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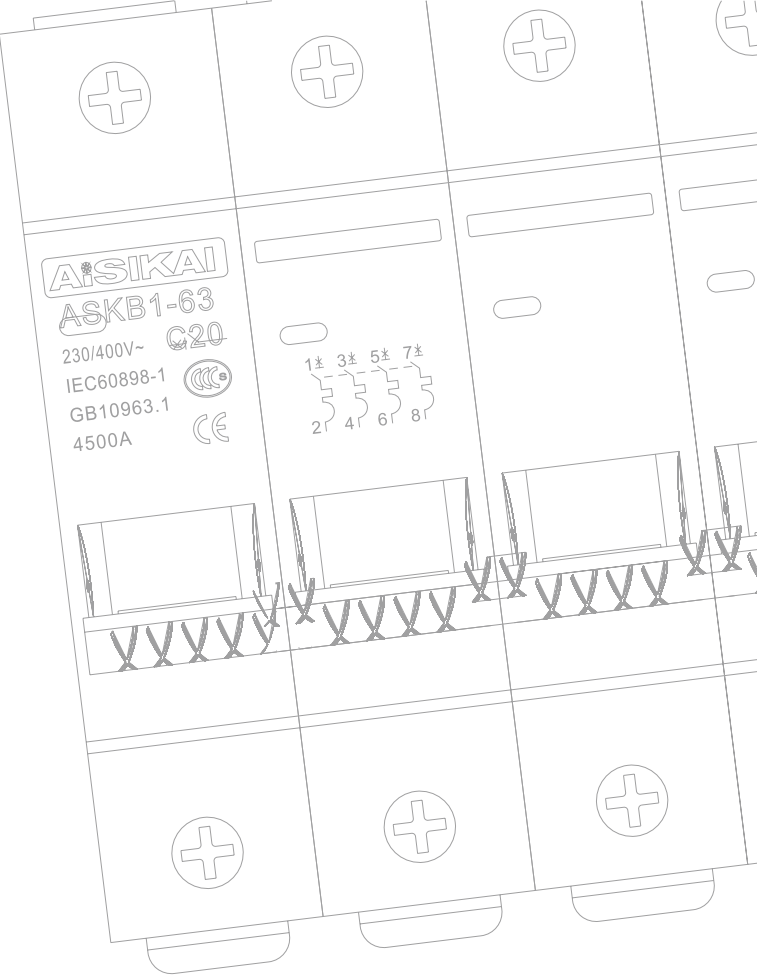


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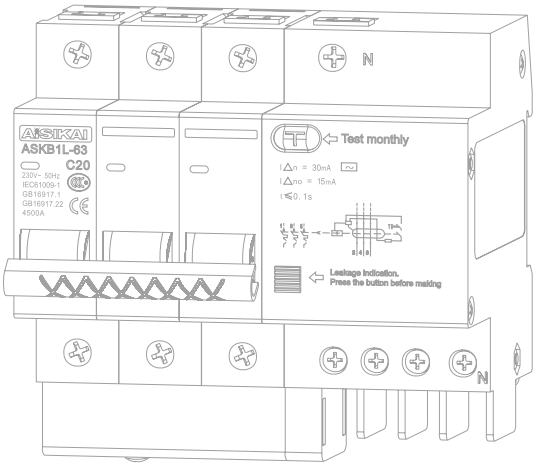


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AISIKAI®
POWER THE FUTURE



ASKB SERIES MINIATURE CIRCUIT BREAKERS SELECTION GUIDE



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► Founded in 2007, Jiangsu AISIKAI Electric Co., Ltd. focuses on the R&D, manufacturing, and sales of high-quality low-voltage switching products. Our solutions cover primary, secondary, and tertiary power distribution applications.

AISIKAI is a National High-Tech Enterprise, certified to ISO 9001, with products compliant with CE and CCC standards. We are also an SGS-audited qualified supplier. The company holds multiple invention and utility model patents and was recognized as a Yangzhou Engineering Technology Center and a national standards-adopting enterprise.

Driven by Quality, Service, Integrity, and Innovation, AISIKAI continuously improves from the customer's perspective—delivering reliable products and practical solutions for modern power distribution.

Aisikai, Power the Future.





