

BH-400 Series
PV DC Isolation Switch



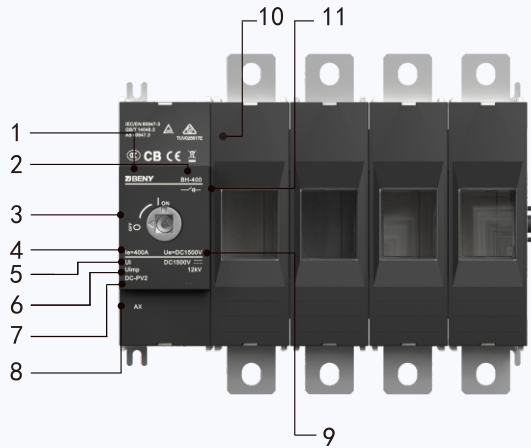
AS 60947.3
IEC/EN 60947-3
GB/T 14048.3

- 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 1500VDC400A. 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)		<<0.5mΩ
Installation Environment		
Utiizatin 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

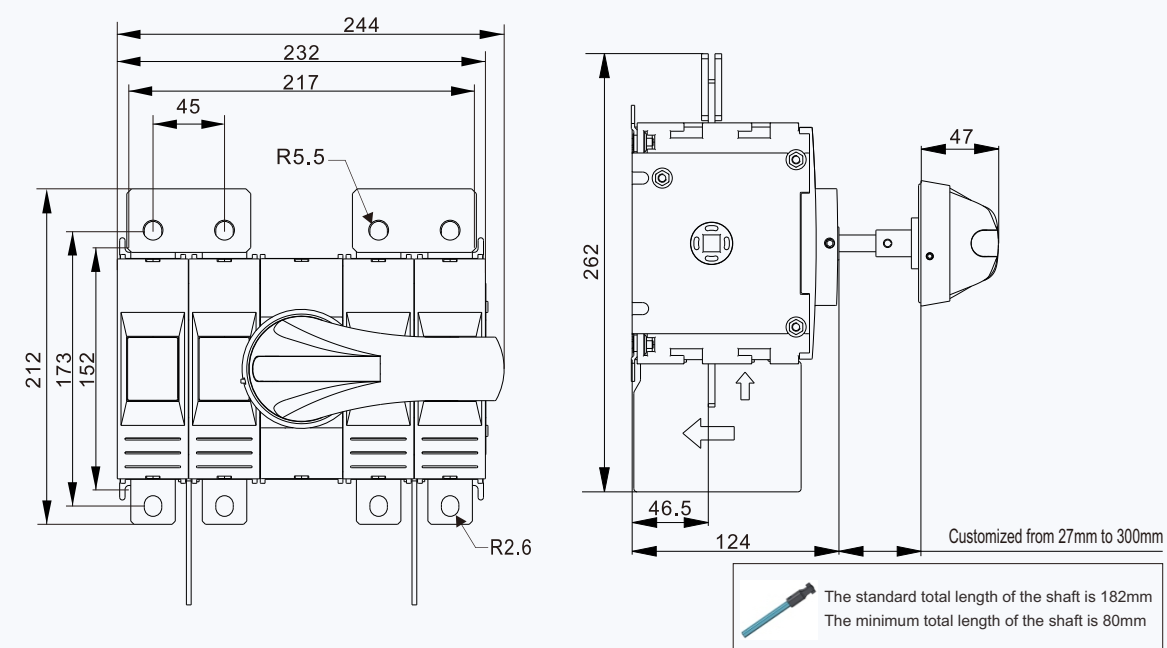
Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
BH-400-4P	<div> Example </div>	1000V/1500V	320A/400A	2	2

