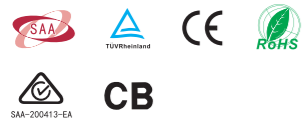


BH-250 Series
PV DC Isolation Switch



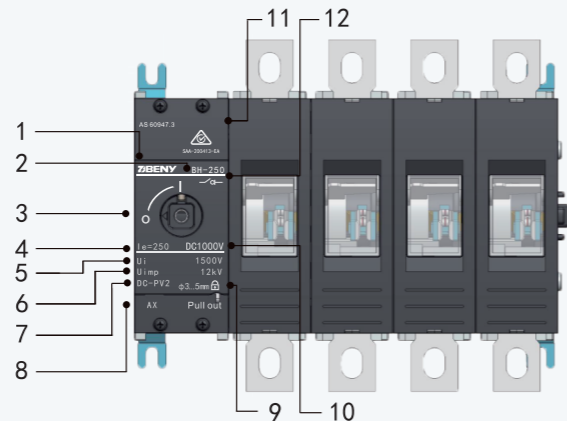
AS 60947.3 IEC 60947.3

- 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 Lockable Handle
- 10 Rated Voltage
- 11 Certificate Mark
- 12 Electrical Symbol

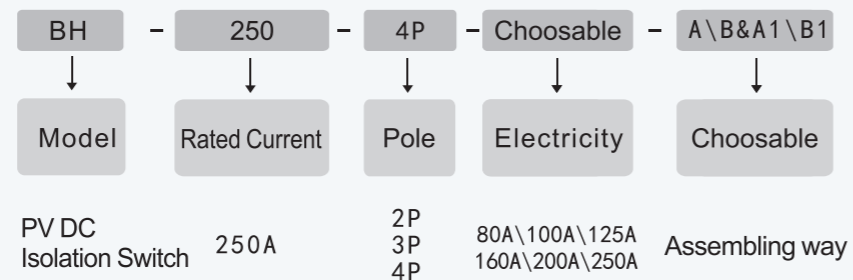
Application

ZBENY BH-250 series photovoltaic DC isolating switch is suitable for the solar PV systems circuit rated voltage DC 1500V and below, rated current 250A and below. The dc switch plays a role of isolating and breaking the solar DC circuits, provide safety to the solar.

Appearance Introduction

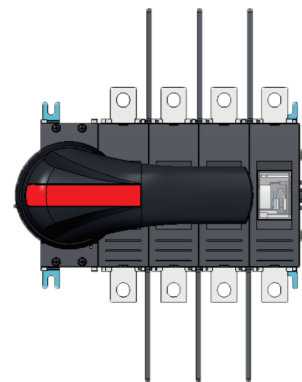


Type Instruction



Parameter

| Electrical Characteristics | | |
|--|---|--|
| Rated Working Voltage | U _e | 1000V \ 1500V |
| Rated Current | I _e | 250A |
| Rated impulse withstand voltage | U _{imp} | 12kV |
| Rated short-time withstand current (1s) | I _{cw} | 8kA |
| Rated short-circuit making capacity | I _{cm} | 10kA |
| Rated conditional short-circuit current(kA) | | 10kA |
| Installation Environment | | |
| Utilization category DC | | DC-PV2 |
| Number of cycles of operation(With current) | I _e ≤ 100A 300 ; 100A < I _e 200 | |
| Number of cycles of operation(Without current) | | 10000 |
| Pole | | 2\3\4 |
| Mounting | | Base Screws Mounting |
| Screws for mounting(M5) | | 2.0~3.0N.m |
| Wiring Screw(M8) | | acc.IEC 60947-1 10~15N.m |
| Ambient temperature allowed between | | -40°C ~ +80°C |
| Storage temperature allowed between | | -40°C ~ +85°C |
| Relative Humidity | | 90% |
| Pollution degree | | 3 |
| IP rating terminals | | IP20 |
| Outside the ark handle | | IP66 |
| Rated duty | | Unintermittent duty |
| UV resistance | | Yes (only with dedicated individual enclosure) |



Wiring Graph

| Identification | Rating data |
|--|---|
| Switch, unenclosed - catalogue number (with DC-PV2 rating) | BH-250 |
| Specific dedicated individual enclosure - catalogue number (with minimum IP56NW rating) | minimum size of PV inverter 600×400×200mm(IP66NW) |
| Assembly of switch and specific dedicated individual enclosure - catalogue number | / |
| I _{th} rated thermal current, unenclosed, at 40°C shade ambient air temperature | 250 amps |
| I _{the} rated thermal current, indoors, at 40°C shade ambient air temperature, in a specific dedicated enclosure | 250 amps |
| I _{the} rated thermal current <u>outdoors</u> at 40°C shade ambient air temperature <u>without solar effects in a specific dedicated enclosure</u> rated IP66NW | 250 amps |
| I _{the} solar current value outdoors at 60°C shade ambient air temperature with solar effects in aspecific dedicated enclosure rated IP66NW | 250 amps |

| | 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 | 250 | 1000 |
| | 600 | 250 | 1000 |
| | 1000 | 250 | 1000 |
| | 300 | 250 | 1000 |
| | 600 | 250 | 1000 |
| | 1000 | 250 | 1000 |
| | 1200 | 250 | 1000 |
| | 1500 | 250 | 1000 |
| | 300 | 250 | 1000 |
| | 600 | 250 | 1000 |
| | 1000 | 250 | 1000 |

Note: Where I_e is the other current parameters in the specification, I_c is the 4X I_e of the specified current.

