

Terminal distribution

HUM18-63、HUM18-80

Series Miniature Circuit Breaker



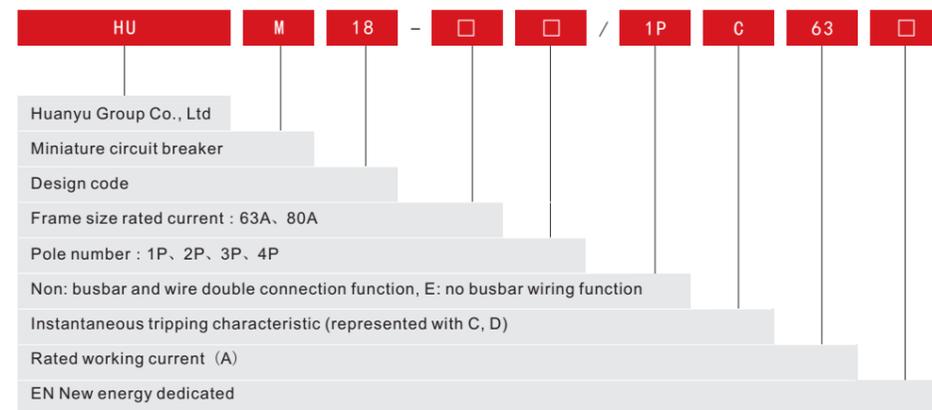
1. Application range

HUM18-63 series miniature circuit breaker (hereinafter referred to as the circuit breaker) is mainly used to the buildings and power line facilities and electrical equipment of similar places in AC 50Hz, rated voltage 230V/400V, rated current less than 63A for over current protection, can also be used for infrequent on-off operation.

The products conform to the standards: GB10963.1, IEC60898-1.



2. Model and Meaning



Note: The ambient air temperature range of new energy products (EN) is -40~70 C.



3. Normal working condition

- The upper limit of ambient air temperature is not more than +40°C, the lower limit is not less than -5°C, and the average value in 24h is not more than +35°C.
- Installation altitude ≤ 2000m.
- The relative atmospheric humidity at the installation site does not exceed 50% at a maximum ambient temperature of 40°C, 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°C, and the condensation on the surface of the product caused by the temperature change should be taken into account.
- Class of pollution: class 2.
- Installation category: II, III.
- 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.
- There should be no obvious impact and vibration at the installation site.

4. Structure characteristics

- High precision bimetal material is used as inverse time thermal protection element, accurate protection characteristic.
- With good current limiting characteristics, short arcing time, long service life and reliable performance.
- It has obvious indication of the contact position.
- The connection terminal adopts the frame type structure, both soft and hard wires can be firmly connected. And the connecting wire is 1mm²-25mm².
- The accessories of the circuit breaker are complete, and it can be equipped with auxiliary contacts, alarm contacts, shunt release, undervoltage release and residual current action protection module, etc., which provides great convenience for intelligent applications.

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5. Main technical parameters

