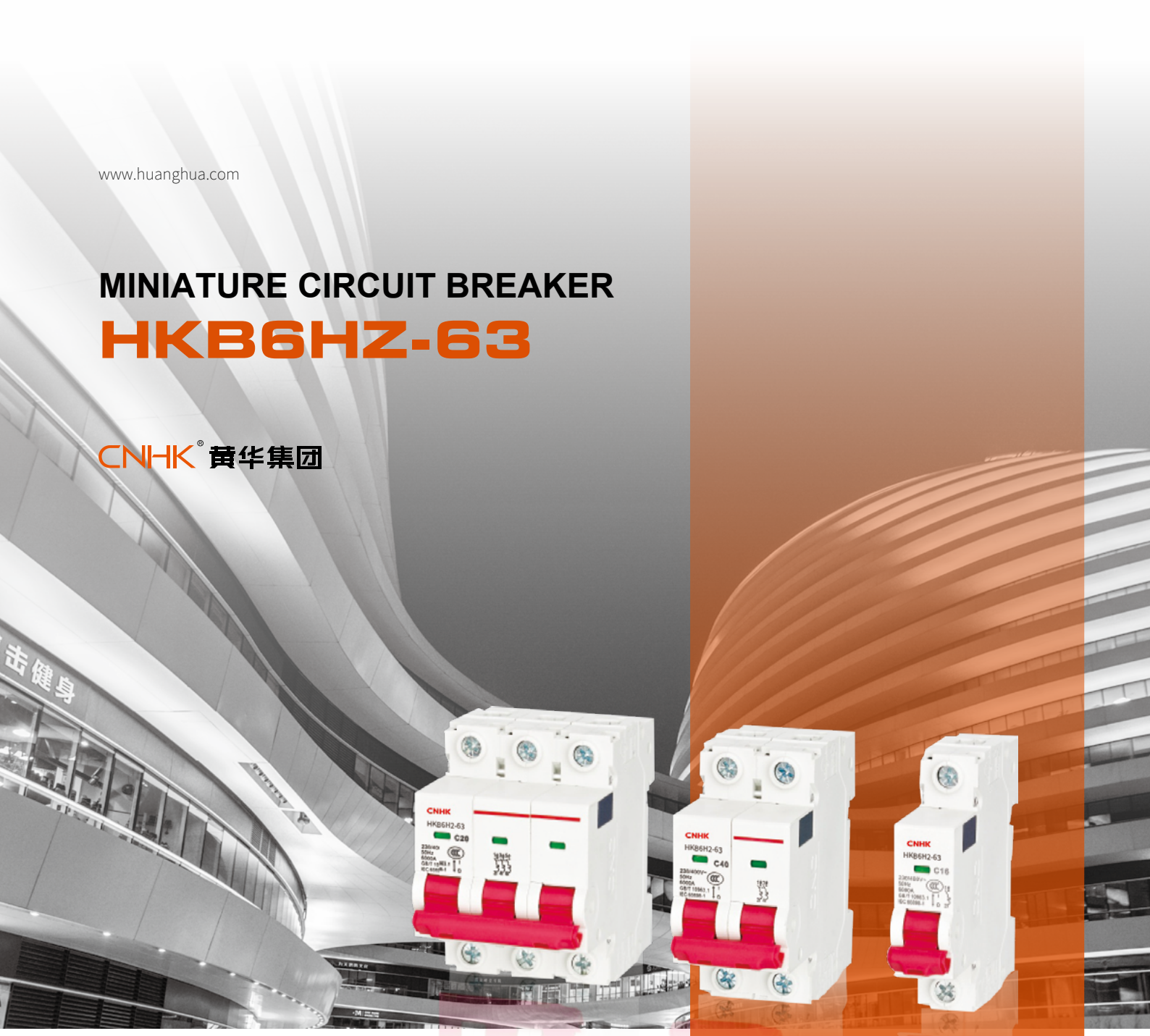
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MINIATURE CIRCUIT BREAKER
HKB6HZ-63

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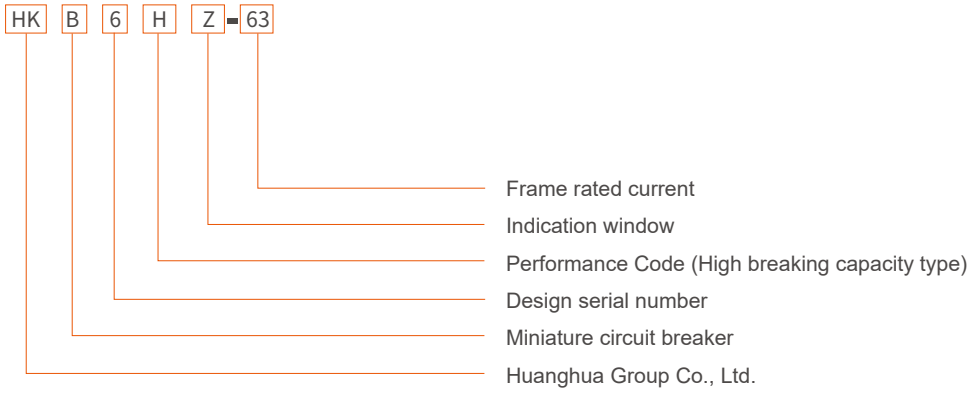
Product overview

HKB6HZ-63 series miniature circuit breaker is suitable for AC 50/60Hz, rated voltage 230V/400V, rated current to 63A to protect the building's line facilities overcurrent, with isolation, overload and short circuit protection functions, can also be used under normal conditions as a line of infrequent operation conversion.