Wiring Graph

| Model | Wiring Graph | Ue rated operational voltage DC Volts | | | | | Poles in series | Number of Strings |
|--|--|--|------|-------|-------|-------|-----------------|-------------------|
| | | 300V | 600V | 1000V | 1200V | 1500V | | |
| BH-250-2P  |  | 80A | 80A | 80A | \ | \ | 2 | 1 |
| | | 100A | 100A | 100A | \ | \ | | |
| | | 125A | 125A | 125A | \ | \ | | |
| | Example  | 160A | 160A | 160A | \ | \ | | |
| | | 200A | 200A | 200A | \ | \ | | |
| | | 250A | 250A | 250A | \ | \ | | |
| BH-250-4P  |  | 80A | 80A | 80A | \ | \ | 2 | 2 |
| | | 100A | 100A | 100A | \ | \ | | |
| | | 125A | 125A | 125A | \ | \ | | |
| | Example  | 160A | 160A | 160A | \ | \ | | |
| | | 200A | 200A | 200A | \ | \ | | |
| | | 250A | 250A | 250A | \ | \ | | |
| BH-250-3P  |  | 80A | 80A | 80A | 80A | 80A | 2 | 1 |
| | | 100A | 100A | 100A | 100A | 100A | | |
| | | 125A | 125A | 125A | 125A | 125A | | |
| | Example  | 160A | 160A | 160A | 160A | 160A | | |
| | | 200A | 200A | 200A | 200A | 200A | | |
| | | 250A | 250A | 250A | 250A | 250A | | |

Product Selection

| Model | Front Operation | | | The side operation | |
|-----------|-----------------|---|---|--------------------|----|
| | \ | A | B | A1 | B1 |
| BH-250-2P | | | | | |
| BH-250-3P | | | | | |
| BH-250-4P | | | | | |

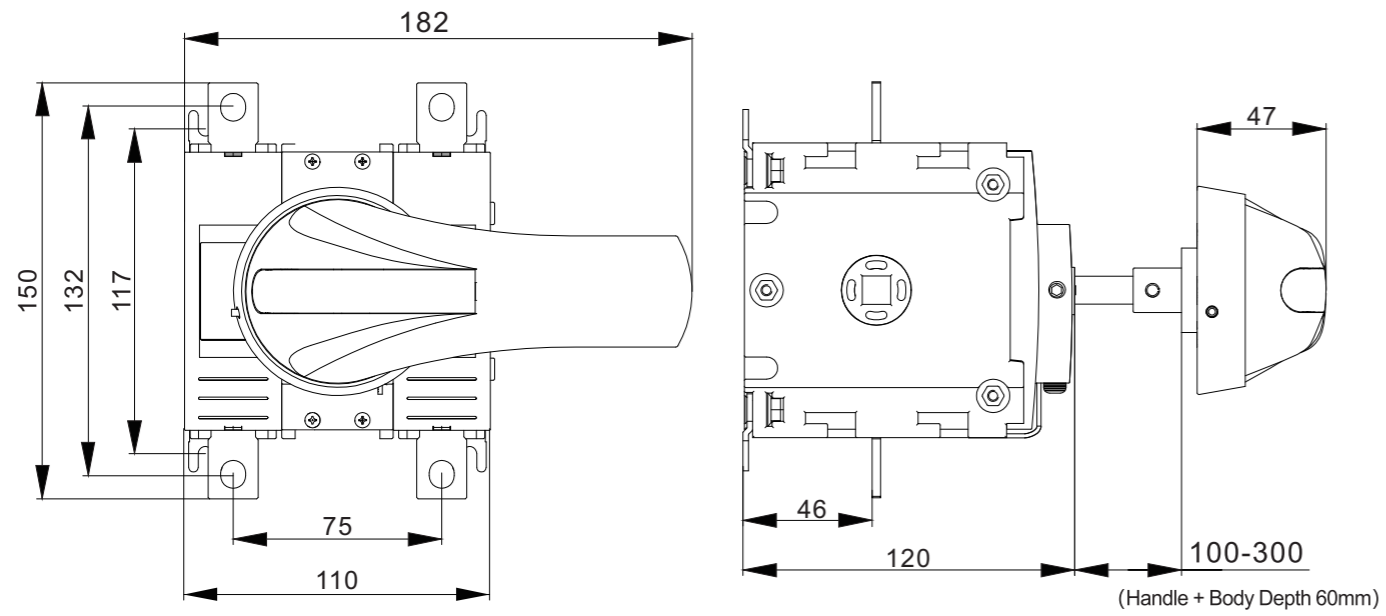
Installation and use

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

| Rated current (A) | 80A | 100A | 125A | 160A | 200A | 250A |
|--|-------------------|-------------------|-------------------|-------------------|-------------------|--------------------|
| The area of a wire or copper conductor mm ² | 25mm ² | 35mm ² | 50mm ² | 70mm ² | 95mm ² | 120mm ² |

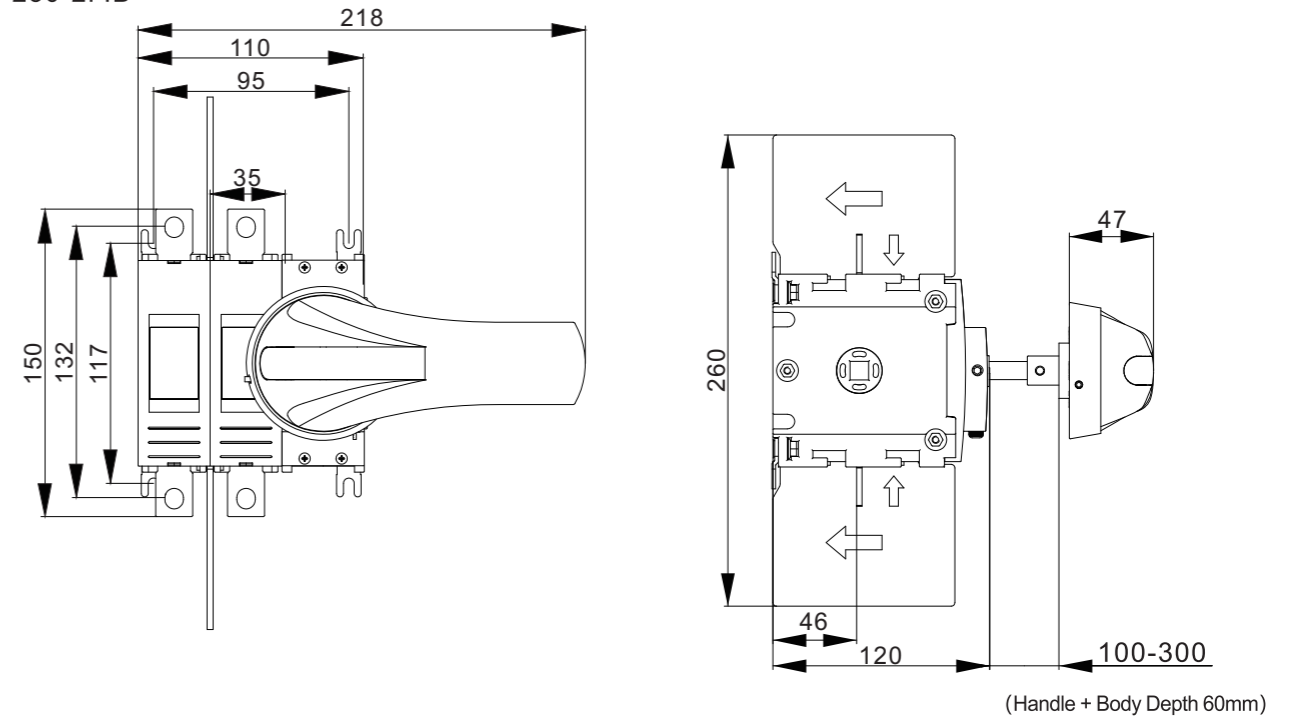
Dimension (mm)

