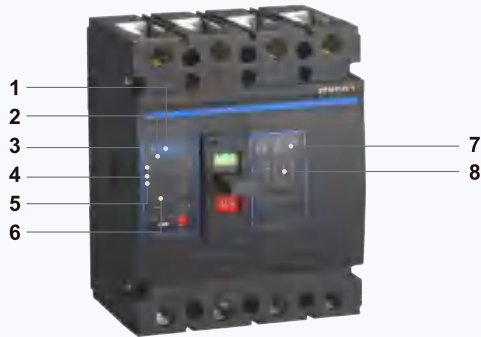
- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Rated Short-time Withstand Current
- 6 Standard Code
- 7 Certificate Symbol
- 8 Wiring Diagram

- High Insulation Performance
- Functions: Unfrequent Operation and Isolation
- Rated Voltage up to 1200V
- Rated Current 125A,250A
- IEC60947-3, GB14048-3

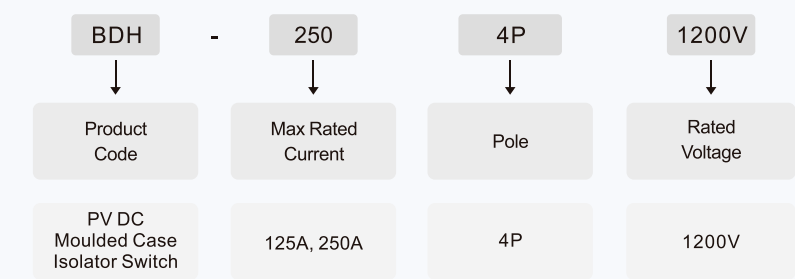
Application

BENY BDH series PV DC Moulded Case Isolator Switches are mainly used in large solar power system, such like solar DC combiner box ,inverter and DC power distribution cabinet. Rated voltage up to 1200V DC, Rated Current up to 250A with the function of effective isolator.

Appearance Introduction



Type Instruction



Parameter

BDH series PV DC Moulded Case Isolator Switch				
Type		BDH-125	BDH-250	
Pole		4P		
Max Rated Current		125A	250A	
Electrical Characteristics				
Rated Working Voltage		Ue	1200V DC	
Rated Current		In(A)	63/80 100/125	125/160 200/250
Rated Insulated Voltage		Ui	1200V DC	
Rated Impulsed Voltage		Uimp	8KV	
1 Min Power Frequency Withstand Voltage		3.8KV		
Control And Indication				
Control Mode	Manual	Direct (RHD)	Optional	
		Extended(ERH)	Optional	
	MOD	Optional		
Shunt Release (SHT)		Optional		
Auxiliary Release		Optional		
Terminal End Cover		Yes		
Interphase Barriers		Yes		
Service Life/Cycle Operation				
Mechanical		10000	10000	
Electrical		2000	2000	
Size (L x W x H)		150.5x122x92.5	165x140x88	
Ingress Protection		All Sides IP40 ,Connection Terminal IP20		
Installation Environment				
Comply with		IEC60947-3/GB14048.3		
Storage Temperature		-40°C ~ +85°C		

**BDH Series
PV DC Moulded Case Isolator Switches**

Type	BDH-125	BDH-250
Picture		

Wiring Method

Type Code	4A	4B	4C	4D	4S
Contacts Wiring graph					

Dimensions(mm)

125A	250A

BH-250 Series
PV DC Isolation Switch



AS 60947.3
IEC/EN 60947-3
GB/T 14048.3
UL98B

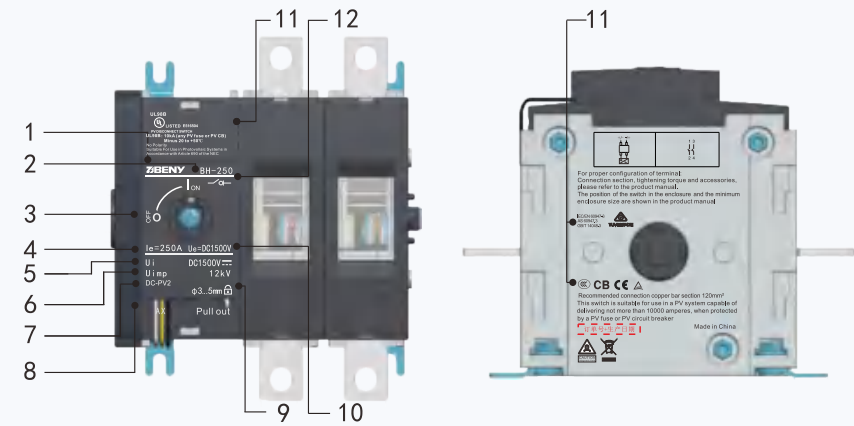
- 1 Brand
- 2 Model
- 3 On Off
- 4 Rated Current
- 5 Nominal Insulation Voltage
- 6 Rated Withstand Voltage
- 7 Utilization Category
- 8 Auxiliary Contact
- 9 Lockable Handle
- 10 Rated Voltage
- 11 Certificate Mark
- 12 Electrical Symbol



Application

ZBENY BH-250 DC disconnect switch is designed and developed for solar PV inverter,combiner box or any DC equipments build-in according to UL98B. The DC load break switches provide safety isolation for one DC circuit up to 1500VDC 250 A.

Appearance Introduction



Type Instruction

BH	-	250	-	2P	-	250A	-	A	-	A X
↓		↓		↓		↓		↓		↓
Model		Max Current		Pole		Rated Current		Assembling way		Auxiliary contact
PV DC Isolation Switch		250A		2P		250A		<input type="checkbox"/> Blank <input type="checkbox"/> A <input type="checkbox"/> B		<input type="checkbox"/> without <input type="checkbox"/> with

Parameter

Electrical Characteristics			
Product standard		IEC60947-3	UL98B
Rated Working Voltage		Ue	1000V/1500V
Agreed free air heating current		Ith	250A
Rated impulse withstand voltage		Uimp	12kV
Rated short-time withstand current		Icw	8kA/1s
Rated short-circuit making capacity		Icm	10kA
Contact resistance			< 1 mΩ
Installation Environment			
Utilization Category		DC-PV2	\
Number of cycles of operation(With current)		200	400
Number of cycles of operation(Without current)			10000
Pole			2
Mounting			Base Screws Mounting
Screws for mounting(M5)			2.0N·m~3.0N·m
Wiring Screw(M8)			acc.IEC 60947-1 10N·m~15N·m
Ambient temperature allowed between			-40℃ ~ +80℃
Storage temperature allowed between			-40℃ ~ +85℃
Relative Humidity			90%
Pollution degree			3
IP rating terminals			IP20
Outside the ark handle			IP65

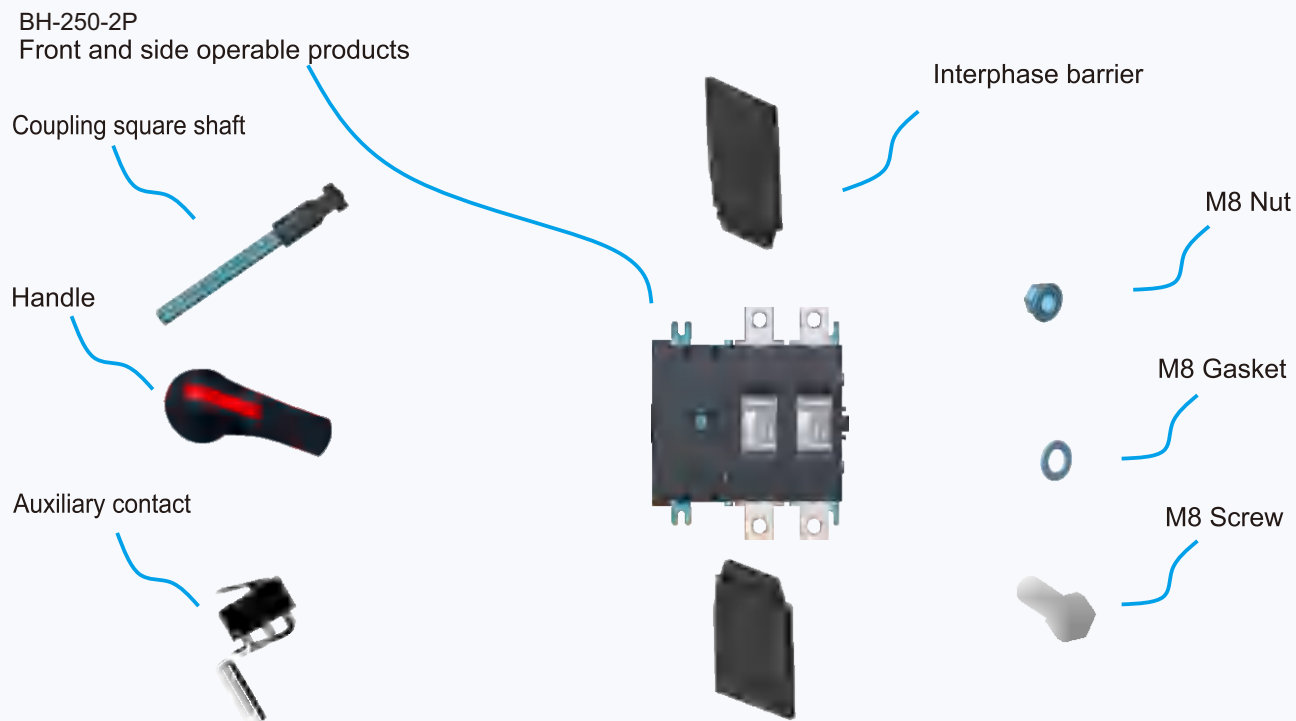
Wiring Graph

Product standard	Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
IEC60947-3	BH-250-2P-B		1000V	125A\160A 220A\250A	1	1
		Example	1500V			
UL98B			1500V	250A		

Product types choosing

BH-250-2P	BH-250-2P-A	BH-250-2P-B
Front operating handle	Front operating handle	Side handle