Product Selection

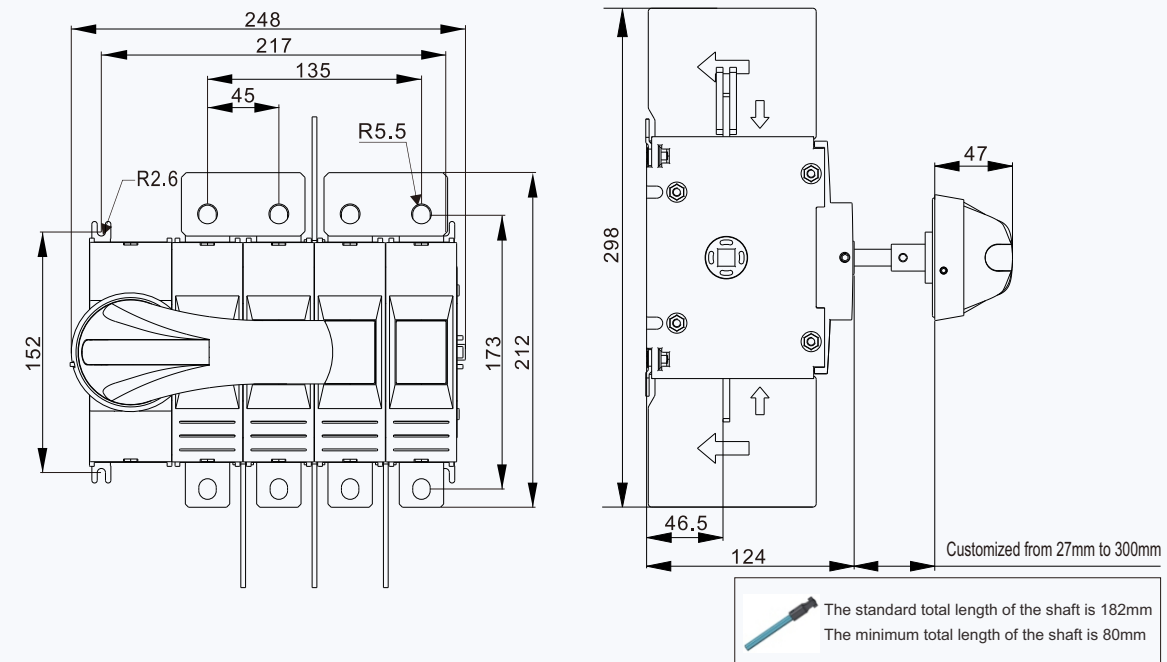
Model	Front Operation			The side operation
	BH-400-4P	BH-400-4P-A	BH-400-4P-B	BH-400-4P-A1
BH-400-4P				

Dimension(mm)

