

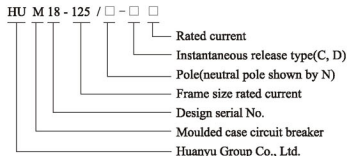
## HUM18-125 series mini circuit breaker



### General

This circuit breaker is applied to protect the over-current of electrical apparatus and circuit device of construction and similar buildings in the circuit of AC 50Hz, rated voltage 230V/400V and rated current up to 125A. It can also applied for unfrequency making-breaking operation. It accords with IEC60898, GB10963 standard.

### Model and signification



### Main technical parameter

1. Frame size rated current  $I_{nm}$ : 40A
  2. Rated voltage  $U_e$ : 50Hz, 230V/400V.
  3. Rated current  $I_n$ : C type: 63A, 80A, 100A, 125A; D type: 63A, 80A, 10A.
  4. Rated breaking capacity  $I_{cs}=7500A$ ,  $I_{cn}=15000A$ .
  5. Pole number: 1P, 1P+N, 2P, 3P, 3P+N, 4P.
  6. Mechanical life: 8000 times.
  7. Electric life: 4000 times.
  8. Instantaneous release type and current range:
- C Type: use in lighting distribution, socket loop or parts of motivity distribution system.
- D Type: use in motivity or strong electromagnetic induction load loop, for example motor load etc, 10In~20In.

### Structure characteristic

The mini circuit breaker uses high accuracy bimetal for inverse time lag. Thermal protection element, accurate protection characteristic. The contact system adopt double breakpoints serial link structure, double arc extinguish system, low voltage of breakpoint, good characteristic of current limiting at a high breaking capacity. have obvious position state Indication; connecting terminal adopt enhance type frame construction, can connect to lead of  $2.5mm^2-50mm^2$ .

The circuit breaker can be with shunt release, auxiliary contact etc accessories.

### Normal working condition and installation condition

#### 1. Normal working condition

- 1.1 The maximum ambient temperature should be  $-5^{\circ}C \leq T \leq +40^{\circ}C$ , average temperature should be  $\leq 35^{\circ}C$  at 24h.
- 1.2 The altitude of installation place should not exceed 2000m.
- 1.3 The relative humidity should not exceed 50% at  $40^{\circ}C$ , it permits higher relative humidity when at a higher temperature, the average maximum relative humidity should not exceed 90% at maximum humidity month, and this month's average minimum temperature does not exceed  $+25^{\circ}C$ , and should take consideration of the condensation on the product's surface for temperature change.

#### 1.4 Installation conditions

#### 2. Installation condition

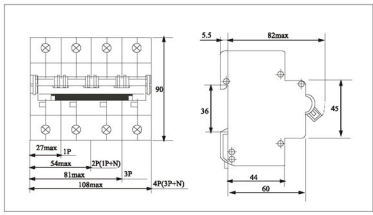
- 2.1 Over voltage type: II, III
- 2.2 The mini circuit breaker is installed by 35mm standard mounting rail.
- 2.3 The mini circuit breaker is upright installation, knob upwards is switch on position.
- 2.4. The installation place should be without obviously impact and libration.

### Outline dimension and installation dimension

The mini circuit breaker is installed by 35mm standard mounting rail, outline dimension and installation dimension, refer to Drawing 1.

The power loss of circuit breaker and tripping characteristics

1. The maximum power loss of circuit breaker, refer to Drawing 2.
2. The over current tripping characteristic of circuit breaker, refer to Table 1.
3. The tripping characteristics curve of the circuit breaker.



NO.	Over-current instantaneous release type	Rated current A	Starting state	Test current		Time of tripping	Expecting result
				I1	I2		
a	C,D	<63	Cold state	I1	1.13	>1h	Non-tripping
		>63				>2h	
b	C,D	<63	Rise to set current 5s after test	I2	1.45	<1h	Tripping
		>63				<2h	
c	C	63,80,100,125	Cold state	I4	5	>0.1s	Non-tripping
d				I5	10	<0.1s	Tripping
e	D	63,80,100	Cold state	I5	10	>0.1s	Non-tripping
				I6	50	<0.1s	Tripping