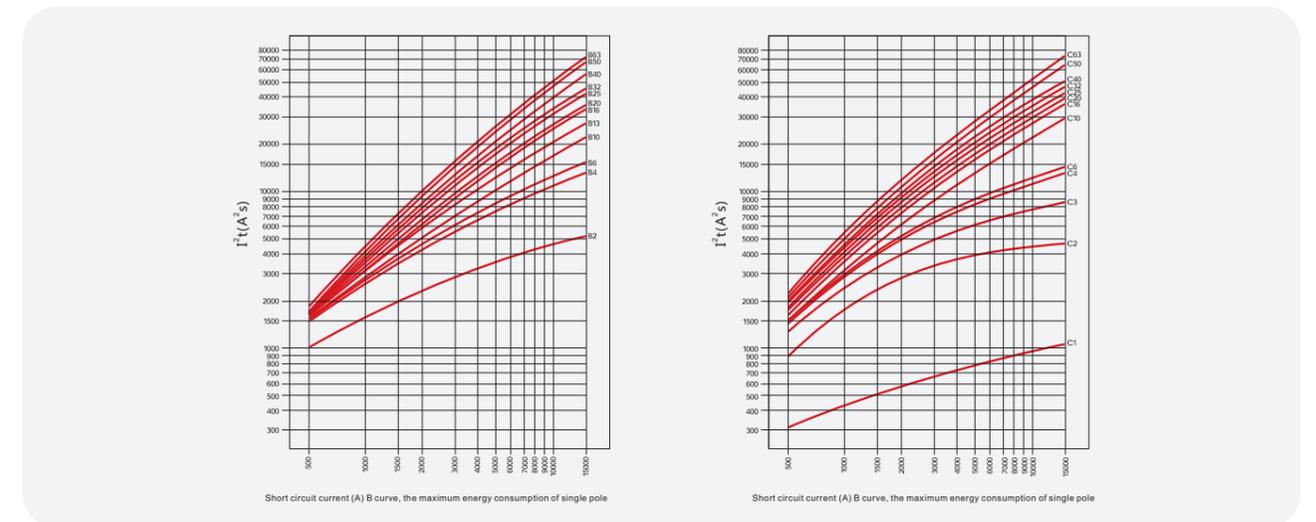
5.1 Basic technical parameters

Frame size	Rated voltage (Ue)	Rated current (In)(A)		Rated limiting short circuit breaking capacity (Icn)	Rated operating short circuit breaking capacity (Ics)	Pole number	Lifetime (times)		The type of instantaneous release and the current range of release	
		C type	D type				Mechanical lifetime	Electrical lifetime	C type	D type
63	50Hz 230/400V	6、10 16、20 25、32 40、50 63	6、10 16、20 25、32 40	10000A	7500A	1P 2P 3P 4P	20000	10000	5~10In	10~20In
		80	80							

5.2 Tripping characteristic type and application range

Tripping curve	Tripping characteristic	Application range
C	Suitable for most electrical circuits, it allows the load to pass a high short-time overload current while the miniature circuit breaker does not operate, allowing a short-time overload current <5In, and the instantaneous trip range is(5-10) In.	Protection of general electric circuit.
D	It is recommended for switching devices with very high short-term overload currents <10In, instantaneous trip range (10-20) In.	Protection of impulse load with large starting current and primary line of transformer, such as motor, transformer and so on.

5.3 Maximum energy consumption of products



5.4 Tripping characteristics of circuit breaker

Release type		C	D	Tripping time		Expecting result	Ambient temperature
Thermal release	I ₁	1.13 In	1.13 In	In ≤ 63A	≤ 1h	Non-tripping	30°C ~ 35°C
	I ₂	1.45 In	1.45 In	In > 63A	≤ 2h		
Magnetic release	I ₄	5 In	10 In	In ≤ 63A	< 1h	Tripping	Normal temperature
	I ₅	10 In	20 In	In > 63A	≤ 2h		
				≤ 0.1 s	≤ 0.1 s	Non-tripping	
				< 0.1 s	< 0.1 s	Tripping	

5.5 Sectional area of copper conductor corresponding to circuit breaker

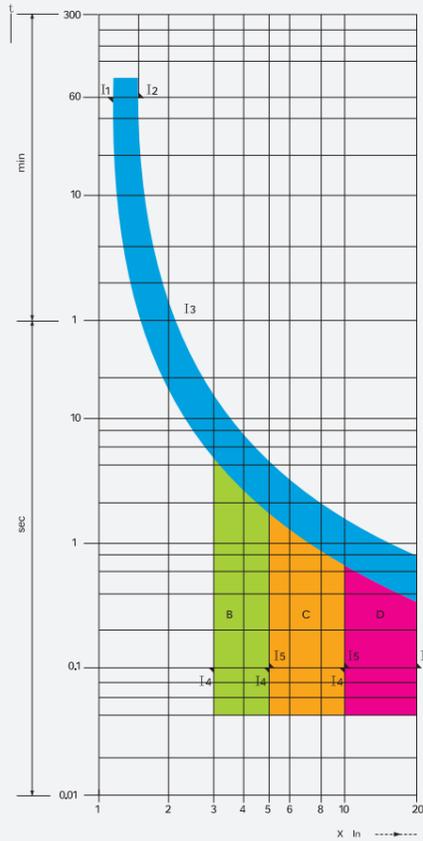
Rated current In(A)	≤6	10	16、20	25	32	40、50	63	80
Traverse sectional area (mm ²)	1	1.5	2.5	4	6	10	16	25