Switches and accessories

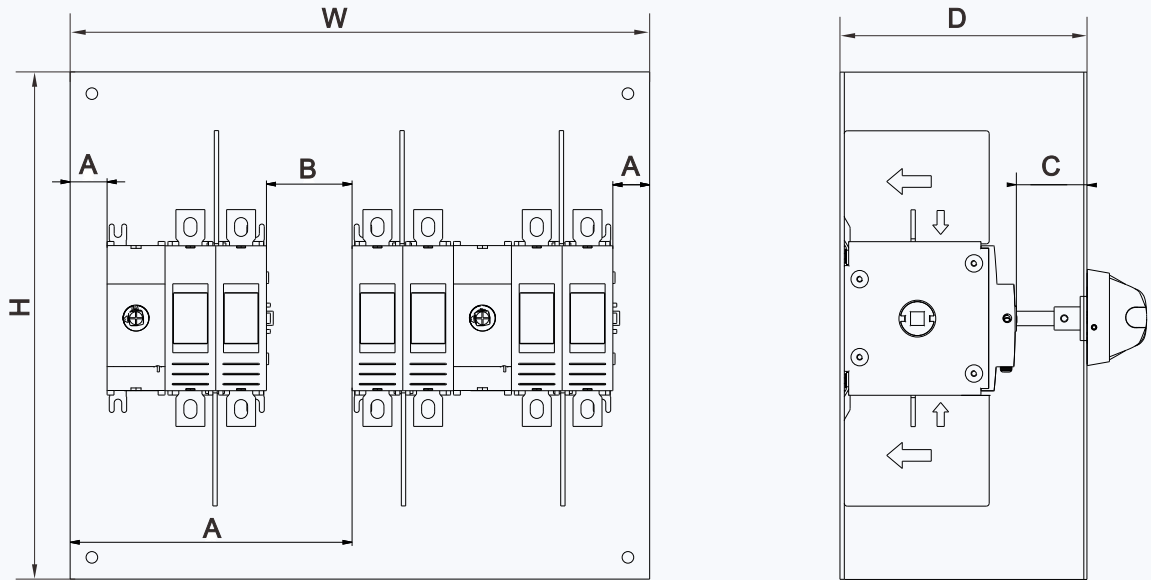


Accessory

Name	The attachment list
standard configuration	■ Handle
	■ Coupling square shaft (The standard length is 182mm)
	■ Interphase barrier
	■ M8 Binding kits
	■ Specification
apolegamy	<input type="checkbox"/> Auxiliary contact
	<input type="checkbox"/> Coupling square shaft Custom length ____ mm

Dimension(mm)

Minimum enclosure dimensions UL98
Dimensions minimum des coffrets UL98B
Dimensiones minimas de las cajas UL98B

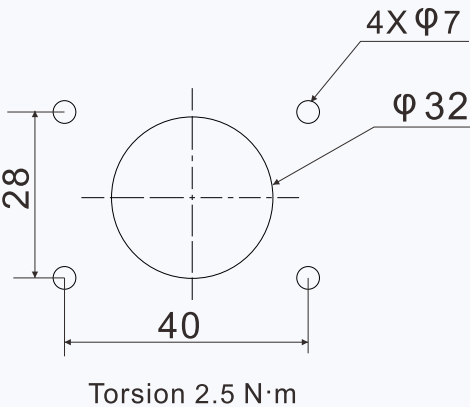


Minimum enclosure size	Size
H x W x D	400mm x 350mm x 180mm

Clearance	Size
A min.	25.4mm
B min.	50.8mm
C min.	22mm

Handle installation for door clutch

Cut-out dimension



Front operating handle

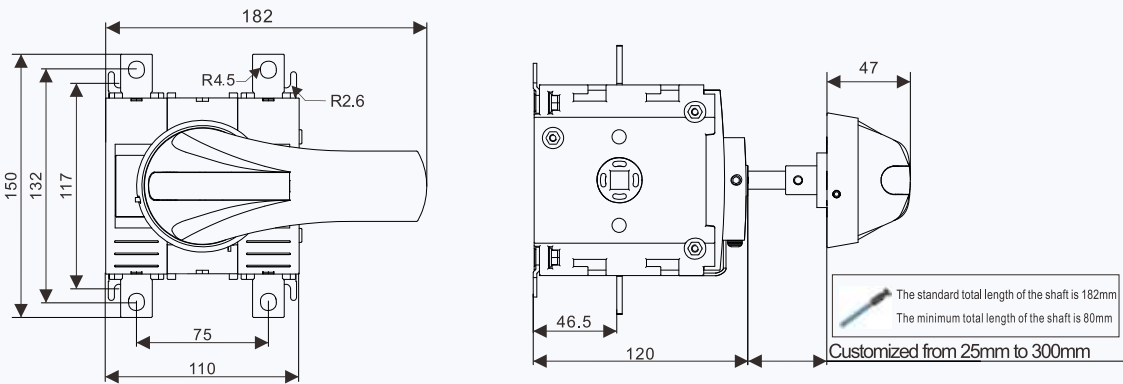


Side handle

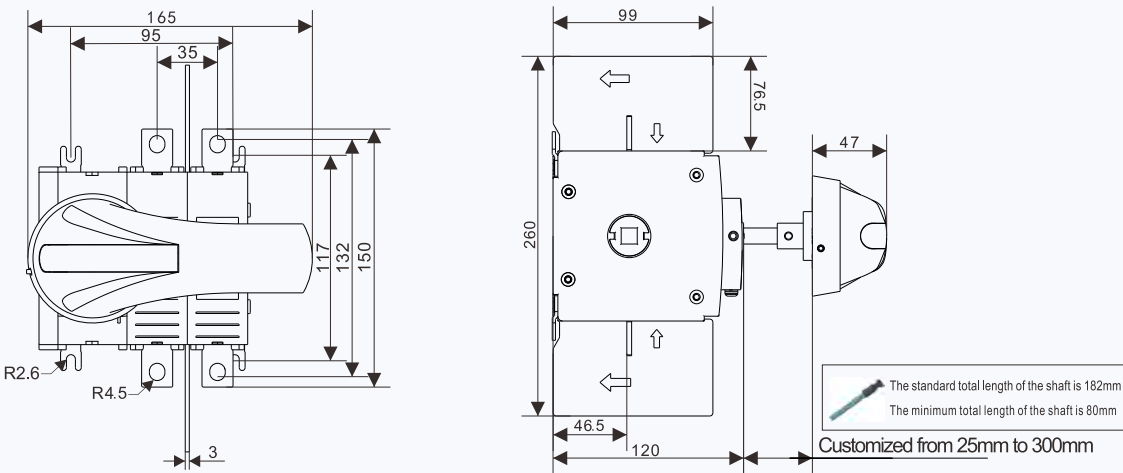


Dimension(mm)

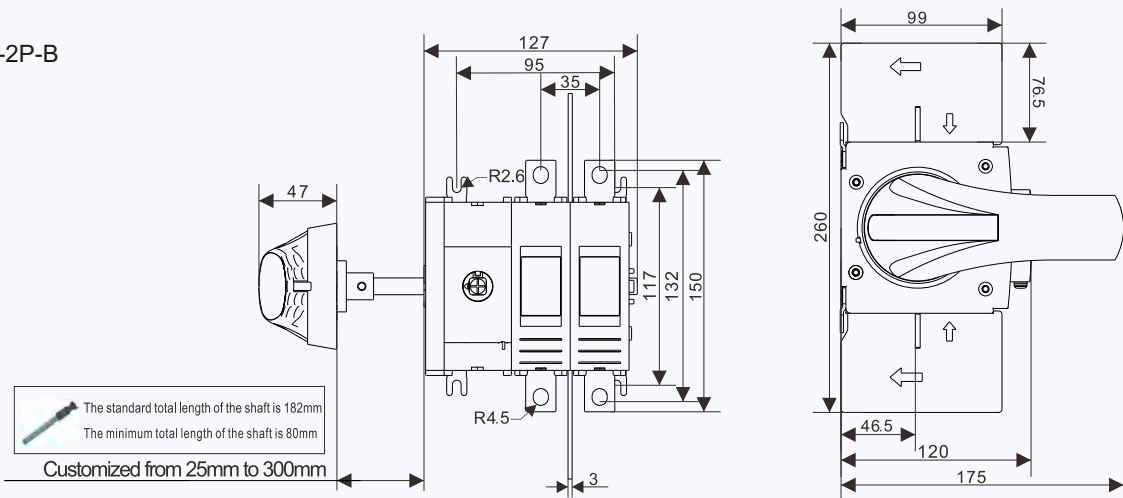
BH-250-2P



BH-250-2P-A



BH-250-2P-B



Derating data

Derating Temperature						
Tem	-40°C ~ +55°C	+60°C	+65°C	+70°C	+75°C	+80°C
Type	Current	250A	250A	250A	250A	250A
BH-250		250A	250A	250A	250A	250A

Derating Altitude				
Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	3820VDC	3820VDC	3820VDC	3820VDC
Isolation voltage	1500VDC	1500VDC	1500VDC	1500VDC
Working current	250A	250A	250A	250A
Working voltage	N / A			

Installation and use

Rated current(A)	125A	160A	200A	250A
Section area of copper row mm ²	50mm ²	70mm ²	95mm ²	120mm ²

WARNING Verify that all connections(including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.



IEC/EN 60947-3
GB/T 14048.3

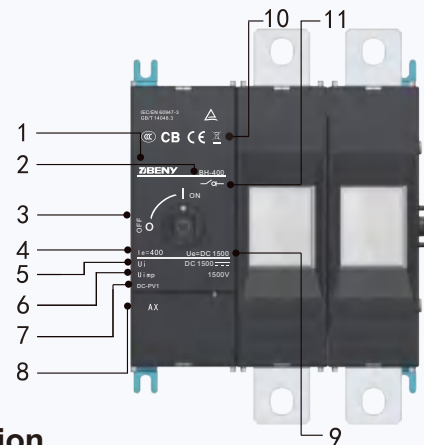
- 1 Brand
- 2 Model
- 3 On Off
- 4 Rated Current
- 5 Nominal Insulation Voltage
- 6 Rated Withstand Voltage
- 7 Utilization Category
- 8 Auxiliary Contact
- 9 Rated Voltage
- 10 Certificate Mark
- 11 Electrical Symbol



Application

ZBENY BH-400 DC disconnect switch is designed and developed for solar PV inverter,combiner box or any DC equipments build-in according to IEC60947-3.The DC load break switches provide safety isolation for one DC circuit up to 1500VDC 400A. High capacity 10KA for 50ms test and patented DC arc extinguishing chamber ensure fast disconnection and reliable operation for longer working life.

