

EVOLEC



ISOLATION
PROTECTION



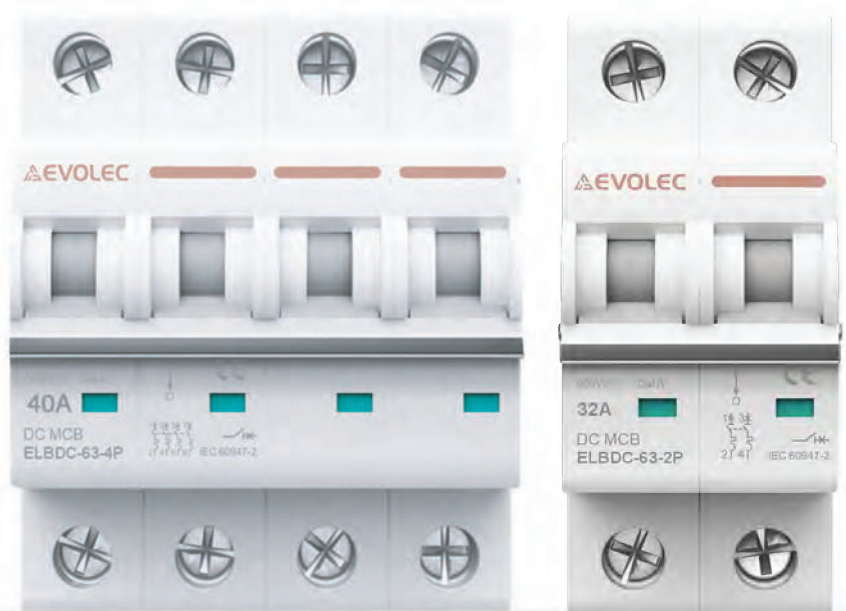
NON
POLARIZED



SHORT CIRCUIT
PROTECTION



OVER LOAD
PROTECTION



DC MCB
ELBDC-63

DC MCB

ELBDC

General

The rated operating voltage can reach DC1200V, and the rated operating current can reach 63A, which is used for isolation, overload, and short circuit protection. It is widely used in photovoltaic, industrial, civil, communication, and other systems, and can also be used in DC systems to ensure the reliable operation of DC systems.



Functions

- Modular design, small size.
- Non-Polarized.
- Standard Din rail installation, convenient installation.
- Overload, short circuit, isolation protection function, comprehensive protection.
- The breaking capacity reaches 6KA, with strong protection capacity.
- Complete accessories and strong expansibility.
- Multiple wiring methods to meet various wiring needs of Customers.

Applications

- PV systems.
- Communication systems.
- All DC applications.

Technical data

Parameter	Data
Pole:	2P/4P
Frame grade:	63
Rated working voltage VDC:	2P 600VDC/ 4P 1200VDC
Rated current In(A):	1,2,3,4,6,10,16,20,25,32,40,50,63
Rated insulation voltage Ui (V DC):	1200
Rated impulse voltage Uimp (KV):	4
Ultimate breaking capacity Icu (KA) (T =4ms):	6
Operation breaking capacity Ics (KA):	Ics=100%Icu
Tripping type:	Thermal-magnetic
Curve Type:	C
Mechanical life:	20000 times.
Electrical life:	2500 times.
Polarity:	Heteropolar
Working temperature:	-20 C to +70 C
Altitude(m):	2000m
Pollution degree:	Level 3
Protection degree:	IP20
Installation environment:	Places without significant vibration and impact
Installation method:	DIN35 standard rail
Wiring capacity:	2.5-25mm ²
Terminal torque:	3.5 N·m
Product size(mm) :	2P:75.5*36*80 4P:75.5*72*80
Standard:	IEC/EN 60947-2, EU ROHS environmental protection requirements.
Quality Certificates:	CE, ISO 9001, RoHS