BH-250-2P

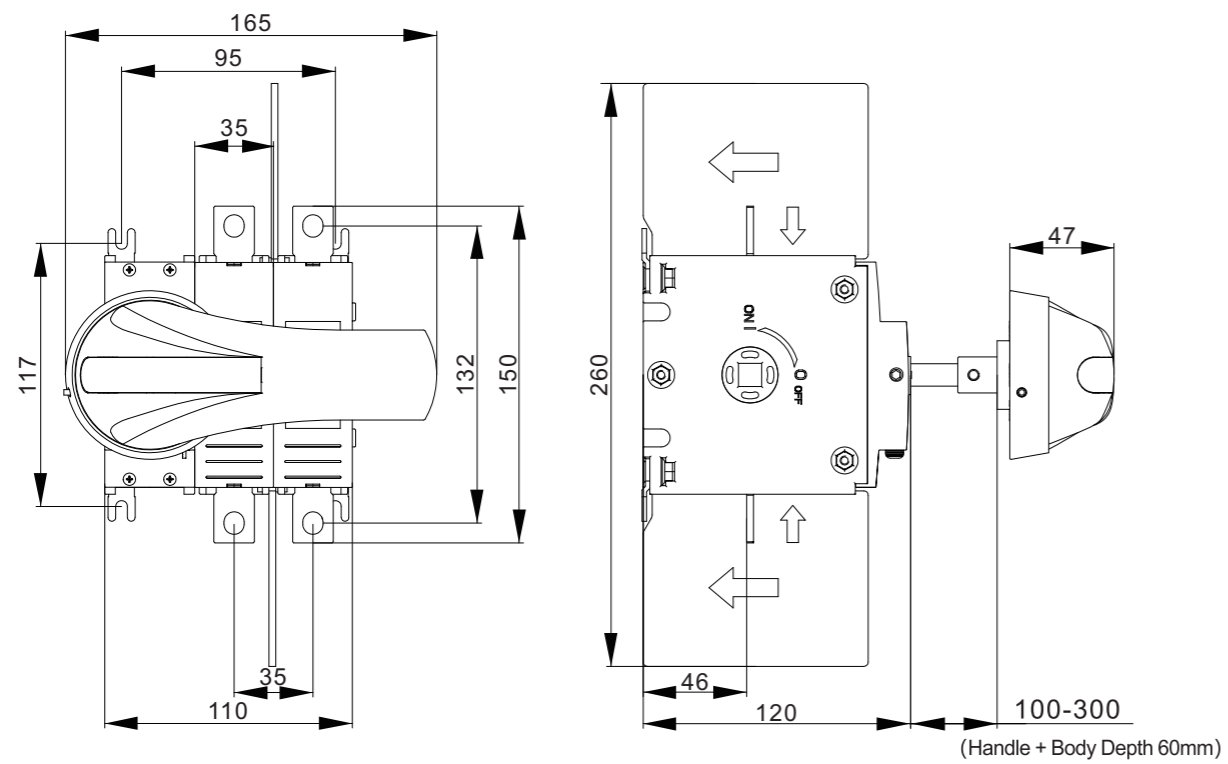


Dimension (mm)

