

Terminal distribution

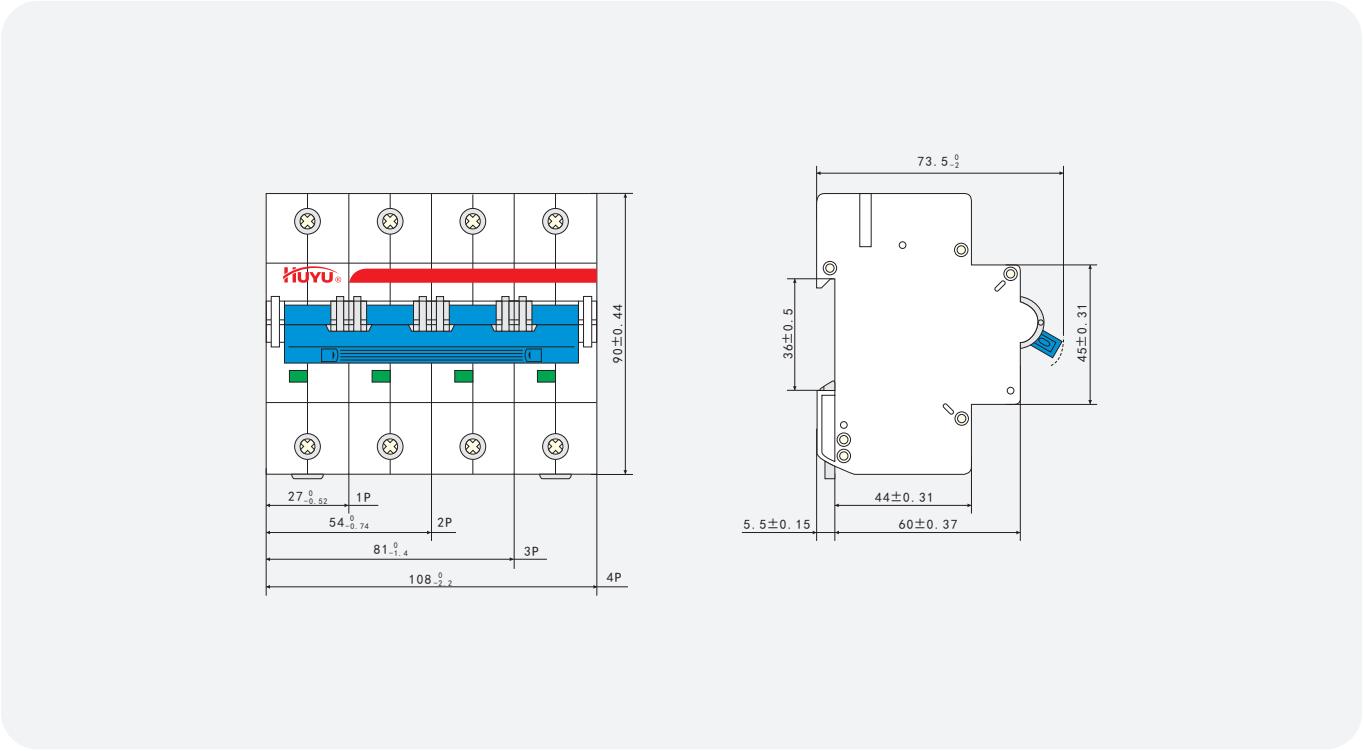
HUM18-125

Series Miniature Circuit Breaker

5.5 Connection capacity

Screw size	Rated torque	Ultimate torque	National standard rated torque	Connection capacity
M6	3N · m	5N · m	2. 5N · m	50mm ² and below

6.Overall and mounting dimensions



7.Ordering information

When ordering, please explain the circuit breaker type, rated current value, release type, pole number and unit number.

For example:

HUM18-125 miniature circuit breaker with rated current 63A, release type C, 1P, 100 sets.

Can be express as: HUM18-125/1P C63 100 sets.