Appearance Introduction



Type Instruction

BH	-	400	-	2P	-	400A	-	A	-	AX
↓		↓		↓		↓		↓		↓
Model		Max Current		Pole		Rated Current		Assembling way		Auxiliary contact
PV DC Isolation Switch		400A		2P		<input type="checkbox"/> 320A <input type="checkbox"/> 400A		<input type="checkbox"/> Blank <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> A1		<input type="checkbox"/> without <input type="checkbox"/> with

Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	1000V / 1500V
Rated Current	Ie	320A/400A
Rated impulse withstand voltage	Uimp	12kV
Rated short-time withstand current (1s)	Icw	10kA
Rated short-circuit making capacity	Icm	10kA
Rated conditional short-circuit current(kA)		10kA
Installation Environment		
Utilizatin category DC		DC-PV1
Number of cycles of operation(With current)		200
Number of cycles of operation(Without current)		5000
Pole		2
Mounting		Base Screws Mounting
Screws for mounting(M5)		2.0N·m~3.0N·m
Wiring Screw(M10)		acc.IEC 60947-1 15N·m~ 20N·m
Ambient temperature allowed between		-40°C ~ +85°C
Storage temperature allowed between		-40°C ~ +85°C
Relative Humidity		90%
Pollution degree		3
IP rating terminals		IP20
Outside the ark handle		IP66

Wiring Graph

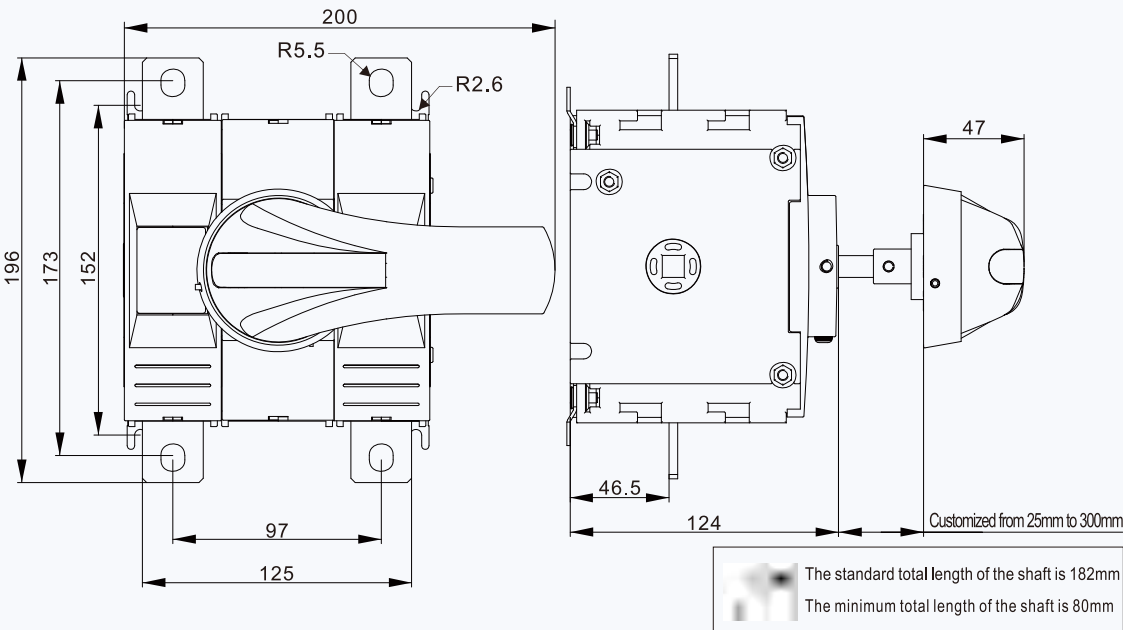
Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
BH-400-2P	<div><div><div>+/-</div><div>-/+</div><div>+/-</div><div>-/+</div></div><div>Example</div><div><div>+/-</div><div>-/+</div><div>+/-</div><div>-/+</div></div></div>	1000V/1500V	320A/400A	2	1

Product Selection

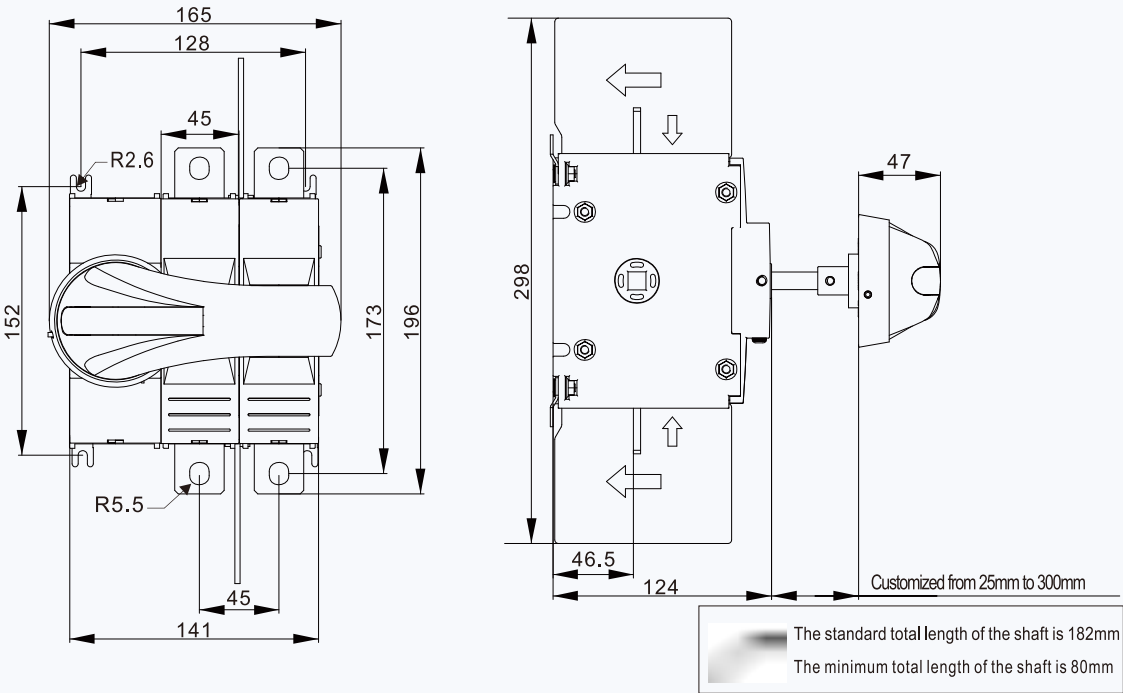
Model	Front Operation			The side operation
	BH-400-2P	BH-400-2P-A	BH-400-2P-B	BH-400-2P-A1
BH-400-2P				

Dimension(mm)

BH-400-2P

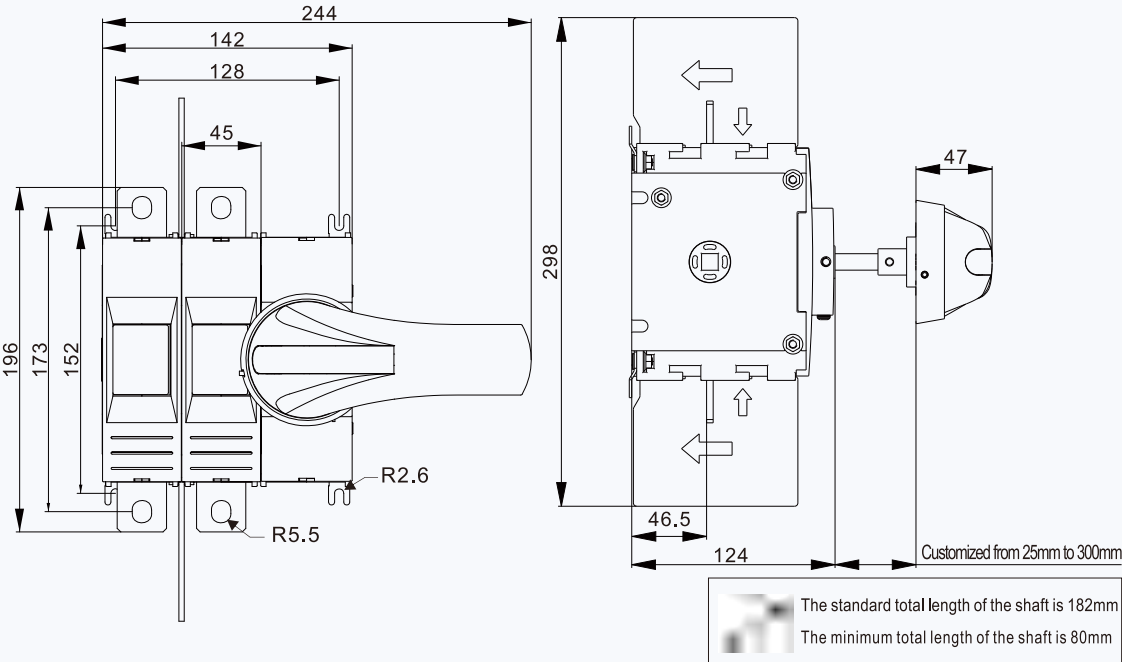


BH-400-2P-A

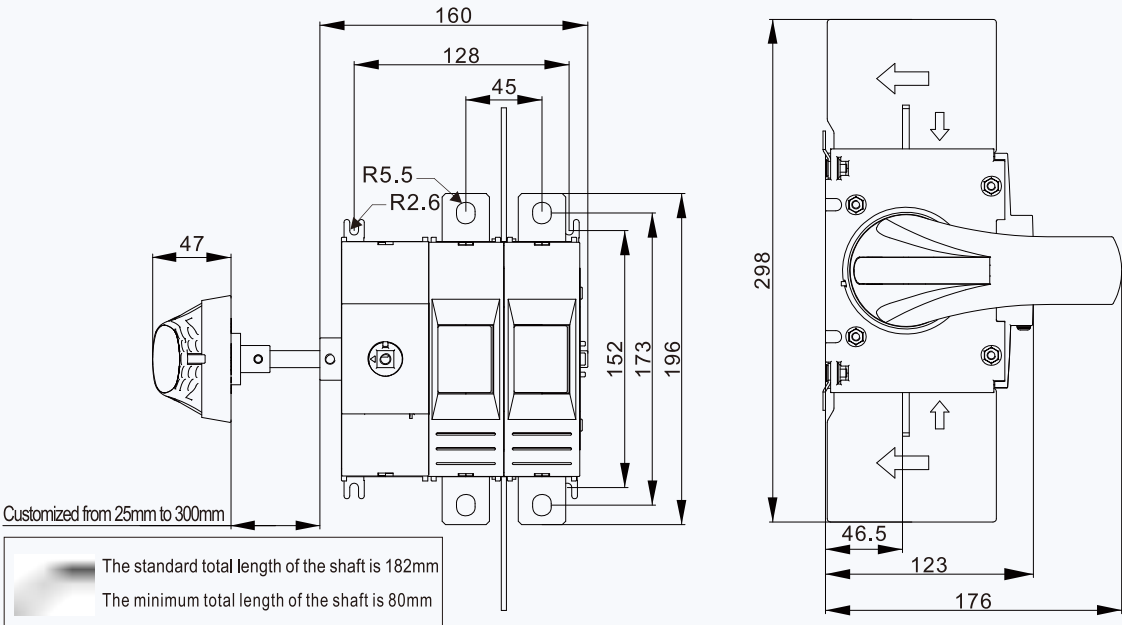


Dimension(mm)