BH-400-4P

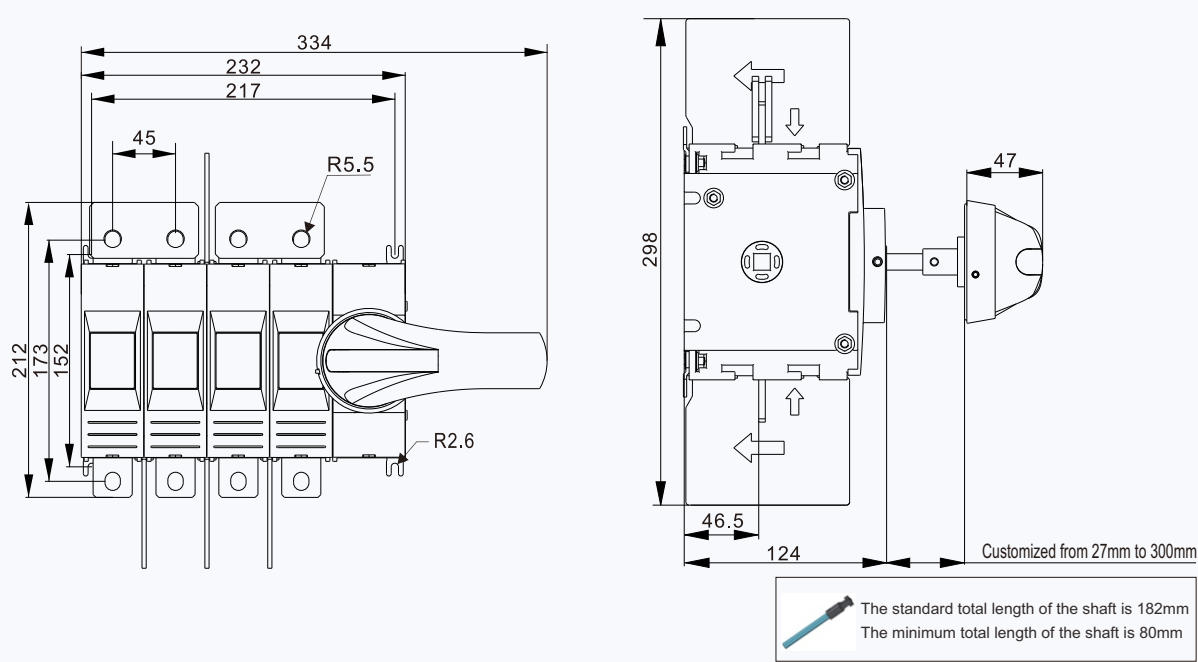


BH-400-4P-A

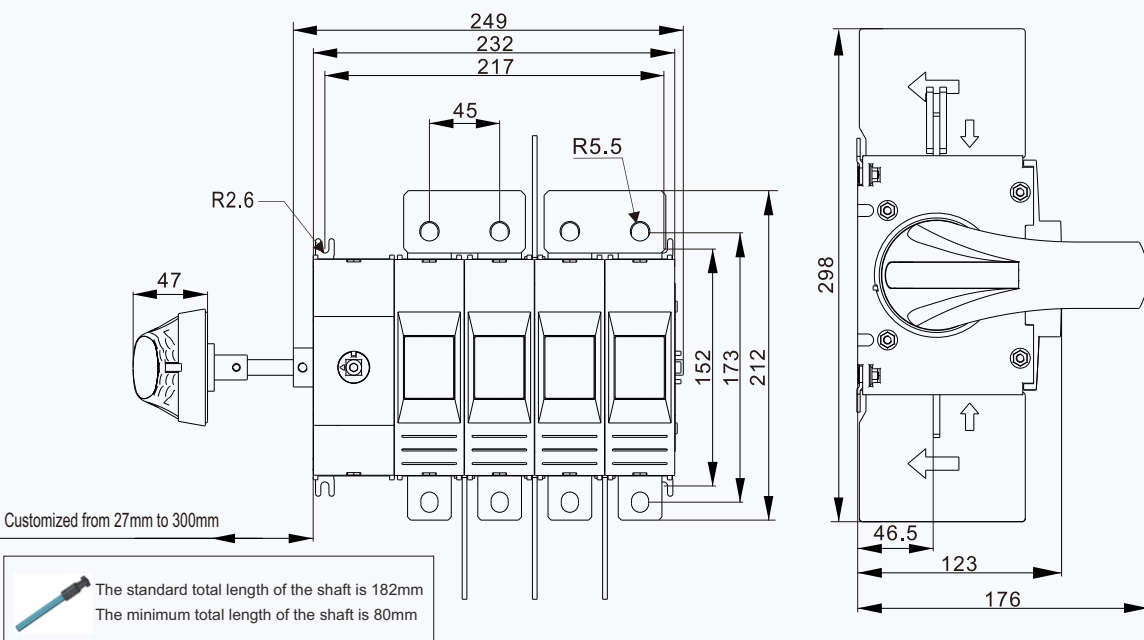


Dimension(mm)

