

# BB1-63

## PV Miniature Circuit Breakers



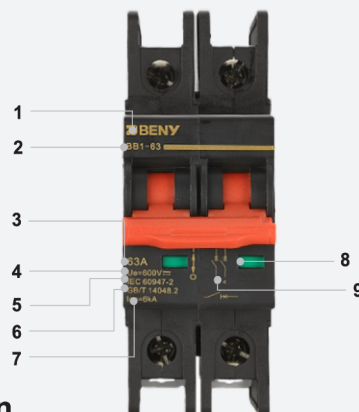
- 1 Brand
- 2 Type
- 3 Rated Current
- 4 Rated Voltage
- 5 Ultimate Breaking Capacity
- 6 Certificate Symbol
- 7 Standard Code
- 8 Indicator
- 9 Wiring Diagram

- Nonpolarity
- High Short-Circuit / Breaking Capacity
- Functions: Overload, Short Circuit, Unfrequent Operation and, Anti-reflux Protection
- Rated Voltage: 1200V, Ultimate
- Breaking Capacity : 6kA
- Rated Current: 63A
- Comply with : IEC 60947-2/GB/T 14048.2

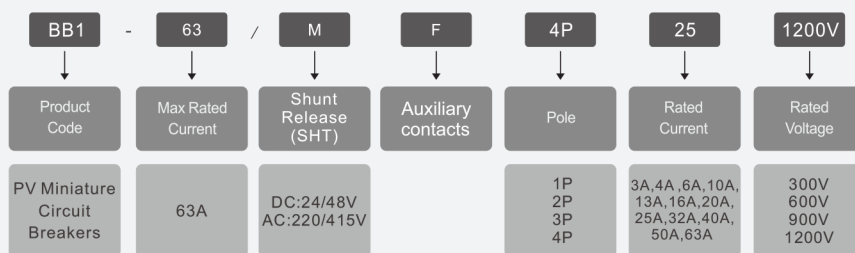
### Application

**ZIBENY** BB1 Series PV Mini Circuit Breakers are mainly applied to DC solar combiner box ,Controller etc. The main function include overload protection ,Anti-reflux protection and short-circuit protection. Scientific design of arc-extinguishing system keep solar system more safe. Max Voltage up to 1200V DC, current up to 63A.

### Appearance Introduction







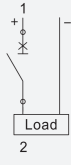
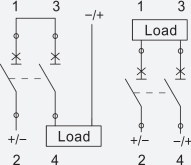
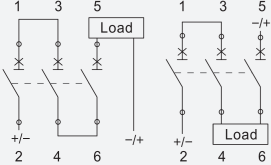
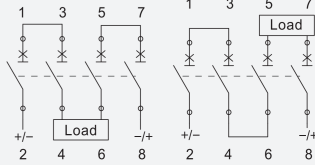
### Type Instruction



### Parameter

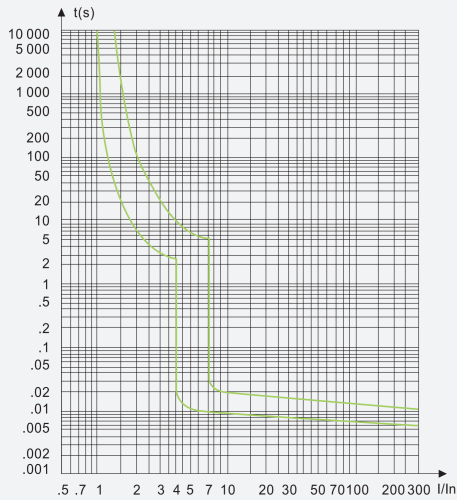
Electrical Characteristics		
Type	BB1-63	
Comply with	IEC 60947-2/GB/T 14048.2	
Pole	1P      2P      3P      4P	
Rated Working Voltage Ue	300V DC    600V DC    900V DC    1200V DC	
Max Rated Current	63A	
Rated Current In	3A, 4A, 6A, 10A, 13A, 16A, 20A, 25A, 32A, 40A, 50A, 63A	
Rated Insulated Voltage Ui	1200V DC	
Rated Impulsed Voltage Uimp	6kV	
Ultimate Breaking Capacity Icu	6kA	
Run Breaking Capacity Ics	6kA	
Tripping Type	Thermal Magnetic Type	
Service Life/cycle Operation		
Mechanical	Actual Value	20000
	Standard Value	8500
Electrical	Actual Value	1000
	Standard Value	300
Installation Environment		
Ingress Protection	All Sides IP40 ,Connection Terminal IP20	
Terminal Cross Section	2.5-25mm <sup>2</sup>	
Working Temperature	-25°C ~ +70°C	
Storage Temperature	-40°C ~ +85°C	
Resistance to Humidity And Heat	II (when temperature arrived to 55°C, Relative Humidity95%)	
Resistance to Shock	2.6 IEC60068	
Resistance to Impack	2.27 IEC60068	