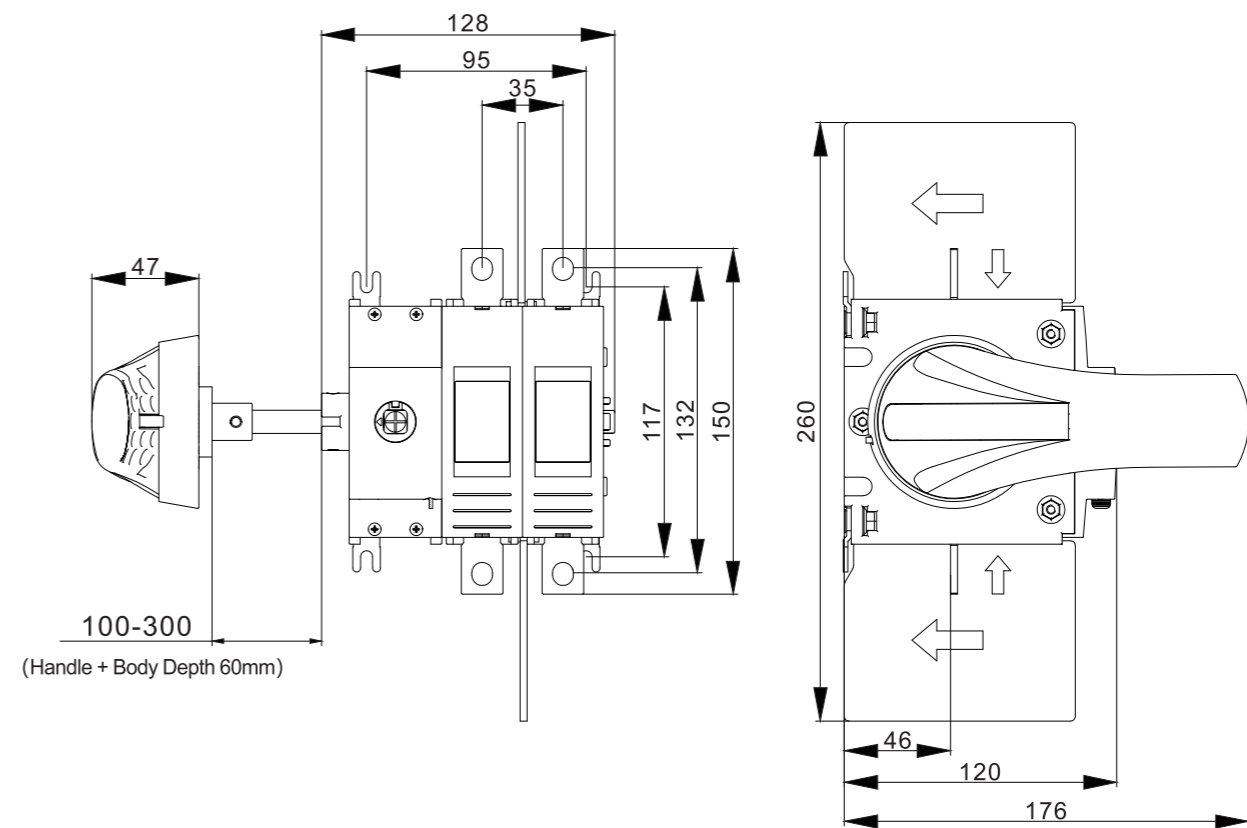
BH-250-2P.B



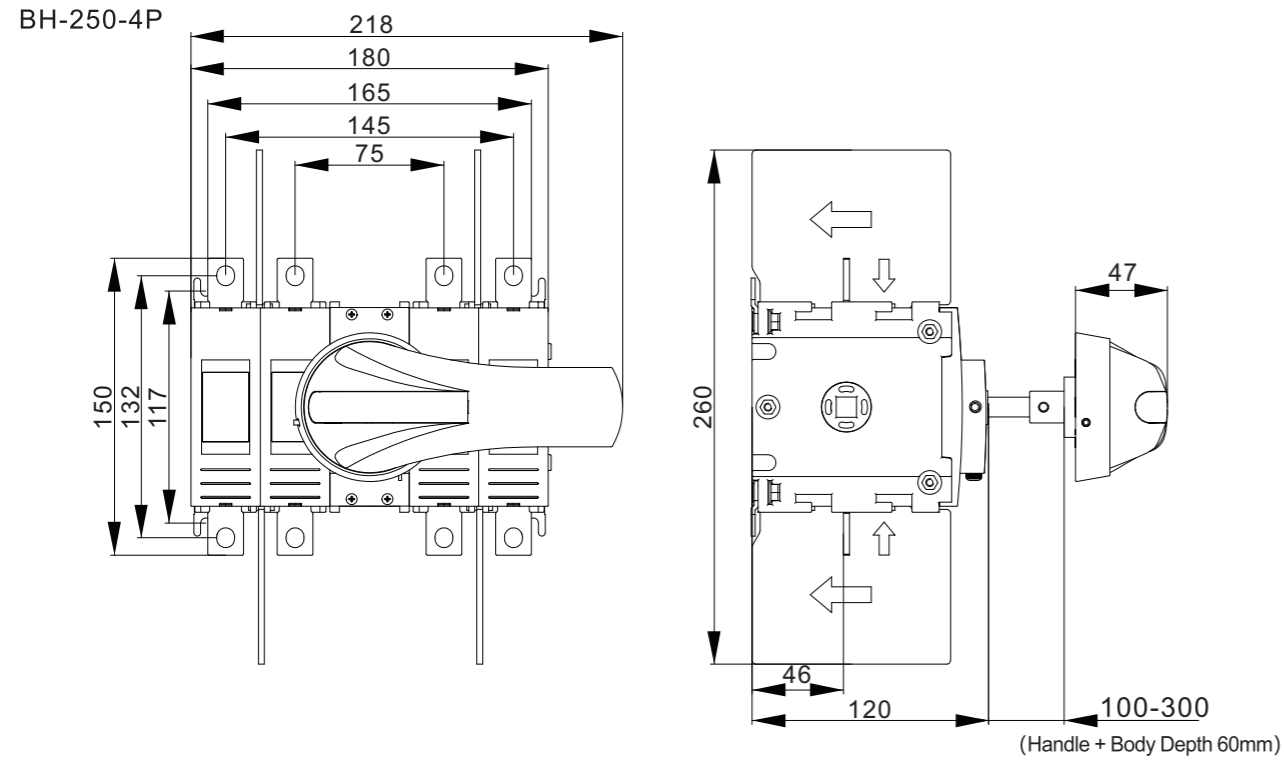
BH-250-2P.A



