

BD Series PV DC Moulded Case Circuit Breaker



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- High Short-Circuit/Breaking Capacity
- Protection Functions: Overload, Short circuit, Unfrequent Operation
- Rated Voltage up to 1000V DC
- Rated Current 125A,250A
- IEC60947-2, GB14048-2
- Easy Installation

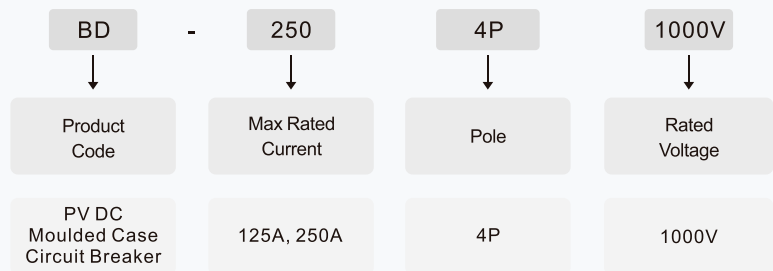
Application

ZBENY BD series PV DC Moulded Case Circuit Breaker (MCCB) are mainly used in large solar power system, which are applied for solar DC combiner box, inverter and DC power distribution cabinet. Rated voltage up to 1000V DC, current up to 250A, with the function of overload protection and short-circuit protection.

Appearance Introduction



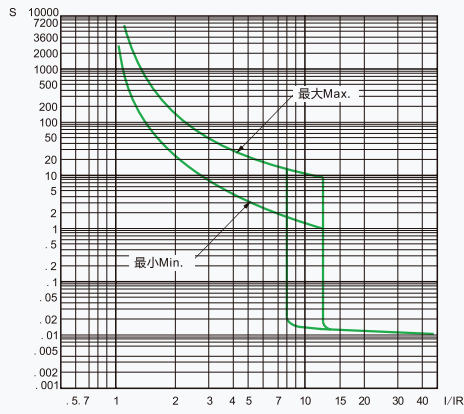
Type Instruction



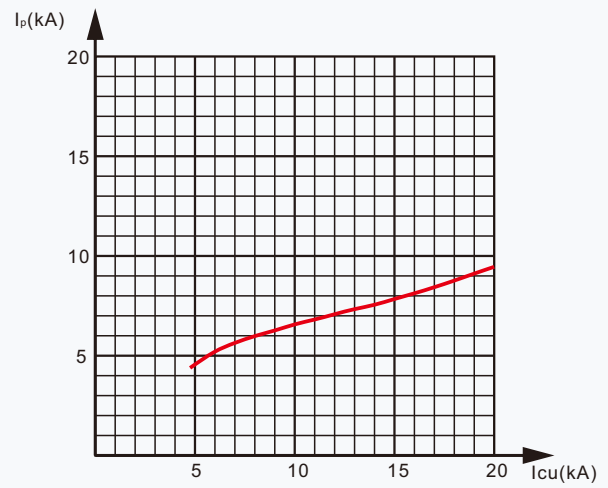
Parameter

| BD series PV DC MCCB | | | | | | |
|---|--|------------------|--|----------|---------|---------|
| Type | BD-125 | | BD-250 | | | |
| Pole | 4P | | 4P | | | |
| Max Rated Current | 125A | | 250A | | | |
| Electrical Characteristics | | | | | | |
| Rated Working Voltage | U _e | 1000V DC | | 1000V DC | | |
| Rated Current | I _n (A) | 63/80 100/125 | 125 | 160 | 200 | 250 |
| Rated Insulated Voltage | U _i | 1000V DC | | | | |
| Rated Impulsed Voltage | U _{imp} | 8KV | | | | |
| 1 Min Power Frequency Withstand Voltage | | 3.8 KV | 3.8 KV | | | |
| Ultimate Breaking Capacity | I _{cu} | 20 KA | 20 KA | | | |
| Run Breaking Capacity | I _{cs} | 15 KA | 15 KA | | | |
| 4D Wiring Resistance | | | 0.025mΩ | 0.020mΩ | 0.015mΩ | 0.011mΩ |
| 4D Power loss | I ² R(W) | | 0.39 | 0.51 | 0.6 | 0.69 |
| Protection | | | | | | |
| Tripping Type | Thermal Magnetic Type | | | | | |
| 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 | 14000 | | 14000 | | | |
| 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 | IEC60947-2/GB14048.2 | | | | | |
| Storage Temperature | -40°C~+85°C | | | | | |
| Wire size (min.-max.) | 16mm ² - 50mm ² | | 50mm ² - 120mm ² | | | |