BH-400-2P-B

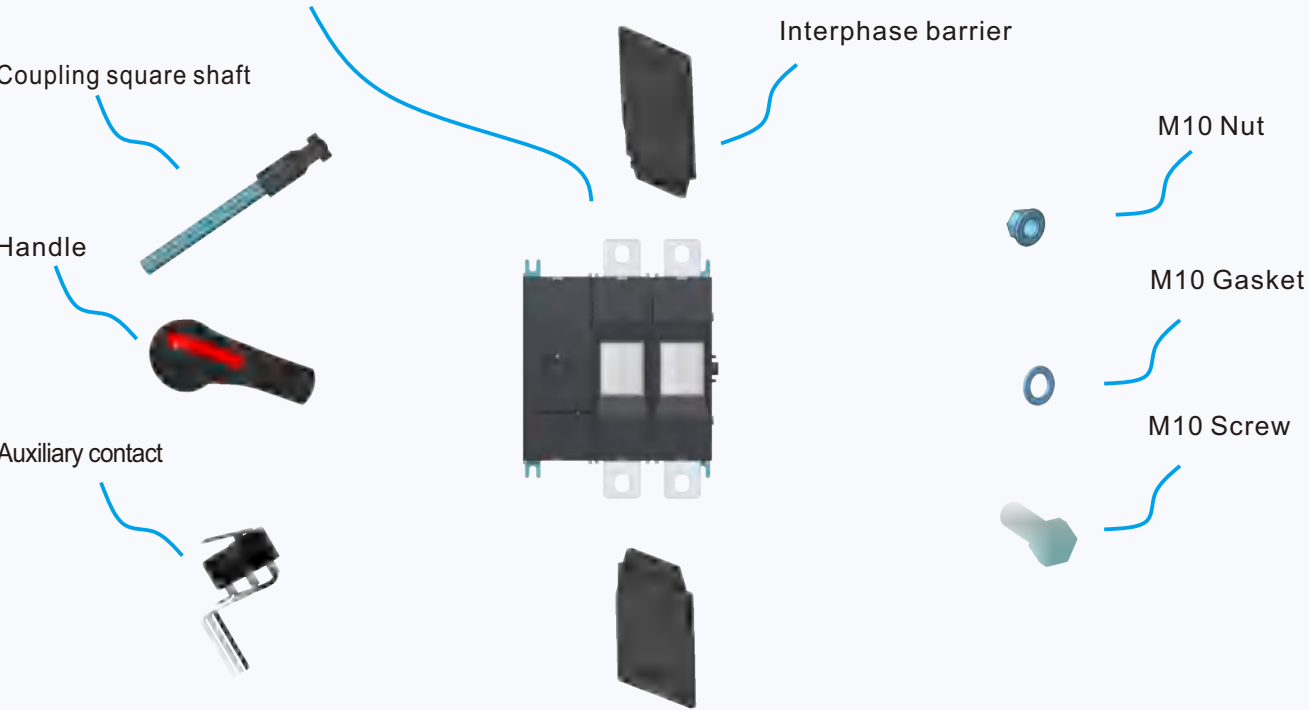


BH-400-2P-A1



Switches and accessories

Front and side operable products



Accessory

Name	The attachment list
standard configuration	■ Handle
	■ Coupling square shaft (The standard length is 182mm)
	■ Interphase barrier
	■ M10 Binding kits
	■ Specification
apolegamy	<input type="checkbox"/> Auxiliary contact
	<input type="checkbox"/> Coupling square shaft Custom length ____ mm

Derating data

Derating Temperature						
Tem	-40℃ ~ +60℃	+65℃	+70℃	+75℃	+80℃	+85℃
Type	Current					
BH-400	400A	395A	390A	385A	380A	375A

Derating Altitude				
Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	3820VDC	3820VDC	3820VDC	3820VDC
Isolation voltage	1500VDC	1500VDC	1500VDC	1500VDC
Working current	400A	400A	380A	370A
Working voltage	N / A			

Installation and use

The connecting conductor shall be copper conductor or equivalent copper row.The sectional area shall be selected according to the table.

Rated current(A)	320A	400A
The area of a wire or copper conductor mm²	185mm²	240mm²



AS 60947.3
IEC/EN 60947-3
GB/T 14048. 3

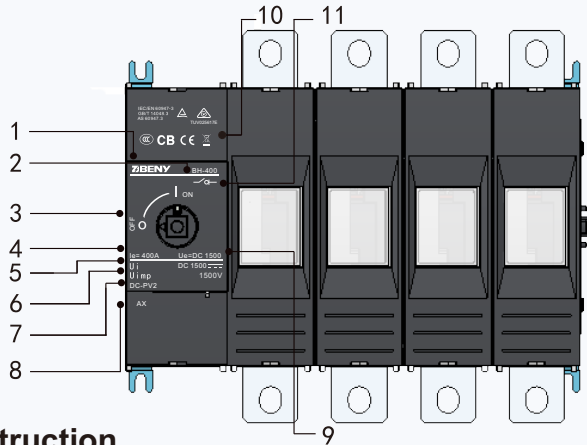
- 1 Brand
- 2 Model
- 3 On Off
- 4 Rated Current
- 5 Nominal Insulation Voltage
- 6 Rated Withstand Voltage
- 7 Utilization Category
- 8 Auxiliary Contact
- 9 Rated Voltage
- 10 Certificate Mark
- 11 Electrical Symbol

Application

ZBENY BH-400 DC disconnect switch is designed and developed for solar PV inverter,combiner box or any DC equipments build-in according to IEC60947-3.The DC load break switches provide safety isolation for one DC circuit up to 1500VDC 400A.

High capacity 10KA for 50ms test and patented DC arc extinguishing chamber ensure fast disconnection and reliable operation for longer working life.

Appearance Introduction



Type Instruction

BH	-	400	-	4P	-	400A	-	A	-	AX
↓		↓		↓		↓		↓		↓
Model		Max Current		Pole		Rated Current		Assembling way		Auxiliary contact
PV DC Isolation Switch		400A		4P		<input type="checkbox"/> 320A <input type="checkbox"/> 400A		<input type="checkbox"/> Blank <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> A1		<input type="checkbox"/> without <input type="checkbox"/> with

Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	1000V/1500V
Rated Current	Ie	320A/400A
Rated impulse withstand voltage	Uimp	12kV
Rated short-time withstand current (1s)	Icw	10kA
Rated short-circuit making capacity	Icm	10kA
Rated conditional short-circuit current(kA)		10kA
Installation Environment		
Utilizatin category DC		DC-PV2
Number of cycles of operation(With current)		200
Number of cycles of operation(Without current)		5000
Pole		4
Mounting		Base Screws Mounting
Screws for mounting(M5)		2.0N·m~3.0N·m
Wiring Screw(M10)		acc.IEC 60947-1 15N·m~20N·m
Ambient temperature allowed between		-40℃ ~ +80℃
Storage temperature allowed between		-40℃ ~ +85℃
Relative Humidity		90%
Pollution degree		3
IP rating terminals		IP20
Outside the ark handle		IP66

Wiring Graph

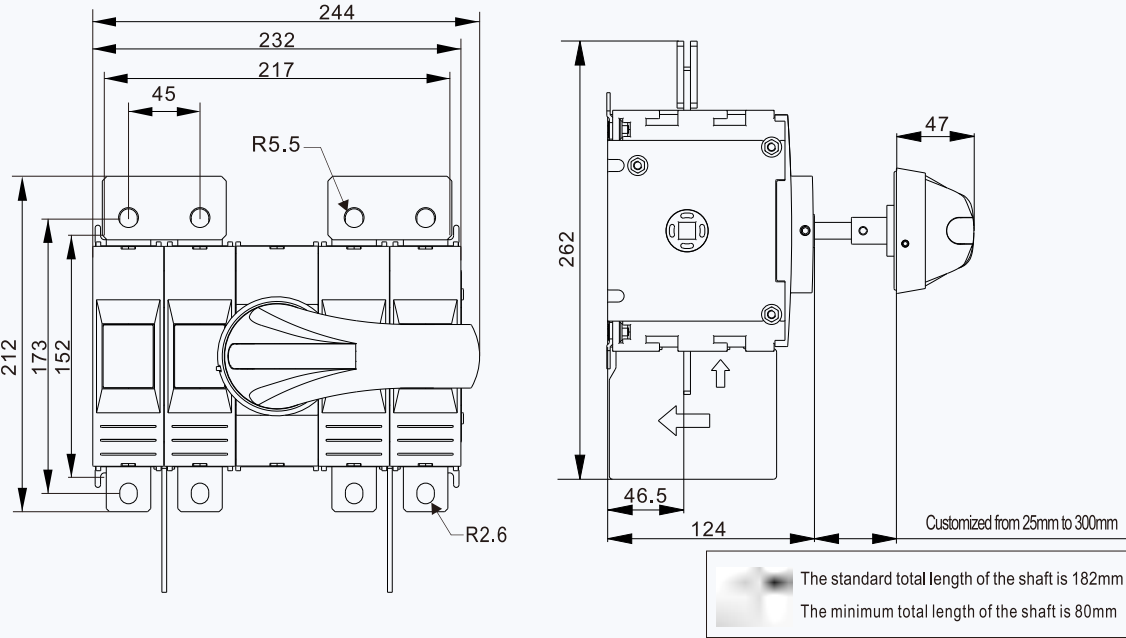
Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
BH-400-4P	<div> Example</div>	1000V/1500V	320A/400A	2	1

Product Selection

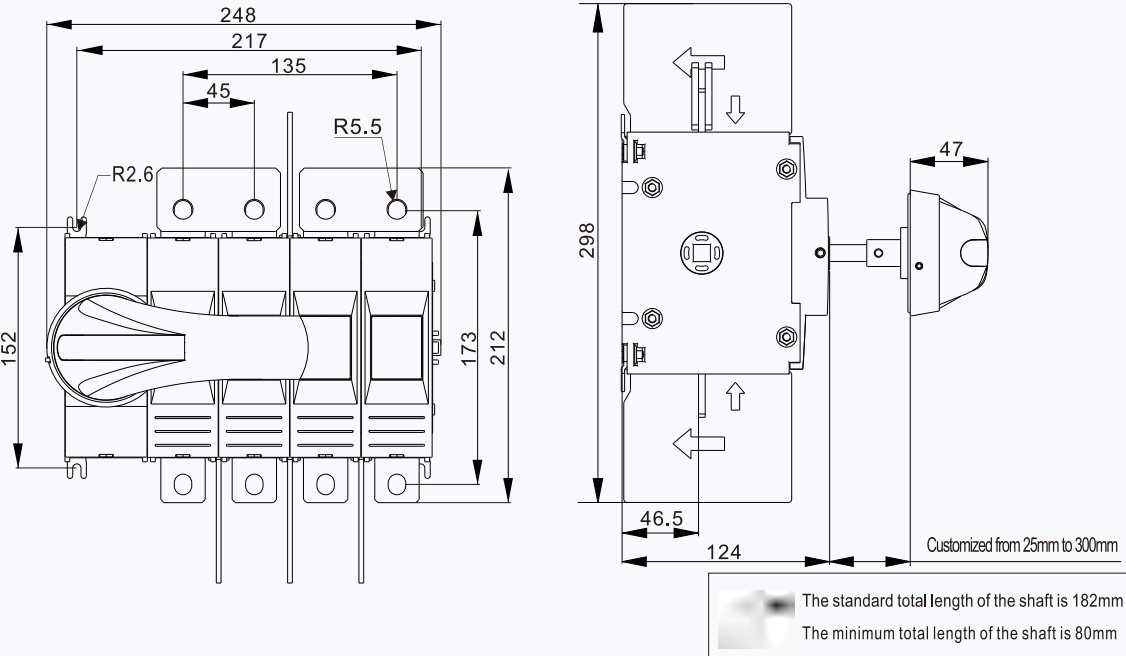
Model	Front Operation			The side operation
	BH-400-4P	BH-400-4P-A	BH-400-4P-B	BH-400-4P-A1
BH-400-4P				