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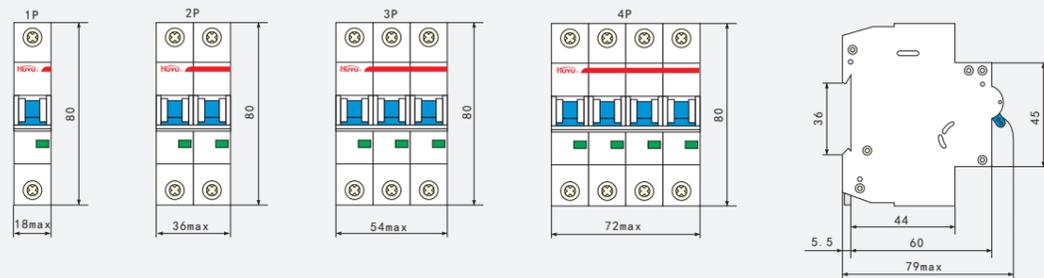
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5.6 Tripping characteristic curve of circuit breaker



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: HUM18-63/1 miniature circuit breaker with rated current 32A, release type C, wire and busbar double wiring function, 1P, 100 sets.
Can be express as: HUM18-63/1 C32 1P 100sets.

Terminal distribution

HUM18-63Z

series AC / DC miniature circuit breaker



1. Application range

The HUM18-63Z series miniature circuit breaker is a high current - limiting and high reliability AC - DC circuit breaker developed by Huanyu Electric. It is suitable for AC 50/60Hz, rated voltage to 400V, rated current to 63A circuit; it also can be used in power distribution lines with DC voltage not exceeding 220V and rated DC current not exceeding 63A. It achieves overload and short circuit protection, and can also be used for infrequent on-off operation.

It is widely used in communication industry cabinets, power cabinets, power distribution cabinets, outdoor cabinets / rooms, lightning boxes and other power distribution systems.

The product conforms to the standard: IEC60898-1, IEC60898-2, GB10963.1、GB10963.

2. Model and Meaning

HU	M	18	-	63	□	Z	/	1P	C	63
Huanyu Group Co., Ltd										
Miniature circuit breaker										
Design code										
Frame size rated current: 63A										
No: busbar and wire double connection function, E: no busbar wiring function										
Common used in AC and DC										
Pole number: 1P、2P										
Instantaneous tripping characteristics										
Rated working current (A)										

3. Normal working condition

3.1 Ambient temperature: -35℃~+70℃, above +40℃ is required to use derating.

3.2 Relative humidity: ≤95%.

3.3 Installation altitude ≤2000m, if higher than 2000m, need to use derating.

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 inclination angle of the installation surface and the vertical plane is not more than 15°.

3.7 There should be no obvious impact and vibration at the installation site.

4. Main technical parameters

4.1 Frame size rated current I_{nm}: 63A

4.2 Rated working voltage U_e:

AC230/400V (1P)、AC400V (2P)

DC220V (1P, 2P)

4.3 Rated current I_n: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A

4.4 Instantaneous tripping type: C type

4.5 Rated breaking capacity I_{cn}:

AC: 10kA (AC230V/400V) C type 6A-63A

DC: 10kA (2P) 6kA (1P)

4.6 Pole number: AC 1P, 2P; DC: 1P, 2P

4.7 Life: mechanical life 20000 times, electrical life 10000 times.