BH-400-4P-B

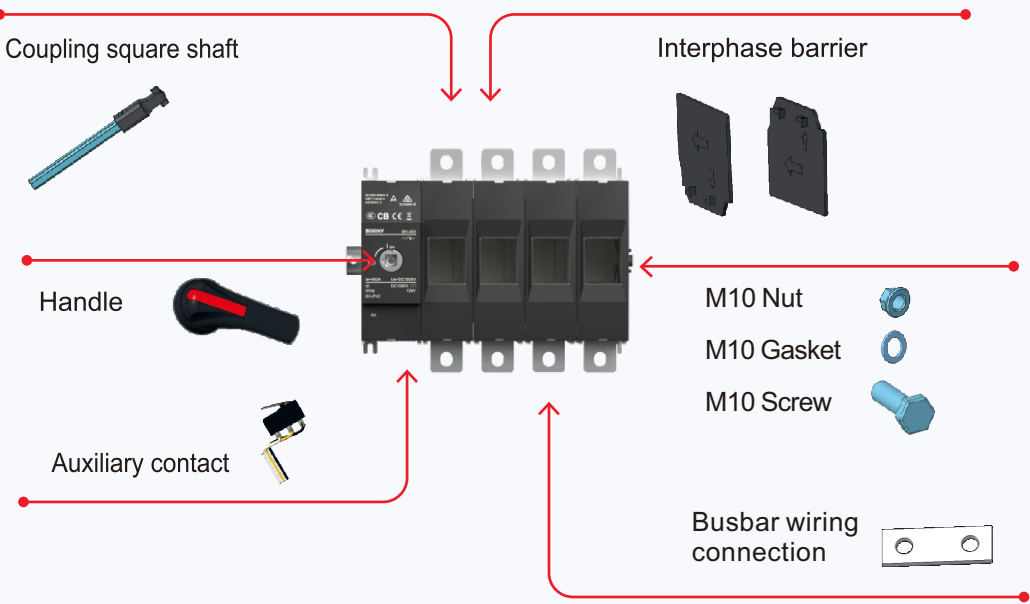


BH-400-4P-A1



Switches and accessories



Front and side operable products



Accessory

Name	The attachment list
standard configuration	■ Handle
	■ Coupling square shaft (The standard length is 182mm)
	■ Interphase barrier
	■ M10 Binding kits
	■ Specification
	■ 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	400A	400A	400A	400A	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	400A	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

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PV DC Isolation Switch



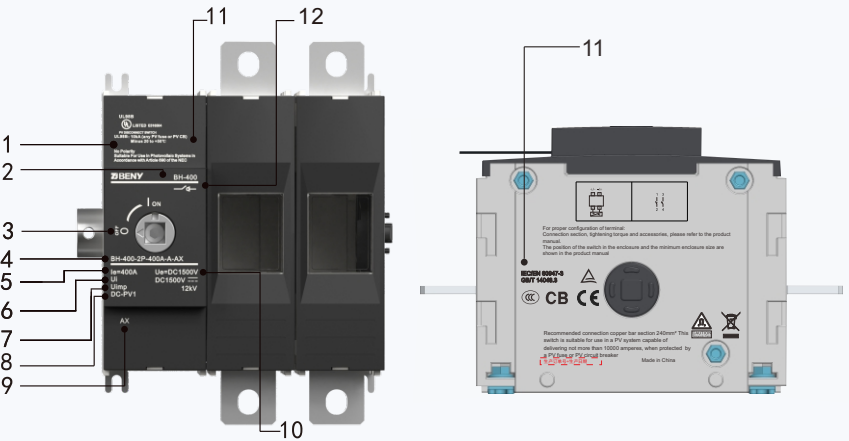
IEC/EN 60947-3
GB/T 14048.3
UL98B

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

Application

ZBENY BH-400 DC disconnect switch is designed and developed forsolar PV inverter,combiner box or any DC equipments build-in accordingto UL98B . The DC load break switches provide safety isolationfor one DC circuit up to 1500VDC 400A.High capacity 10KA for 50ms test and patented DC arc extinguishingchamber ensure fast disconnection and reliable operation for longerworking life.

Appearance Introduction



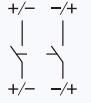

Type Instruction

BH	-	400	-	2P	-	400A	-	A1	-	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

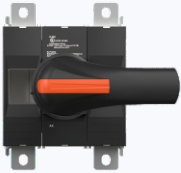

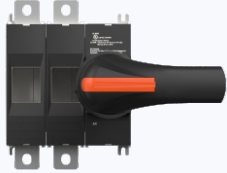
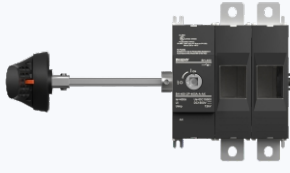
Parameter

Electrical Characteristics		
Product standard	IEC60947-3	UL98B
Rated Working Voltage	Ue	1000V/1500V
Agreed free air heating current	Ith	320A / 400A
Rated impulse withstand voltage	Uimp	12kV
Rated short-time withstand current	Icw	10kA/1s
Rated short-circuit making capacity	Icm	10kA
Contact resistance		<0.5mΩ
Installation Environment		
Utilization Category	DC-PV1	\
Number of cycles of operation(With current)	200	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(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		IP66

