

# Terminal distribution

## HUM18-40

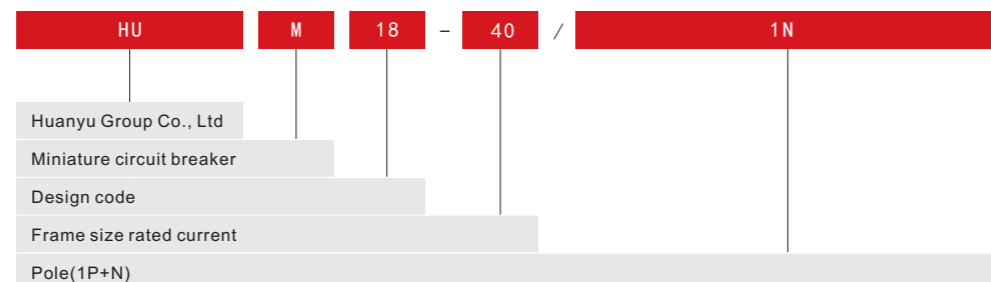
Series Miniature Circuit Breaker



### 1. Application range

HUM18-40/1N series miniature circuit breakers (circuit breakers) are mainly suitable for power line facilities and electrical equipment of 50Hz, rated voltage 230V, rated working current to 40A buildings and similar places for over-current protection, it also can be used for infrequent on-off operation.  
Conform to standard GB10963.1 and IEC60898-1.

### 2. Model and Meaning



### 3. Normal working condition

- 3.1 The maximum ambient temperature should be  $-50^{\circ}\text{C} \leq T \leq +40^{\circ}\text{C}$ , average temperature should be  $\leq 35^{\circ}\text{C}$  at 24h.
- 3.2 Installation altitude  $\leq 2000\text{m}$ .
- 3.3 The relative humidity should not exceed 50% at  $40^{\circ}\text{C}$ , it permits higher relative humidity when at a higher temperature, for example, it can be 90% at  $20^{\circ}\text{C}$ . And it should take consideration of the condensation on the product's surface for temperature change.
- 3.4 Pollution degree: degree 2.
- 3.5 Installation type: II, III
- 3.6 The circuit breaker adopts installation by TH35-7.5 standard rail.
- 3.7 The miniature circuit breaker is upright installation, knob upwards is switch on position
- 3.8 The installation place should be without obviously impact and vibration.

### 4. Structure characteristic

Small bulk, good limiting current, high breaking capacity, having 1P+N double breakpoints, switch on and switch off synchro, N keeps switch-on first, then switch-off, which not only ensure the capacity of protection pole breaking arc, but also protect the controlled circuit and electric device. It has obvious position indication of contact position.  
Use enhance type correcting terminal, facility connection, ensure reliable connection of 1mm<sup>2</sup> to 6mm<sup>2</sup> lead. Complete accessories, the miniature circuit breaker can be equipped with auxiliary contact, alarming contact, shunt release, under-voltage release and residual current operating protector module etc, they facilitate the intelligent application.

### 5. Main technical parameters

#### 5.1 Basic technical parameters

Frame size rated current	Rated voltage (Ue)	Rated current (In)(A)	Rated breaking capacity (Icn)(A)	Number of poles	Release type	Release type	
						Mechanical life	Electrical life
40	50Hz 230V	6、10、16、20 25、32、40	6000	1P+N	B C D	8000	4000

#### 5.2 Tripping characteristics of circuit breaker

Release type		B	C	D	Tripping time	Expecting result	Ambient temperature
		I <sub>1</sub>	1.13I <sub>n</sub>	1.13I <sub>n</sub>			
I <sub>2</sub>	1.45I <sub>n</sub>	1.45I <sub>n</sub>	1.45I <sub>n</sub>	$< 1\text{h}$	Tripping		
Magnetic release	I <sub>4</sub>	3I <sub>n</sub>	5I <sub>n</sub>	10I <sub>n</sub>	$\leq 0.1\text{s}$	Non-tripping	Normal temperature
	I <sub>5</sub>	5I <sub>n</sub>	10I <sub>n</sub>	20I <sub>n</sub>	$< 0.1\text{s}$	Tripping	

