



DC No-Polarity Breaker

EDB1 Series DC No-Polarity Miniature Circuit Breaker

Leading Manufacturer Protects Solar Power Safety

Rev1.0 2022/12/06



DC NO-POLARITY BREAKER

EDB1-63 series DC No-Polarity Miniature Circuit Breaker



Product Application

The circuit breaker has the functions of short circuit protection, overload protection, control, isolation and so on. It is suitable for terminal power distribution, civil construction, energy control, communication, and infrastructure construction fields.

Product Benefits

- Overload and the short circuit protection function
- Rated short circuit breaking capacity up to 10 kA
- Non-polarity and Polarity both available
- Rated Current In up to 63A
- Rated Voltage up to 1200V
- Designed for PV, energy storage and other DC applications
- AS/NZS 60947.2 and IEC 60947-2 standard



Select Code

$\frac{E}{1}$	$\frac{D}{2}$	$\frac{B}{3}$	1 -	$\frac{63}{4}$	$\frac{\square}{5} / \frac{\square}{6}$	$\frac{\square}{7} / \frac{\square}{8}$	$\frac{\square}{9}$
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Code	Name	Description
1	 brand	E
2	DC	D
3	Miniature Circuit Breaker	B
4	Frame Current	63A
5	Breaking Capacity	Nil: 6kA H:10kA
6	Tripping curve	B C D K
7	Rated current	2:2A 10:10A 32:32A 4:4A 16:16A 40:40A 6:6A 20:20A 50:50A 25:25A 63:63A
8	Poles	1:1P 2:2P 3:3P 4:4P
9	Rated Working Voltage	Nil:Normal Voltage H:High Voltage

EDB1-63 series DC No-Polarity Miniature Circuit Breaker

Appearance Introduction



Technical Data

According to EN60947-2, AS/NZS 60947.2

Pole		1P	2P	3P	4P
Rated Working Voltage	Normal Voltage Ue	250V DC	500V DC	750V DC	1000V DC
	High Voltage Ue	300V DC	600V DC	900V DC	1200V DC
Frame Current		63A			
Rated Current		In 2A,4A,6A,10A,16A, 20A, 25A, 32A,40A, 50A, 63A			
Rated Insulation Voltage		Ui 1200V			
Rated Impulse Withstand Voltage		Uimp 6kV			
Tripping Characteristics		B/C			
Tripping Type		Thermal Magnetic			
Rated Ultimate Short-Circuit Breaking Capacity		Icu 6/10kA			
Rated Service Short-Circuit Interrupting Capacity		Ics 6/7.5 kA			
Electrical Life	Actual	2000 Cycles			
	Standard	1500 Cycles			
Mechanical Life	Actual	20000 Cycles			
	Standard	8500 Cycles			
Overvoltage Category		III			
Pollution Degree		3			
Ingress Protection		IP40; Wiring port IP20			
Resistance to humidity and heat		Class 2			
Relative Humidity		≤ 95 %			
Vibration		acc. to IEC60068-2-6			
Shocks		acc. to IEC60068-2-27			
Terminal capacity		2.5-35mm ²			
Fastening Torque of Terminals		2.5 N·m			
Ambient Temperature		-30°C~70°C			
Storage Temperature		-40°C~85°C			
Installation Method		DIN			
Elevation		≤2000m			
Dimension		Width:18mm/Pole			
		High: 68mm			
		Depth: 81mm			
Weight		125.3g	250.55g	375.9g	501.1g

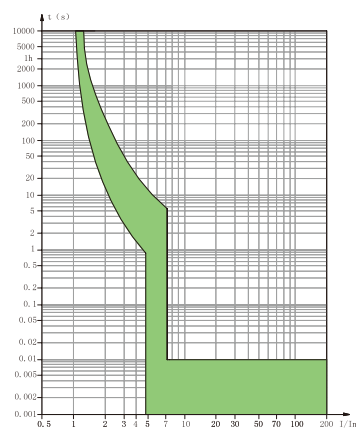
DC NO-POLARITY BREAKER

EDB1-63 series DC No-Polarity Miniature Circuit Breaker

Contacts Configurations

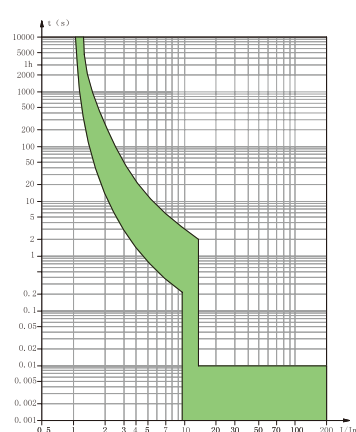
Pole	1P	2P
Contacts Configurations		
	3P	4P