AiSIKAI®
POWER THE FUTURE



MCB
MINIATURE CIRCUIT BREAKER

MINIATURE CIRCUIT BREAKER

SMALL VOLUME, STRONG PERFORMANCE

ASKB1 series miniature circuit breaker (MCB for abbreviation) is a new generation of products developed by AISIKAI Electric for the latest market demands. MCB has compact main structure and small and beautiful appearance. Derived from the basic type, we provide several MCB with additional functions, e.g., residual current type MCB, electronic over-voltage under-voltage type MCB, prepaid type MCB. Through adjusting the internal components, we get the new series of miniature isolation switches ASKG2, which has the same outline dimensions and installation method as ASKB1, so they can be used together.

We have optimized the structure of the ASKB1 series in response to the demanding requirements of the household end market for MCB volume. We innovatively place the AC 220V fire and neutral lines in one shell to form the ASKB2 series, which achieves overload and short-circuit protection for household electricity.

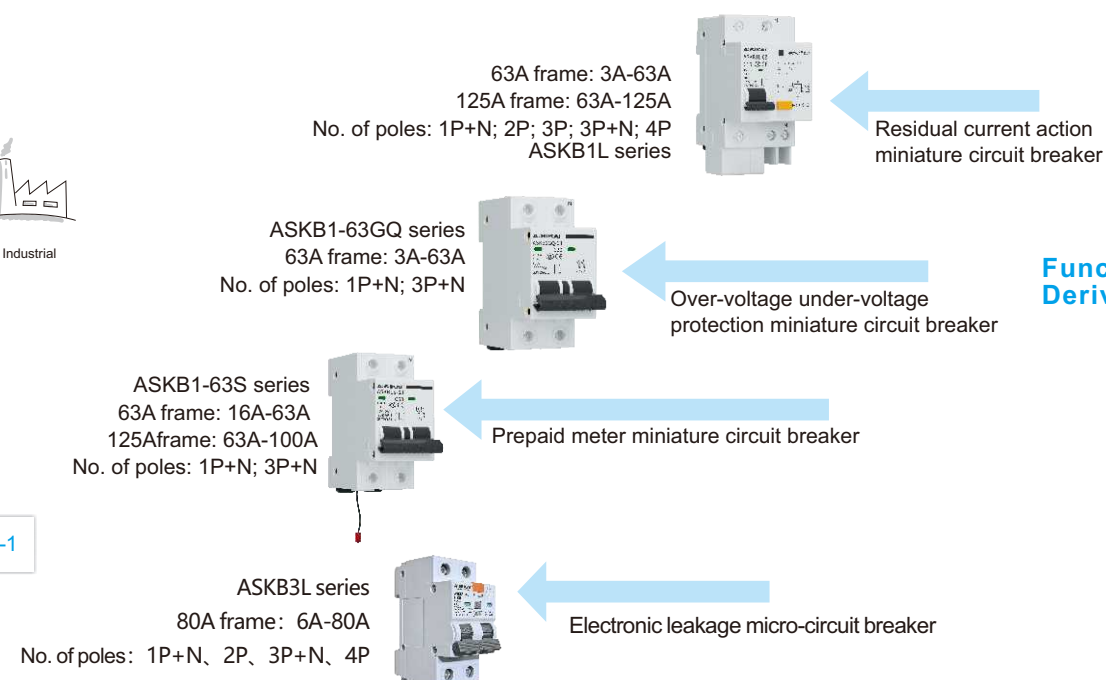


APPLICATIONS



STANDARDS

GB10963.1, IEC60898-1



Wide Range of Applications

ASKB series miniature circuit breakers comply with the IEC/GB standards and passed the China Compulsory Certification. MCB are suitable for the third level power grid systems with rated operational voltage up to AC 400V and rated current up to 125A, providing short-circuit protection, control and isolation functions.

Safe And Reliable Arc Extinguishing System

The arc extinguishing system of ASKB series MCB is composed of arc guide plate, arc separator and arc-extinguishing chamber. Relying on the scientific structure design, the arc can be transferred from the contact to the arc angle within 1ms, and the whole arc extinguishing process can be completed within 4ms, making the protection function reliably completed.