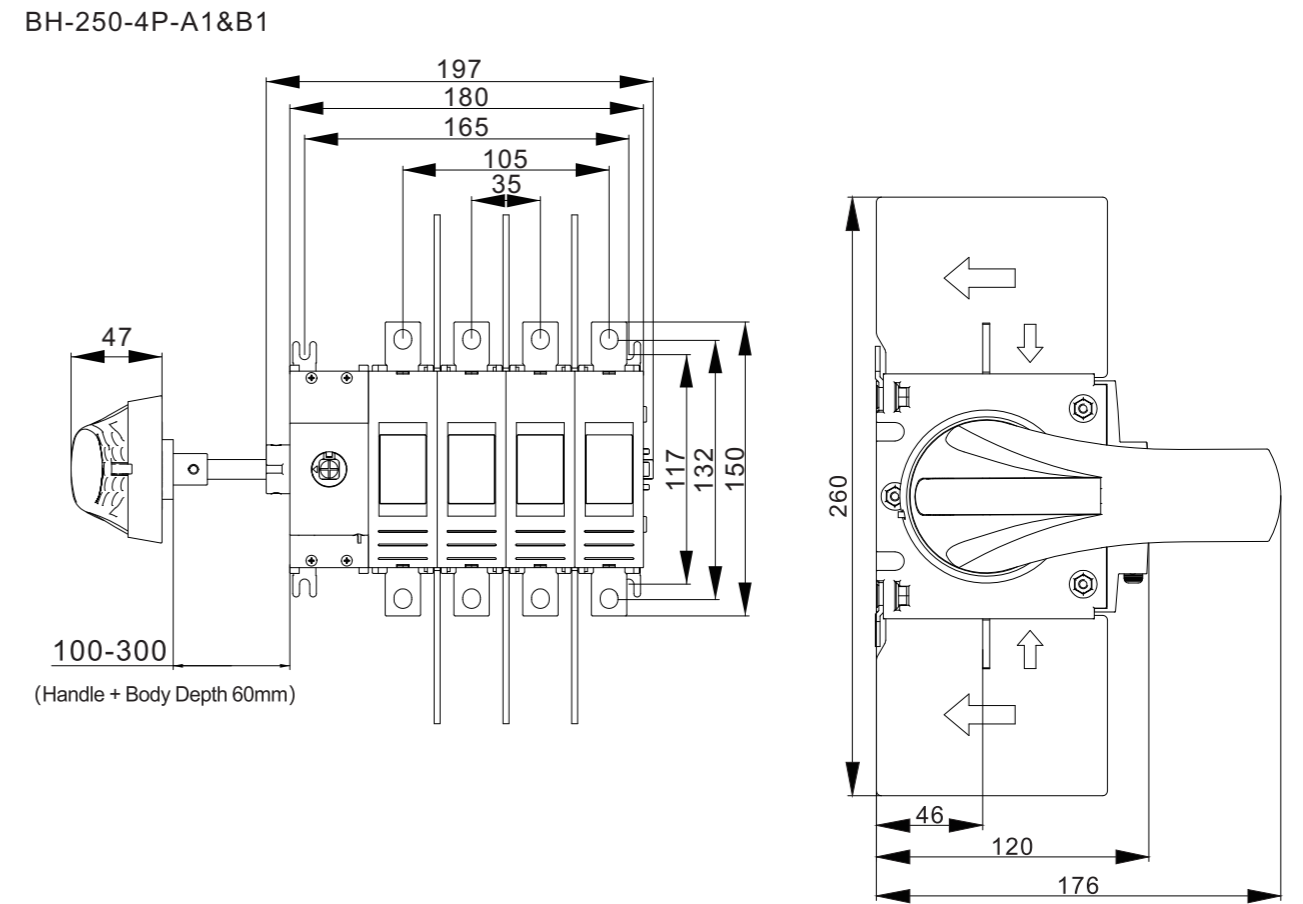
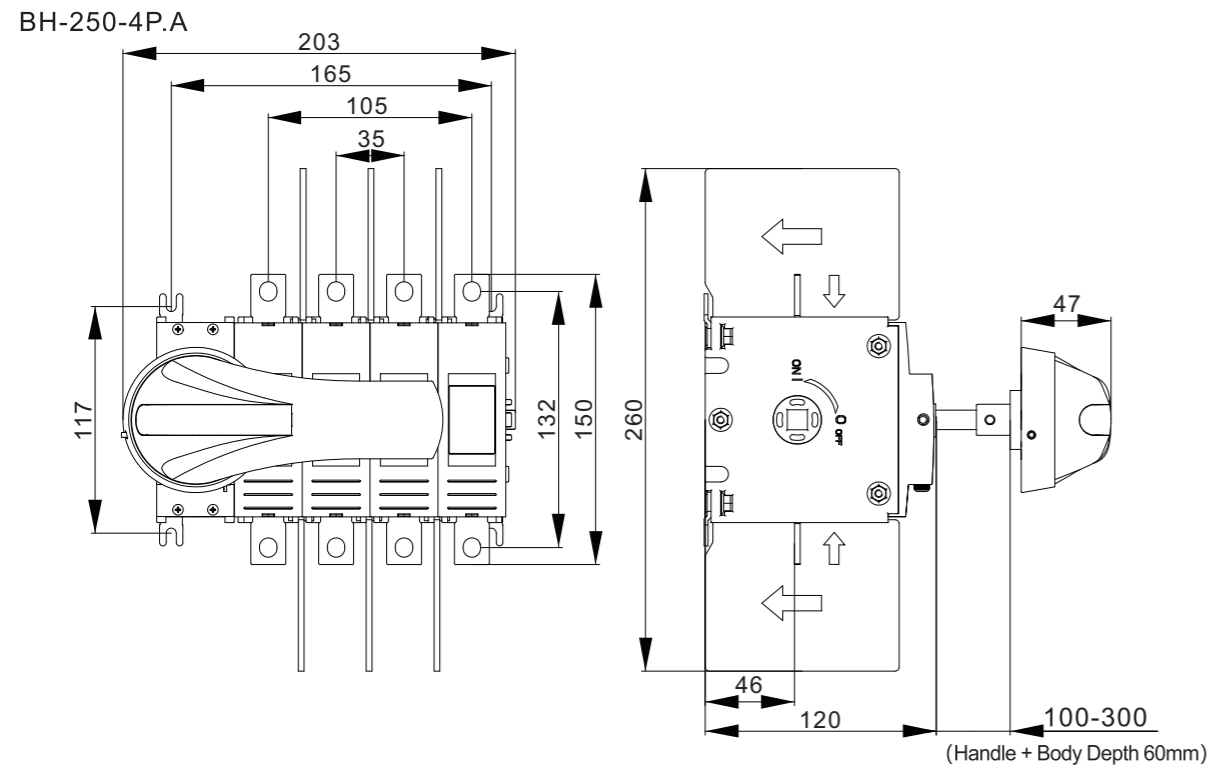
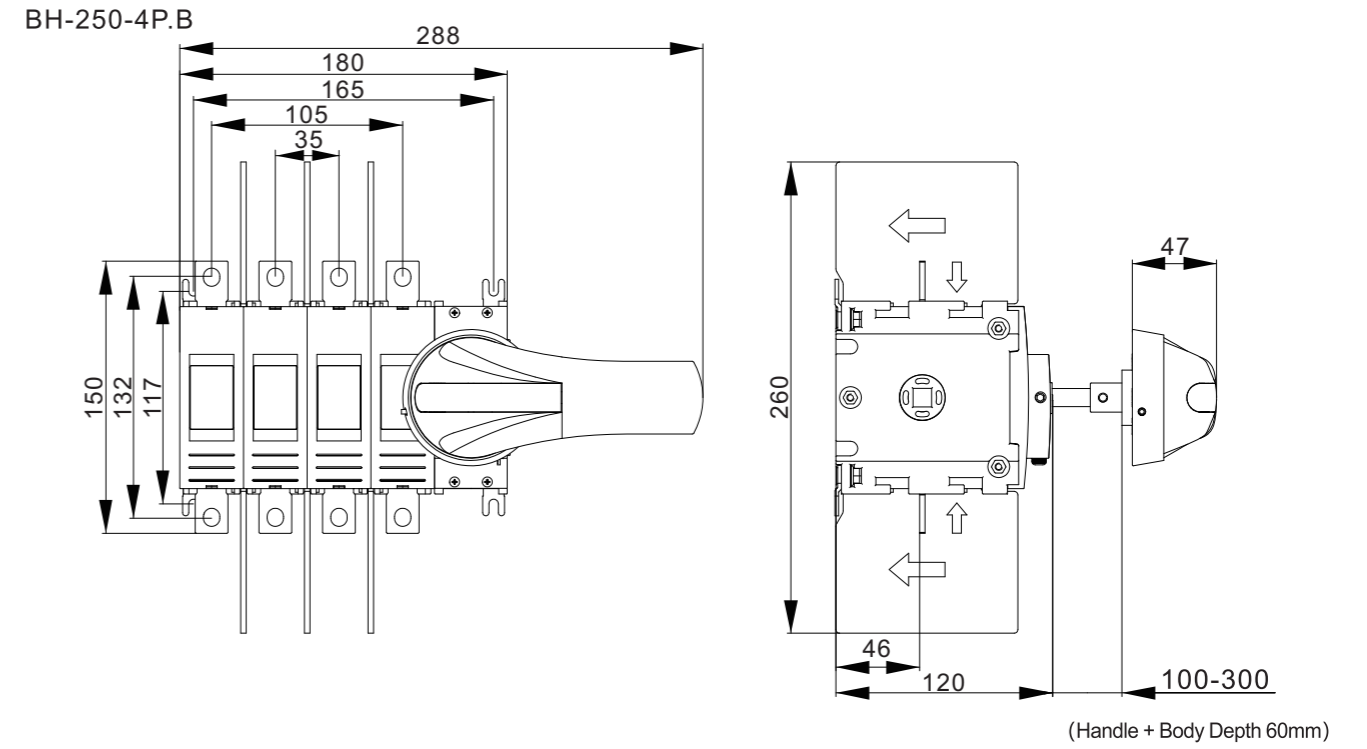
BH-250-2P-A1&B1