Dimension(mm)

BH-400-4P

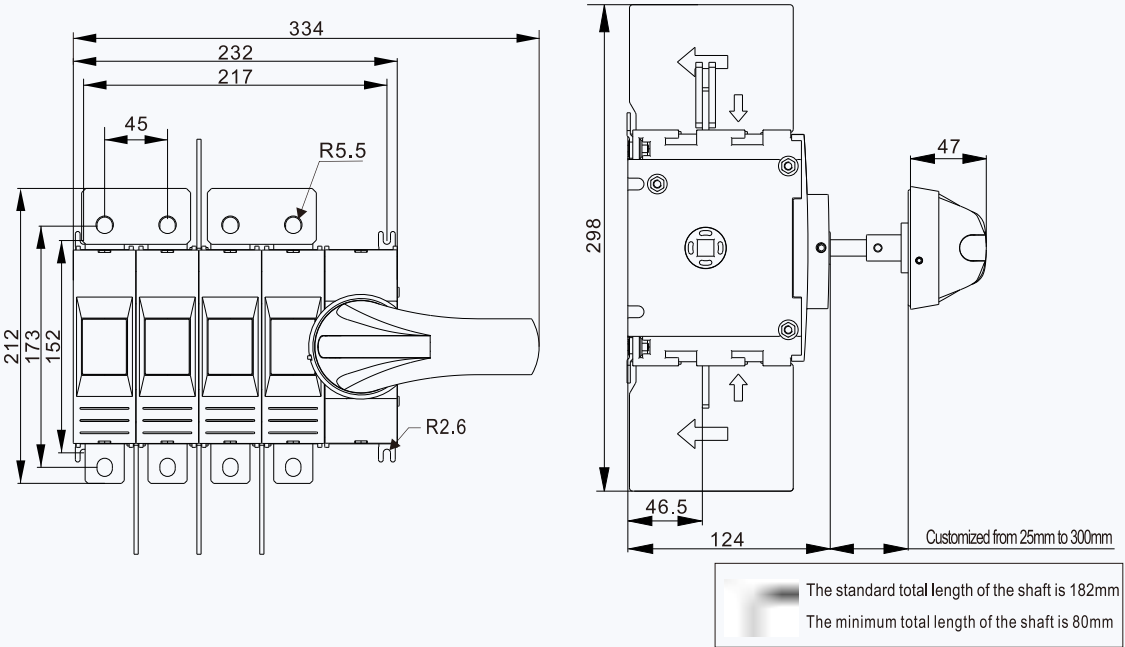


BH-400-4P-A

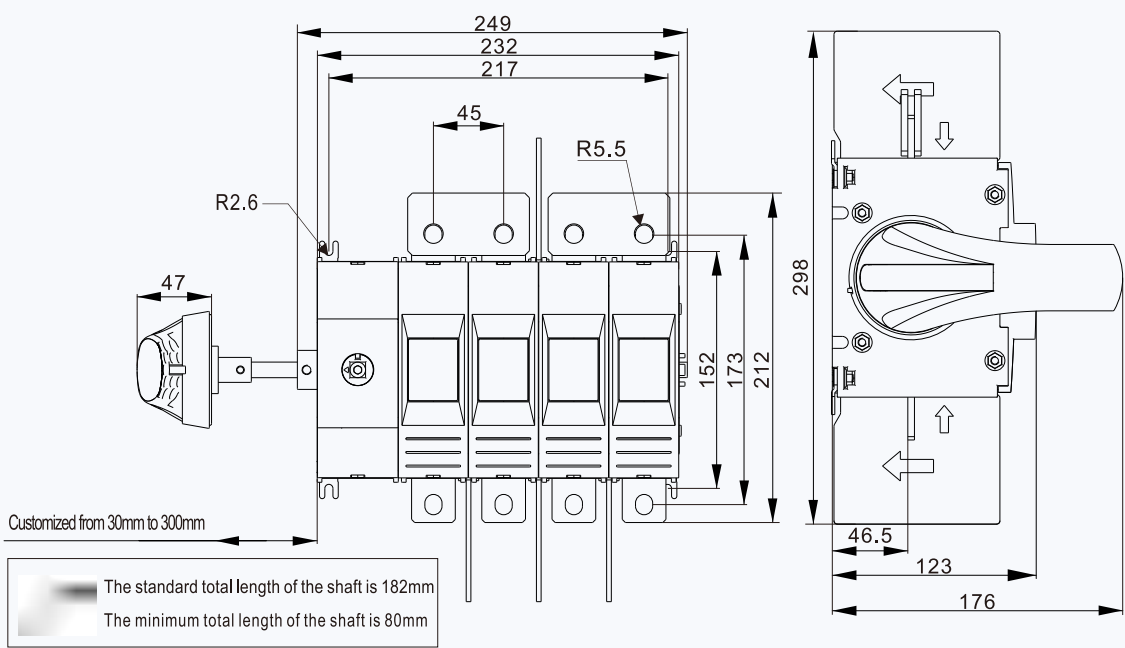


Dimension(mm)

BH-400-4P-B

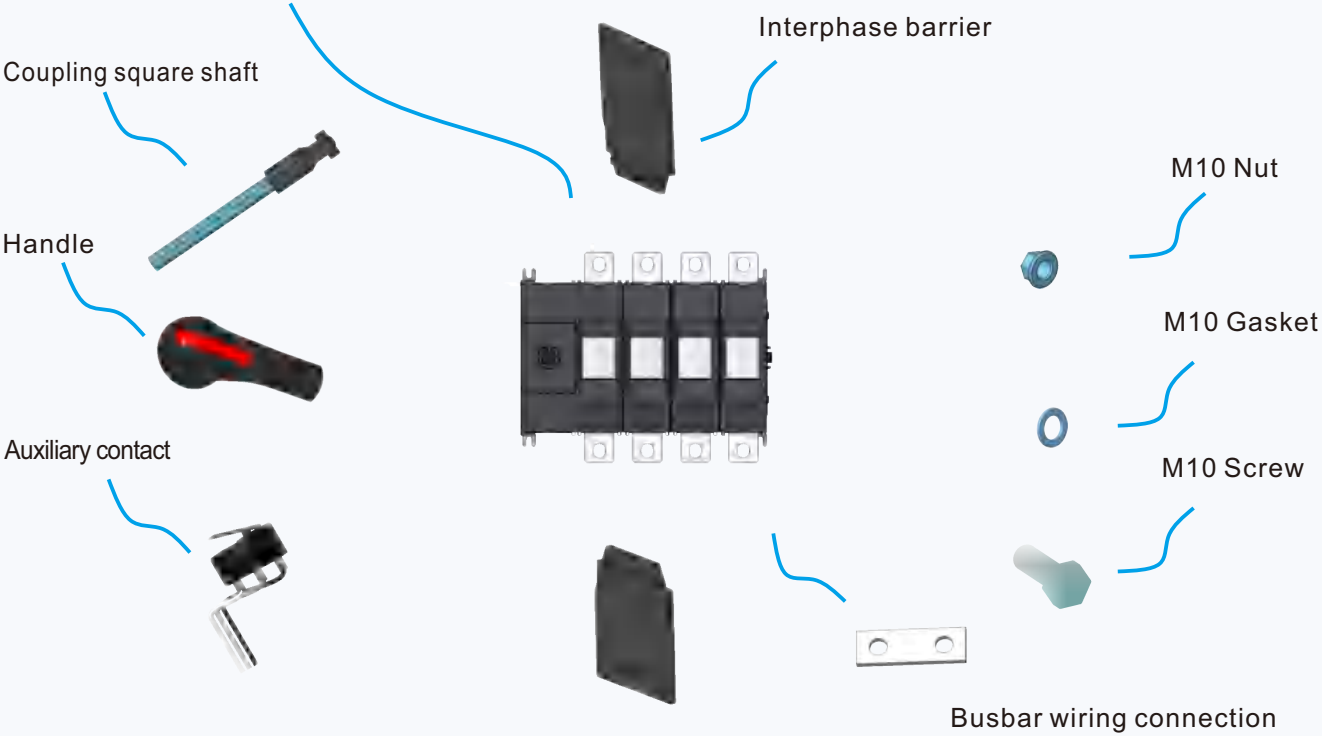


BH-400-4P-A1



Switches and accessories



Front and side operable products



Accessory

Name	The attachment list
standard configuration	<input checked="" type="checkbox"/> Handle
	<input checked="" type="checkbox"/> Coupling square shaft (The standard length is 182mm)
	<input checked="" type="checkbox"/> Interphase barrier
	<input checked="" type="checkbox"/> M10 Binding kits
	<input checked="" type="checkbox"/> Specification
	<input checked="" type="checkbox"/> Busbar wiring connection
apolegamy	<input type="checkbox"/> Auxiliary contact
	<input type="checkbox"/> Coupling square shaft Custom length ____ mm

Terminals / connection

Type	BH-400	
Number of poles	4-pole	
Terminal designation, main circuit	1;3;5;7;2;4;6;8	
Type of terminal, main circuit	Screw terminal	
Rated cross section area,main circuit	120-240mm²	
Type of onductor		120-240mm² (Ringd:Solid or Stranded)
		120-240mm² (Flexible)
Number of conductors per terminal	1	
Required preparation of the conductor	Yes	
Stripping length(mm),main circuit	25mm	
Tightening torque(M10),main circuit	Min:15N • m	
	Max:20N • m	

WARNING Verify that all connections(including bridging link connections) are suitable for the rated current, prepared to ensure only conductive parts are clamped and tightened to the manufacturers required torque before energization.