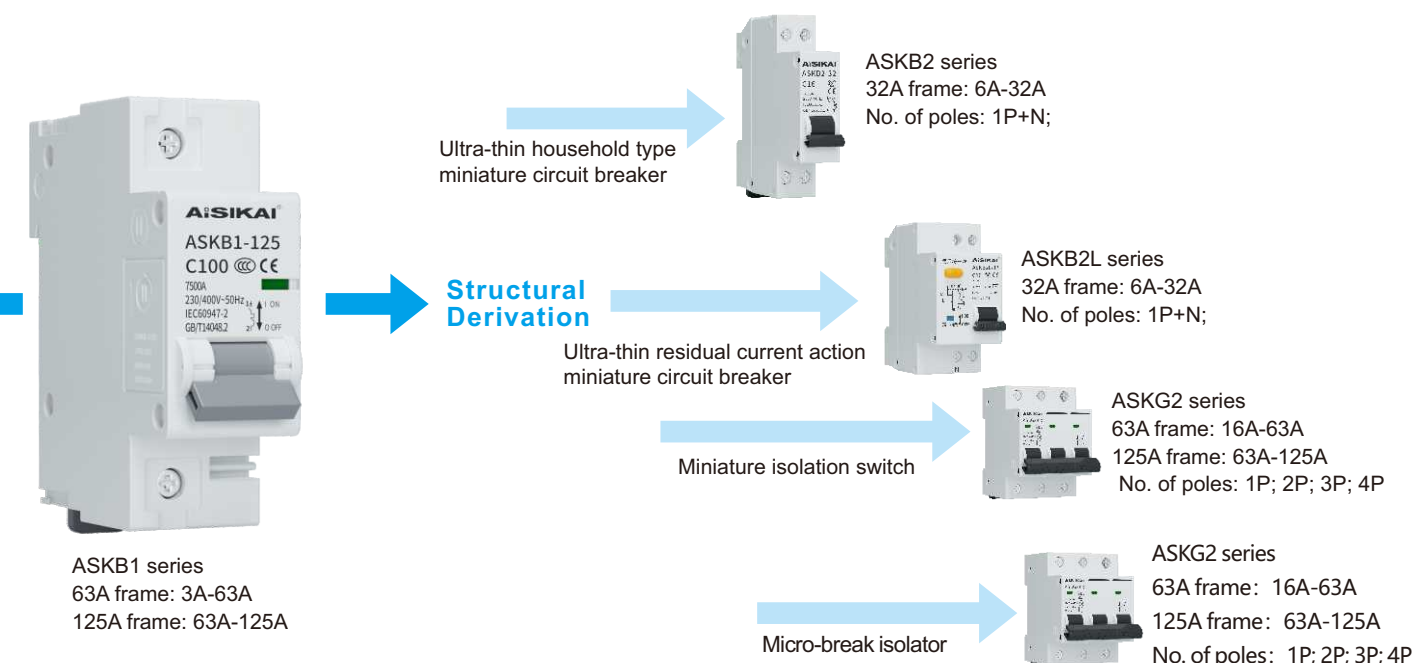
Clear On/off Indication

Carefully designed window can indicate the ON/OFF status through the red and green color, convenient to use.