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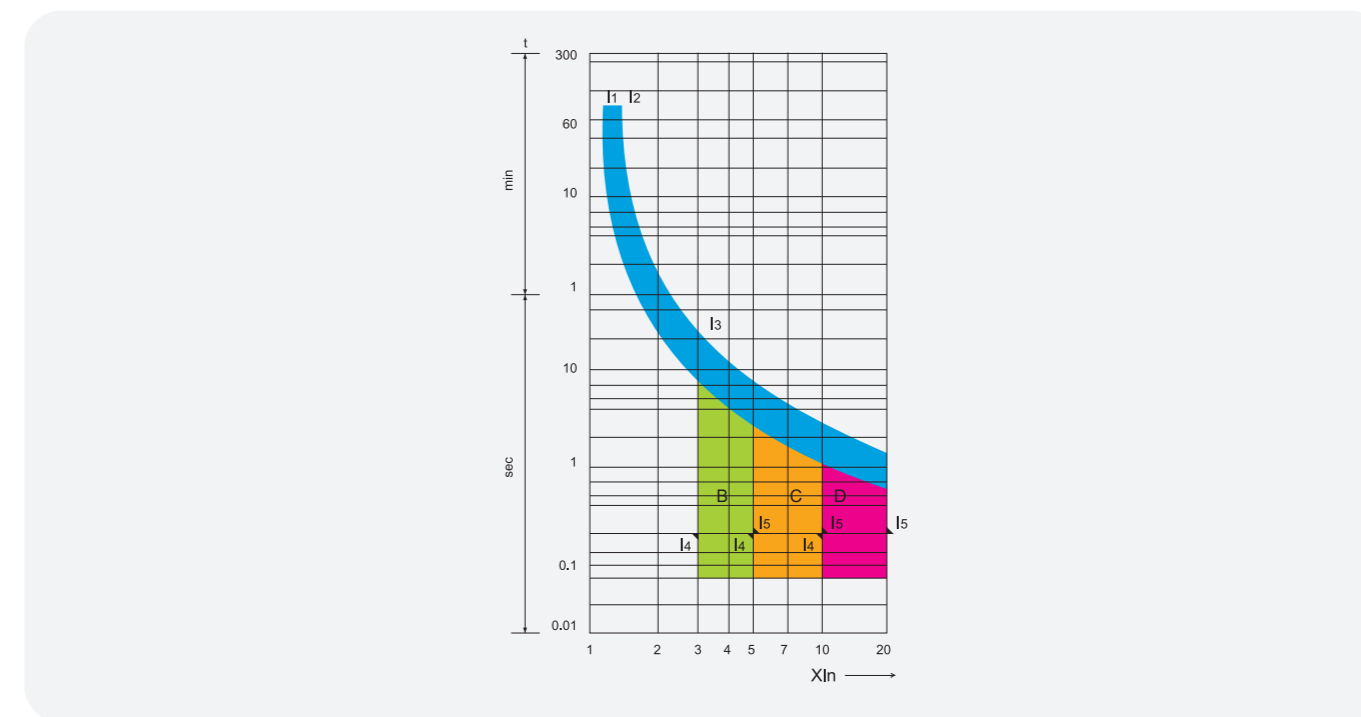
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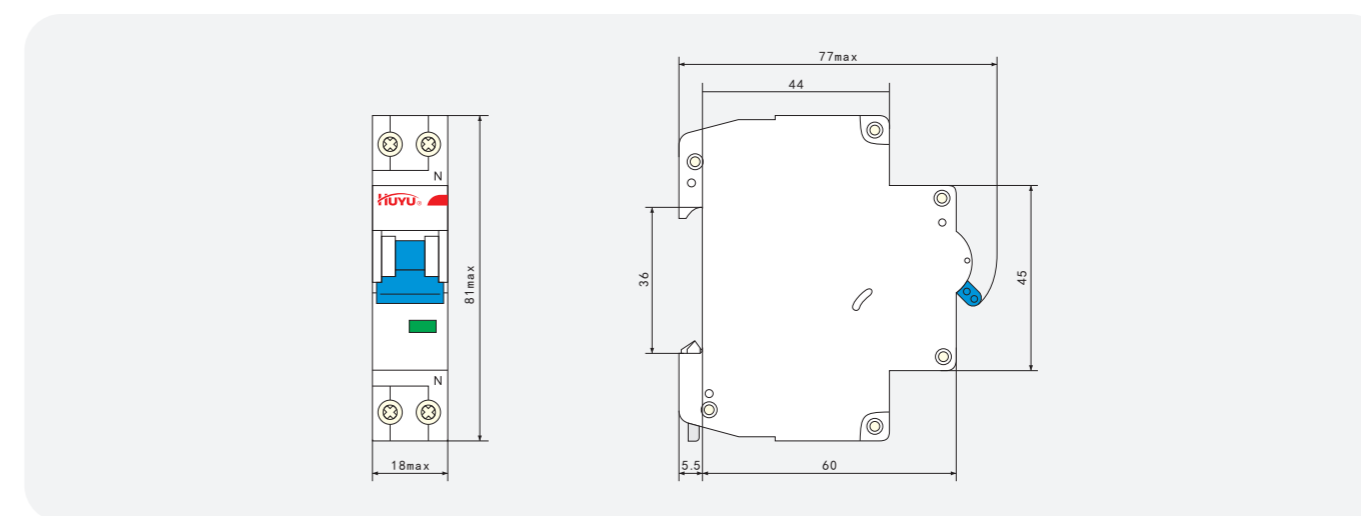
#### 5.3 Sectional area of copper conductor corresponding to circuit breaker

Rated current(I <sub>n</sub> )(A)	$\leq 6$	10	16、20	25	32	40
Section area of conductor(mm <sup>2</sup> )	1	1.5	2.5	4	6	10

#### 5.4 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:  
HUM18-40/1N miniature circuit breaker with rated current 32A, release type C, 1P+N, 100 sets.  
Can be express as: HUM18-40/1N C32 100sets.