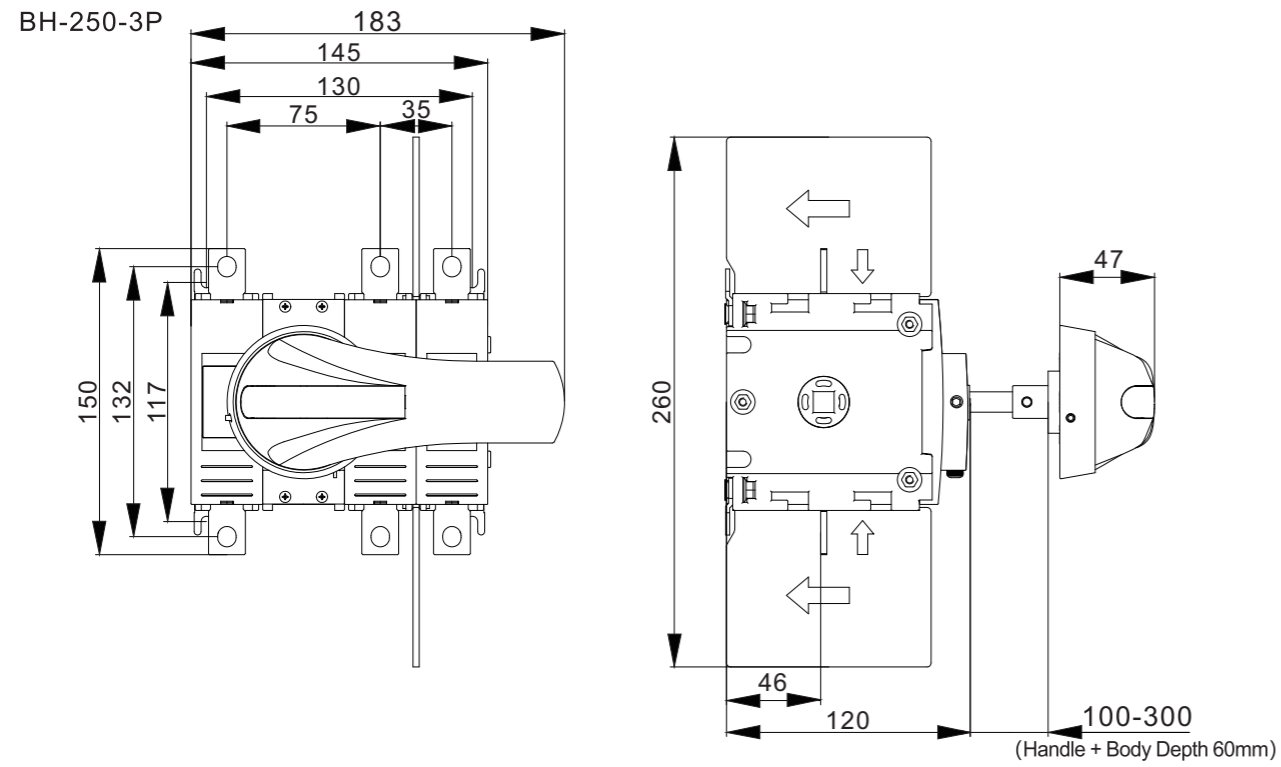
Dimension (mm)



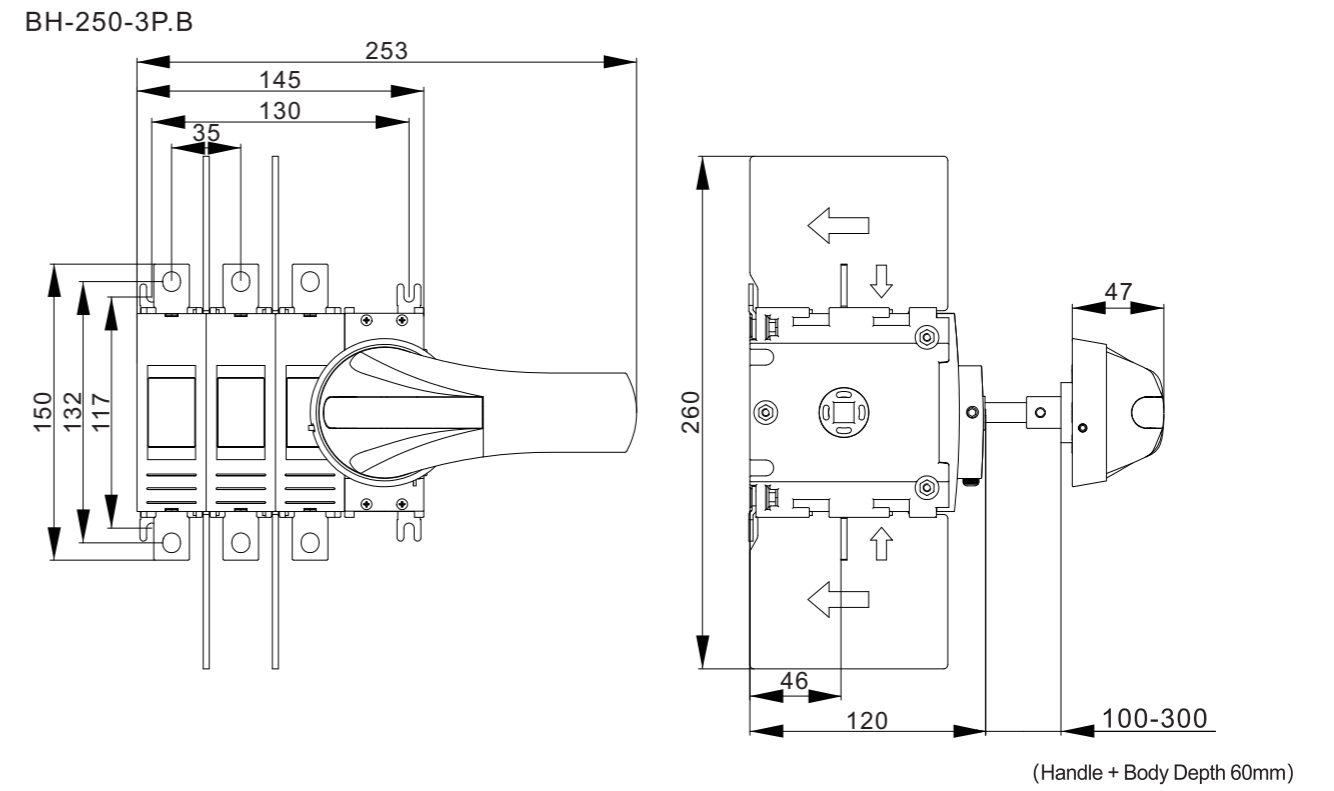
Dimension (mm)