Extensive Optional Accessories

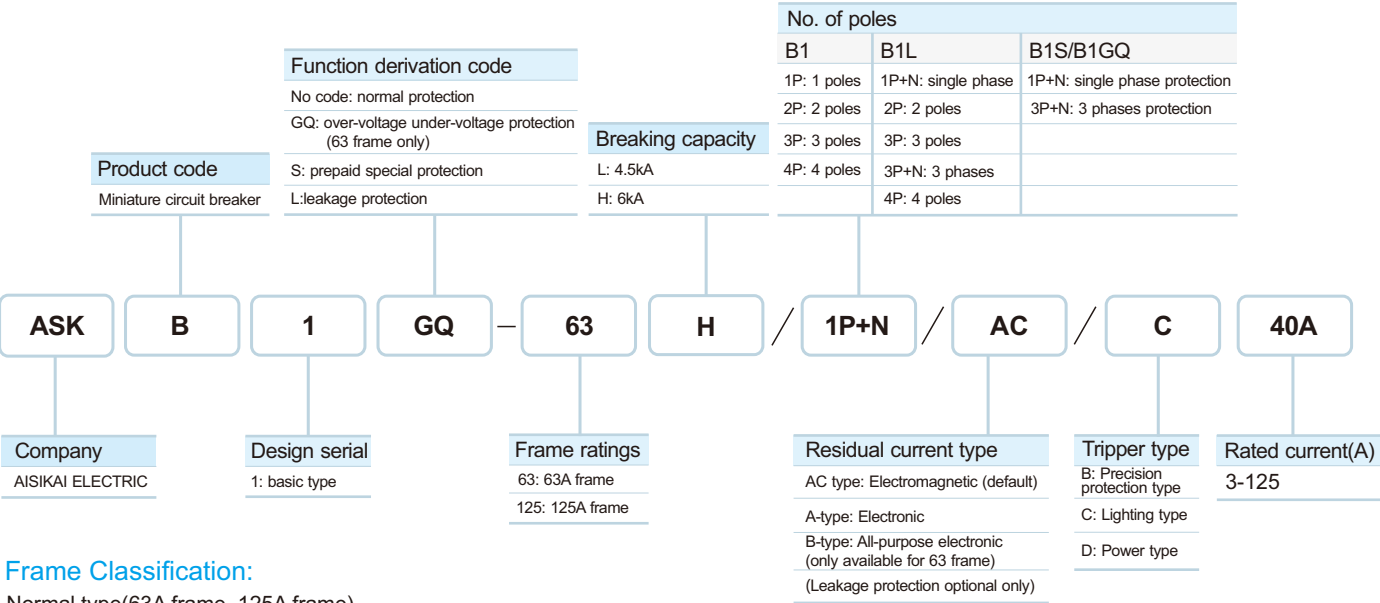
ASKB series miniature circuit breakers can be equipped with a wide range of optional accessories, thus meeting the requirements of customers in various industries for power distribution systems.

Over-voltage under-voltage tripper: MN+MV
Shunt tripper: MX+OF
Auxiliary contact: OF
Alarm access: SD



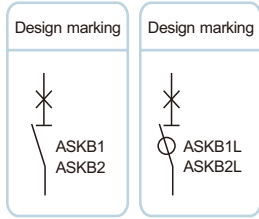


ASKB1 MINIATURE CIRCUIT BREAKER SELECTION TABLE



Frame Classification:

Normal type(63A frame, 125A frame)
Over-voltage under-voltage protection type(GQ type, 63A frame)
Prepaid meter special type (S type, 63A frame, 125A frame)
Leakage protection type(L type, 63A frame, 125A frame)



Model definition 1: ASKB1L-125 / 4P / 100A 1. standard leakage protection type MCB; 2. 125A frame; 3. 4 poles, rated current 100A.	Model definition 1: ASKB1GQ-63/1P+N/40A 1. Standard micro-breaker with over/under voltage protection; 2. 63A frame; 3.single phase two lines, rated current 40A.	Model definition 2: ASKB2-32 / 1P+N / 6A 1. compact leakage protection type MCB; 2. 32A frame; 3. single phase two lines, rated current 6A.
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QUALIFICATION DOCUMENTS



ASKB1 NORMAL PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW



- ASKB1 normal protection type miniature circuit breaker has features as advanced structure, reliable performance, high breaking capacity, beautiful and compact appearance, etc. Shell and three parts are made of impact resistant and high flame retardant materials. ASKB1 are suitable for AC 50Hz or 60Hz, rated operational voltage below 400V, rated current below 125A. MCB are mainly used for the overload and short-circuit protection of lines and equipment in lighting and power distribution in office buildings, residences and similar buildings. Under normal conditions, MCB can also be used in infrequent on-off control of electrical devices and lighting lines. Through adding internal components with different functions , we provide residual current protection type MCB, over-voltage under-voltage protection type MCB and prepaid meter special type MCB.