Derating data

Derating Temperature

Type	Tem						
	Current	-40°C ~ +60°C	+65°C	+70°C	+75°C	+80°C	+85°C
BH-400		400A	395A	390A	385A	380A	375A

Derating Altitude

Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	3820VDC	3820VDC	3820VDC	3820VDC
Isolation voltage	1500VDC	1500VDC	1500VDC	1500VDC
Working current	400A	400A	380A	370A
Working voltage	N / A			

Installation and use

The connecting conductor shall be copper conductor or equivalent copper row.The sectional area shall be selected according to the table.

Rated current(A)	320A	400A
The area of a wire or copper conductor mm²	185mm²	240mm²

BH-400 Series
PV DC Isolation Switch



UL98B

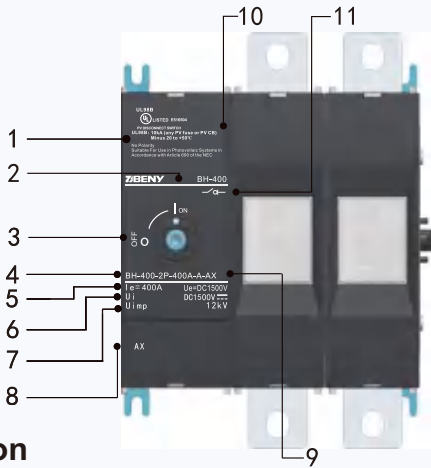
- 1 Brand
- 2 Model
- 3 On Off
- 4 Rated Current
- 5 Nominal Insulation Voltage
- 6 Rated Withstand Voltage
- 7 Utilization Category
- 8 Auxiliary Contact
- 9 Rated Voltage
- 10 Certificate Mark
- 11 Electrical Symbol

Application

ZBENY BH-400 DC disconnect switch is designed and developed for solar PV inverter,combiner box or any DC equipments build-in according to UL98B . The DC load break switches provide safety isolation for one DC circuit up to 1500VDC 400A.

High capacity 10KA for 50ms test and patented DC arc extinguishing chamber ensure fast disconnection and reliable operation for longer working life.

Appearance Introduction



Type Instruction

BH	-	400	-	2P	-	400A	-	A	-	AX
↓		↓		↓		↓		↓		↓
Model		Max Current		Pole		Rated Current		Assembling way		Auxiliary contact
PV DC Isolation Switch		400A		2P		<input type="checkbox"/> 320A <input type="checkbox"/> 400A		<input type="checkbox"/> Blank <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> A1		<input type="checkbox"/> without <input type="checkbox"/> with

Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	1000V / 1500V
Rated Current	Ie	320A / 400A
Rated impulse withstand voltage	Uimp	12kV
Rated short-time withstand current	Icw	10kA/50ms
Rated short-circuit making capacity	Icm	10kA/50ms
Rated conditional short-circuit current(kA)		10kA
Installation Environment		
Number of cycles of operation(With current)		400
Number of cycles of operation(Without current)		5000
Pole		2
Mounting		Base Screws Mounting
Screws for mounting(M5)		2.0N·m ~ 3.0N·m
Wiring Screw(M10)		15N·m ~ 20N·m
Ambient temperature allowed between		-40°C ~ +85°C
Storage temperature allowed between		-40°C ~ +85°C
Relative Humidity		90%
Pollution degree		3
IP rating terminals		IP20
Outside the ark handle		IP65

Wiring Graph

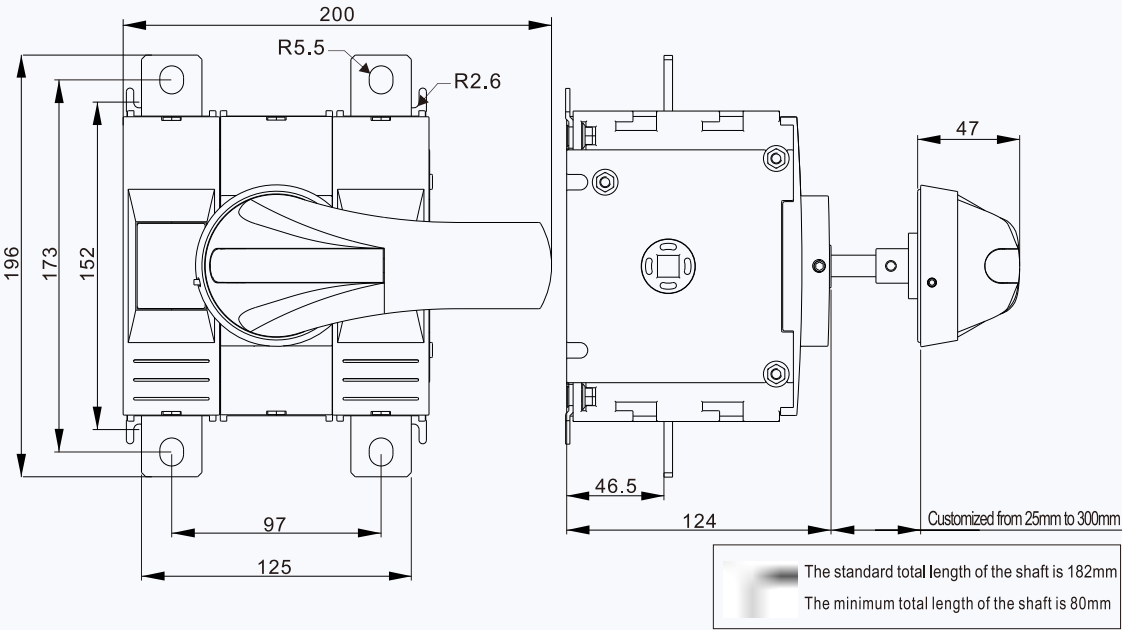
Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
BH-400-2P		1000V/1500V	320A/400A	1	1
	Example				

Product types choosing

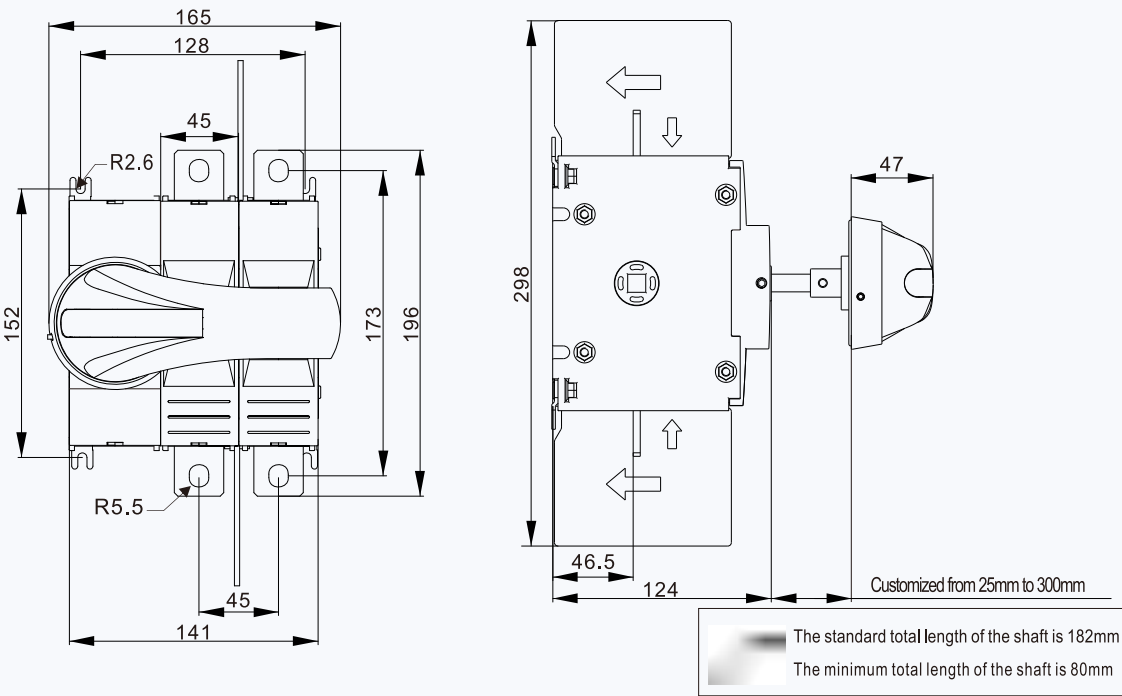
Model	Front Operation			The side operation
	BH-400-2P	BH-400-2P-A	BH-400-2P-B	BH-400-2P-A1
BH-400-2P				

Dimension(mm)

