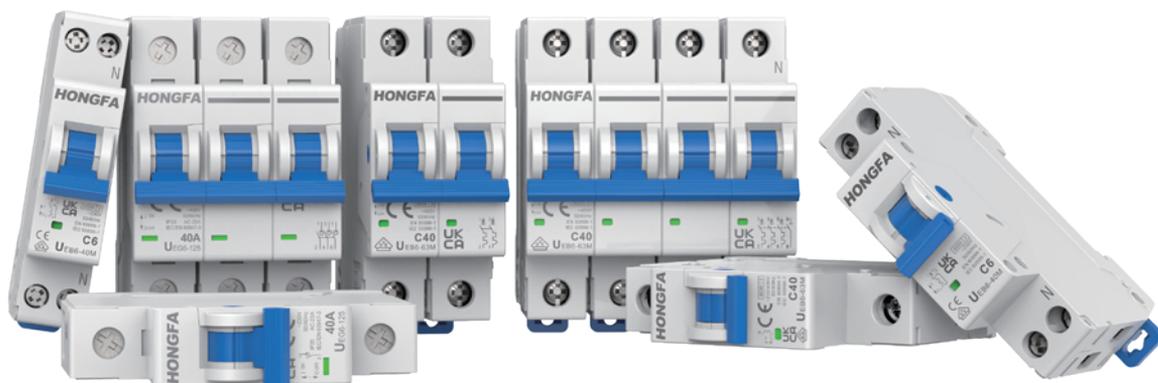


## Terminal Apparatus Product manual

UEB6-63 UEB6-40 UEG6-125



# INTRODUCTION

Hongfa, (Shanghai Stock Exchange: 600885), founded in 1984, has been adhering to the enterprise spirit of “persevere for progress, strive for excellence”, and has built a complete industry system with complete categories and supporting facilities. At present, Hongfa has more than 30 subsidiaries and has established three districts of R & D and production bases. Its products cover various categories, such as medium and low voltage products, relays, high and low voltage switchgear, capacitors, precision parts and automation equipment.

Xiamen Hongfa Electrical Safety & Controls Co., Ltd. is a wholly-owned subsidiary of Hongfa, which specializes in R & D, design and manufacture medium and low voltage products. Its distribution apparatus, terminal apparatus, control apparatus and other products are widely used in real estate, electric power, new energy, industry, HVAC, transportation, information and other fields.

In the United States, Europe, Southeast Asia and other regions, Hongfa has established localized marketing and service networks with global market operation and technical service. Relying on professional and rigorous technical support, fast response and all-round service, safe and reliable product quality and high cost performance, Hongfa has reached business cooperation relationship with many global top 500 enterprises and other well-known enterprises, such as Enel, GE, Honeywell, Carrier, Trane, Johnson Controls, Danfoss, State Grid, China Southern Power Grid, CRRC, China Mobile, China Unicom, etc.



Sunban Industrial Park



Donglin Industrial Park



Haicang Industrial Park



Zhongjiang Industrial Park



Zhangzhou Industrial Park



Zhoushan Industrial Park



Xi'an Factory

In terms of technology R & D and manufacturing, taking the national enterprise technology center as the platform, Hongfa has set up postdoctoral research workstation, academician and expert workstation. Now it has developed into a leading scientific research and production base in the industry. From product development, mold manufacturing, parts manufacturing, automated product assembly and online testing, Hongfa has successfully built an integrated whole industry chain of medium and low voltage products. In terms of product testing, Hongfa testing center has passed the certification of VDE, UL, CNAS and other international organizations, and has complete testing and analysis equipment for low-voltage products, such as 50kA ultimate short circuit test, 8kA electrical life test, 80kA characteristic test, mechanical simulation and testing system, electro-magnetic simulation and testing system.

Hongfa always adheres to the policy of "focused on the market, winning through quality", and has a completed quality assurance system. Its products have passed UL / CUL, VDE, CQC, CCC and other international safety certification. In the process of quality management, Hongfa actively implements the advanced quality concept, constantly improves the quality management system, continuously promotes the product process quality control and testing, strengthens the supply chain management, and is committed to providing each customer with high-quality products and creating greater value.

Advanced technology and strict quality control have created Hongfa's brand strength. Hongfa is willing to work hand in hand with global customers to share the convenience and well-being brought by science and technology.

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**NOTE:**

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# Content List

**NOTE:**

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# UEB6-63 Series

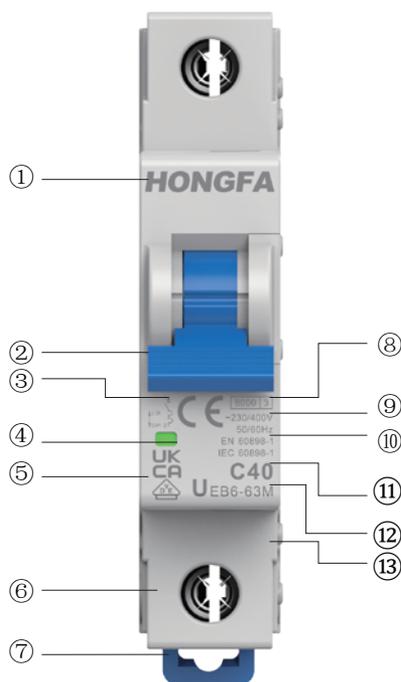
## Product Overview

UEB6-63 series miniature circuit breakers are mainly used in the circuit of rated voltage 230V/400VAC (50Hz/60Hz), with up to rated operational current 63A. It is used to protect the circuit and electric installation from over current and short circuit with isolation function, and can be used for infrequent making and breaking.

## Product Features

- Independent property rights: UEB6-63 series circuit breakers have complete product independent property rights and automatic production lines.
- Intelligent Manufacturing: UEB6-63 Series Circuit Breaker Project is a national Intelligent Manufacturing Project
- Characteristic adjustment-free: UEB6-63 series circuit breaker is a time delay adjustment-free circuit breaker.
- High reliability: integrated design of metal mechanism and thermal release mechanism, high breaking capacity, long electrical life, accurate overload release.
- Low-carbon environmental-friendly: shorter internal circuit determines that UEB6-63 series circuit breakers have lower power consumption, low-carbon and are environmental-friendly.
- Series matching: adopt modular structure which can be combined freely and matched by series

## Product Structure



1. Hongfa
2. Handle
3. Connection diagram
4. On/off indicator  
Red: On-status  
Green: Off -status
5. Certification
6. Terminal screw
7. Snap-on clip
8. Breaking capacity
9. Rated voltage
10. Product standard of compliance
11. Tripping characteristic and rated current
12. Part number
13. Plastic case

Approval Certificate		
	CB	IEC 60898-1
	CCC	GB/T 10963.1
	VDE	EN 60898-1

## Standard Operation and Installation Conditions

- Operation temperature range: -30°C... +70°C
- Storage temperature range: -40°C...+85°C
- Relative humidity: <50% @ 40°C; < 90% @ 20°C
- Altitude: < 2000m
- Pollution degree: II
- Mounting category: II / III
- Mounting condition: Install on 35mm DIN rail, inclination between the mounting plane and the vertical plane not exceed ±5°
- Products should avoid significant vibration and shock.