CLASSIFICATION

- Classified by the over-current tripper rated current (A)
Frame 63: 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A;
Frame 125: 63, 80, 100, 125A
- Classified by over-current tripper type
B type: Protecting high-precision instruments
Trip characteristic: Instantaneous trip range (3-5) In
C type: protect inductive load and high-inductive lighting system
tripping characteristic: instantaneous trip range(5-10)In
D type: protect high-inductive load and impact load with high starting current (motors, transformers, etc.)
tripping characteristic: instantaneous trip range(10-14) In

FEATURES

- Innovative structural design. Breaking capacity up to 10KA
Shell with ventilation slot design, active heat dissipation, reduce temperature rise
Composite high conductive material. Longer service life
Ergonomic operation design, non-slip handle for easy operation

NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

Category	Requirement
Operational temperature	Between -35°C and +70°C. The average value in 24 hours does not exceed +35°C.
Altitude	Lower than 2000 meters.
Operational humidity	The relative humidity at +40℃shall not exceed 50%. Higher relative humidity is allowed at lower temperature. The average maximum relative humidity is 90% in the most humid month
Installation level	The installation level is II, III.
Pollution level	Level 2
Installation method	Install vertically or horizontally. Use YH35-7.5 standard DIN rail.
Installation conditions	The inclination of the mounting surface to the vertical surface does not exceed 5 degrees. Use environment should be without strong impact and vibration.
Wiring method	Fasten the wires using screws.
Wire inlet method	Wiring reversely is acceptable for normal type. Wiring reversely is prohibited for leakage type.