## Wiring Method

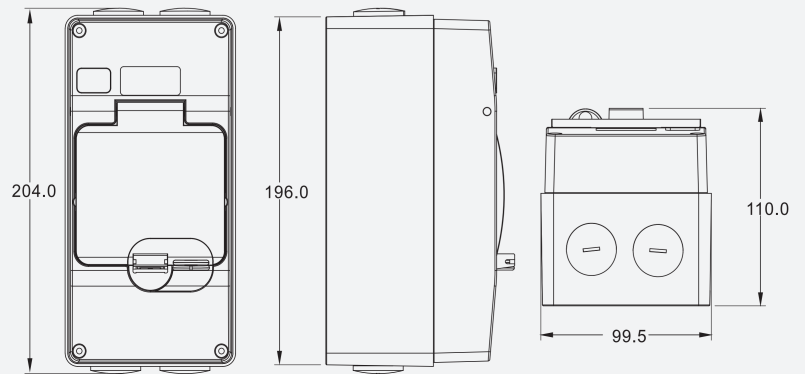
Pole	1P	2P	3P	4P
Type				
Contacts Wiring graph				

## Characteristic Curve

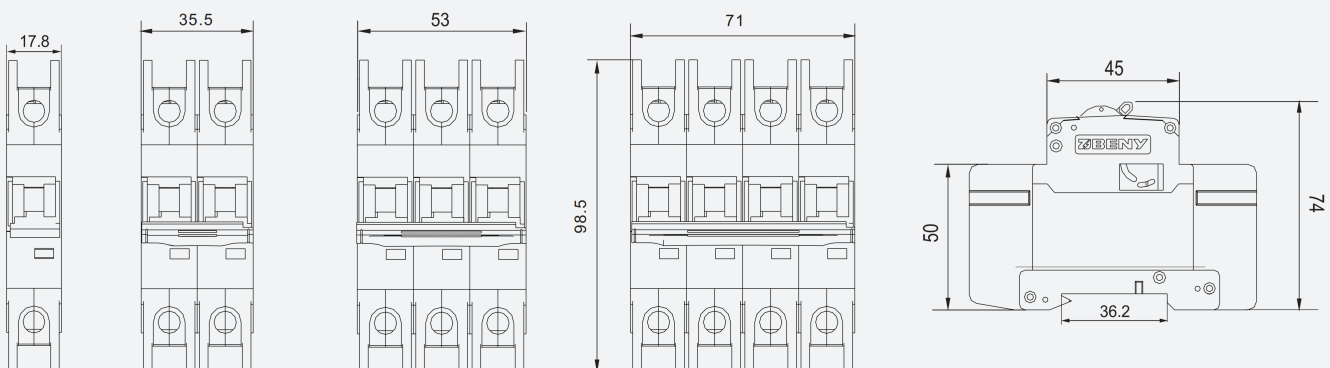
B curve : (4.4-6.6) In



## Dimensions(mm)



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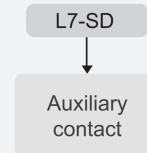


# Auxiliary contact for BB1-63

Auxiliary contact unit must be mounted from the left to the device or to the release unit(s) when installed. Contact units are equipped with changeover (CO) combination(s) of contacts.

## Type Instruction

- **Auxiliary contacts synchronous with main contacts of device**
- **According to IEC/EN 62019**



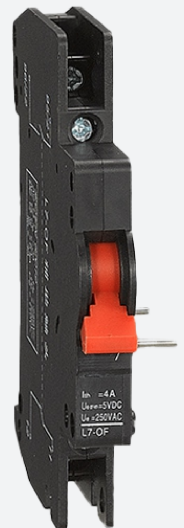
### Auxiliary contact unit

### Electrical parameters

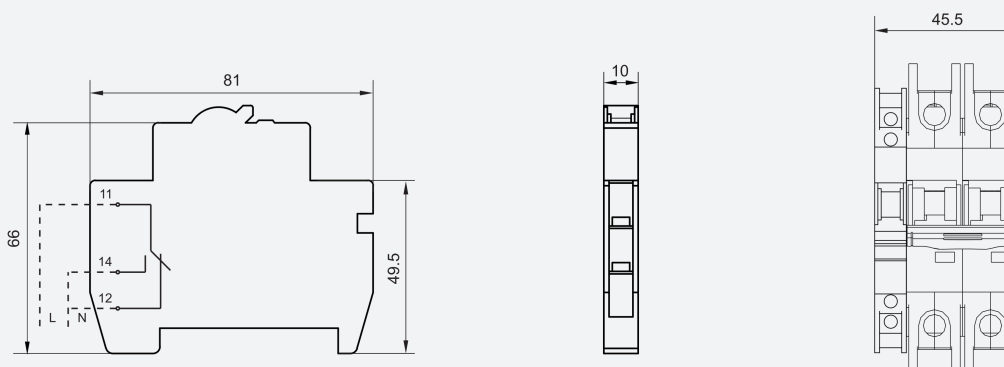
		L7-SD
Contacts		1 changeover (CO)
Contact function		auxiliary
Tested according to		IEC/EN 62019
Rated op. voltage	AC 13	le=3A Ue=250V
	AC 15	le=2A Ue=250V
	DC 12	le=0.5A Ue=110V
Min. op. current per contact $I_{min}$		10 mA
Min. op. voltage per contact $U_{min}$		11V DC
Rated frequency		50/60 Hz