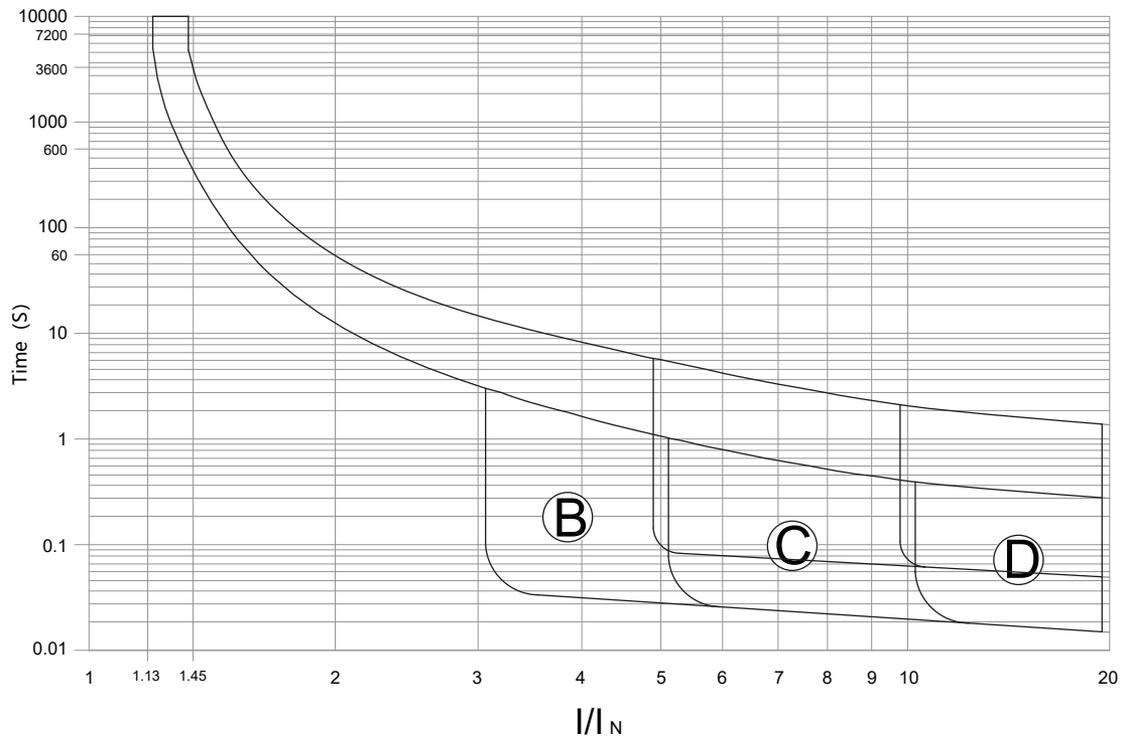
## Ordering Information

	<b>UEB6</b>	<b>- 63</b>	<b>M</b>	<b>/C</b>	<b>06</b>	<b>1N</b>
Miniature Circuit Breaker Series						
Maximum rated current: 63: 63A						
Breaking capacity: L: 4.5kA; M: 6kA						
Instantaneous tripping characteristics B: 3In-5In; C: 5In...10In; D: 10In...20In						
Rated Current: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A						
Number of poles: 1: 1P; 1N: 1P+N; 2: 2P; 3: 3P; 3N: 3P+N; 4: 4P						

## Main Technical Data

<b>Type</b>		UEB6-63
Number of poles		1P, 1P+N, 2P, 3P, 3P+N, 4P
Instantaneous tripping characteristics		B:3I <sub>n</sub> ~5I <sub>n</sub> ; C:5I <sub>n</sub> ~10I <sub>n</sub> ; D:10I <sub>n</sub> ~20I <sub>n</sub>
Short-circuit breaking capacity		UEB6-63L: I <sub>cn</sub> =I <sub>cs</sub> =4.5kA UEB6-63M: I <sub>cn</sub> =I <sub>cs</sub> =6kA
Rated current I <sub>n</sub>		6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A
Rated voltage U <sub>e</sub>		AC230V/400V(1P); AC230V(1P+N); AC400V(2P/3P/3P+N/4P)
Rated insulation voltage U <sub>i</sub>		500V
Rated impulse withstand voltage U <sub>imp</sub>		4kV
Power frequency withstand voltage		2kV
Mechanical endurance (cycles)		20000
Electrical endurance (cycles)		10000
Protection degree		IP20
Weight (g)	1P	94.5
	1P+N	208
	2P	210.5
	3P	281.5
	3P+N	378.5
	4P	420.5
Product packaging		( Carton:430mm×290mm×260mm/180 poles)
Wiring method		Upper terminal incoming

## Overload Release Characteristic Curve

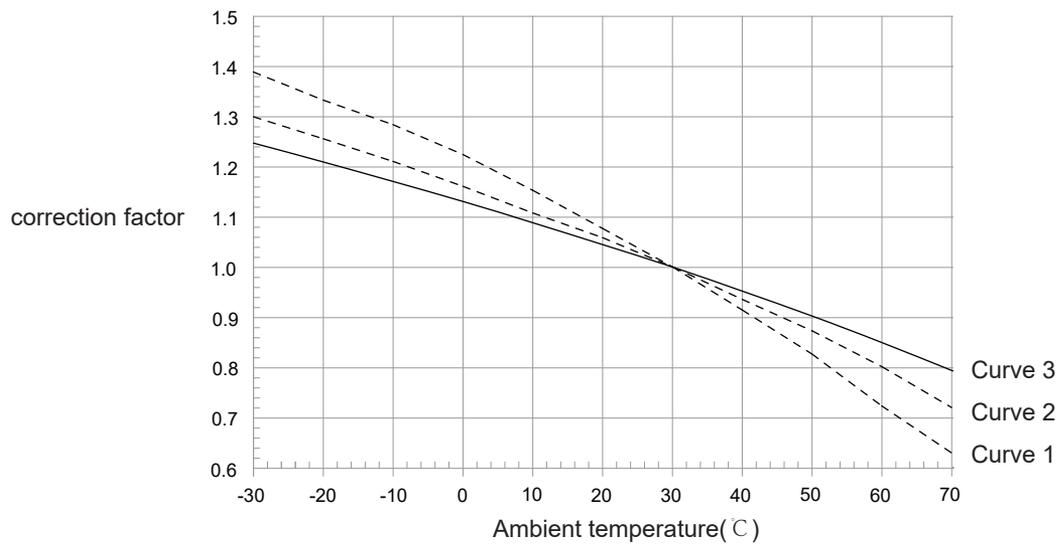


# Derating coefficients

## Temperature Compensation Coefficient

At different ambient temperature, the rated value of the equipment normally should not exceed the corresponding supplement coefficient to which the overload tripping current.

The curve corresponding to the correction coefficient									
Rated current(A)	6	10	16	20	25	32	40	50	63
Curve B	1	1	2	2	2	2	2	2	3
Curve C	1	1	2	2	2	2	2	2	3
Curve D	1	1	2	2	2	2	2	2	3



## Frequency Coefficient

Thermal release: invariant

Electromagnetic release: Multiplying the corresponding value and frequency coefficient K

F(Hz)	16Hz~60Hz	100 Hz	200 Hz	300 Hz	400 Hz
K	1	1.1	1.2	1.4	1.5

## Derating Coefficient in High Altitude Area

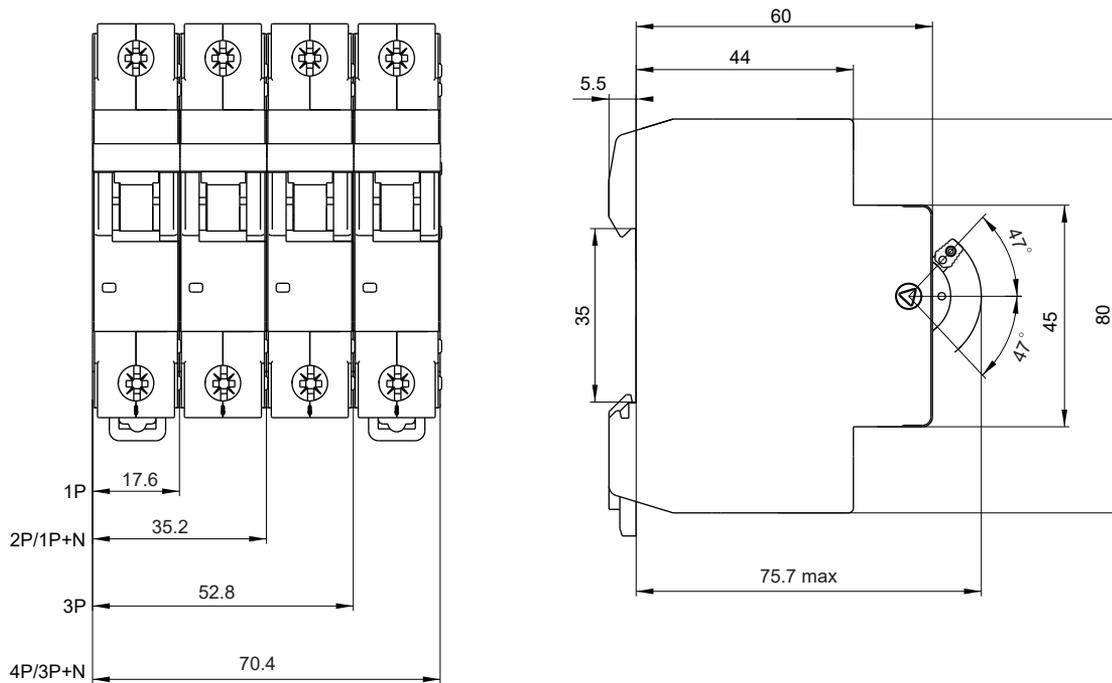
Altitude(m)	2000	3000	4000	5000
Rated current In	1	0.97	0.91	0.86
Rated insulation voltage Ui	1	0.90	0.82	0.76
Power frequency withstand voltage	1	0.90	0.82	0.76
Rated impulse withstand voltage Uimp	1	0.90	0.82	0.76
Rated breaking capacity	1	0.87	0.77	0.67
Electrical endurance	1	0.87	0.77	0.67