HKB6HZ-63 series miniature circuit breakers are suitable for industrial, commercial, high-rise and residential buildings and other places.

MINIATURE CIRCUIT BREAKER

Model and its meaning



Normal operating conditions

△ Operating temperature: -25℃ ~+60℃, +20℃ relative humidity should not be higher than 90%;+40℃ relative humidity should not be higher than 50%

△ Altitude: ≤ 2000m

△ Installation category: II, III

△ Installation method: Embedded vertical DIN standard rail installation

△ Pollution level: 2

Main technical parameters

Frame class	63A
Rated insulation voltage	500V
Rated impulse withstand voltage	4kV
Rated current In (A)	1、2、3、4、5、6、10、16、20、25、32、40、50、63
Rated frequency	50Hz/60Hz
Instantaneous trip type	B、C、D
Poles	1P、2P、3P、4P
Rated Short-circuit Breaking Capacity Icn	6kA
Rated Service Short-circuit Breaking Capacity Ics	6kA
Mechanical life	20000
Electrical life	6000
Grid distance	50mm
Level of protection	IP20
Standards	IEC60898-1,GB/T 0963.1
Authentication	CCC/CB

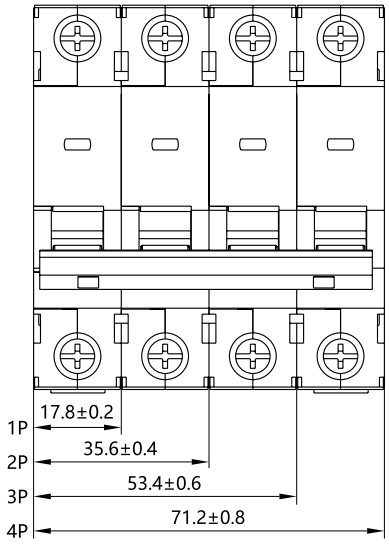
△ Overcurrent protection characteristic

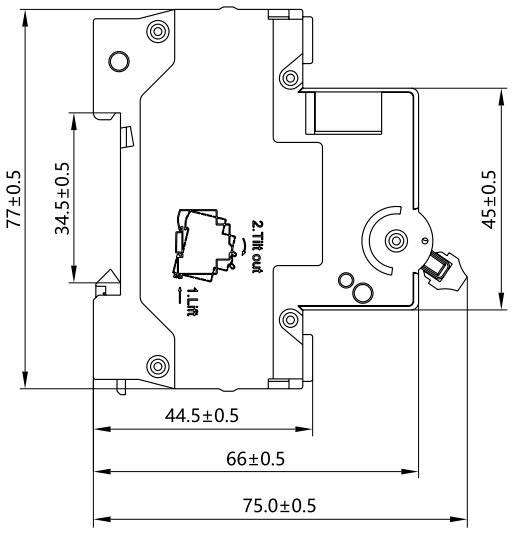
No.	Rated current(A)	Initial state	Test current	Time	Result	Remark
1	1~63	Cold state	1.13In	t ⩽ 1h	no trip	
2	1~63	After the previous test	1.45In	t < 1h	trip	The current rises steadily to the specified value within 5s
3	In ⩽ 32	Cold state	2.55In	1s < t < 60s	trip	
	In > 32	Cold state	2.55In	1s < t < 120s	trip	
4	1~63	Cold state	3In	t ⩽ 0.1s	no trip	B type
			5In	t < 0.1s	trip	
			5In	t ⩽ 0.1s	no trip	C type
			10In	t < 0.1s	trip	
			10In	t ⩽ 0.1s	no trip	D type
			20In	t < 0.1s	trip	

△ Current correction coefficient for different ambient temperatures

Temperature℃	-30	-20	-10	0	10	20	30	40	50	60	70
Current correction coefficient	1.30	1.30	1.20	1.15	1.10	1.05	1.00	0.95	0.90	0.85	0.80