Wiring Graph

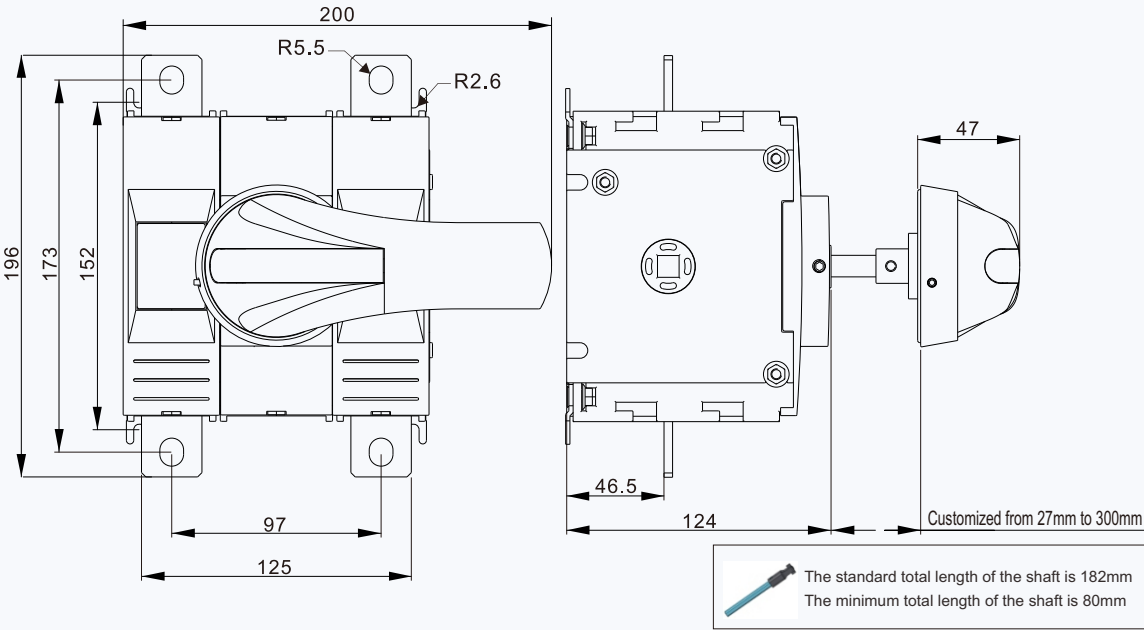
Model	Wiring Graph	Ue rated operational voltage DC Volts	Rated operationnal current	Poles in series	Number of Strings
BH-400-2P		1000V/1500V	320A/400A	1	1
	Example				
					