## Wiring Capability

Terminal screw specification	Rated torque	Max torque	EN/IEC standard torque	Solid wire	Stranded copper wire
M5	2.0N·m	3.2N·m	2.0N·m	1mm <sup>2</sup> - 25mm <sup>2</sup>	1mm <sup>2</sup> - 25mm <sup>2</sup>

## Mechanical Dimensions

Unit: mm



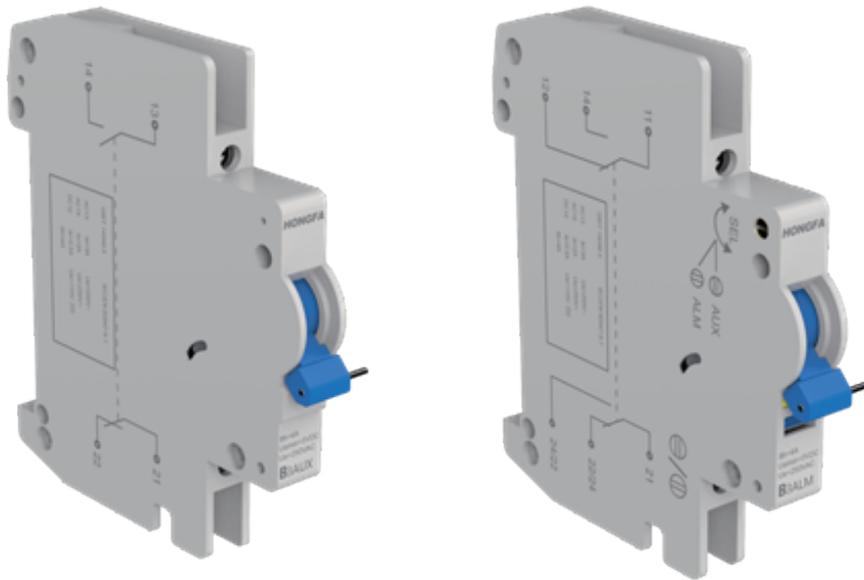
## Number of poles

Number of poles	Type (B characteristic)	Type (C characteristic)	Type (D characteristic)	Rated current (A)	Breaking Capacity (A)
1P	UEB6-63L/B061	UEB6-63L/C061	UEB6-63L/D061	06	4500
1P	UEB6-63L/B101	UEB6-63L/C101	UEB6-63L/D101	10	4500
1P	UEB6-63L/B161	UEB6-63L/C161	UEB6-63L/D161	16	4500
1P	UEB6-63L/B201	UEB6-63L/C201	UEB6-63L/D201	20	4500
1P	UEB6-63L/B251	UEB6-63L/C251	UEB6-63L/D251	25	4500
1P	UEB6-63L/B321	UEB6-63L/C321	UEB6-63L/D321	32	4500
1P	UEB6-63L/B401	UEB6-63L/C401	UEB6-63L/D401	40	4500
1P	UEB6-63L/B501	UEB6-63L/C501	UEB6-63L/D501	50	4500
1P	UEB6-63L/B631	UEB6-63L/C631	UEB6-63L/D631	63	4500
1P+N	UEB3-63L/B061N	UEB6-63L/C061N	UEB6-63L/D061N	06	4500
1P+N	UEB6-63L/B101N	UEB6-63L/C101N	UEB6-63L/D101N	10	4500
1P+N	UEB6-63L/B161N	UEB6-63L/C161N	UEB6-63L/D161N	16	4500
1P+N	UEB6-63L/B201N	UEB6-63L/C201N	UEB6-63L/D201N	20	4500
1P+N	UEB6-63L/B251N	UEB6-63L/C251N	UEB6-63L/D251N	25	4500
1P+N	UEB6-63L/B321N	UEB6-63L/C321N	UEB6-63L/D321N	32	4500
1P+N	UEB6-63L/B401N	UEB6-63L/C401N	UEB6-63L/D401N	40	4500
1P+N	UEB6-63L/B501N	UEB6-63L/C501N	UEB6-63L/D501N	50	4500
1P+N	UEB6-63L/B631N	UEB6-63L/C631N	UEB6-63L/D631N	63	4500
2P	UEB6-63L/B062	UEB6-63L/C062	UEB6-63L/D062	06	4500
2P	UEB6-63L/B102	UEB6-63L/C102	UEB6-63L/D102	10	4500
2P	UEB6-63L/B162	UEB6-63L/C162	UEB6-63L/D162	16	4500
2P	UEB6-63L/B202	UEB6-63L/C202	UEB6-63L/D202	20	4500
2P	UEB6-63L/B252	UEB6-63L/C252	UEB6-63L/D252	25	4500
2P	UEB6-63L/B322	UEB6-63L/C322	UEB6-63L/D322	32	4500
2P	UEB6-63L/B402	UEB6-63L/C402	UEB6-63L/D402	40	4500
2P	UEB6-63L/B502	UEB6-63L/C502	UEB6-63L/D502	50	4500
2P	UEB6-63L/B632	UEB6-63L/C632	UEB6-63L/D632	63	4500
3P	UEB6-63L/B063	UEB6-63L/C063	UEB6-63L/D063	06	4500
3P	UEB6-63L/B103	UEB6-63L/C103	UEB6-63L/D103	10	4500
3P	UEB6-63L/B163	UEB6-63L/C163	UEB6-63L/D163	16	4500
3P	UEB6-63L/B203	UEB6-63L/C203	UEB6-63L/D203	20	4500
3P	UEB6-63L/B253	UEB6-63L/C253	UEB6-63L/D253	25	4500
3P	UEB3-63L/B323	UEB6-63L/C323	UEB6-63L/D323	32	4500
3P	UEB6-63L/B403	UEB6-63L/C403	UEB6-63L/D403	40	4500
3P	UEB6-63L/B503	UEB6-63L/C503	UEB6-63L/D503	50	4500
3P	UEB6-63L/B633	UEB6-63L/C633	UEB6-63L/D633	63	4500
3P+N	UEB6-63L/B063N	UEB6-63L/C063N	UEB6-63L/D063N	06	4500
3P+N	UEB6-63L/B103N	UEB6-63L/C103N	UEB6-63L/D103N	10	4500
3P+N	UEB6-63L/B163N	UEB6-63L/C163N	UEB6-63L/D163N	16	4500
3P+N	UEB6-63L/B203N	UEB6-63L/C203N	UEB6-63L/D203N	20	4500
3P+N	UEB6-63L/B253N	UEB6-63L/C253N	UEB6-63L/D253N	25	4500
3P+N	UEB3-63L/B323N	UEB6-63L/C323N	UEB6-63L/D323N	32	4500
3P+N	UEB6-63L/B403N	UEB6-63L/C403N	UEB6-63L/D403N	40	4500
3P+N	UEB6-63L/B503N	UEB6-63L/C503N	UEB6-63L/D503N	50	4500
3P+N	UEB6-63L/B633N	UEB6-63L/C633N	UEB6-63L/D633N	63	4500
4P	UEB6-63L/B064	UEB6-63L/C064	UEB6-63L/D064	06	4500
4P	UEB6-63L/B104	UEB6-63L/C104	UEB6-63L/D104	10	4500
4P	UEB6-63L/B164	UEB6-63L/C164	UEB6-63L/D164	16	4500
4P	UEB6-63L/B204	UEB6-63L/C204	UEB6-63L/D204	20	4500
4P	UEB6-63L/B254	UEB6-63L/C254	UEB6-63L/D254	25	4500
4P	UEB6-63L/B324	UEB6-63L/C324	UEB6-63L/D324	32	4500
4P	UEB6-63L/B404	UEB6-63L/C404	UEB6-63L/D404	40	4500
4P	UEB6-63L/B504	UEB6-63L/C504	UEB6-63L/D504	50	4500
4P	UEB6-63L/B634	UEB6-63L/C634	UEB6-63L/D634	63	4500