Appearance and installation size





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EXTERNAL CIRCUIT BREAKER FOR CHARGE-CONTROLLED ELECTRICITY METER

HKB9F-100+ZF

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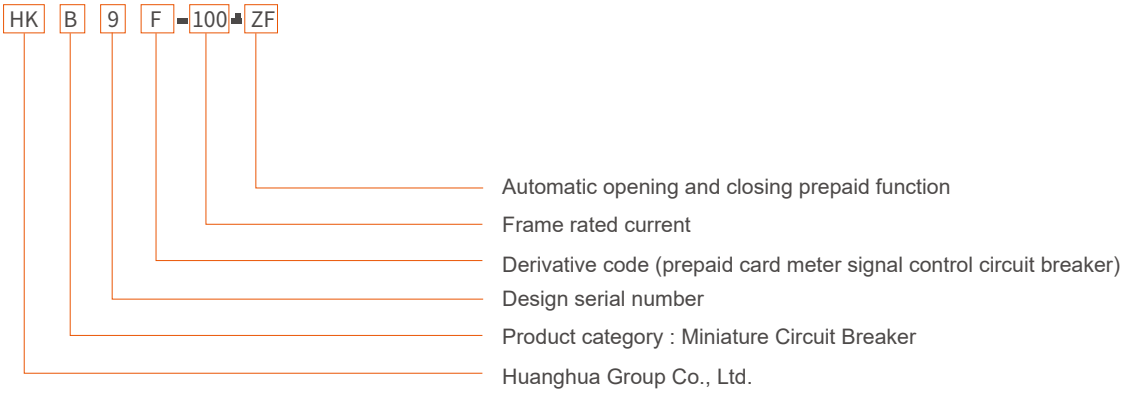


Product overview

HKB9F-100+ZF external circuit breaker for charge-controlled electricity meter, miniature circuit breaker with short-circuit overload protection as main switch, equipped with ultra-small intelligent electric operation with microprocessor, automatically controls the opening or closing of the circuit breaker through the detection of electric control signals, and is used with prepaid electric meters to realize automatic control of arrearage opening and payment closing.

The circuit breaker complies with the "Technical Specifications for External Circuit Breakers for Electric Energy Meters" issued by State Grid Corporation of China and China Southern Power Grid and (GB/T 10963.1 Overcurrent Protection Circuit Breakers for Household and Similar Places Part 1: Circuit Breakers for AC Use).

Model and its meaning



Normal operating conditions

△ Altitude: ≤ 2000m
△ Installation category: II, III
△ Installation method: embedded vertical DIN standard rail installation
△ Pollution level: 2

Main technical parameters

Frame class	63A
Rated insulation voltage	500V
Rated impulse withstand voltage	6kV
Rated frequency	50Hz
Poles	2P、3P
Instantaneous trip type	C
Rated Short-circuit Breaking Capacity Icn	6kA(80-100A),10kA(10-63A)
Rated Service Short-circuit Breaking Capacity Ics	6kA(80-100A),7.5kA(10-63A)
Mechanical life	10000
Electrical life	6000
Working range	(65%~120%)Un
Control signal voltage	AC220V 50Hz
Power-on delay time	4s ⩽ t ⩽ 5s or 7s ⩽ t ⩽ 8s
Automatic closing time	t ⩽ 3s
Operating temperature	-40°C ~+70°C
Relative humidity	+20°C not higher than 95%; +40°C not higher than 50%
Cross-sectional area of signal connecting conductor	0.3mm^2
Signal connection conductor length	300mm(Other lengths can be supplied specially if required)
Grid distance	50mm
Standards	IEC60898-1,GB/T 0963.1
Authentication	CCC/CB

EXTERNAL CIRCUIT BREAKER FOR CHARGE-CONTROLLED ELECTRICITY METER

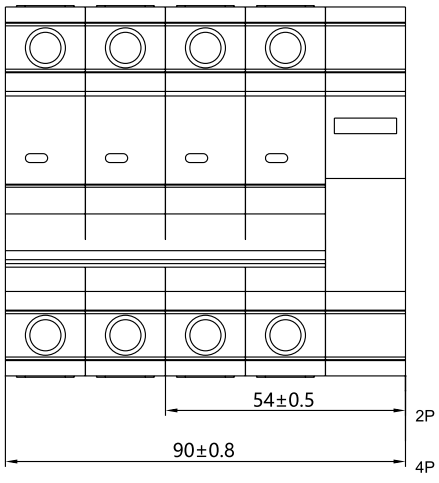
Overcurrent protection characteristic

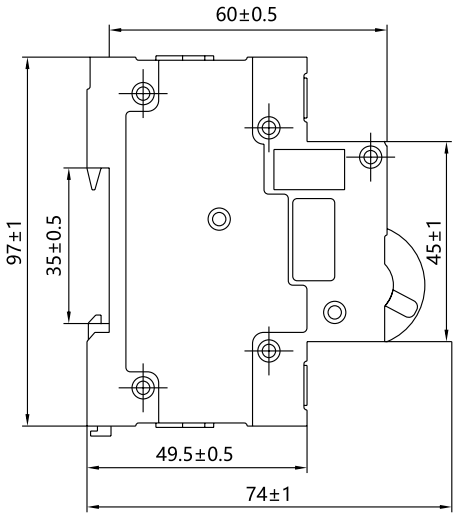
No.	Rated current(A)	Initial state	Test current	Time	Result	Remark
1	10~100	Cold state	1.13In	t ⩽ 1h (⩽ 63A) t ⩽ 2h (⩾ 80A)	no trip	
2	10~100	After the previous test	1.45In	t < 1h (⩽ 63A) t < 2h (⩾ 80A)	trip	The current rises steadily to the specified value within 5s
3	In ⩽ 32	Cold state	2.55In	1s < t < 60s	trip	
	In > 32	Cold state	2.55In	1s < t < 120s	trip	
4	10~100	Cold state	5In	t ⩽ 0.1s	no trip	C type
			10In	t < 0.1s	trip	