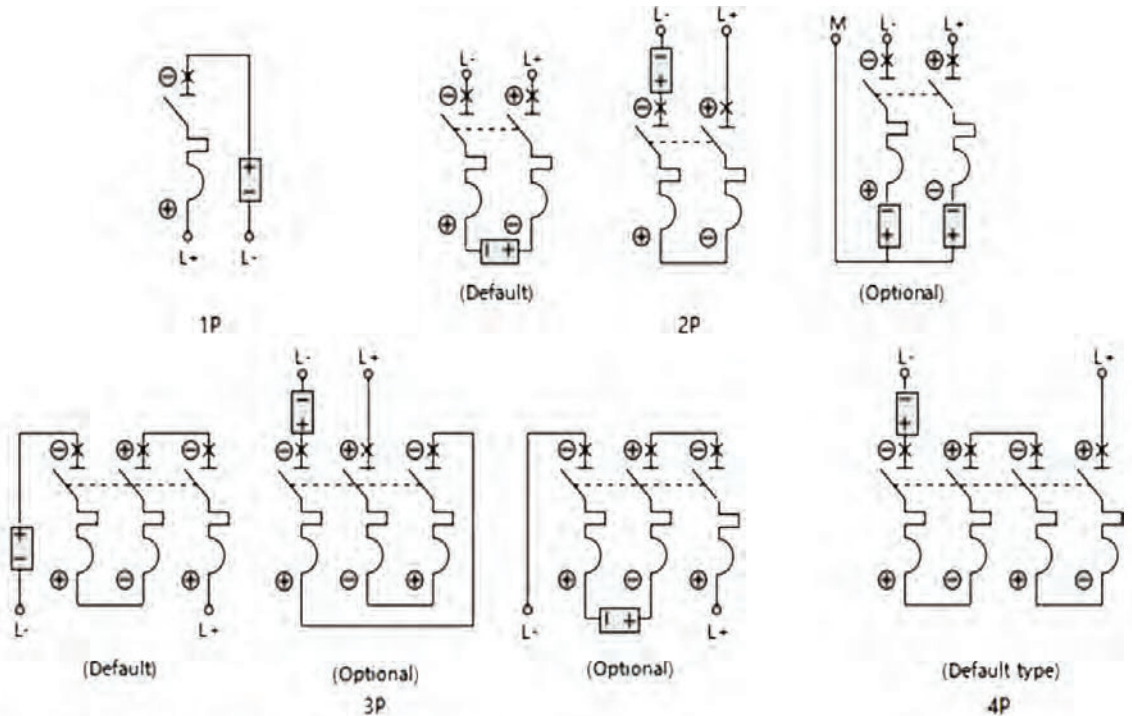
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Grounding and fault effect

Grounding type	Single-stage grounding system	Ungrounded system		
Circuit diagram				
Fault effect	Fault A	Maximum short-circuit current I_{sc}	Fault A	No effect
	Fault B	Maximum short-circuit current I_{sc}	Fault B	Maximum short-circuit current I_{sc}
	Fault C	No effect	Fault C	No effect

Wiring diagram



Note:

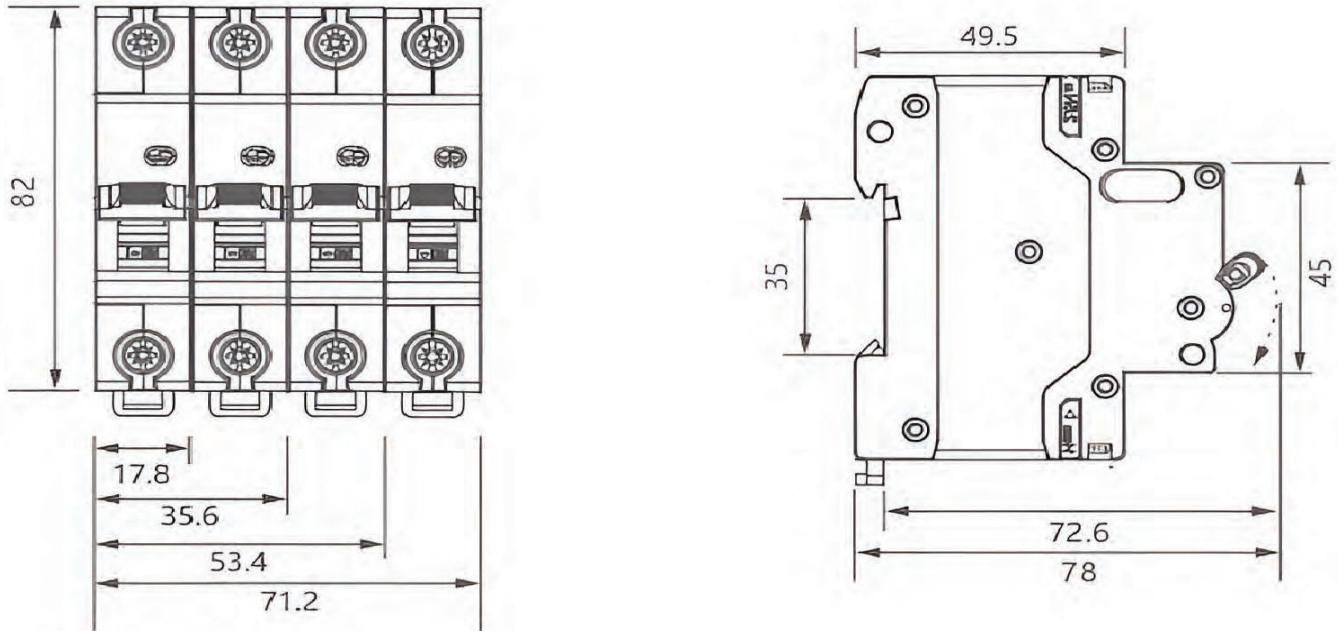
- L+power supply positive pole ⊕ Positive pole of circuit breaker
- L-power cathode ⊖ Negative pole of circuit breaker

Please place a note for other wiring methods while placing an order.