### Mechanical parameters

Mounting	easy fastening onto 35 mm device rail
Degree of protection	(DIN) IP20
Terminals	lift
Terminal capacity	$\leq 1\text{mm}^2$
Fastening torque of terminals	0.8 — 1 Nm
Working temperature	- 35 ~ + 70 °C



## Dimensions(mm) (With Auxiliary Release)



# Shunt Release for BB1-63

- Shunt Release for installation devices BB1-63
- Shunt trip releases
- According to IEC/EN 62019

## Type Instruction



### Shunt trip releases

### Electrical parameters

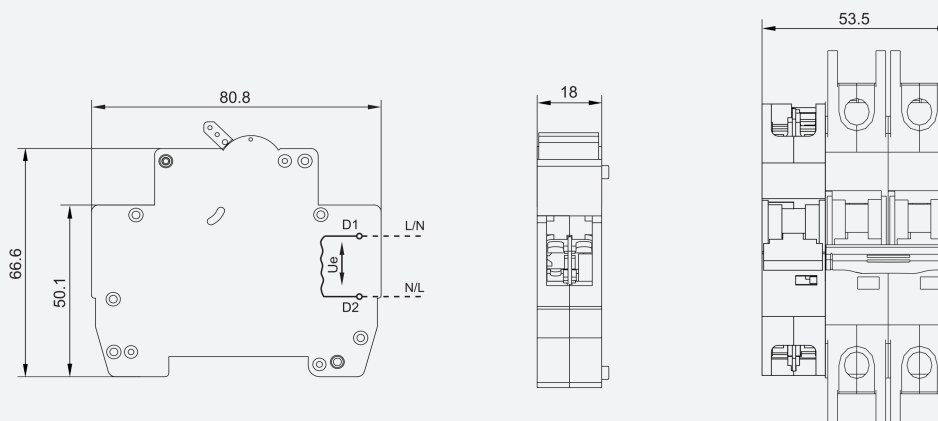
		MX1
Contacts		1 changeover (CO)
Contact function		Shunt trip releases
Tested according to		IEC/EN 60947-5-1
Rated op. voltage	AC	le=2A Ue=220/415V
	DC	le=2A Ue=24/48V
Min. op. voltage		8.4 V
Min. op. current		1 A
Max. op. voltage		26.4 V
Max. op. current		2 A
Rated frequency		50/60 Hz

### Mechanical parameters

Mounting	easy fastening onto 35 mm device rail	
Degree of protection	(DIN) IP20	
Terminals	lift	
Terminal capacity	≤1 mm <sup>2</sup>	
Fastening torque of terminals	0.8 — 1 Nm	
Working temperature	- 35 ~ + 70 C	



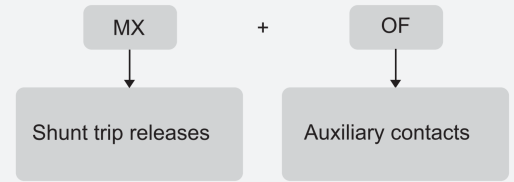
## Dimensions(mm) (With Shunt Release)



# Shunt Release and Auxiliary contact for BB1-63

- Shunt Release and Auxiliary contacts for installation devices BB1-63
- Shunt trip releases and Auxiliary contacts

## Type Instruction



### MX+OF1

### Electrical parameters

		MX+OF	
Contacts		1 changeover (CO)	
Contact function		Shunt trip releases	
Rated op. voltage	Shunt trip releases	AC	le=2A Ue=220/415V
			le=2A Ue=24/48V
	DC	le=2A Ue=24/48V	
	Auxiliary contacts	AC	le=3A Ue=220/415V
Rated frequency		50/60 Hz	

### Mechanical parameters

Mounting	easy fastening onto 35 mm device rail		
Degree of protection	(DIN) IP20		
Terminals	lift		
Terminal capacity	≤1 mm <sup>2</sup>		
Fastening torque of terminals	0.8 — 1 Nm		
Working temperature	- 35 ~ + 70		



## Dimensions(mm) ( WithMX+OF )