## Number of poles

Number of poles	Type (B characteristic)	Type (C characteristic)	Type (D characteristic)	Rated current (A)	Breaking Capacity ( )
1P	UEB6-63M/B061	UEB6-63M/C061	UEB6-63M/D061	06	6000
1P	UEB6-63M/B101	UEB6-63M/C101	UEB6-63M/D101	10	6000
1P	UEB6-63M/B161	UEB6-63M/C161	UEB6-63M/D161	16	6000
1P	UEB6-63M/B201	UEB6-63M/C201	UEB6-63M/D201	20	6000
1P	UEB6-63M/B251	UEB6-63M/C251	UEB6-63M/D251	25	6000
1P	UEB6-63M/B321	UEB6-63M/C321	UEB6-63M/D321	32	6000
1P	UEB6-63M/B401	UEB6-63M/C401	UEB6-63M/D401	40	6000
1P	UEB6-63M/B501	UEB6-63M/C501	UEB6-63M/D501	50	6000
1P	UEB6-63M/B631	UEB6-63M/C631	UEB6-63M/D631	63	6000
1P+N	UEB6-63M/B061N	UEB6-63M/C061N	UEB6-63M/D061N	06	6000
1P+N	UEB6-63M/B101N	UEB6-63M/C101N	UEB6-63M/D101N	10	6000
1P+N	UEB6-63M/B161N	UEB6-63M/C161N	UEB6-63M/D161N	16	6000
1P+N	UEB6-63M/B201N	UEB6-63M/C201N	UEB6-63M/D201N	20	6000
1P+N	UEB6-63M/B251N	UEB6-63M/C251N	UEB6-63M/D251N	25	6000
1P+N	UEB6-63M/B321N	UEB6-63M/C321N	UEB6-63M/D321N	32	6000
1P+N	UEB6-63M/B401N	UEB6-63M/C401N	UEB6-63M/D401N	40	6000
1P+N	UEB6-63M/B501N	UEB6-63M/C501N	UEB6-63M/D501N	50	6000
1P+N	UEB6-63M/B631N	UEB6-63M/C631N	UEB6-63M/D631N	63	6000
2P	UEB6-63M/B062	UEB6-63M/C062	UEB6-63M/D062	06	6000
2P	UEB6-63M/B102	UEB6-63M/C102	UEB6-63M/D102	10	6000
2P	UEB6-63M/B162	UEB6-63M/C162	UEB6-63M/D162	16	6000
2P	UEB6-63M/B202	UEB6-63M/C202	UEB6-63M/D202	20	6000
2P	UEB6-63M/B252	UEB6-63M/C252	UEB6-63M/D252	25	6000
2P	UEB6-63M/B322	UEB6-63M/C322	UEB6-63M/D322	32	6000
2P	UEB6-63M/B402	UEB6-63M/C402	UEB6-63M/D402	40	6000
2P	UEB6-63M/B502	UEB6-63M/C502	UEB6-63M/D502	50	6000
2P	UEB6-63M/B632	UEB6-63M/C632	UEB6-63M/D632	63	6000
3P	UEB6-63M/B063	UEB6-63M/C063	UEB6-63M/D063	06	6000
3P	UEB6-63M/B103	UEB6-63M/C103	UEB6-63M/D103	10	6000
3P	UEB6-63M/B163	UEB6-63M/C163	UEB6-63M/D163	16	6000
3P	UEB6-63M/B203	UEB6-63M/C203	UEB6-63M/D203	20	6000
3P	UEB6-63M/B253	UEB6-63M/C253	UEB6-63M/D253	25	6000
3P	UEB6-63M/B323	UEB6-63M/C323	UEB6-63M/D323	32	6000
3P	UEB6-63M/B403	UEB6-63M/C403	UEB6-63M/D403	40	6000
3P	UEB6-63M/B503	UEB6-63M/C503	UEB6-63M/D503	50	6000
3P	UEB6-63M/B633	UEB6-63M/C633	UEB6-63M/D633	63	6000
3P+N	UEB6-63M/B063N	UEB6-63M/C633N	UEB6-63M/D063N	06	6000
3P+N	UEB6-63M/B103N	UEB6-63M/C103N	UEB6-63M/D103N	10	6000
3P+N	UEB6-63M/B163N	UEB6-63M/C163N	UEB6-63M/D163N	16	6000
3P+N	UEB6-63M/B203N	UEB6-63M/C203N	UEB6-63M/D203N	20	6000
3P+N	UEB6-63M/B253N	UEB6-63M/C253N	UEB6-63M/D253N	25	6000
3P+N	UEB6-63M/B323N	UEB6-63M/C323N	UEB6-63M/D323N	32	6000
3P+N	UEB6-63M/B403N	UEB6-63M/C403N	UEB6-63M/D403N	40	6000
3P+N	UEB6-63M/B503N	UEB6-63M/C503N	UEB6-63M/D503N	50	6000
3P+N	UEB6-63M/B633N	UEB6-63M/C633N	UEB6-63M/D633N	63	6000
4P	UEB6-63M/B064	UEB6-63M/C064	UEB6-63M/D064	06	6000
4P	UEB6-63M/B104	UEB6-63M/C104	UEB6-63M/D104	10	6000
4P	UEB6-63M/B164	UEB6-63M/C164	UEB6-63M/D164	16	6000
4P	UEB6-63M/B204	UEB6-63M/C204	UEB6-63M/D204	20	6000
4P	UEB6-63M/B254	UEB6-63M/C254	UEB6-63M/D254	25	6000
4P	UEB6-63M/B324	UEB6-63M/C324	UEB6-63M/D324	32	6000
4P	UEB6-63M/B404	UEB6-63M/C404	UEB6-63M/D404	40	6000
4P	UEB6-63M/B504	UEB6-63M/C504	UEB6-63M/D504	50	6000
4P	UEB6-63M/B634	UEB6-63M/C634	UEB6-63M/D634	63	6000

## Auxiliary contact, alarm contact



### Scope of Application

This series of accessories is auxiliary functional element matching with UEB6 series circuit breakers. Individual accessory can be selected to match the UEB6 circuit breakers for electrical circuits according to the demands to realize remote control of the circuit breakers, providing auxiliary signals, opening and closing state indication and providing alarm signals.

### Standard

IEC/EN60947-5-1  
Low-voltage switchgear  
and controlgear

Part 5-1

Control circuit devices and switching elements - Electromechanical control circuit devices

## Standard Operation and Installation Conditions

- Operating temperature range: -30°C ... +70°C

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- Altitude: < 2000m

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- Environment condition: There shall be no medium causing explosion hazard, harmful gas and conductive dust that corrode and damage insulation.