BH-400-2P

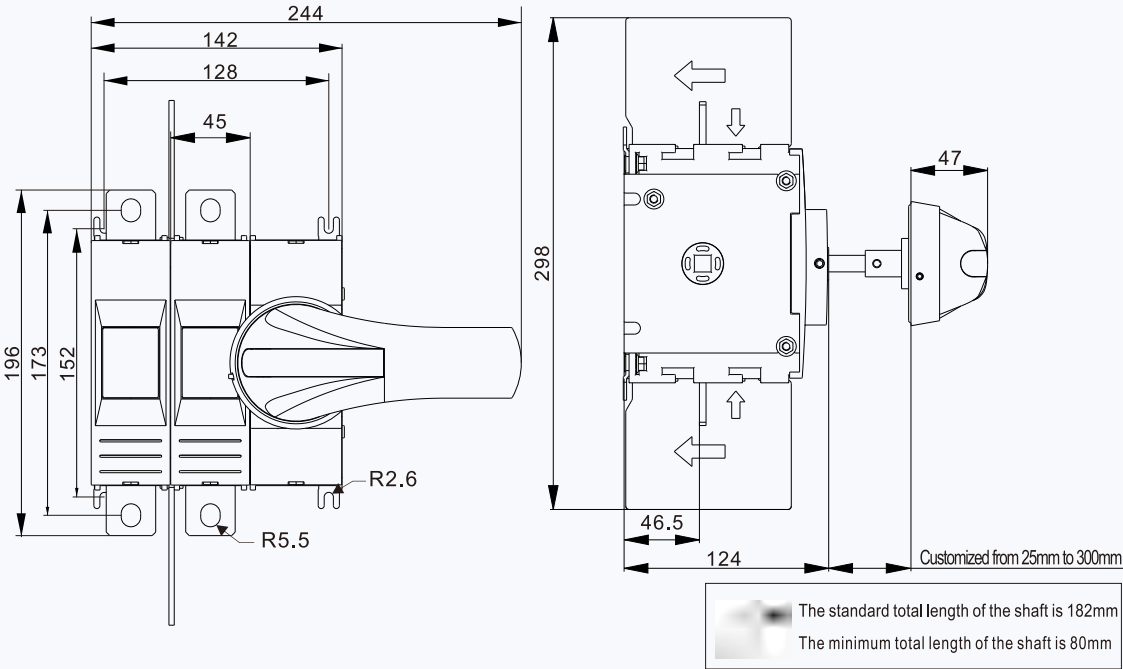


BH-400-2P-A

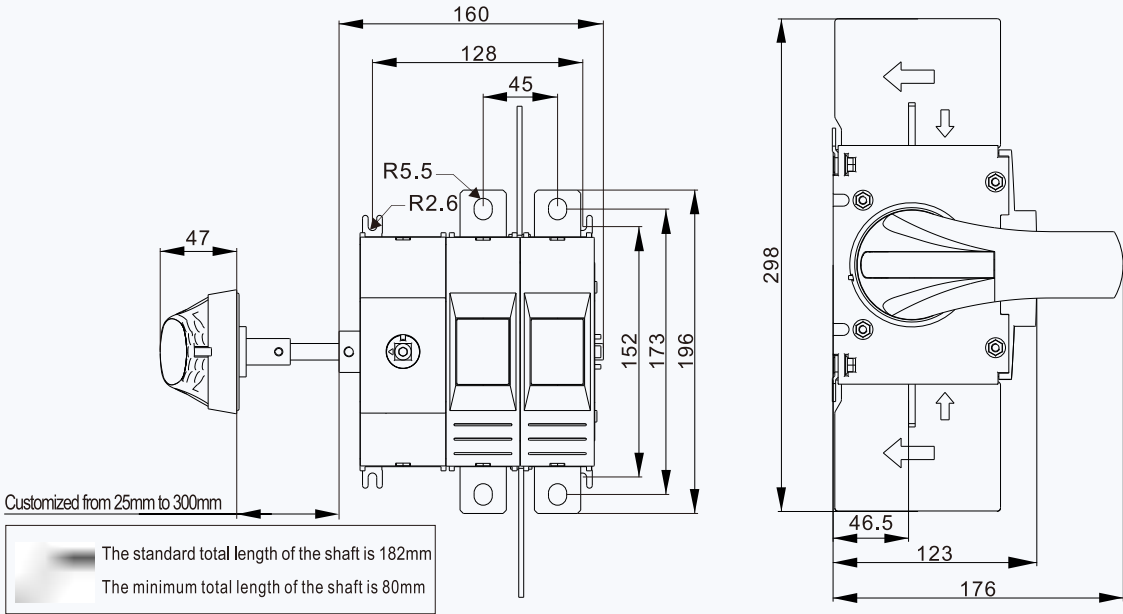


Dimension(mm)

BH-400-2P-B

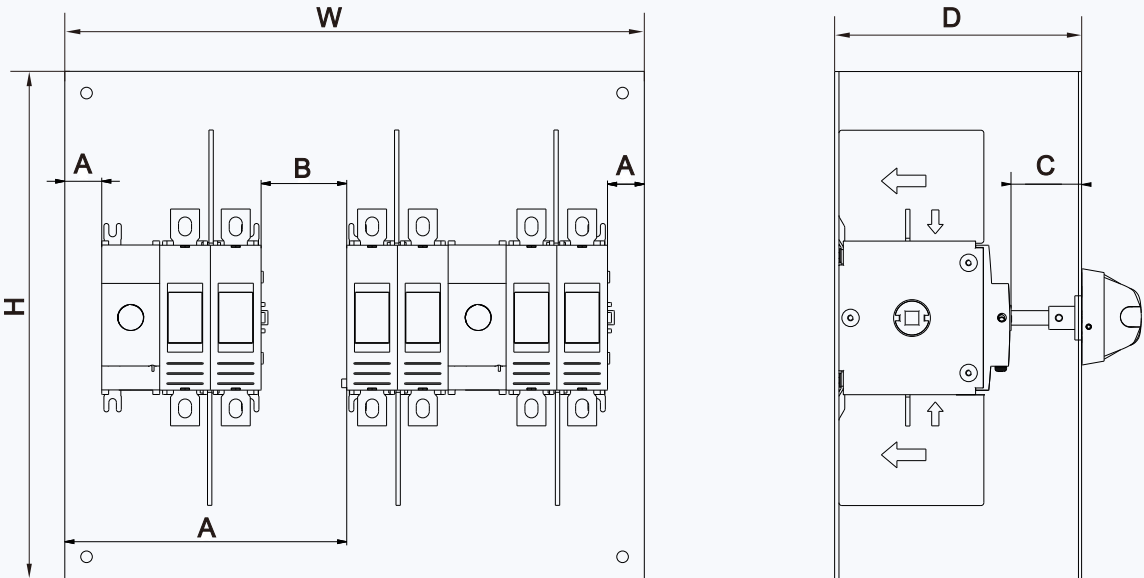


BH-400-2P-A1



Dimension(mm)

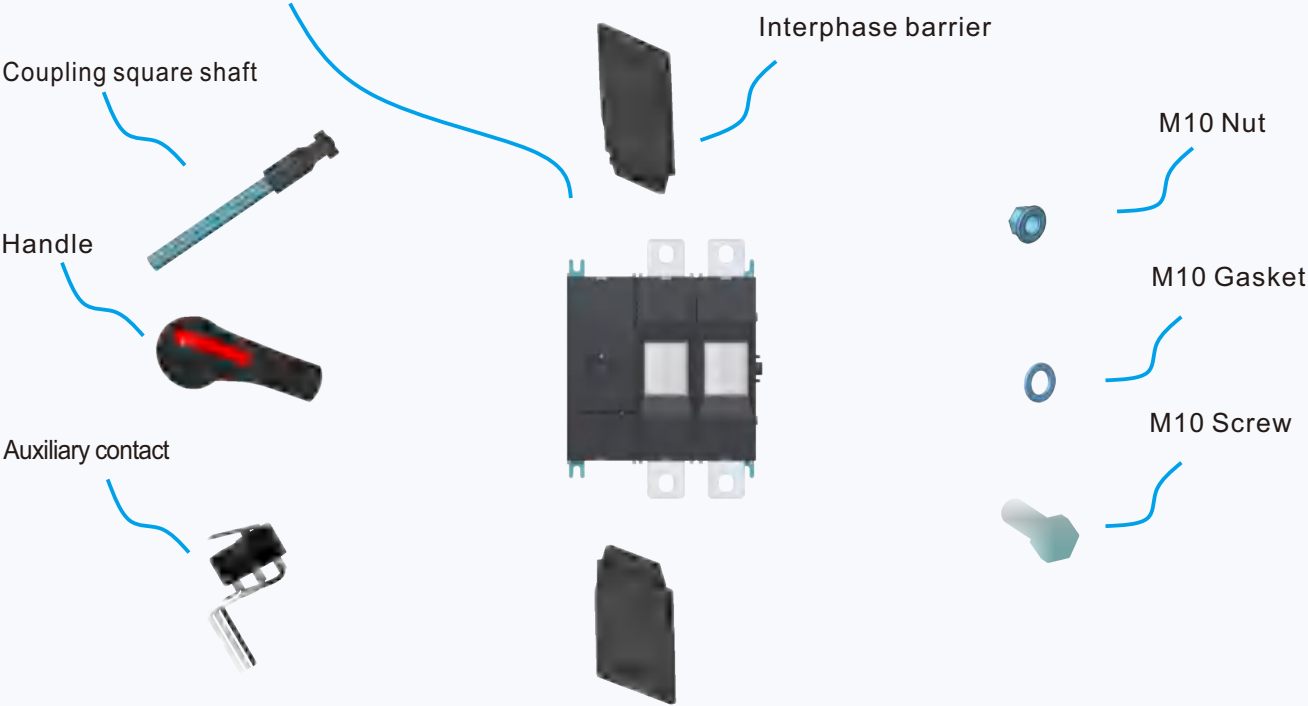
Minimum enclosure dimensions UL98
Dimensions minimum des coffrets UL98B
Dimensiones minimas de las cajas UL98B



Minimum enclosure size	Size
H×W×D	400mm×350mm×180mm
Clearance	Size
A min.	25.4mm
B min.	50.8mm
C min.	22mm

Switches and accessories

Front and side operable products



Accessory

Name	The attachment list
standard configuration	■ Handle
	■ Coupling square shaft (The standard length is 182mm)
	■ Interphase barrier
	■ M10 Binding kits
	■ Specification
apolegamy	<input type="checkbox"/> Auxiliary contact
	<input type="checkbox"/> Coupling square shaft Custom length ____ mm

Derating data

Derating Temperature							
Type	Tem	-40℃ ~ +60℃	+65℃	+70℃	+75℃	+80℃	+85℃
	Current						
BH-400		400A	395A	390A	385A	380A	375A

Derating Altitude				
Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	3820VDC	3820VDC	3820VDC	3820VDC
Isolation voltage	1500VDC	1500VDC	1500VDC	1500VDC
Working current	400A	400A	380A	370A
Working voltage	N / A			

Installation and use

The connecting conductor shall be copper conductor or equivalent copper row.The sectional area shall be selected according to the table.

Rated current(A)	320A	400A
The area of a wire or copper conductor mm²	185mm²	240mm²



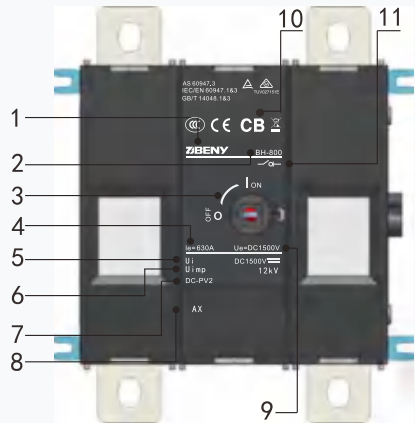
AS 60947.3
IEC/EN 60947-3
GB/T 14048. 3

- 1 Brand
- 2 Model
- 3 On Off
- 4 Rated Current
- 5 Nominal Insulation Voltage
- 6 Rated Withstand Voltage
- 7 Utilization Category
- 8 Auxiliary Contact
- 9 Rated Voltage
- 10 Certificate Mark
- 11 Electrical Symbol

Application

ZBENY BH-800 DC disconnect switch is designed and developed for solar PV inverter,combiner box or any DC equipments build-in according to IEC60947-3.The DC load break switches provide safety isolation for one DC circuit up to 1500VDC 800A

Appearance Introduction



Type Instruction


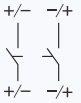

BH	-	800	-	2P	-	800A	-	A	-	AX
↓		↓		↓		↓		↓		↓
Model		Max Current		Pole		Rated Current		Assembling way		Auxiliary contact

PV DC Isolation Switch	800A	2P	<input type="checkbox"/> 630A <input type="checkbox"/> 800A	<input type="checkbox"/> Blank <input type="checkbox"/> A	<input type="checkbox"/> without <input type="checkbox"/> with
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Parameter