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HUM18Z-50

Series Miniature DC Circuit Breaker

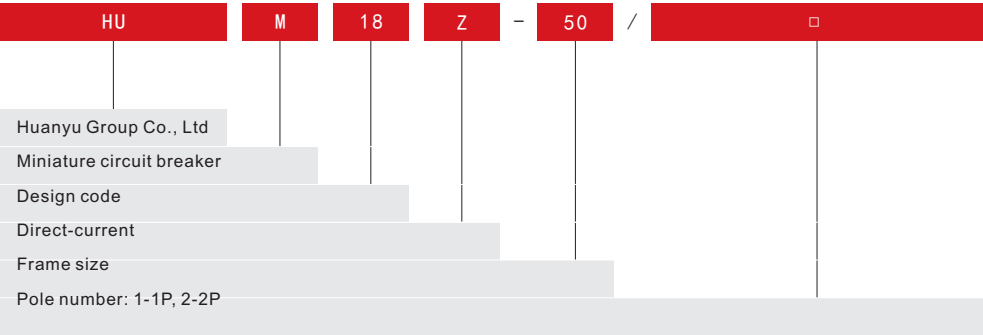


1. Application range

The HUM18Z-50 series miniature DC circuit breaker is a new product developed on the basis of the HUM18-63 series high breaking miniature circuit breaker. The product is with reliable performance, high breaking ability, accurate protection and small size. It is widely used in communications, electric locomotive and other industries. Circuit breakers are mainly used in power line and power equipment with DC rated voltage of 220V/440V, rated current to 50A for over current protection, and can also be used for infrequent on-off operation.

The product conforms to the standard: GB10963.2, IEC60898-2.

2.Model and Meaning



3.Normal working condition

3.1 The upper limit of ambient air temperature is not more than +40℃, the lower limit is not less than -5℃, and the average value of 24h is not more than +35℃.

3.2 Installation altitude≤2000m.

3.3 The relative atmospheric humidity at the installation site does not exceed 50% at a maximum ambient temperature of 40℃, a higher relative humidity is allowed at a lower temperature and an average monthly maximum relative humidity is not more than 90%, while the average monthly temperature does not exceeds 25℃, and the condensation on the surface of the product caused by the temperature change should be taken into account.

3.4 Class of pollution: class 2.

3.5 Installation category: II, III.

4.Structure characteristics

The circuit breaker adopts magnetic blowout, with short arcing time, high breaking capacity, accurate protection characteristics and reliable performance and has contact position indication. The terminal block adopts a frame structure, and the wiring is firm and reliable.

5.Main technical parameters

5.1 Basic technical parameters

Frame size	Rated voltage (Ue)	Time constant	Rated current (In)(A)	Rated limit short circuit breaking capacity (Icn)(A)	Pole number	Release type
50	220V (1p) 440V (2p)	t≤4ms	6、10、16、20 25、32、40、50	6000	1P 2P	B、C

5.2 Tripping characteristic of the circuit breaker

Release type		B	C	Tripping time	Expecting result	Ambient temperature
Thermal release	I ₁	1. 13I _n	1. 13I _n	≤1h	Non-tripping	30℃~35℃
	I ₂	1. 45I _n	1. 45I _n	<1h	Tripping	
Magnetic release	I ₄	4I _n	7I _n	≤0. 1s	Non-tripping	Normal temperature
	I ₅	7I _n	15I _n	<0. 1s	Tripping	