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- Mounting condition: Install on 35mm DIN rail

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## Ordering Information

	<b>B</b>	<b>6</b>	<b>AUX</b>
Productcategory code <b>B:</b> MCB			
Design series number <b>3:</b> Series 6			
Accessory type <b>AUX:</b> auxiliary contact; <b>ALM:</b> alarm contact			

## Main Technical Data

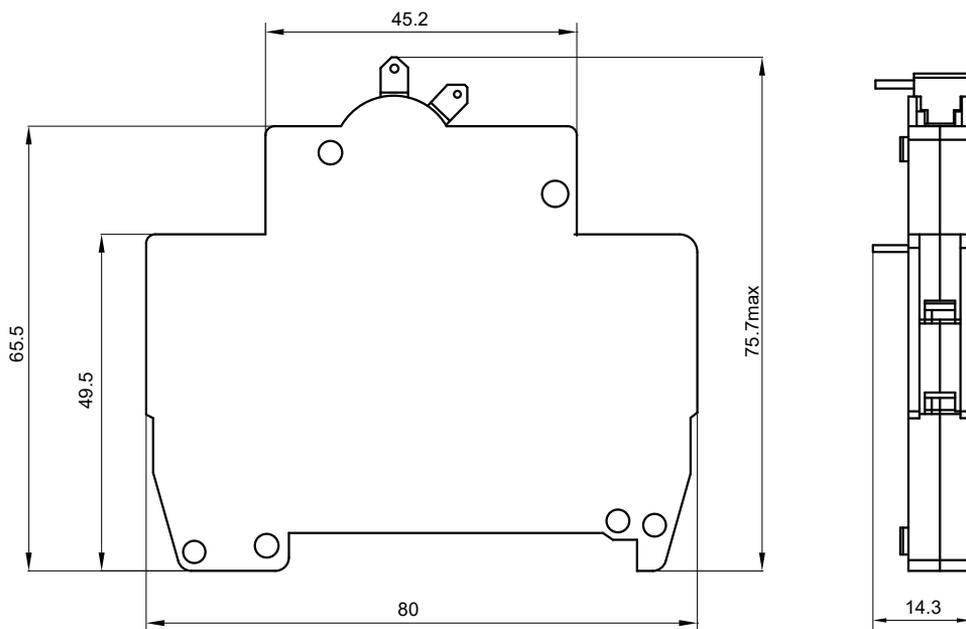
Type	B6AUX/ B6ALM
Contact breaking capacity	AC13: I <sub>e</sub> =3A; U <sub>e</sub> =250V AC15: I <sub>e</sub> =2A; U <sub>e</sub> =250V DC12: I <sub>e</sub> =0.5A ; U <sub>e</sub> =110V
Minimum operational voltage	5V
Minimum operational current	10mA
Rated insulation voltage U <sub>e</sub>	500V
Rated conditional short-circuit Current I <sub>k</sub>	1000A
Conventional thermal current I <sub>th</sub>	4A
Mechanical life (cycles)	4000
Electrical life (cycles)	2000
Weight (g)	40
Packaging dimension (Length× Height × Width)	80mm×75.7mm×14.3mm

## Wiring capability

Wiring screw specification	Rated torque	Wire sectional area
M3	0.8 N·m	1×0.5 mm <sup>2</sup> ~ 1×2.5 mm <sup>2</sup>

## Mechanical Dimensions

Unit: mm



## Selection table

Type	Contact number	Remarks
B6AUX	1NO+1NC	Auxiliary contact
B6ALM	2CO	Alarm contact

## Shunt Release Product Overview

### Scope of Application

Shunt trips are auxiliary functional element matching UEB6 series circuit breakers. When a shunt trip receives a tripping signal, it will trip the breaker on which the shunt trip is mounted to realize remote control.

### Product standard

EN60947-5-1 Low-voltage switchgear and control gear Part 5-1:Control circuit devices and switching elements - Electromechanical control circuit devices

EN60947-2 Low voltage switchgear and controlgear Part 2: Circuit breaker

## Standard Operation and Installation Conditions

- Operation temperature range: -30 °C ... +70 °C
- Altitude: < 2000m
- Environment condition: There shall be no medium causing explosion hazard, harmful gas and conductive dust that corrode and damage insulation
- Mounting condition: Install on 35mm DIN rail

## Ordering Information

	<b>B</b>	<b>6</b>	<b>SH</b>
Product category code <b>B:</b> MCB			
Design series number <b>6:</b> Series 6			
Accessory type <b>SH:</b> Shunt release			

## Main Technical Data

Type	B6SH		
Rated control voltage	AC/DC: 12V ~ 24V	AC/DC: 48V	AC: 110V ~ 415V DC: 110 V ~ 130V
Maximum tripping time	≤10ms		
Minimum operating voltage	4.2V	16.8V	38.5V
Tripping power consumption	4.8Ω	72Ω	400Ω
Operating characteristics	At any voltage between 35%-110%Us can trip		
Mechanical life (cycles)	10000		
Electrical life (cycles)	4000		
Packaging dimension (Length× Height× Width)	80mm×76mm×18mm		
Weight (g)	78		

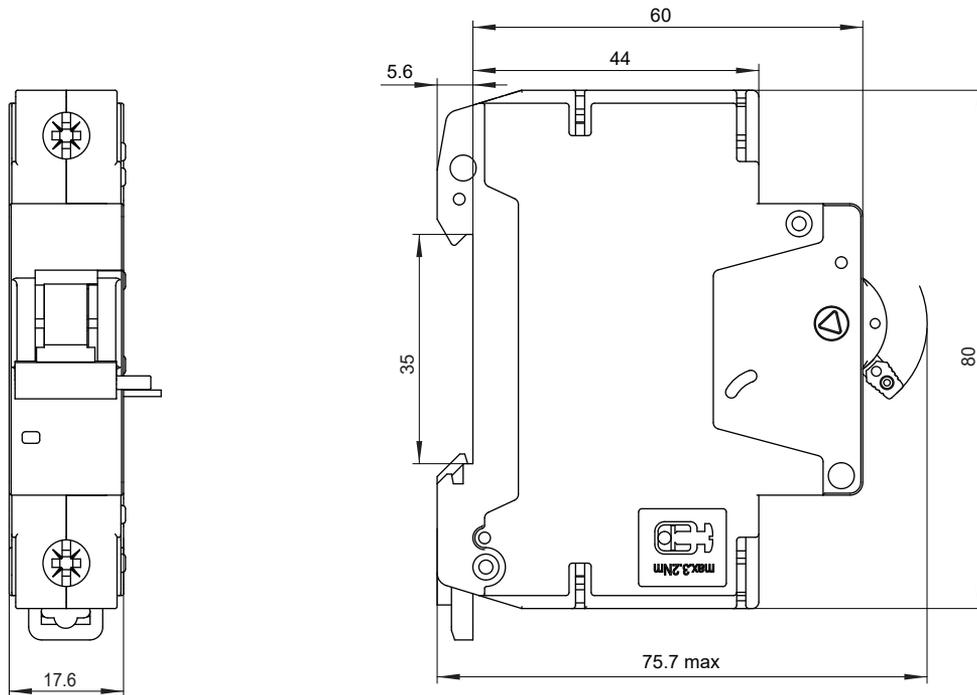
## Wiring capability

Screw clamp terminals, and wires of 1mm<sup>2</sup>... 25mm<sup>2</sup> can be connected.

Wiring screw specification	Rated torque	Ultimate torque	Solid wire	Stranded copper wire
M5	2.0 N·m	3.2N·m	1mm <sup>2</sup> ~ 25mm <sup>2</sup>	1mm <sup>2</sup> ~ 25mm <sup>2</sup>

## Mechanical Dimensions

Unit: mm



## Selection table

Type	Remark
B6SH	AC/DC: 12V~24V
B6SH	AC/DC: 48V
B6SH	AC: 110V~415V DC: 110 V~130V

## Under voltage release, Under voltage/overvoltage release, Overvoltage release

### Scope of Application

This series of accessories is auxiliary functional elements matching UEB6 series circuit breakers. Individual accessory can be selected to match the UEB6 circuit breakers in electrical circuits according to the demand to realize the function of under voltage protection and overvoltage protection.