Tripping Characteristics



B Curve 4In(1±20%)

- $I_{nt}=1.05I_n:t\leq 1h$
- $I_t=1.3I_n:t < 1h$
- $2.55I_n:t=1-60s(I_n\leq 32A)$
 $t=1-120s(I_n > 32A)$
- Suitable for pure resistive load and microinductive circuit
- Available to rated current of 10A ~ 63A(63A Frame)
- Instantaneous tripping range: $4I_n\pm 20\%$



C Curve 8In (1±20%)

- $I_{nt}=1.05I_n:t\leq 1h$
- $I_t=1.3I_n:t < 1h$
- $2.55I_n:t=1-60s(I_n\leq 32A)$
 $t=1-120s(I_n > 32A)$
- Suitable for general load and power distribution circuit
- Available to rated current of 10A ~ 63A(63A Frame)
- Instantaneous tripping range: $8I_n\pm 20\%$

EDB1-63 series DC No-Polarity Miniature Circuit Breaker

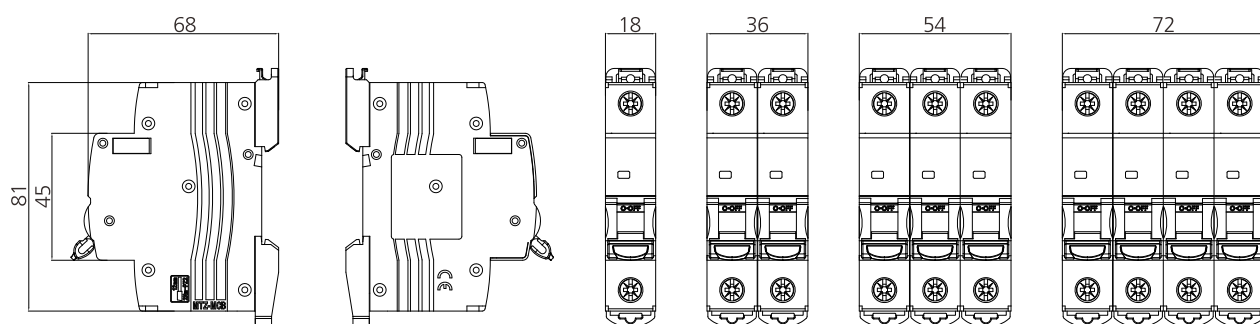
Installation



Disassemble



Dimensions



Shunt Release MX Alarm contact

CE

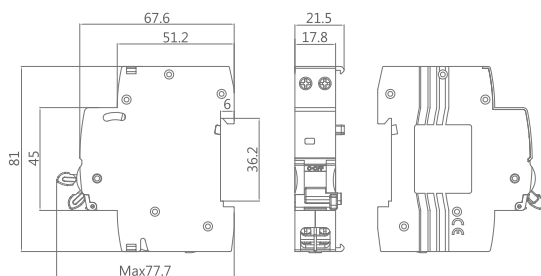


Select Code

E D B 1 - 63 / □ / □
1 2 3 4 5 6

Code	Name	Description
1	ONCCY brand	E
2	DC	D
3	Miniature Circuit Breaker	B
4	Type	63A
5	Rated Voltage	A230:230VAC D24:24VDC D48:48VDC
6	Type	MX MX+OF

Dimension



General

- 1.1 Remote starting of the device when The voltage is applied.
- 1.2 To be mounted on the left side of the MCBs/RCBOs due to the special pin.

Technical Data

	Standard	IEC/EN 60947-5
Electrical features	Rated voltage (Shunt switch)	AC230V,50/60HZ
		DC24V
		DC48V
	Rated impulse withstand voltage(1.2/50)Uimp	4000V
	Dielectric Test Voltage at ind.Freq.for 1min	2kV
	Insulation voltage Ui	500V
Mechanical features	Pollution degree	2
	Electrical life	4000
	Mechanical life	4000
	Protection degree	Ip20
	Ambient temperature (with daily average ≤35℃)	-30℃~70℃
Installation	Storage temperature	-40℃~85℃
	Terminal connection type	Cable
	Terminal size top/ bottom for cable	2.5mm ² / 18-14AWG
	Tightening torque	0.8N·m