△ Current correction coefficient for different ambient temperatures

Rated current(A) \ Temperature℃ (Corrected current(A))	-25	-20	-10	0	10	20	30	40	50	65
10	12.5	12.4	11.9	11.3	10.8	10.4	10	9.7	9.2	8.5
16	20	19.8	18.9	18.1	16.5	16.5	16	15.5	14.6	13.8
20	25	24.8	23.6	22.3	20.6	20.6	20	19.4	18.2	17.2
25	31.25	31	29.5	28.3	25.8	25.8	25	24.3	22.8	21.2
32	40	39.7	37.8	36.2	33	33	32	31	28.8	27.2
40	50	49.6	47.2	45.2	40.8	40.8	40	38.4	37.2	35.2
50	63.5	62.5	59	56.5	51.5	51.5	50	48	45.5	43
63	80.01	78.8	74.3	71.2	64.9	64.9	63	60.5	57.3	54.2
80	101.6	99.0	94.0	90	82	82.0	80	76.8	72.8	68.8
100	125	124	119	113	104	104	100	97	92	85

Appearance and installation size





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MINIATURE CIRCUIT BREAKER

HKB6N-32 (DZ47-32)

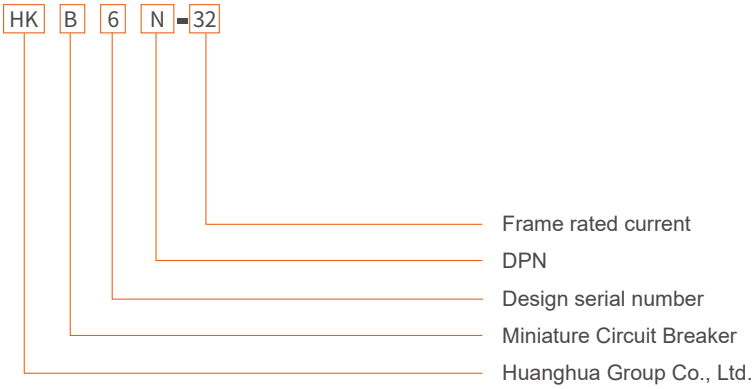
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Product overview

HKB6N-32 series miniature circuit breaker is suitable for overload protection and short circuit protection of electrical circuits in single-phase residential circuits with AC 50Hz and rated voltage below 230 V. The product has high breaking capacity, small volume and width of only 18 mm. Zero, live wire switch at the same time, put an end to live wire, zero line or zero line on the ground potential caused by personal and fire real danger, is the most ideal distribution protection switch in the field of civil housing. Products comply with standards: IEC60898-1, GB/T 10963.1.

Model and its meaning

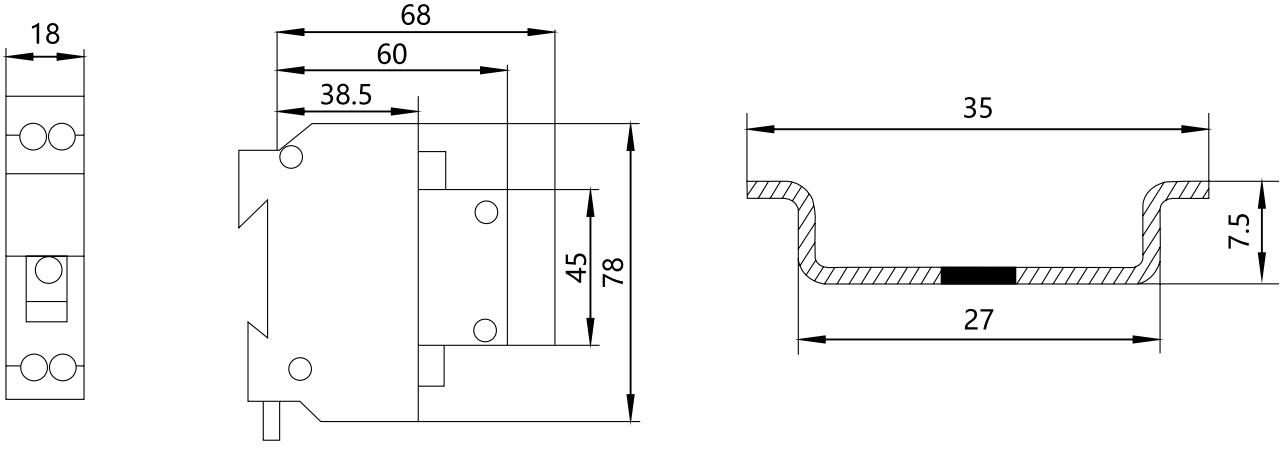


Main technical parameters

Rated current(A)		6,10,16,20,25,32
Poles		1P+N
Frame rated current （A)		32
Rated voltage （V)		230
Rated short-circuit breaking capacity	Expected current of experimental circuit (A)	4500
	Power factor cos ∅	0.65~0.70