Product Selection

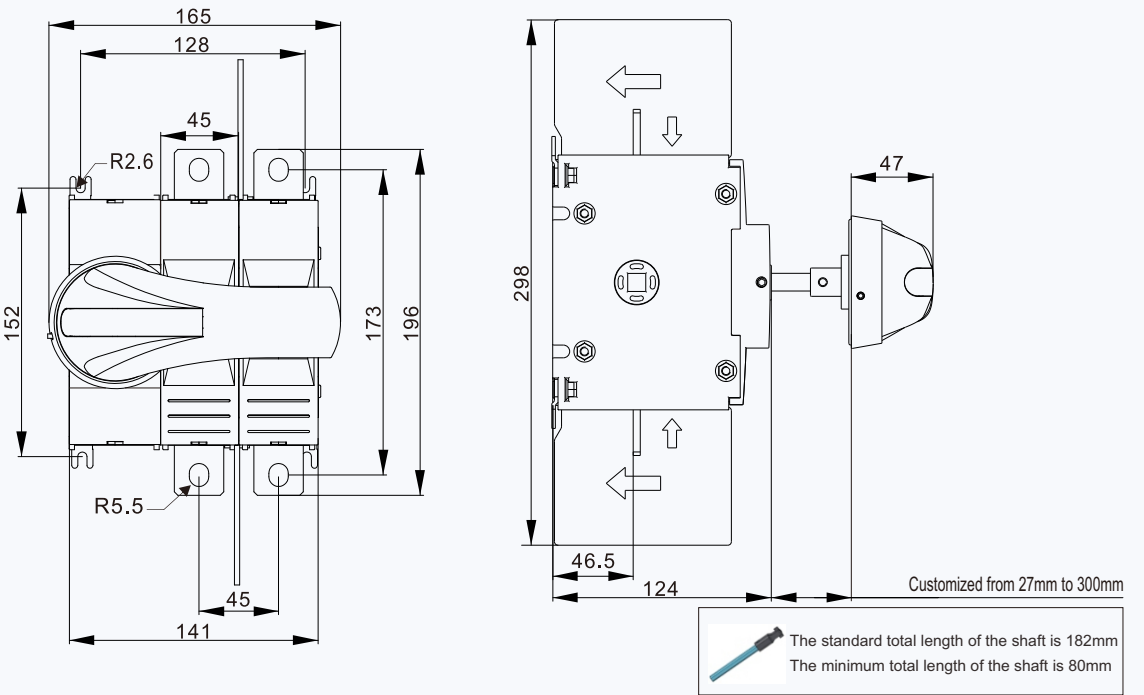
Model	Front Operation			The side operation
	BH-400-2P	BH-400-2P-A	BH-400-2P-B	BH-400-2P-A1
BH-400-2P				

Dimension(mm)