Electrical Characteristics		
Rated Working Voltage	Ue	1000V \ 1500V
Rated Current	Ie	630A 800A
Rated impulse withstand voltage	Uimp	12kV
Rated short-time withstand current (1s)	Icw	10kA
Rated short-circuit making capacity	Icm	10kA
Rated conditional short-circuit current(kA)		10kA
Installation Environment		
Utiizatin category DC	DC-PV2	DC-PV1
Number of cycles of operation(With current)	200	100
Number of cycles of operation(Without current)		5000
Pole		2
Mounting	Base Screws Mounting	
Screws for mounting(M5)	2.0N·m~3.0N·m	
Wiring Screw(M14)	acc.IEC 60947-1 20N·m	
Ambient temperature allowed between	-40°C ~ +85°C	
Storage temperature allowed between	-40°C ~ +85°C	
Relative Humidity	90%	
Pollution degree	3	
IP rating terminals	IP20	
Outside the ark handle	IP66	

Wiring Graph

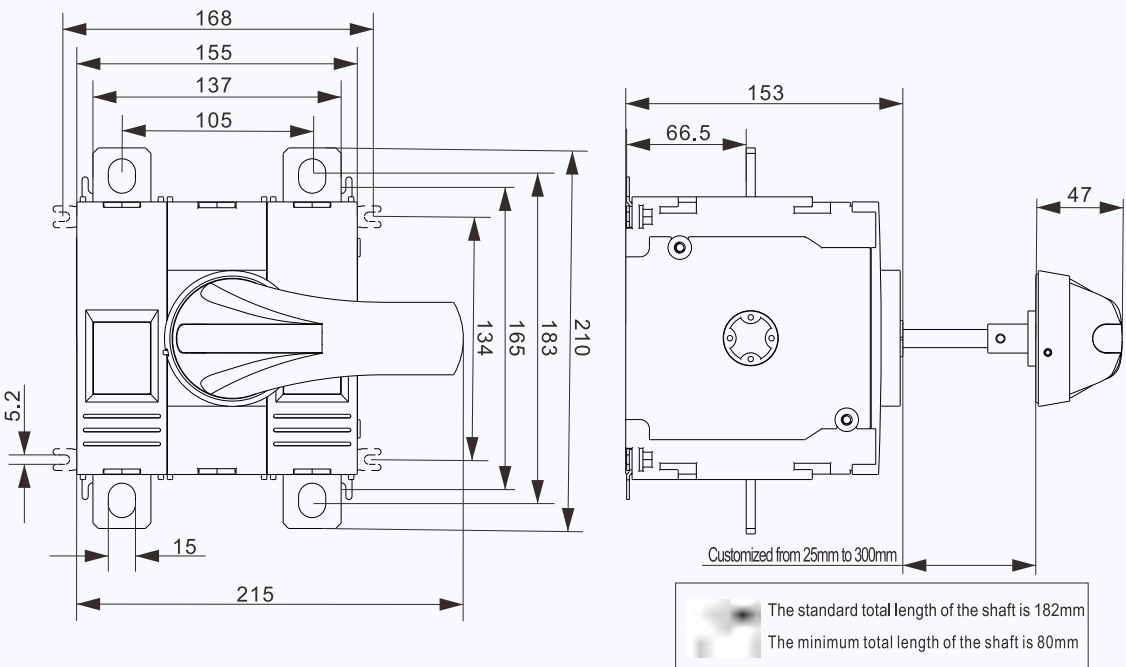
Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
BH-800 		1000V/1500V	630A/800A	2	1
	Example				
					

Product Selection

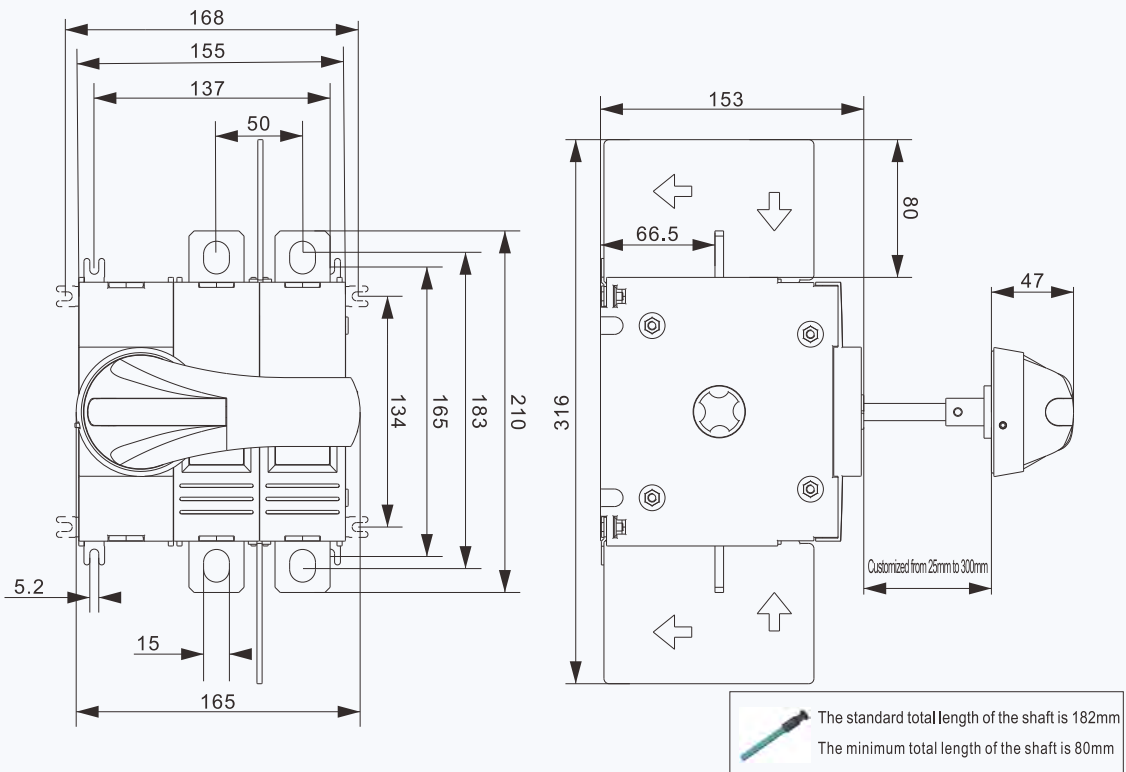
Model	Front Operation	
	BH-800-2P	BH-800-2P-A
BH-800		

Dimension(mm)

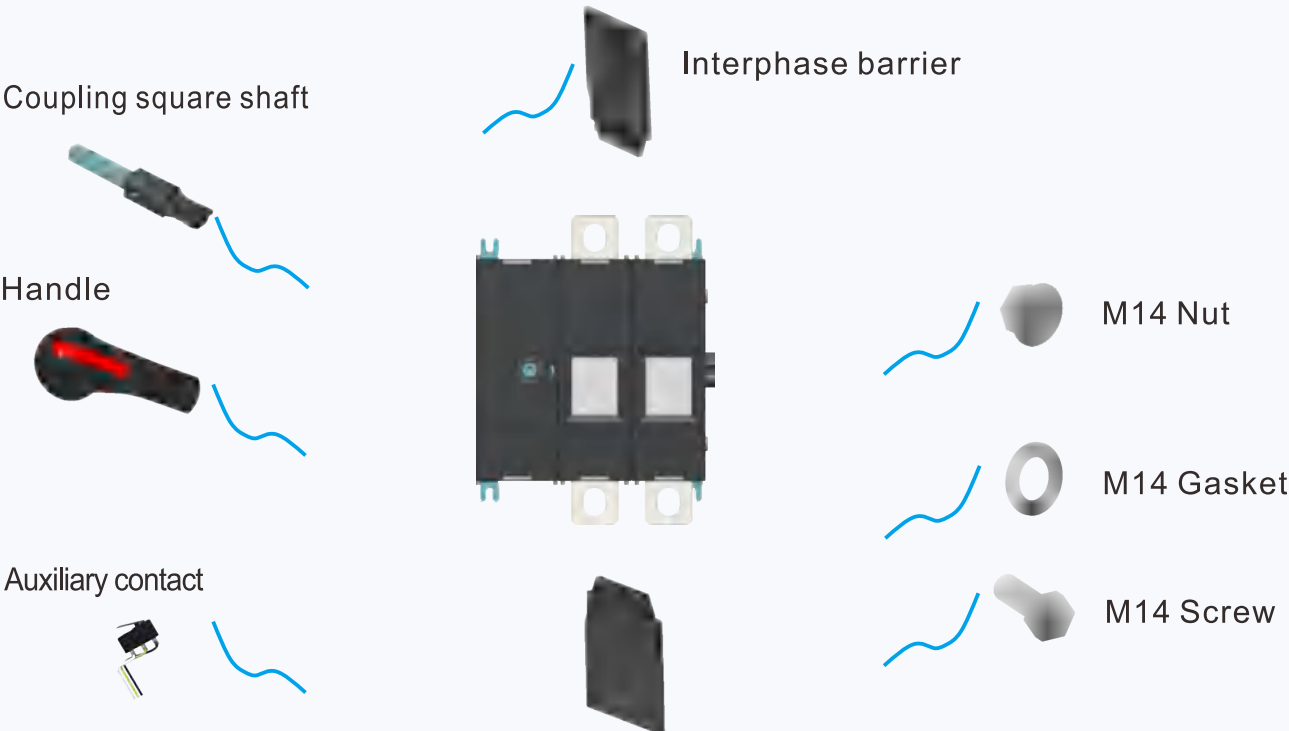
BH-800-2P



BH-800-2P-A



Switches and accessories



Accessory

Name	The attachment list
standard configuration	■ Handle
	■ Coupling square shaft (The standard length is 182mm)
	■ Interphase barrier
	■ M14 Binding kits
apolegamy	■ Specification
	□ Auxiliary contact
	□ Coupling square shaft Custom length ____ mm

Derating data

Derating Temperature							
Type	Tem	-40℃ ~ +60℃	+65℃	+70℃	+75℃	+80℃	+85℃
	Current						
BH-800		800A	780A	750A	720A	700A	680A

Derating Altitude				
Altitude	2000m	3000m	4000m	5000m
Power frequency withstand voltage	3820VDC	3820VDC	3820VDC	3820VDC
Isolation voltage	1500VDC	1500VDC	1500VDC	1500VDC
Working current	800A	800A	780A	785A
Working voltage	N / A			

Installation and use

The connecting conductor shall be copper conductor or equivalent copper row.The sectional area shall be selected according to the table.

Rated current(A)	630A	800A
The area of a wire or copper conductor mm²	2X185mm²	2X240mm²