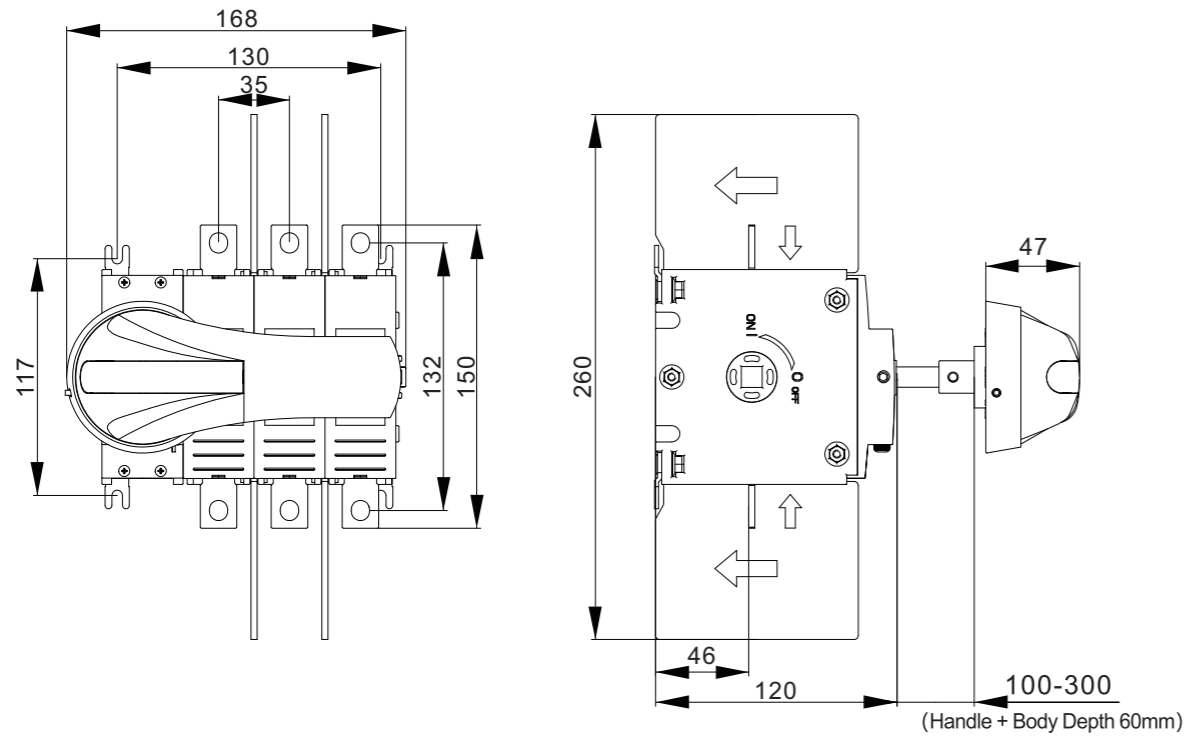
Dimension (mm)



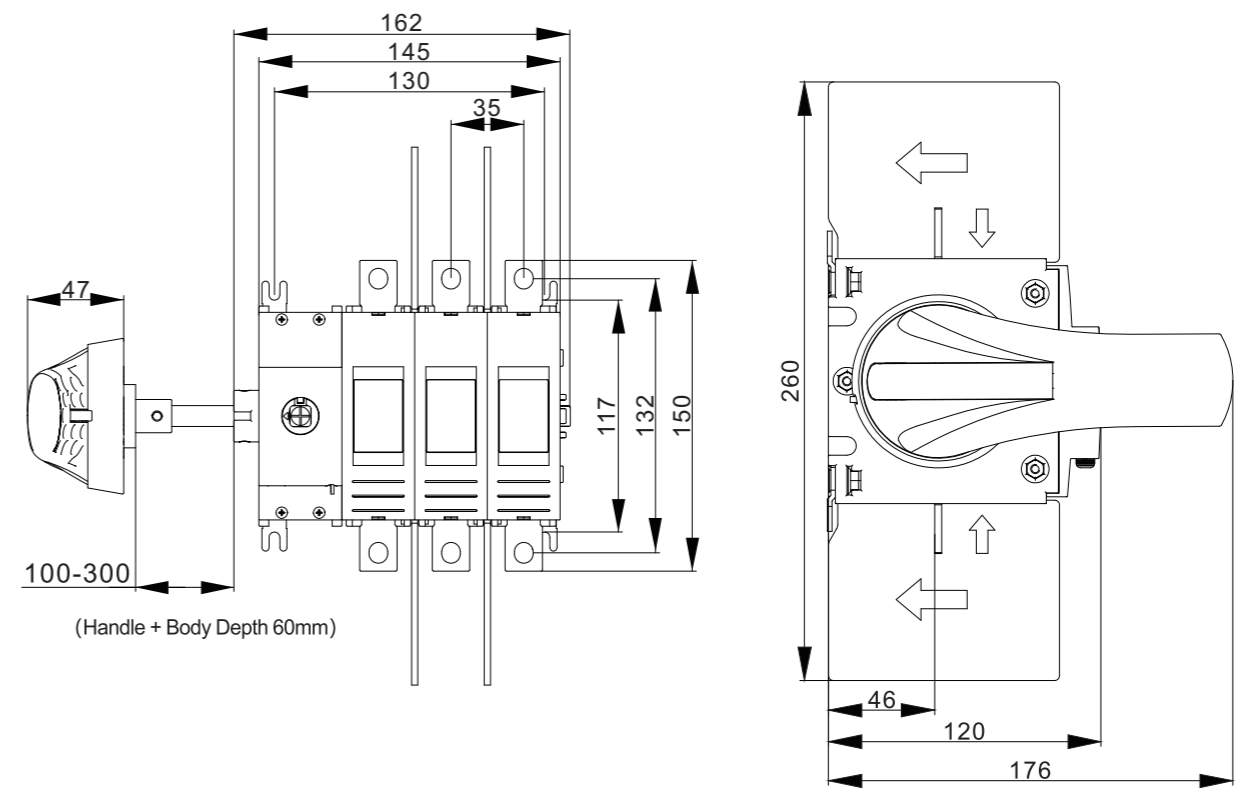
Dimension (mm)