BH-400-2P

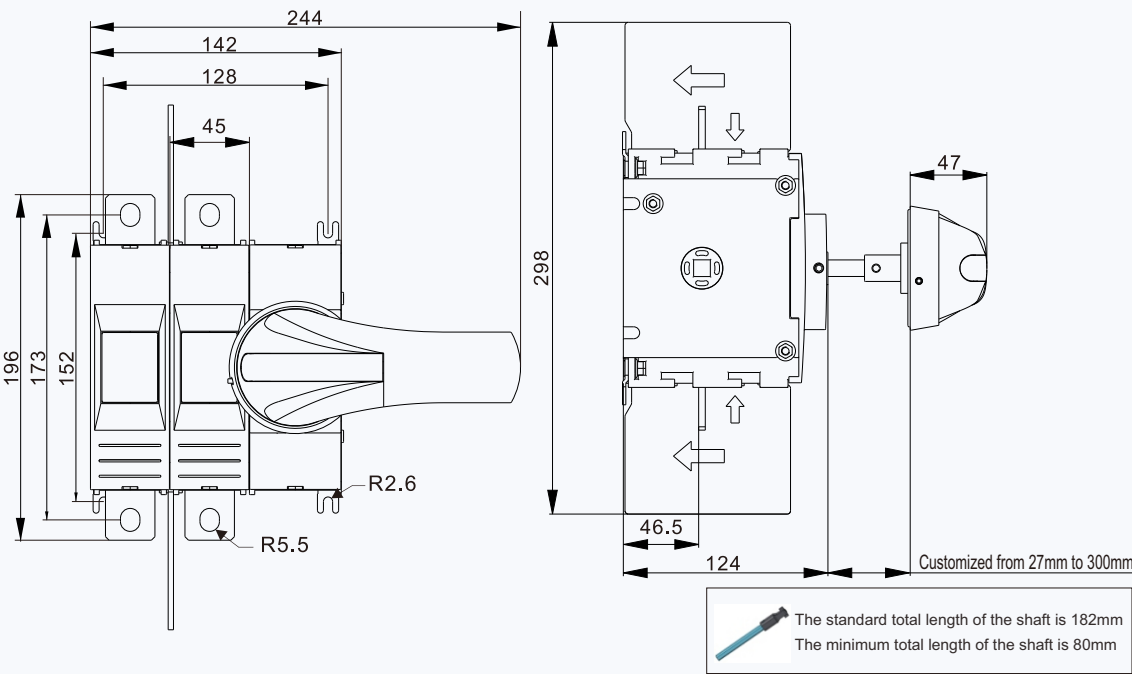


BH-400-2P-A

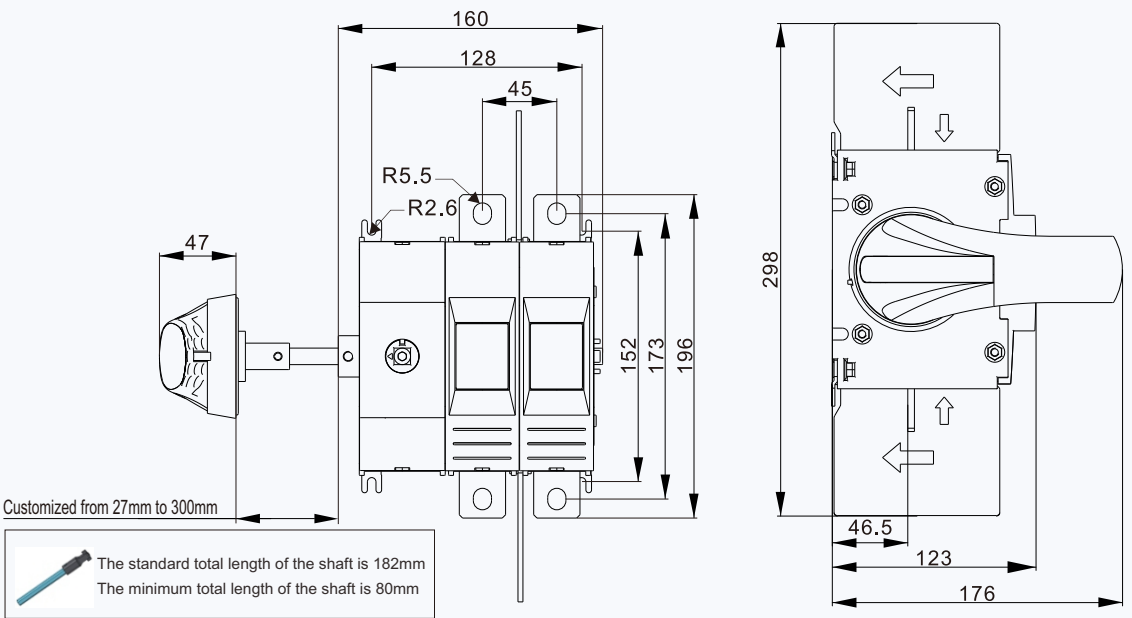


Dimension(mm)

BH-400-2P-B

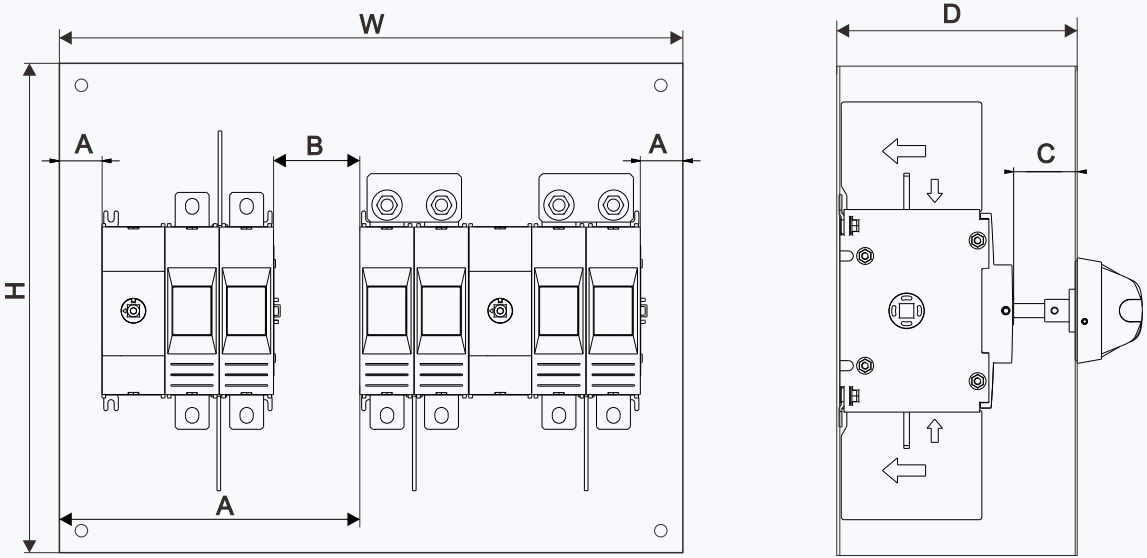


BH-400-2P-A1



Dimension(mm)