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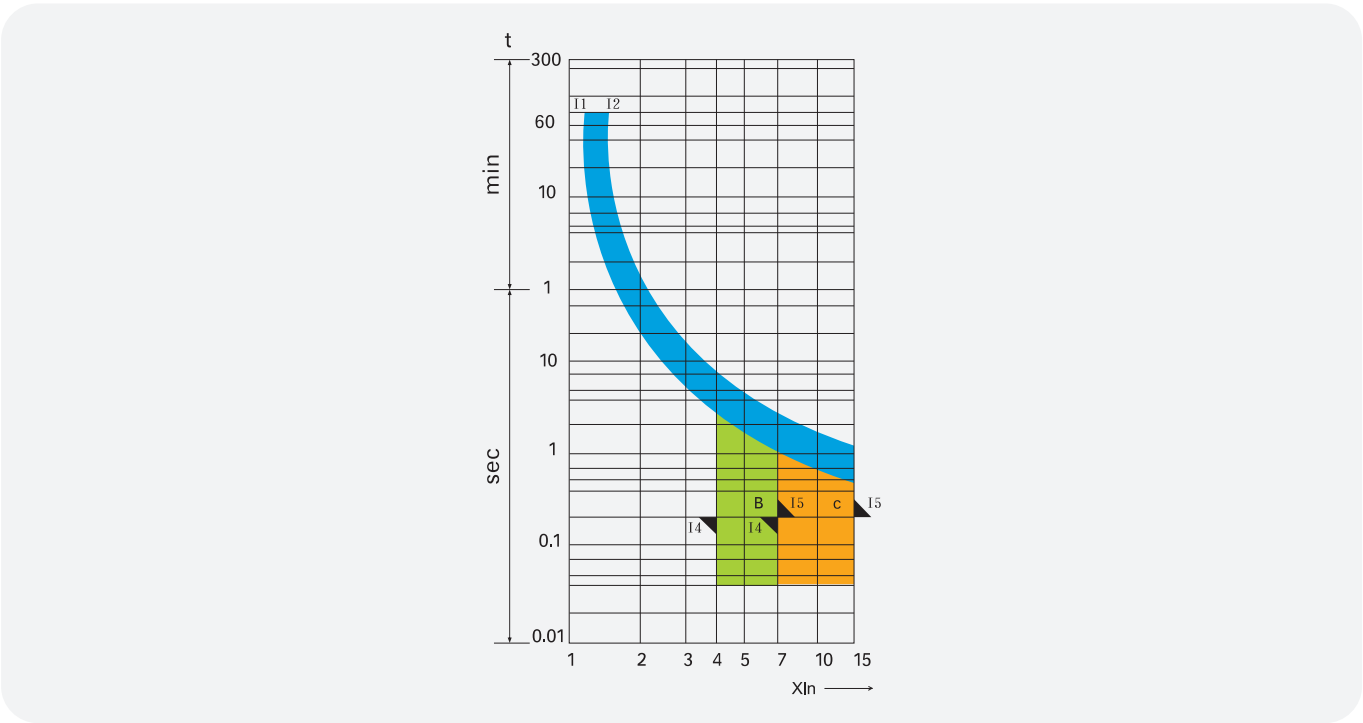
HUM18Z-50

Series Miniature DC Circuit Breaker

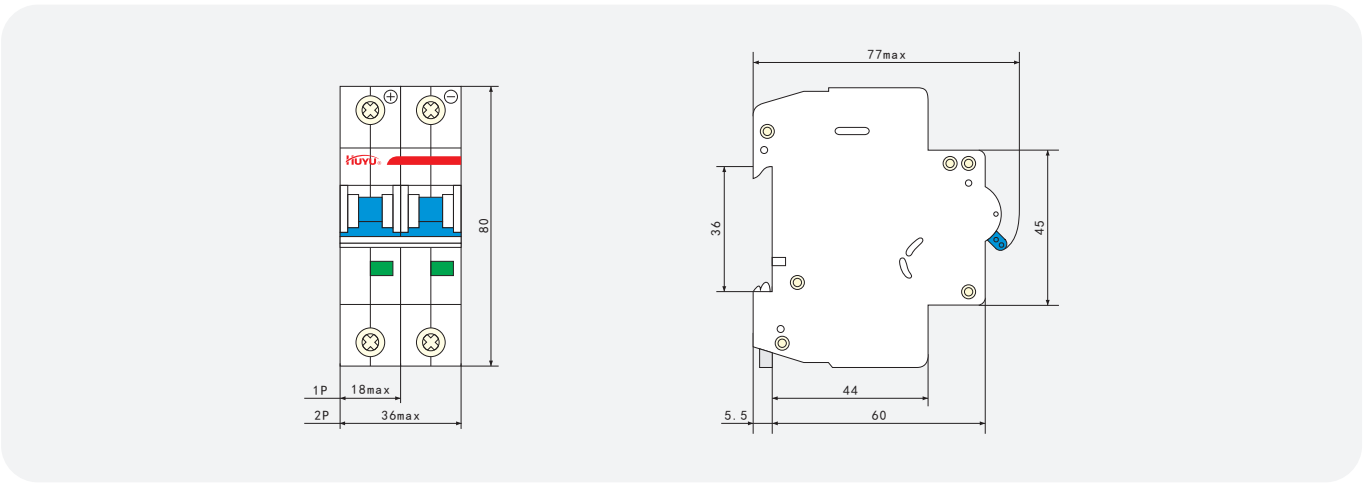
5.3 Sectional area of copper conductor corresponding to circuit breaker