Overcurrent protection characteristic

Test current （A)	Rated voltage （V)	Time	Result	Initial state	Remark
1.13In	all values	t ⩽ 1h	no trip	Cold state	
1.45In	all values	t < 1h	trip	hot state	The current rises steadily to the specified value within 5 s
2.55In	all values	Is < t < 60s	trip	Cold state	
5In	all values	t ⩽ 0.1s	no trip	Cold state	Close the auxiliary switch to turn on the power supply
10In	all values	t < 0.1s	trip	Cold state	



AC/DC MINIATURE CIRCUIT BREAKER

HKB6Z-63

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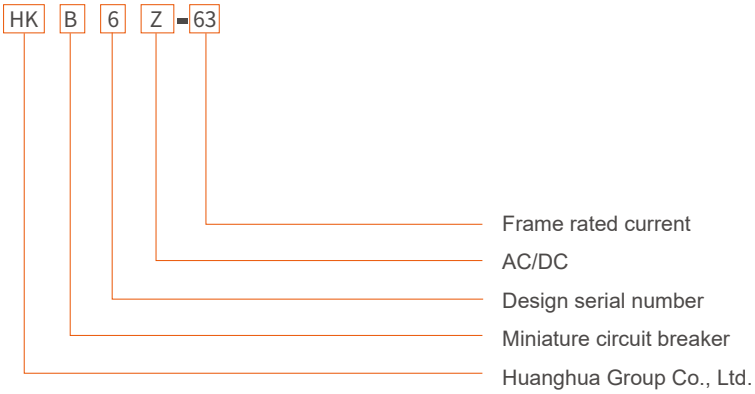
Product overview

HKB6Z-63 AC/DC miniature circuit breaker is suitable for AC 50Hz, rated voltage AC230/400V, DC60V/125V(1 P), DC110V/250V(2 P), DC375V(3 P), DC500V(4 P), rated current to 63A lines for overload protection and short circuit protection, under normal circumstances as a line of infrequent operation conversion, It can also be used as an isolating switch for disconnecting lines and equipment maintenance.

Circuit breakers are suitable for industrial, commercial, high-rise and residential buildings and other places.

Compliant with standards: GB/T 10963.2, IEC 60898-2, ccc certification standards.

Model and its meaning



Main technical parameters

Parameters	Value
Rated voltage	AC230V/400V(1P2P),AC400V(3P4P), DC60V/125V(1P)，DC110V/250V(2P) DC375V(3P)，DC500V(4P)
Rated current	6-63A
Poles	1P、2P、3P、4P
Instantaneous trip type	B ,C
Rated Short-circuit Breaking Capacity Icn	6000A
Rated Service Short-circuit Breaking Capacity Ics	6000A
Tightening torque	2.5N·m
Pollution degree	Level 2
IP level	IP20
Installation category	Ⅱ、Ⅲ type

Main technical parameters

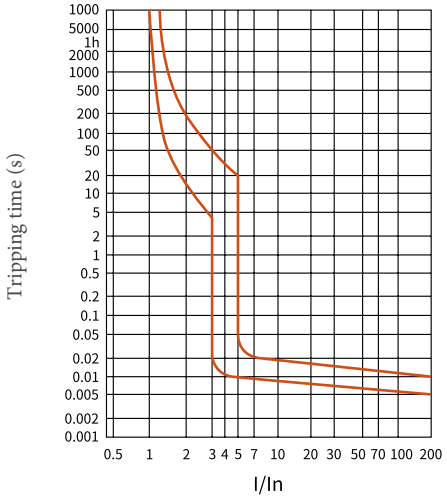
△ Mechanical and electrical life

Category	Times	Operating frequency (times/hour)	Rated current(A)
Electrical life	AC 10000/ DC 1000	240	1~32
		120	40~63
Mechanical life	20000	240	1~63

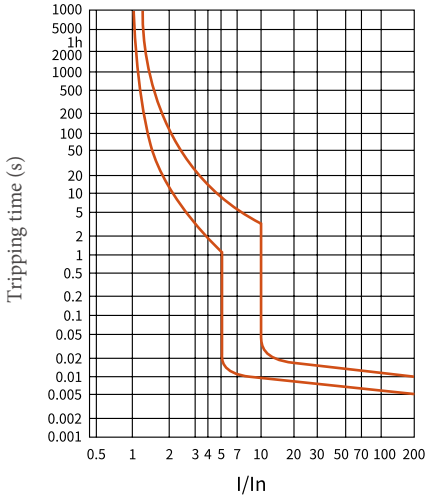
△ Overcurrent protection characteristics (reference temperature 30°C)