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

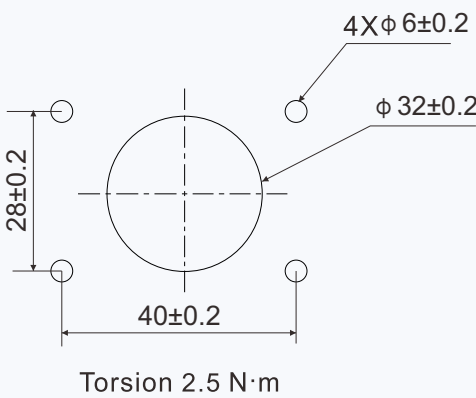


Minimum enclosure size	Size
H x W x D	400mm x 350mm x 180mm

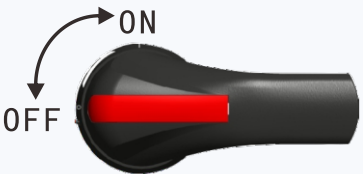
Clearance	Size
A min.	25.4mm
B min.	50.8mm
C min.	22mm

Handle installation for door clutch

Cut-out dimension



Front operating handle

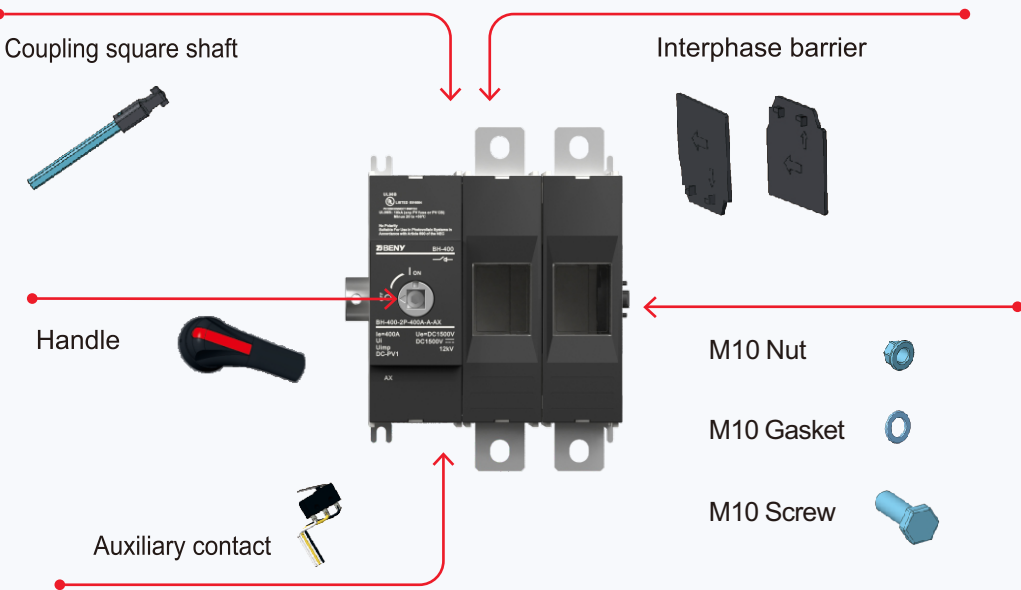


Side handle



Switches and accessories

Front and side operable products



Accessory

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	■ Specification
apolegamy	<input type="checkbox"/> Auxiliary contact
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Derating data

Derating Temperature						
Tem	-40°C ~ +60°C	+65°C	+70°C	+75°C	+80°C	+85°C
Type	Current					
BH-400	400A	400A	400A	400A	400A	375A

Derating Altitude				
Altitude	2000m	3000m	4000m	5000m
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Isolation voltage	1500VDC	1500VDC	1500VDC	1500VDC
Working current	400A	400A	400A	370A
Working voltage	N / A			

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