APPLICATIONS



STANDARDS

GB10963.1、IEC60898-1

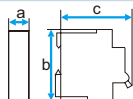


ASKB1 MINIATURE CIRCUIT BREAKER SELECTION TABLE

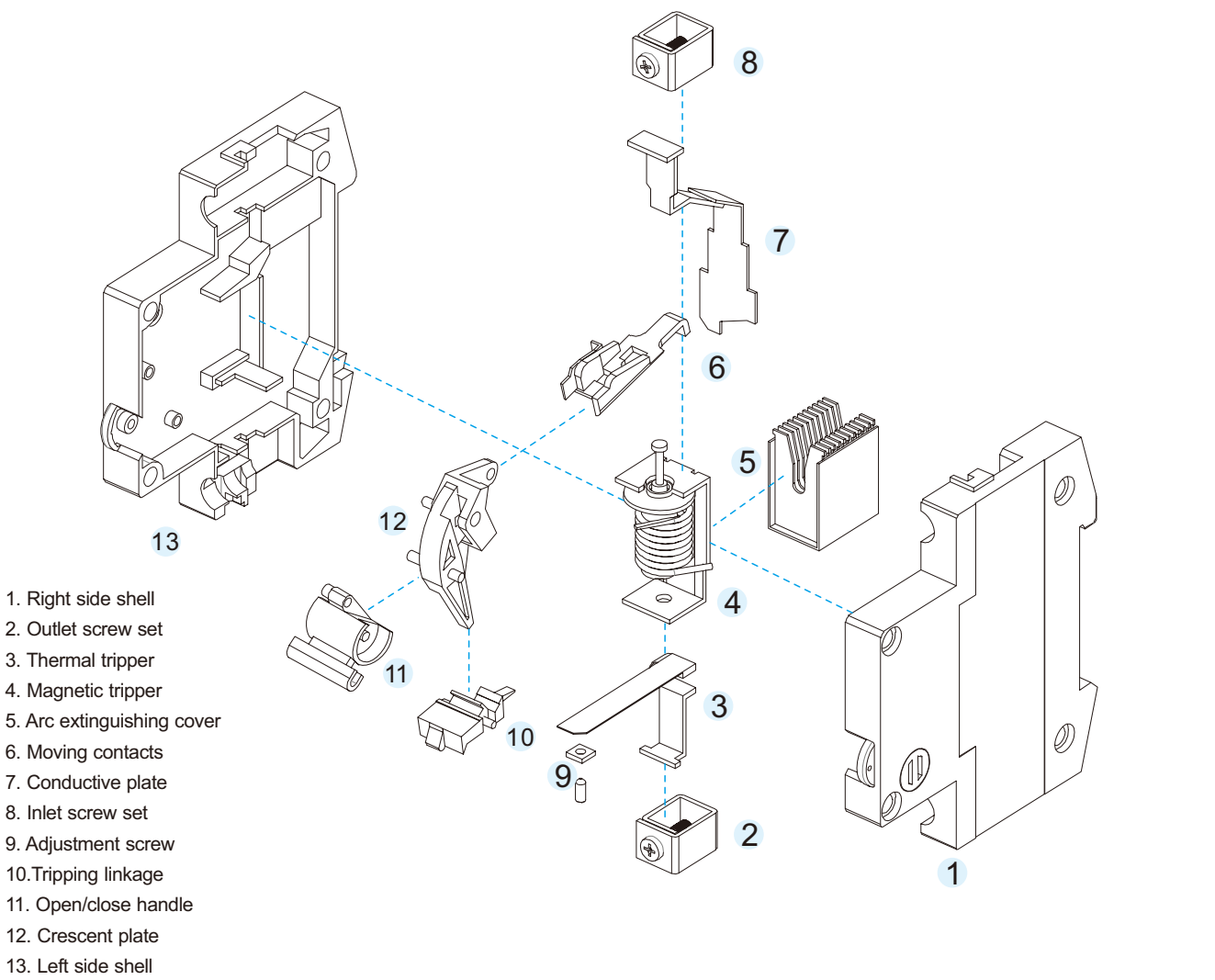
OVERVIEW

- ASKB1 normal protection type miniature circuit breaker has overload and short-circuit protection and isolation function. ASKB1 are suitable for AC 50Hz or 60Hz, rated operational voltage below 400V, rated current below 125A. MCB are mainly used for the overload and short-circuit protection of lines and equipment in lighting and power distribution in office buildings, residences and similar buildings. Under normal conditions, MCB can also be used in infrequent on-off control of electrical devices and lighting lines.

MAIN TECHNICAL PARAMETERS

63 Frame							
General power distribution protection							
No. of poles			1P	2P	3P	4P	
Electrical performance							
Functions			Short-circuit protection, overload protection, isolation, control				
Rated frequency	f	(Hz)	50/60				
Rated operational voltage	Ue	(V AC)	230/400	400	400	400	
Rated current	In	(A)	3, 6, 10, 16, 20, 25, 32, 40, 50, 63				
Impulse withstand voltage	Uimp	(kV)	4				
Instantaneous tripping type			B/C/D				
Rated short-circuit capacity	Ics=Icn	(kA)	L	4.5			
				6			
Tripper type			Thermomagnetic				
Service life	(0 ~ C)	Mechanical service life		20000			
		Electrical service life		8000			
Control and indication							
Optional accessories(multiple options available)			Alarm contact SD, auxiliary contact OF, shunt tripper MX+OF or over-voltage under-voltage tripper MN+MV (choose one of the two)				
Connection and installation							
Protection level			IP20				
Handle lock			None				
Wiring capacity		(mm²)	1~25				
Operational temperature		(°C)	-35°C~+70°C, with an average temperature not exceeding +35°C within 24 hours				
Resistance to heat and humidity			2				
Altitude		(m)	≤2000				
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C				
Pollution level			2				
Installation environment			Without strong impact and vibration				
Installation category			III				
Installation method			DIN standard rail				
Outline dimensions			a	18	36	54	72
Width*Height*Depth (mm)			b	77			
			c	77			

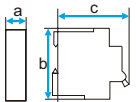
MAIN STRUCTURE INTRODUCTION



Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Normal protection type miniature circuit breaker is one-piece structure, which is made of precise combination of internal parts. The left and right shells enclose the operating mechanism, moving/fixed contacts, thermal tripper, magnetic tripper, and arc extinguishing cover. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or seriously overloaded, the magnetic tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit. When the circuit is overloaded, the thermal tripper pushes the free tripping mechanism into action, breaking the main circuit to realize the protection of the distribution lines.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromagnetic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.



MAIN TECHNICAL PARAMETERS

125 Frame						
General power distribution protection						
No. of poles			1P	2P	3P	4P
Electrical performance						
Functions			Short-circuit protection, overload protection, isolation, control			
Rated frequency	f	(Hz)	50/60			
Rated operational voltage	Ue	(V AC)	230	400	400	400
Rated current	In	(A)	63, 80, 100, 125			
Impulse withstand voltage	Uimp	(kV)	4			
Instantaneous tripping type			B/C/D			
Rated short-circuit capacity	Icu	(kA)	10			
Tripper type			Thermomagnetic			
Service life	(0 ~ C)	Mechanical service life	20000			
		Electrical service life	8000			
Control and indication						
Optional accessories(multiple options available)			Alarm contact SD, auxiliary contact OF, shunt tripper MX+OF or over-voltage under-voltage tripper MN+MV (choose one of the two)			
Connection and installation						
Protection level			IP20			
Handle lock			None			
Wiring capacity		(mm²)	1~25			
Operational temperature		(°C)	-35°C~+70°C, with an average temperature not exceeding +35°C within 24 hours			
Resistance to heat and humidity			2			
Altitude		(m)	≤2000			
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C			
Pollution level			2			
Installation environment			Without strong impact and vibration			
Installation category			III			
Installation method			DIN standard rail			
Outline dimensions Width*Height*Depth (mm)		a	27	54	81	108
		b	81			
		c	80			