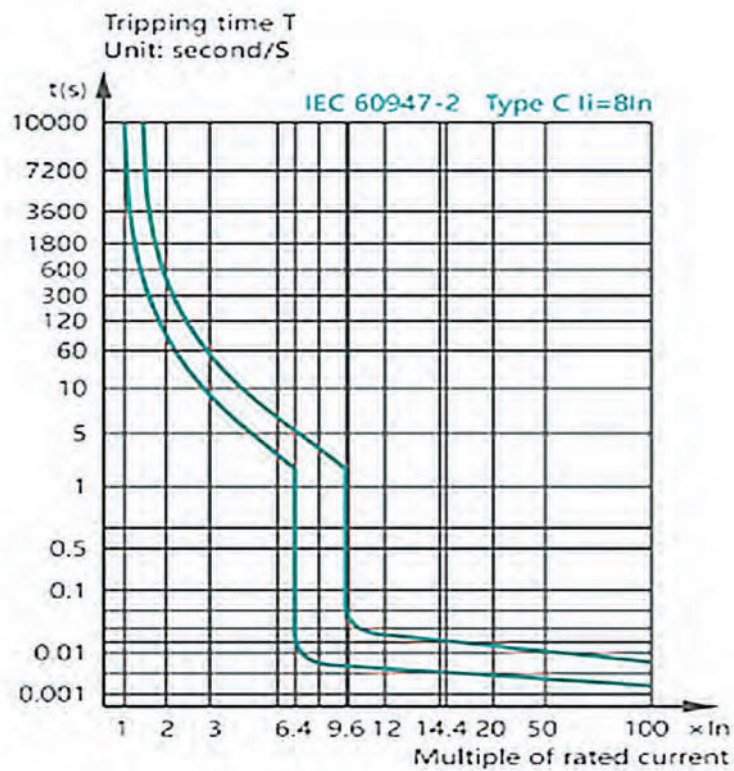
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Overall and mounting dimensions(mm)



Curve



C curve $8I_n \pm 20\%$,
applicable rated current $\leq 63A$

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Temperature correction factor table

Current correction value(A) Rated current(A)	Environmental temperature (°C)	-35	-30	-20	-10	0	10	20	30	40	50	60	70
	1	1.3	1.26	1.23	1.19	1.15	1.11	1.05	1	0.96	0.93	0.88	0.83
2	2.6	2.52	2.46	2.38	2.28	2.2	2.08	2	1.92	1.86	1.76	1.66	
3	3.9	3.78	3.69	3.57	3.42	3.3	3.12	3	2.88	2.79	2.64	2.49	
4	5.2	5.04	4.92	4.76	4.56	4.4	4.16	4	3.84	3.76	3.52	3.32	
6	7.8	7.56	7.38	7.14	6.84	6.6	6.24	6	5.76	5.64	5.28	4.98	
10	13.2	12.7	12.5	12	11.5	11.1	10.6	10	9.6	9.3	8.9	8.4	
13	17.16	16.51	16.25	15.6	14.95	14.43	13.78	13	12.48	12.09	11.57	10.92	
16	21.12	20.48	20	19.2	18.4	17.76	16.96	16	15.36	14.88	14.24	13.44	
20	26.4	25.6	25	24	23	22.2	21.2	20	19.2	18.6	17.8	16.8	
25	33	32	31.25	30	28.75	27.75	26.5	25	24	23.25	22.25	21	
32	42.56	41.28	40	38.72	37.12	35.52	33.93	32	30.72	29.76	28.16	26.88	
40	53.2	51.2	50	48	46.4	44.8	42.4	40	38.4	37.2	35.6	33.6	
50	67	65.5	63	60.5	58	56	53	50	48	46.5	44	41.5	
63	83.79	81.9	80.01	76.86	73.71	70.56	66.78	63	60.48	58.9	55.44	52.29	

Use of derating table at high altitude

Tripping type	Rated current(A)	Current correction factor			Example
		≤2000m	2000-3000m	≥3000m	
B, C, K	1, 2, 3, 4, 6, 10, 13, 16, 20, 25, 32, 40, 50, 63	1	0.9	0.8	The rated current of 10A products is 0.9×10=9A after derating at 2500m

Recommended wiring size

Rated current In(A)	Nominal cross-sectional area of copper conductor(mm ²)
1~6	1
10	1.5
13, 16, 20	2.5
25	4
32	6
40, 50	10
63	16

Power consumption per pole of circuit breaker

Rated current In(A)	Maximum power consumption per stage(W)
1~10	2
13~32	3.5
40~63	5