### Product standard

EN60947-5-1 Low-voltage switchgear and controlgear  
Part 5-1: Control circuit devices and switching elements - Electromechanical control circuit devices

EN60947-2 Low-voltage switchgear and controlgear Part 2: Circuit breaker

## Standard Operation and Installation Conditions

- Operating temperature range: -30 °C...+70 °C
- Altitude: < 2000m
- There shall be no medium causing explosion hazard, harmful gas and conductive dust that corrode and damage insulation
- Mounting condition: Install on 35mm DIN rail, inclination between the mounting plane and the vertical plane not exceed  $\pm 5^\circ$

## Ordering Information

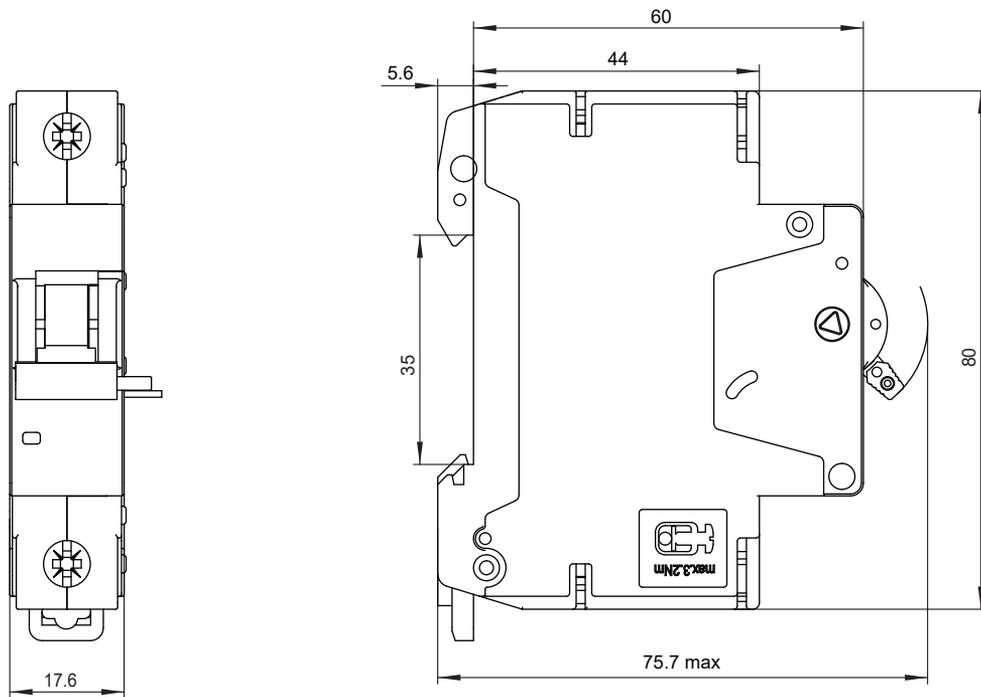
	<b>B</b>	<b>6</b>	<b>UV</b>
Product category code <b>B</b> : MCB			
Design series number <b>3</b> : Series 6			
Accessory type <b>UV</b> : Under voltage release; <b>OV</b> : Overvoltage release; <b>OU</b> : Under voltage/overvoltage release			

## Main Technical Data

Type	B6UV	B6OV	B6OU
Rated operational voltage	AC:230V		
Operational voltage	$0.35U_n \leq V \leq 0.7U_n$	$280V \pm 5\%$	Under voltage: $0.35U_n \leq V \leq 0.7U_n$ ; Over voltage: $280V \pm 5\%$
Wiring diagram			
Rated frequency	50/60 Hz		
Coil resistance	400Ω		
Mechanical endurance(cycles)	10000		
Electrical endurance (cycles)	4000		
Product packaging	Carton 80mm×76mm×18mm		
Weight (g)	85		

## Mechanical Dimensions

Unit: mm



## Selection table

Type	Remark
B6UV	Under voltage release
B6OV	Overvoltage release
B6OU	Under voltage/overvoltage release

# UEB6-40 series

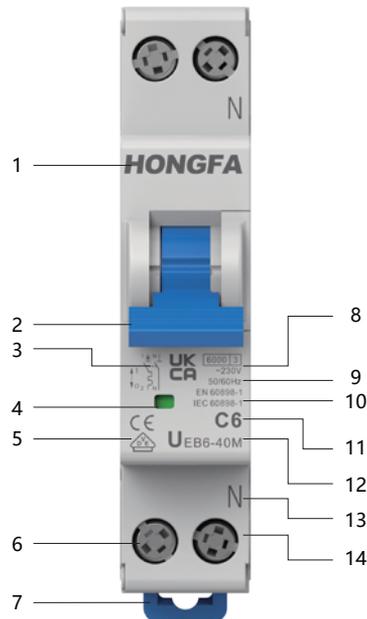
## Product Overview

UEB6-40 series miniature circuit breakers are mainly used in the circuit of rated voltage 230VAC (50Hz/60Hz), with up to rated operational current up to 40A. To it is used to protect the circuit and electric installation from over current and short circuit with isolation function, and can be used for infrequent making and breaking

## Product Features

- Independent Property Rights: UEB6-40 series circuit breakers have complete product independent property rights.
- Safe and Reliable: N pole can be interrupted, effectively avoiding the damage caused by line fault. Integrative design of precise thermal release components for accurate overload release. High breaking capacity and long electrical life.
- Environmentally Friendly: Parts and production process control to ensure environmental friendly product.
- Compact Structure ensures space saving: 1P+N in a 18mm module.

## Product Structure



1. Hongfa logo
2. Handle
3. Connection diagram
4. On/off indicator  
Red: On-status  
Green: Off-status
5. Certification
6. Terminal screw
7. Snap-on clip
8. Breaking capacity
9. Rated voltage
10. Product standard of compliance
11. Tripping characteristic and rated current
12. Part number
13. N pole
14. Plastic case

## Approval Certificate

	CCC	GB/T 10963.1
	CB	IEC 60898-1
	CE	EN 60898-1
	VDE	EN 60898-1

## Standard Operation and Installation Conditions

- Operation temperature range: -30°C... +70°C
- Storage temperature range: -40°C...+85°C
- Relative humidity: <50% @ 40°C; <90% @ 20°C
- Altitude: <=2000m
- Pollution degree: II
- Mounting category: II / III
- Mounting condition: Install on 35mm DIN rail, inclination between the mounting plane and the vertical plane not exceed  $\pm 5^\circ$
- Products should avoid significant vibration and shock

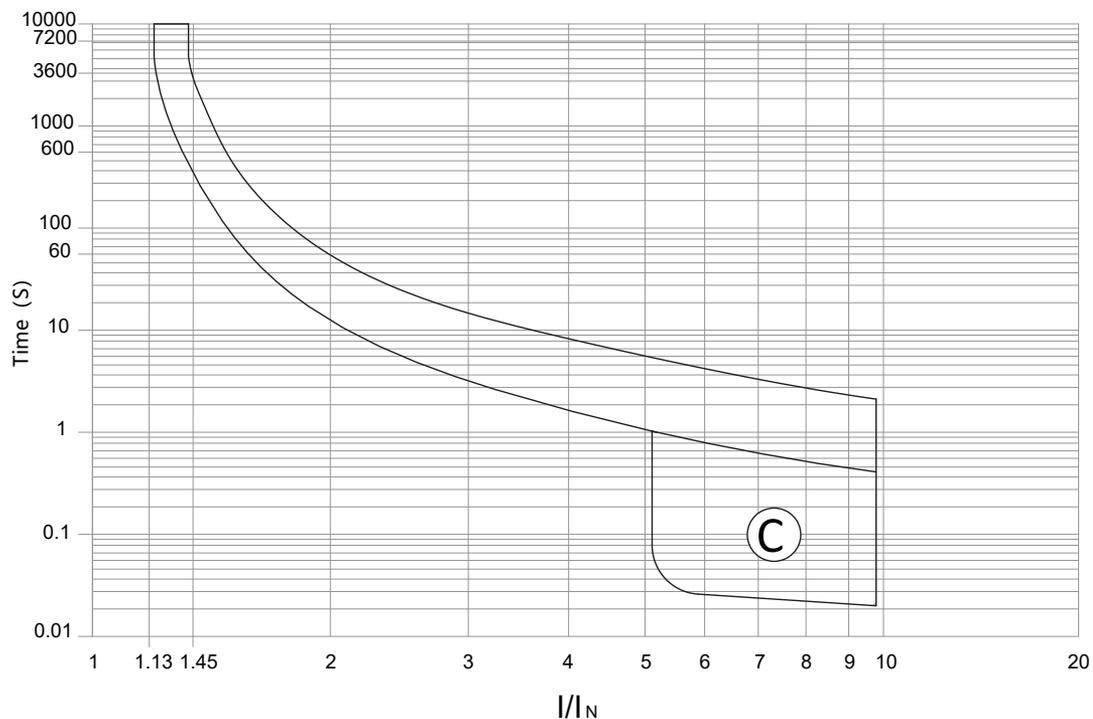
## Ordering Information

	UEB6	- 40	M	/C	06	1N
Miniature Circuit Breaker Series						
Maximum rated current 40: 40A						
Breaking capacity: L: 4.5kA; M: 6kA						
Instantaneous tripping characteristics: C: 5I <sub>n</sub> ~ 10I <sub>n</sub>						
Rated Current: 6A, 10A, 16A, 20A, 25A, 32A, 40A						
Number of poles: 1P+N						