No.	Instantaneous type	AC test current (A)	DC test current (A)	Initial state	Time	Result	Remark
a	B、C	1.13In	1.13In	Cold state	t ⩽ 1h	No trip	The current rises steadily to the specified value within 5s
b	B、C	1.45In	1.45In	After the previous test	t < 1h	Trip	
c	B、C	2.55In	2.55In	Cold state	1s < t < 60s (In ⩽ 32A)	Trip	
		2.55In	2.55In	Cold state	1s < t < 120s (In > 32A)	Trip	
d	B	3In	4In	Cold state	0.1s ⩽ t < 45s (In ⩽ 32A) 0.1s ⩽ t < 90s (In > 32A)	Trip	Current is switched on by closing the auxiliary switch
	C	5In	7In	Cold state	0.1s ⩽ t < 12s (In ⩽ 32A) 0.1S ⩽ t < 30s (In > 32A)	Trip	
e	B	5In	7In	Cold state	t < 0.1s	Trip	Current is switched on by closing the auxiliary switch
	C	10In	15In	Cold state	t < 0.1s	Trip	

△ AC tripping characteristics curve

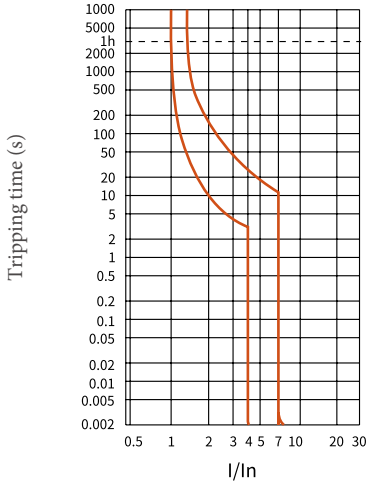


B type(AC)

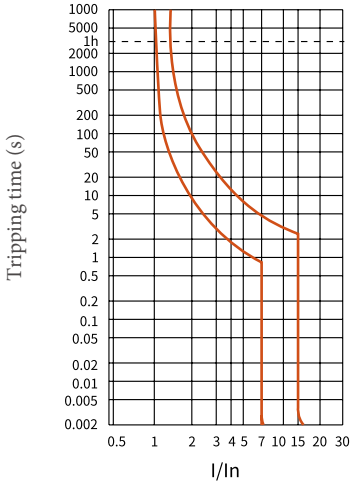


C type(AC)

△ DC tripping characteristics curve



B type(DC)



C type(DC)

△ Wiring: suitable for copper wire connection below 25mm², screw compression wire, torque is 2.0N·m

Rated current In(A)	Standard sectional area of copper conductor (mm²)
6	1
10	1.5
16、20	2.5
25	4
32	6
40、50	10
63	16

Main technical parameters

△ Structural characteristics
△ Rated short-circuit breaking capacity is high.
△ Double wiring function, the outgoing terminal can be conveniently connected to standard bus bar and soft and hard wire.
△ With red and green safety indication, higher safety.
△ Products can be used with a variety of modular accessories, such as SD, OF, MV, MN, MX.
△ Plastic parts such as shell are made of high flame retardant, high temperature resistant and impact resistant plastics.

a. Ambient temperature: -5℃ ~+40℃. When the ambient temperature is not the reference 30℃, the current value shall be corrected by referring to the coefficient in Table 10.

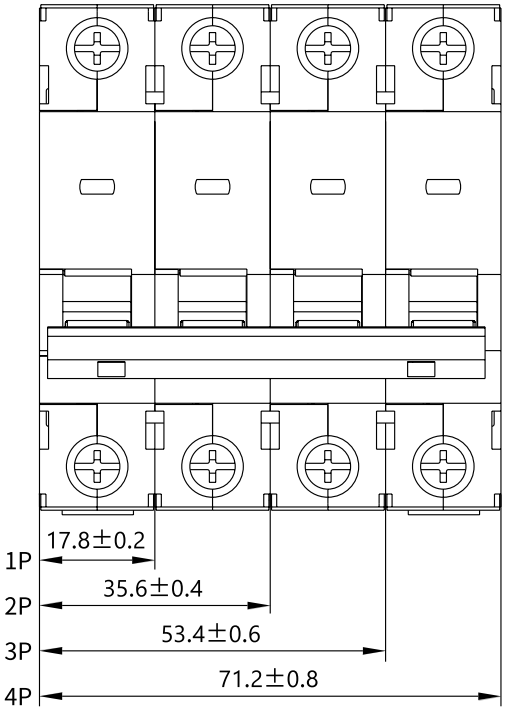
Corrected current value (A) Tempera ture(℃) / Rated current(A)	-5	0	10	20	30	40
6	7.14	6.84	6.6	6.24	6	5.76
10	12	11.5	11.1	10.6	10	9.6
16	19.2	18.4	17.76	16.96	16	15.36
20	24	23	22.2	21.2	20	19.2
25	30	28.75	27.75	26.5	25	24
32	38.72	37.12	35.52	33.92	32	30.72
40	48	46.4	44.8	42.4	40	38.4
50	60.5	58	56	53	50	45
63	76.86	73.71	70.56	66.78	63	60.48