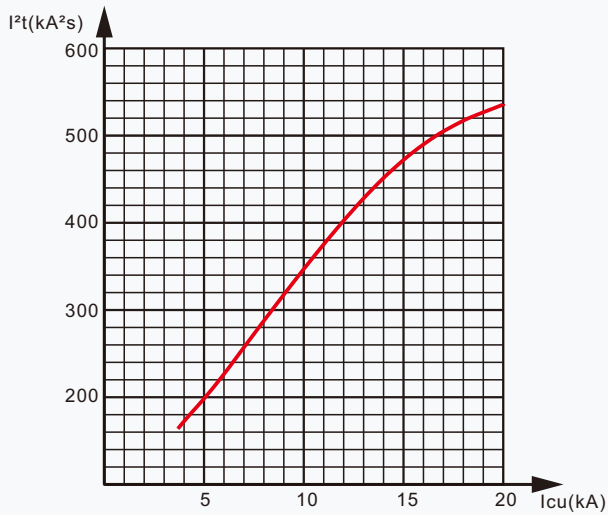
Characteristic Curve



Peak limit current curve



Thermal Stress



Test Data

BD-250/4P Ue=1000V In=250A T=10ms

| Icu | 5kA | 10kA | 15kA | 20kA |
|-----|---------|---------|---------|---------|
| Ip | 4.5kA | 6.5kA | 7.8kA | 8.5kA |
| I²t | 195kA²s | 352kA²s | 472kA²s | 544kA²s |

| Type | BD-125 | BD-250 |
|------|--------|--------|
|------|--------|--------|

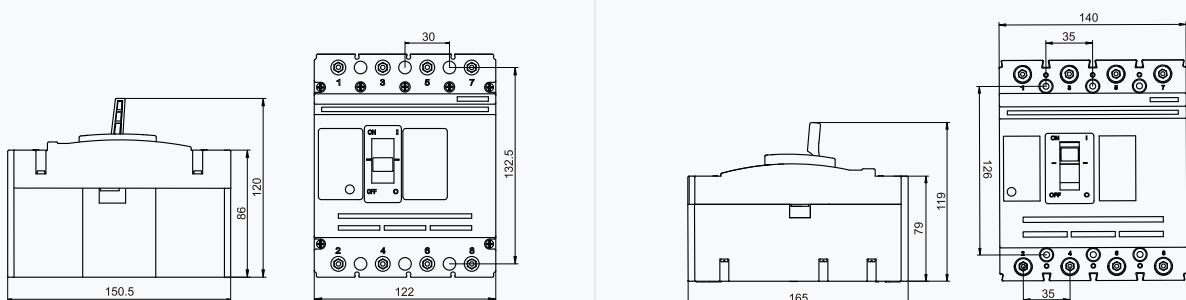
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| Type Code | 4A | 4B | 4C | 4D | 4S |
|-----------|----|----|----|----|----|
|-----------|----|----|----|----|----|

| Contacts Wiring graph | | | | | |
|-----------------------|--|--|--|--|--|
|-----------------------|--|--|--|--|--|

Dimensions(mm)

| 125A | 250A |
|------|------|
|------|------|



Type Instruction

CDM3-250



Auxiliary contact

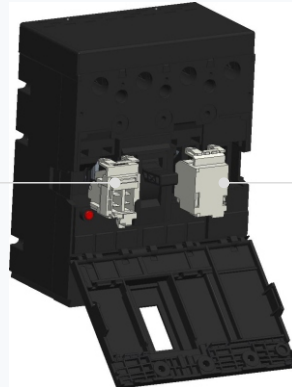
CM3-250



Shunt trip releases

Auxiliary Contact

Shunt Release



- Auxiliary contacts synchronous with main contacts of device
- Auxiliary Contacts is mounted on the left
- According to IEC/EN 62019

- Shunt Release for installation devices BD-250
- Shunt Release is mounted on the right
- According to IEC/EN 62019

Auxiliary contact unit

Electrical parameters

| | CDM3-250 | |
|---|-------------------|-----------------|
| Contacts | 1 changeover (CO) | |
| Contact function | auxiliary | |
| Tested according to | IEC/EN 62019 | |
| Rated op. voltage | 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} | 10 mA | |
| Min. op. voltage per contact U _{min} | 11V DC | |
| Rated frequency | 50/60 Hz | |

Shunt trip releases

Electrical parameters

| | CM3-250 | |
|---------------------|---------------------|--------------------------------------|
| Contacts | 1 changeover (CO) | |
| Contact function | Shunt trip releases | |
| Tested according to | IEC/EN 62019 | |
| Rated op. voltage | AC | Ie=2A Ue=220/415V Ie=2A Ue=24/48V |
| | DC | Ie=2A Ue=24/48V |
| Min. op. voltage | 8.4 V | |
| Min. op. current | 1A | |
| Max. op. voltage | 26.4 V | |
| Max. op. current | 2A | |
| Rated frequency | 50/60 Hz | |

Dimensions(mm)