DC NO-POLARITY BREAKER

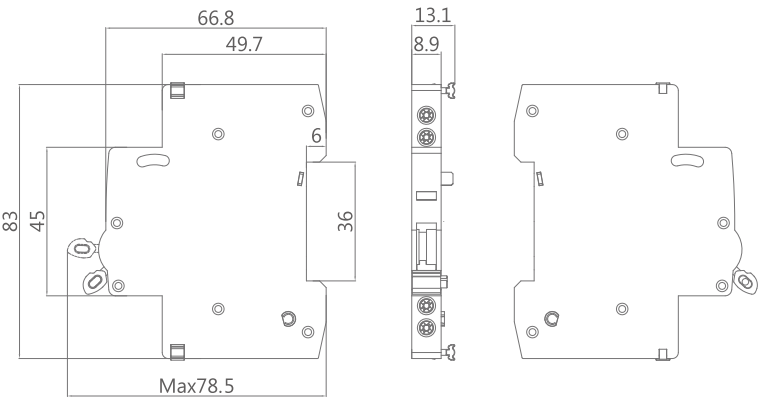
OF Auxiliary Contact EDB1-63/0F



General

- 1.1 Indicate the position of the device's contacts.
- 1.2 To be mounted on the left side of the MCBs/RCBOs due to the special pin.

Dimension



Technical Data

	Standard	IEC/EN 60947-5	
		Ue (V)	Ie (A)
Electrical features	Rated voltage (Auxiliary switch)	AC400 50/60HZ	3
		AC240 50/60HZ	6
		DC130	1
		DC48	2
		DC24	6
	Configurations	1N/O+1N/C	
	Rated impulse withstand voltage(1.2/50)Uimp	4000V	
	Dielectric Test Voltage at ind.Freq.for 1min	2kV	
Mechanical features	Insulation voltage Ui	500V	
	Pollution degree	2	
	Electrical life	6050	
	Mechanical life	4000	
	Protection degree	IP20	
	Ambient temperature (with daily average ≤35°C)	-30°C ~70°C	
Installation	Storage temperature	-40°C ~85°C	
	Terminal connection type	Cable	
	Terminal size top/ bottom for cable	2.5mm ² / 18-14AWG	
	Tightening torque	0.5N·m	

MX-OF Shunt release DC24V+Auxiliary contact

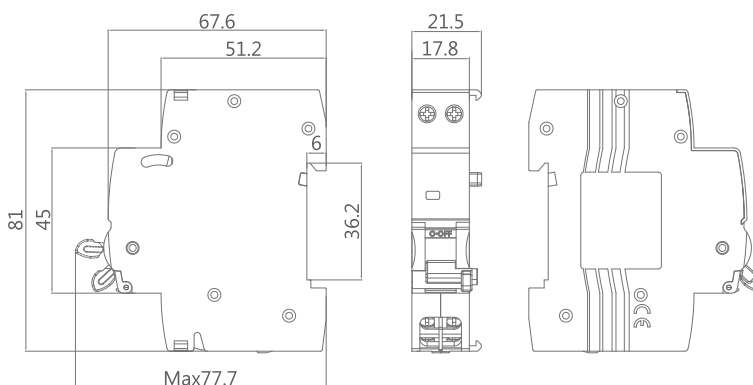
CE



General

- 1.1 Remote starting of the device when The voltage is applied.
- 1.2 Indicate the position of the device's contacts.
- 1.3 To be mounted on the left side of the MCBs/RCBOs due to the special pin.

Dimension



Technical Data

	Standard	IEC/EN 60947-5	
Electrical features	Rated voltage (Shunt switch)	AC230V,50/60HZ	
		DC24V	
		DC48V	
	Rated voltage (Auxiliary switch)	Ue (V)	Ie (A)
		AC400 50/60HZ	3
		AC240 50/60HZ	6
		DC130	1
		DC48	2
		DC24	6
	Configurations	1N/O + 1N/C	
	Rated impulse withstand voltage(1.2/50)Uimp	4000V	
	Dielectric Test Voltage at ind.Freq.for 1min	2kV	
Mechanical features	Insulation voltage Ui	500V	
	Pollution degree	2	
	Electrical life	6050	
	Mechanical life	4000	
	Protection degree	IP20	
	Ambient temperature (with daily average ≤35°C)	-30°C ~ 70°C	
Installation	Storage temperature	-40°C ~ 85°C	
	Terminal connection type	Cable	
	Terminal size top/ bottom for cable	2.5mm ² / 18-14AWG	
	Tightening torque	0.8N·m	