## Main Technical Data

Type	UEB6-40
Number of poles	1P+N
Instantaneous tripping characteristics	C: $5I_n \sim 10I_n$
Short-circuit breaking capacity	UEB6-40L: $I_{cn}=I_{cs}=4.5kA$ UEB6-40M: $I_{cn}=I_{cs}=6kA$
Rated current $I_n$	6A, 10A, 16A, 20A, 25A, 32A, 40A
Rated voltage $U_e$	AC230V
Rated insulation voltage $U_i$	500V
Rated impulse withstand voltage $U_{imp}$	4kV
Power frequency withstand voltage	2kV
Mechanical endurance (cycles)	20000
Electrical endurance (cycles)	10000
Protection degree	IP20
Weight (g)	105
Product packaging	( Carton: 430mm×290mm×260mm/180 pieces)
Wiring method	Upper terminal incoming

## Overload Release Characteristic Curve



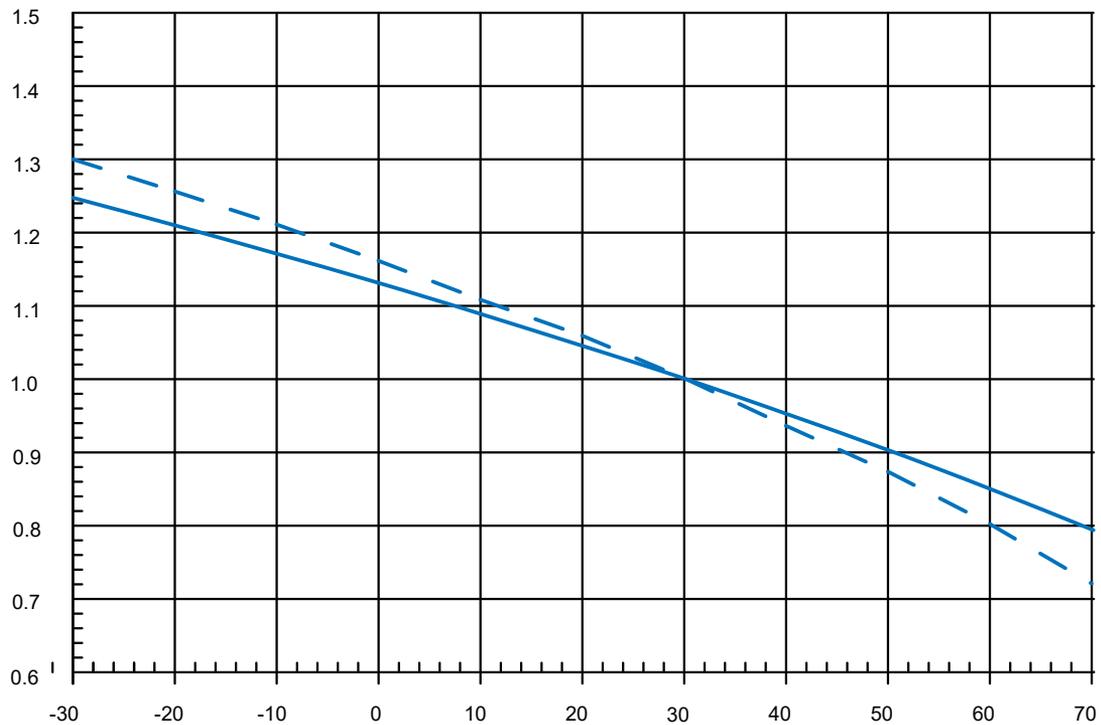
## Derating coefficients

### Temperature Compensation Coefficient

At different ambient temperature, the rated value of the equipment normally should not exceed the supplement coefficient, to which the overload tripping current corresponding.

The curve corresponding to the correction coefficient							
Rated current (A)	6	10	16	20	25	32	40
Curve type	1	1	2	2	2	2	2

UEB6-40



## Derating coefficients

### Frequency Coefficient

Thermal release: invariant

Electromagnetic release: Multiplying the corresponding value and frequency coefficient K

F(Hz)	16Hz~60Hz	100 Hz	200 Hz	300 Hz	400 Hz
K	1	1.1	1.2	1.4	1.5

### Derating Coefficient in High Altitude Area

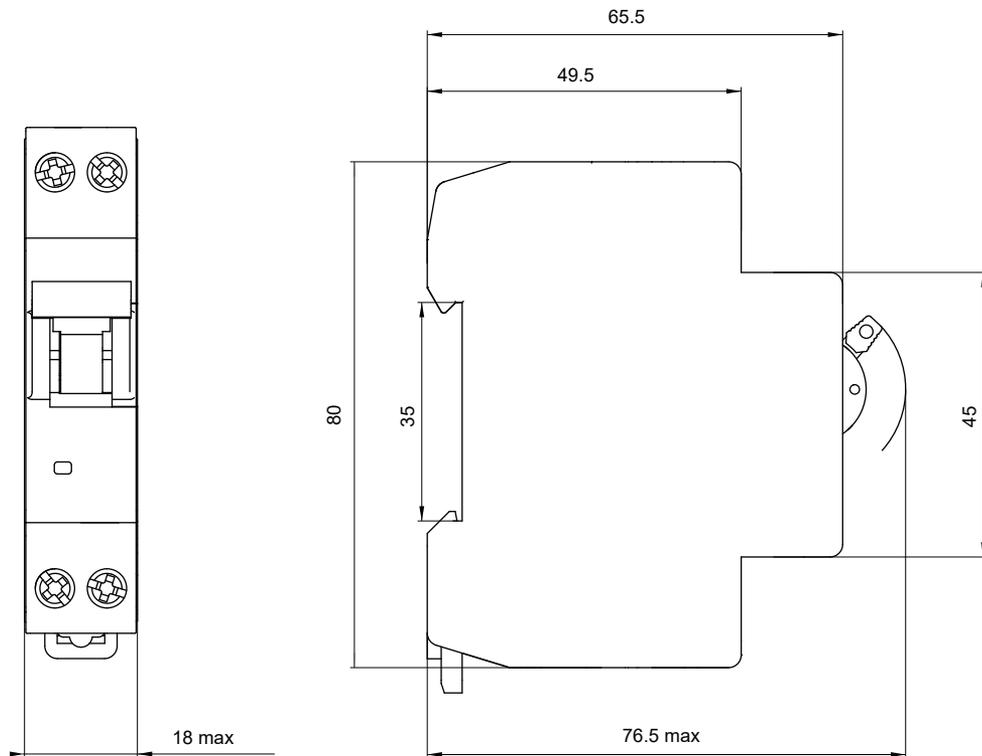
Altitude(m)	2000	3000	4000	5000
Rated current I <sub>n</sub>	1	0.97	0.91	0.86
Rated insulation voltage U <sub>i</sub>	1	0.90	0.82	0.76
Power frequency withstand voltage	1	0.90	0.82	0.76
Rated impulse withstand voltage U <sub>imp</sub>	1	0.90	0.82	0.76
Rated breaking capacity	1	0.87	0.77	0.67
Electrical endurance (cycles)	1	0.87	0.77	0.67

## Wiring Capability

Terminal screw specification	Rated torque	Max torque	EN/IEC standard torque	Solid wire	Stranded copper wire
M4	1.2Nm	2.0N·m	1.2Nm	1mm <sup>2</sup> ...16mm <sup>2</sup>	1mm <sup>2</sup> ...16mm <sup>2</sup>

## Mechanical Dimensions

Unit: mm



## Selection Table

Number of poles	Rated current (A)	Breaking capacity (kA)	Type (C characteristic)
1P+N	6	4.5	UEB6-40L/C061N
1P+N	10	4.5	UEB6-40L/C101N
1P+N	16	4.5	UEB6-40L/C161N
1P+N	20	4.5	UEB6-40L/C201N
1P+N	25	4.5	UEB6-40L/C251N
1P+N	32	4.5	UEB6-40L/C321N
1P+N	40	4.5	UEB6-40L/C401N
1P+N	6	6	UEB6-40M/C061N
1P+N	10	6	UEB6-40M/C101N
1P+N	16	6	UEB6-40M/C161N
1P+N	20	6	UEB6-40M/C201N
1P+N	25	6	UEB6-40M/C251N
1P+N	32	6	UEB6-40M/C321N
1P+N	40	6	UEB6-40M/C401N