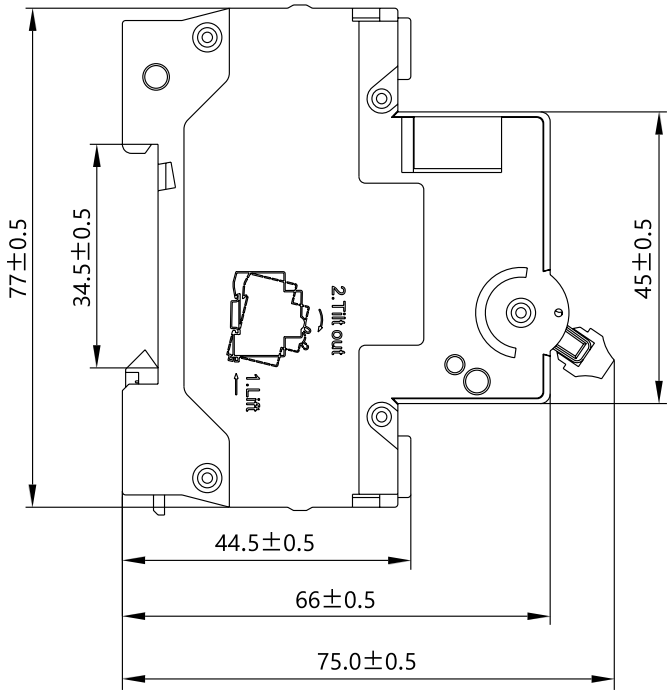
b. Current correction factors used at different altitudes

Trip type	Rated current(A)	Current correction factor			Example
		⩽ 2000m	(2000~3000) m	⩾ 3000m	
B、C	6、10、16、20、25、32、40、50、	1	0.9	0.8	Rated current 10A Product rated current at 2500m use: 0.9X10=9A

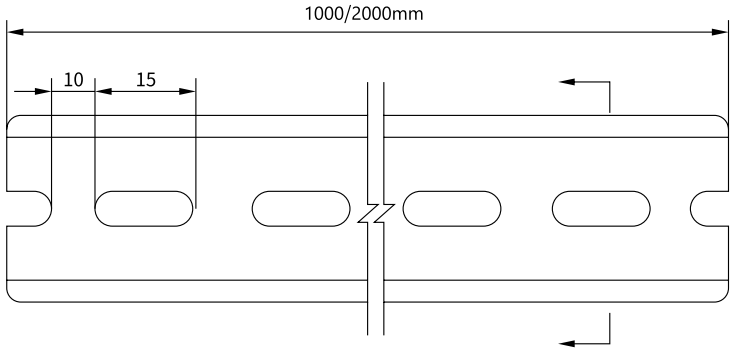
c. Installation method: TH35 -7.5 steel installation rail.
With isolation function, it can be used as an isolating switch when disconnecting lines and equipment maintenance.

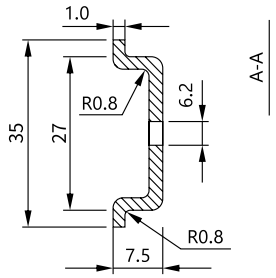
Appearance and installation size





Appearance and installation size





Order Notice

△ Product model and name, HKB6Z-63 AC/DC miniature circuit breaker;
△ Number of poles, such as 2P.
△ Instantaneous trip form and rated current, such as C20.
△ Order quantity, such as 500 sets.
△ Order example: HKB6Z-63 AC/DC miniature circuit breaker, 2P, C20, 500 sets.

Product selection table

Model	Parameter	Unit	Number of cases packed
HKB6H-63T/1P	6kA; Type B/C/D; 1/2/3/4/5/6A	PCS	180
HKB6H-63T/1P	6kA; Type B/C/D; 10/16/20/25/32A	PCS	180
HKB6H-63T/1P	6kA; Type B/C/D; 40A	PCS	180
HKB6H-63T/1P	6kA; Type B/C/D; 50A/63A	PCS	180
HKB6H-63T/2P	6kA; Type B/C/D; 1/2/3/4/5/6A	PCS	90
HKB6H-63T/2P	6kA; Type B/C/D; 10/16/20/25/32A	PCS	90
HKB6H-63T/2P	6kA; Type B/C/D; 40A	PCS	90
HKB6H-63T/2P	6kA; Type B/C/D; 50A/63A	PCS	90
HKB6H-63T/3P	6kA; Type B/C/D; 1/2/3/4/5/6A	PCS	60
HKB6H-63T/3P	6kA; Type B/C/D; 10/16/20/25/32A	PCS	60
HKB6H-63T/3P	6kA; Type B/C/D; 40A	PCS	60
HKB6H-63T/3P	6kA; Type B/C/D; 50A/63A	PCS	60
HKB6H-63T/4P	6kA; Type B/C/D; 1/2/3/4/5/6A	PCS	45
HKB6H-63T/4P	6kA; Type B/C/D; 10/16/20/25/32A	PCS	45
HKB6H-63T/4P	6kA; Type B/C/D; 40A	PCS	45
HKB6H-63T/4P	6kA; Type B/C/D; 50A/63A	PCS	45





