

#### BH-400 Series **PV DC Isolation Switch**









#### IEC/EN 60947-3 GB/T 14048.3

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

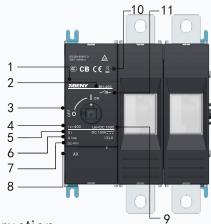


### **Application**

**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 -<br>↓ | 2P - | - 400A<br>↓      | - A .                | - AX ↓            |
|--------------------------|--------------|------|------------------|----------------------|-------------------|
| Model                    | Max Current  | Pole | Rated Current    | Assembling way       | Auxiliary contact |
| PV DC<br>Isolation Swite | 400A         | 2P   | □ 320A<br>□ 400A | □ Blank □ A □ B □ A1 | □ without         |

1000V / 1500V

#### **Parameter Electrical Characteristics**

Rated Working Voltage

| Rated Current le                              |      | 320A/4          | 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                      |      |                 |             |
| Utiizatin category DC                         |      | DC-P\           | V1          |
| Number of cycles of operation(With current    | :)   | 200             |             |
| Number of cycles of operation(Without curr    | ent) | 5000            |             |
| Pole  |      | 2               |             |
| Mounting                                      |      | Base Screws     | s 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                        |      | IDEE            |             |



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

# **Product Selection**

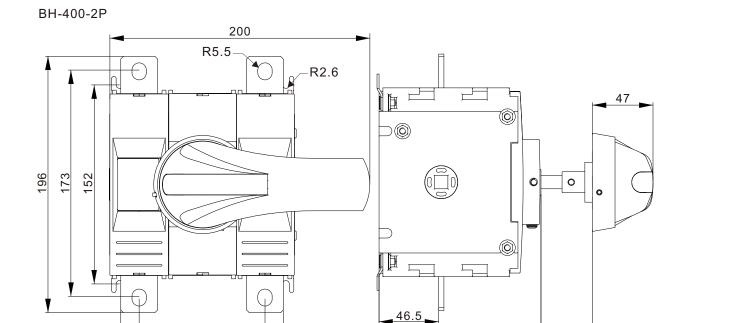
| Madal     | F         | ront Operati | The side operation |              |
|-----------|-----------|--------------|--------------------|--------------|
| Model     | BH-400-2P | BH-400-2P-A  | BH-400-2P-B        | BH-400-2P-A1 |
| BH-400-2P |           |              |                    |              |



Customized from 25mm to 300mm

The standard total length of the shaft is 182mm
The minimum total length of the shaft is 80mm

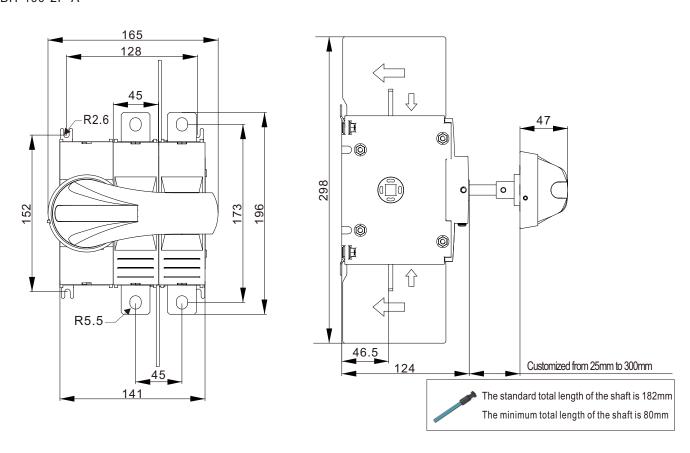
### Dimension (mm)



124

BH-400-2P-A

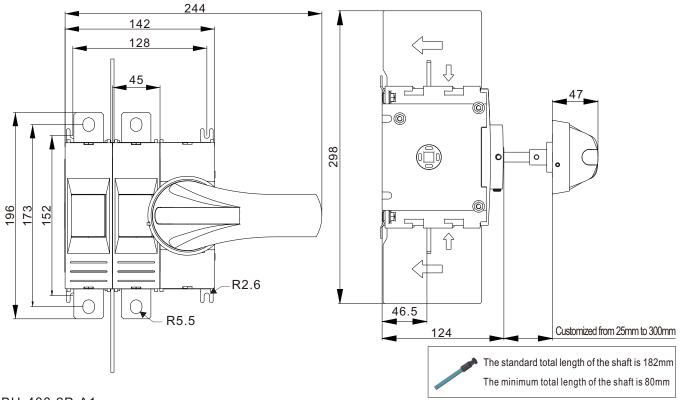
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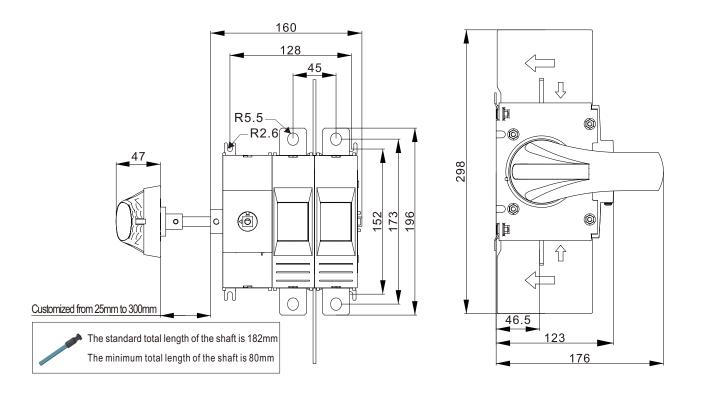


### Dimension (mm)

#### BH-400-2P-B

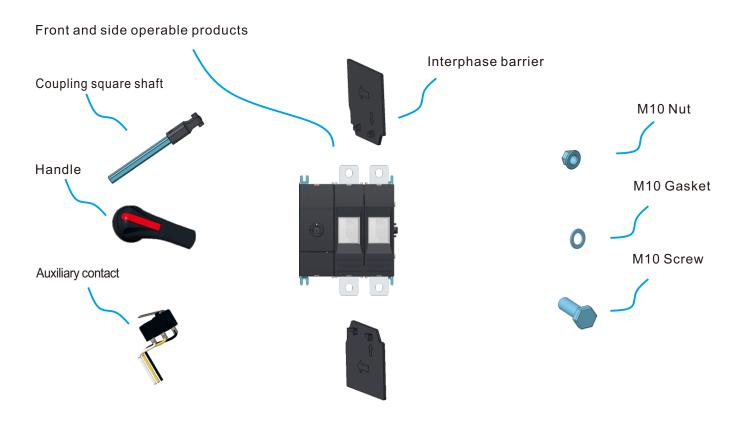


BH-400-2P-A1





## Switches and accessories



## Accessory

| Name                   | The attachment list                                  |  |  |
|------------------------|--|--|--|
|                        | Handle   |  |  |
|                        | Coupling square shaft (The standard length is 182mm) |  |  |
|                        | Interphase barrier                                   |  |  |
| standard configuration | M10 Binding kits                                     |  |  |
|                        | Specification  |  |  |
| apolegamy              | ☐ Auxiliary contact                                  |  |  |
| apologamy              | Coupling square shaft Custom length mm               |  |  |



# Derating data

## **Derating Temperature**

| Tem Type 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                              | 320A   | 400A   |
|--|--------|--------|
| The area of a wire or copper conductor mm² | 185mm² | 240mm² |

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