# UEG6-125 series switch-disconnector

## Scope of Application

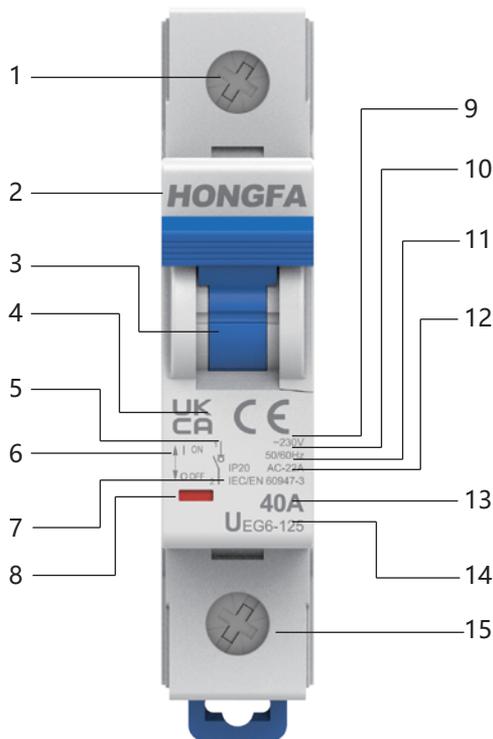
UEG6-125 series switch-disconnector is suitable for isolation and functional breaking in terminal distribution system. It adopts the family design of UEB6 series and has contact position indication. It can be used in 50/60 Hz electrical circuits with rated operational voltage of 230/400V at rated operational current up to 125A. It is used in the line facilities and industrial power distribution system of buildings and similar places. It is mainly used to connect or disconnect the circuit under no load condition for the connection or isolation between the line and the power supply. It is especially suitable for effectively isolating the power supply and preventing accidental switching on during line maintenance, so as to ensure the maintenance personnel's safety. It is also applicable for the infrequent manual making and breaking operation.

## Product Features

- It can be used as main switch in industrial, commercial and residential electric circuits
- The contact has high wear resistance
- With contact status indicator
- Switch-disconnector can be operated with load
- Rated insulation voltage 1000V, good dielectric strength, high safety
- Rated impulse withstand voltage up to 8kV, withstand ultra-high transient overvoltage,

The impact resistance category can meet the requirements of level I--level IV, applicable to a wide range of applications

## Product Structure



- 1 Terminal screw
- 2 Hongfa Logo
- 3 Handle
- 4 Certification
- 5 Connection diagram
- 6 On/off indication
- 7 Protection degree: IP20
- 8 On/off indicator:  
Red: ON  
Green: OFF
- 9 Rated voltage
- 10 Utilization category: AC-22A
- 11 Rated frequency
- 12 Standard of compliance
- 13 Rated current
- 14 Switch-disconnector series no
- 15 Plastic case

## Standard of Compliance

	CCC	GB/T 14048.3
	CE	IEC/EN 60947-3
	UKCA	IEC/EN 60947-3

## Standard Operation and Installation Conditions

- Operation temperature range: -30°C ... +70°C
- Storage temperature range: -40°C...+85°C
- Relative humidity: < 50% @ 40°C; < 90% @ 20°C
- Altitude: < 2000m
- Pollution degree: III
- Mounting category: III
- Mounting condition: Install on 35mm DIN rail, inclination between the mounting plane and the vertical plane not exceed  $\pm 5^\circ$

## Ordering Information

	UE	G	6	- 125	/125	1
Company Code: Xiamen Hongfa Electrical Safety & Controls Co., Ltd.						
Product code: switch-disconnector						
Design code: 6						
Frame rating: 125A						
Rated current: 32: 32A, 40: 40A, 50: 50A, 63: 63A, 80: 80A, 100: 100A, 125: 125A						
Pole number: 1: 1P; 2: 2P; 3: 3P; 4: 4P						

## Main Technical Data

Type	UEG6-125
Utilization category	AC-22A
Rated insulation voltage $U_i$	1000V
Rated impulse withstand voltage $U_{imp}$	8kV
Rated short time withstand current $I_{cw}$	12I <sub>n</sub> /1s
Rated short circuit making up capacity $I_{cm}$	20I <sub>n</sub>
Pole number	1P, 2P, 3P, 4P
Rated current $I_n$	32A, 40A, 50A, 63A, 80A, 100A, 125A
Rated voltage $U_e$	AC230V (1P); AC400V (2P, 3P, 4P);
Mechanical endurance (cycles)	20000
Electrical endurance (cycles)	10000 ( $\leq 100A$ ) 2500(125A)
Protection degree	IP20
Packing	Carton 430mm x 290mm x 260mm
Wiring method	Up in

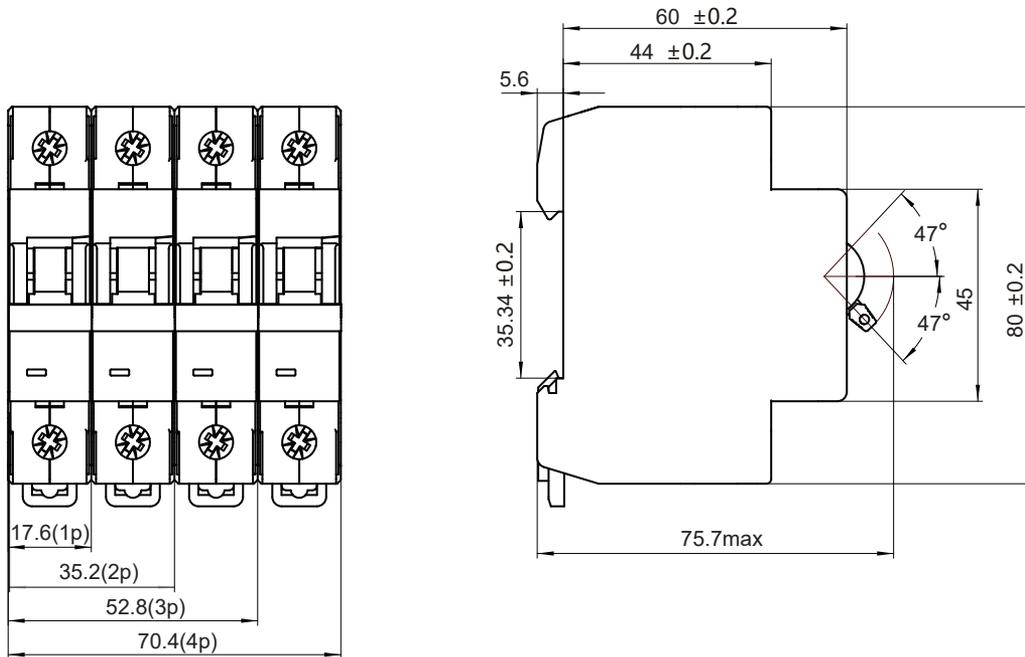
## Wiring Capacity

Press wiring, connection with 4mm<sup>2</sup> to 50mm<sup>2</sup> wire

Terminal screw specification	Rated torque	Max torque	IEC standard torque	Cross sectional area (soft wire)	Solid wire crosst sectional area
M7	3.5N·m	6N·m	3.5N·m	4mm <sup>2</sup> ~ 35mm <sup>2</sup>	4mm <sup>2</sup> ~ 50mm <sup>2</sup>

## Mechanical Dimensions

Unit: mm



## Selection Table

Rated current (A)	Pole number			
	1P	2P	3P	4P
32	UEG6-125/321	UEG6-125/322	UEG6-125/323	UEG6-125/324
40	UEG6-125/401	UEG6-125/402	UEG6-125/403	UEG6-125/404
50	UEG6-125/501	UEG6-125/502	UEG6-125/503	UEG6-125/504
63	UEG6-125/631	UEG6-125/632	UEG6-125/633	UEG6-125/634
80	UEG6-125/801	UEG6-125/802	UEG6-125/803	UEG6-125/804
100	UEG6-125/1001	UEG6-125/1002	UEG6-125/1003	UEG6-125/1004
125	UEG6-125/1251	UEG6-125/1252	UEG6-125/1253	UEG6-125/1254

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