Attachment

Model	Parameter
MX	shunt
OF	auxiliary
MX+OF	shunt , auxiliary
MV+MN	undervoltage
SD	alarm

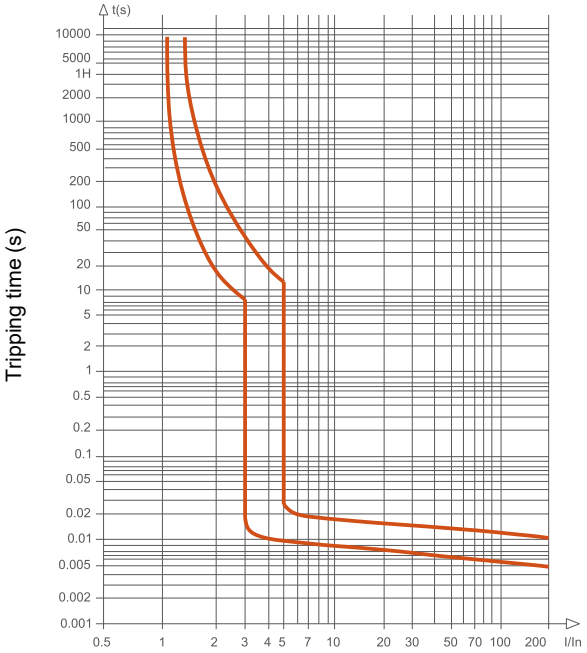


Main technical parameters

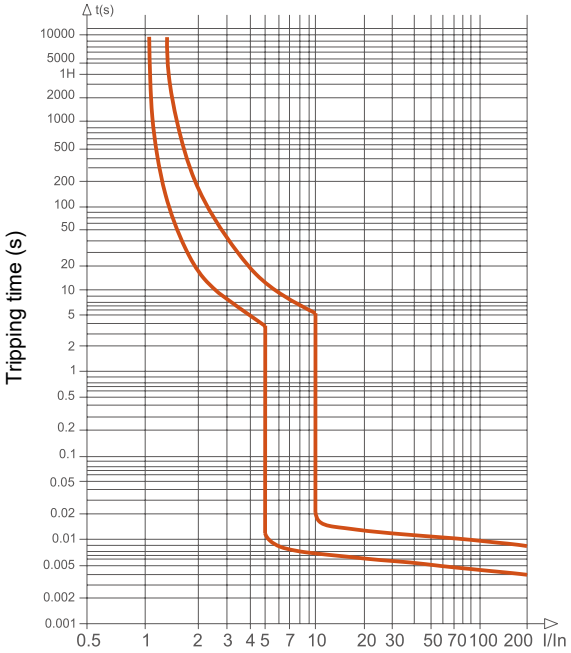
Model	HKB6Z-63T
Product name	Miniature circuit breaker
Rated current (A)	1,2,3,4,5,6,10,16,20,25,32,40,50,63
Pole	1P,2P,3P,4P
Rated short-circuit breaking capacity	6kA
Tripping characteristic	Type B/C/D
Standards	GB/T 10963.1,ICE 60898-1
Certification	CCC



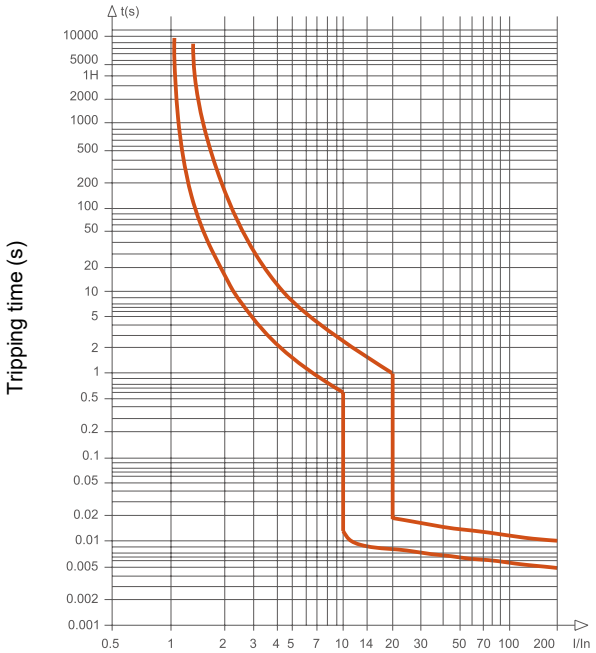
Trip characteristic curve



B type



C type



D type