Rated current I _n (A)	≤6	10	16、20	25	32	40、50
Traverse sectional area (mm2)	1	1.5	2.5	4	6	10

5.4 The tripping characteristic curve of the circuit breaker



6.Overall and mounting dimensions



Note: Install with TH35-7.5 standard mounting rail

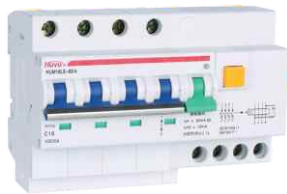
7.Ordering information

When ordering, please explain the circuit breaker type, rated current value, release type, pole number and unit number.
For example:
HUM18Z-50/1 miniature circuit breaker with rated current 32A, release type C, 1P, 100 sets.
Can be express as: HUM18Z-50/1 C32 100 sets.

Terminal distribution

HUM18LE

Series Miniature Leakage Circuit Breaker



1. Application range

HUM18LE series miniature leakage circuit breaker is a new product developed by our company. It is suitable for AC 50Hz, rated voltage 400V, rated current does not exceed 63A, neutral grounding power circuit, mainly for personal electric shock protection and line equipment on buildings and similar use of overcurrent protection, it can also be due to the electrical equipment insulation damage of ground fault current caused by the fire risk protection.
Conform to the standard: GB16917.1, IEC61009-1.

2.Model and Meaning

HU	M	18	LE	-	□	/	□	G	□	A
Huanyu Group Co., Ltd	Miniature circuit breaker	Design code	Special derivation code (electronic leakage circuit breaker)	Frame size(40, 63)	Pole number: 1N-1P+N,2-2P,3-3P,3N-3P+N,4-4P	Special function code: G represents over-voltage protection function	Special for EN new energy	Leakage protection characteristics: Type A and Type AC (AC type is not marked)		

Note: (1) Only 1P+N and 2P can add overvoltage protection
(2) Ambient air temperature range for new energy-specific products (EN): -40~70℃.

3.Normal working condition

- 3.1 The upper limit of ambient air temperature is not more than +40℃ , the lower limit is not less than -5℃ , and the average value of 24h is not more than +35℃.
- 3.2 Installation altitude ≤ 2000m.
- 3.3 The relative atmospheric humidity at the installation site does not exceed 50% at a maximum ambient temperature of 40℃ , a higher relative humidity is allowed at a lower temperature and an average monthly maximum relative humidity is not more than 90%, while the average monthly temperature does not exceeds 25℃ , and the condensation on the surface of the product caused by the temperature change should be taken into account.
- 3.4 Class of pollution: class 2.
- 3.5 Installation category: II, III.
- 3.6 The circuit breaker is installed with TH35-7.5 standard rail, the breaker should be installed vertically, and the handle is turned upward to connect the current position.
- 3.7 There should be no obvious impact and vibration at the installation site.

4.Structure characteristics

The HUM18LE series miniature leakage circuit breaker is a current operated electronic leakage circuit breaker, which is made up of the HUM18 high breaking miniature circuit breaker and the leakage release developed by our company. When there is a leakage or personal electric shock in the protected circuit, as long as the leakage current I_{Δn} reaches the operating current value, the leakage circuit breaker will act immediately to cut off the power supply, thereby protecting the equipment from leakage and electric shock. At the same time, it can also play a protective role in overload and short circuit.

5.Main technical parameters

5.1 Residual current breaking time of leakage circuit breaker

Category	I Δn (mA)	I n (A)	Maximum (residual current) breaking time(s)			
			I Δn	2 I Δn	5 I Δn	250mA
Indirect contact	>30	Any value	0.2	0.1	0.04	—
Direct contact	≤30	Any value	0.1	0.1	—	0.04