BH-250-3P.A



BH-250-3P-A1&B1



Derating data



Derating Temperature

| Type | Current | Tem | | | | | |
|--------|---------|---------------|--------|-------|-------|-------|-------|
| | | -40°C ~ +55°C | +60°C | +65°C | +70°C | +75°C | +80°C |
| BH-250 | 250A | 245A | 237.5A | 230A | 225A | 220A | |

Derating Altitude

| Altitude | 2000m | 3000m | 4000m | 5000m |
|-----------------------------------|---------|--|---------|---------|
| Power frequency withstand voltage | 3820VDC | 3820VDC | 3820VDC | 3820VDC |
| Isolation voltage | 1500VDC | 1500VDC </td <td>1500VDC</td> <td>1500VDC</td> | 1500VDC | 1500VDC |
| Working current | 250A | 250A | 237.5A | 230A |
| Working voltage | N/A | | | |

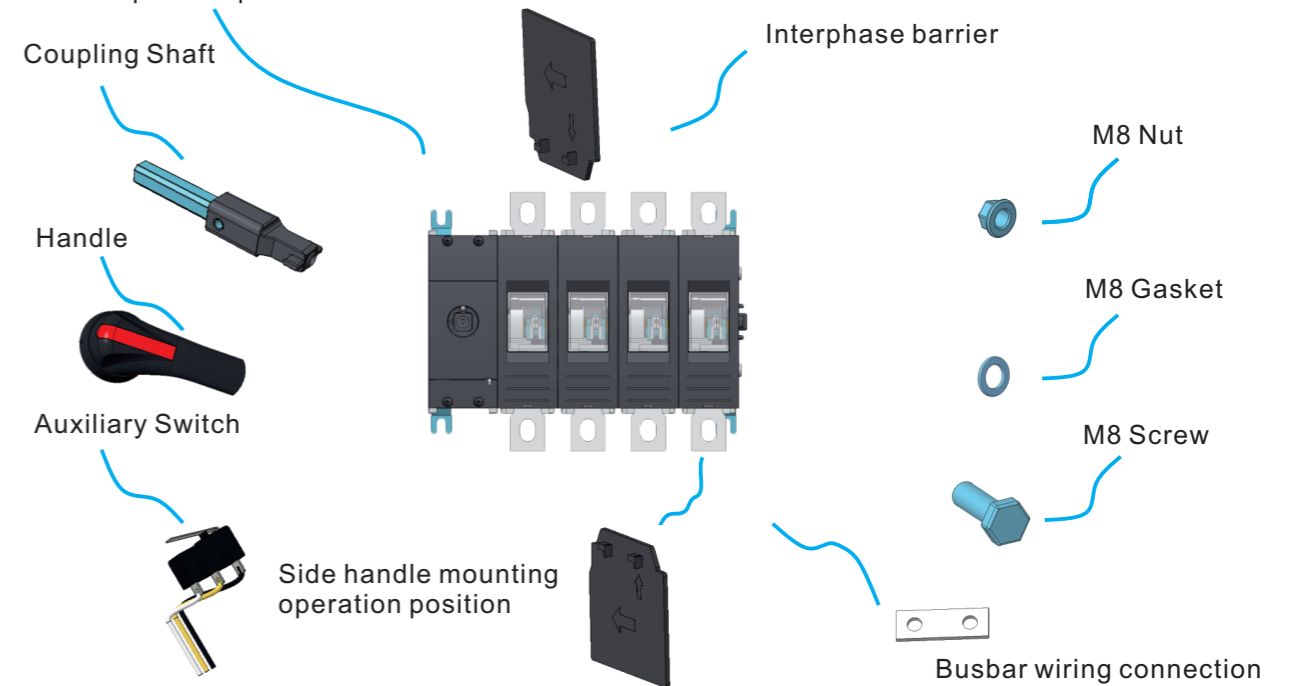
Terminals/connection

| | | |
|--|---|---|
| Type | BH-250 | |
| Number of poles | 2-pole;3-pole;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 | 25-120mm ² | |
| Type of onductor |  | 25-120mm ² (Ringd:Solid or Stranded) |
| |  | 25-120mm ² (Flexible) |
| Number of conductors per terminal | 1 | |
| Required preparation of the conductor | Yes | |
| Stripping length (mm), main circuit | 25mm | |
| Tightening torque (M8), main circuit | Min: 10N.m | |
| | Max: 15N.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.

Switches and accessories

Front and side operable products



Accessory

| Name | The attachment list |
|------------------------|---|
| standard configuration | <input checked="" type="checkbox"/> Handle |
| | <input checked="" type="checkbox"/> The connecting square shaft is 150mm long |
| | <input checked="" type="checkbox"/> Arc Barrier |
| | <input checked="" type="checkbox"/> Binding Screw |
| | <input checked="" type="checkbox"/> Specification |
| apolegamy | <input type="checkbox"/> Auxiliary contacts-see item |
| | square shaft <input type="checkbox"/> 200mm <input type="checkbox"/> 300mm |

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