ASKB1GQ MICRO-CIRCUIT BREAKER WITH OVER/UNDER VOLTAGE PROTECTION

OVERVIEW

- The ASKB1GQ micro-circuit breaker with over/under voltage protection is based on the standard ASKB1-63 model, with an added voltage detection circuit. This can prevent damage to electrical appliances caused by unstable circuit voltage, improving safety. It is suitable for AC 50Hz circuits with a rated working voltage of 230/400V and a rated current up to 63A. It can be used to protect lighting distribution systems against short-circuit, overload, and over/under voltage. It can also be used for infrequent switching control of electrical devices and lighting circuits under normal conditions.
- The circuit breaker complies with GB10963.1 and IEC60898-1 standards, reaching international advanced levels.

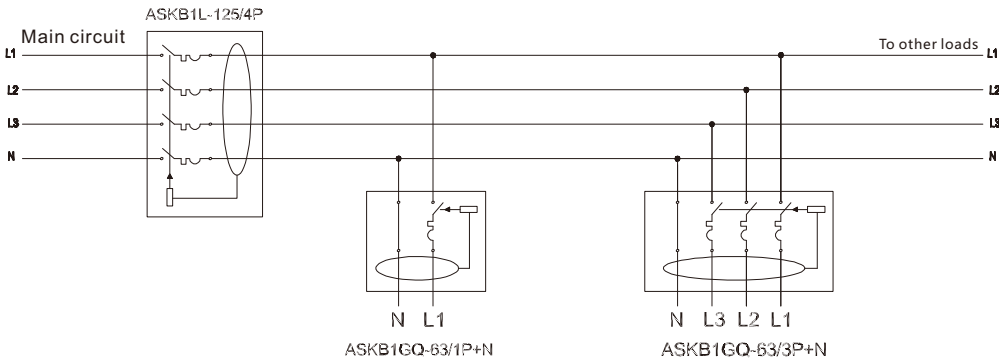
MAIN TECHNICAL PARAMETERS

ASKB1GQ-63A Frame					
No. of poles				1P+N(Single pole, two wires)	3P+N (three-pole four-wire)
Electrical performance					
Functions				Short-circuit protection, overload protection, overvoltage protection, undervoltage protection, isolation, control	
Rated frequency	f	(Hz)		50/60	
Rated operational voltage	Ue	(V AC)		400	
Over/under voltage protection range		(V AC)		Undervoltage: 170V±10% Overvoltage: 280V ± %	
Rated current	In	(A)		63 frame(16、20、25、32、40、50、63)	
Instantaneous tripping type				B/C/D	
Rated short-circuit capacity	Icu	(kA)	L	4.5	
			H	6	
Tripper type				Thermal-magnetic + electronic trip unit	
Service life	(0~C)	Mechanical service life		20000	
		Electrical service life		8000	

Connection and installation

For 1P+N, refer to ASKB1-63/2P dimensions; for 3P+N, refer to ASKB1-63/4P dimensions.

ELECTRICAL SCHEMATIC DIAGRAM





ASKB1S PREPAID ELECTRICITY METER-SPECIFIC MICRO-CIRCUIT BREAKER

OVERVIEW

- The ASKB1S prepaid electricity meter-specific micro-circuit breaker is composed of the standard ASKB1 model and a control signal release unit. It features an undervoltage-delayed shunt trip function, suitable for AC 50Hz circuits with a rated working voltage of 230/400V and a rated current up to 125A. It provides remote control or automatic signal-controlled disconnection while offering overload and short-circuit protection. It can also be used for infrequent switching operations. Currently, it is widely used with IC prepaid electric meters to control circuit connectivity.
- The circuit breaker complies with GB10963.1 and IEC60898-1 standards, reaching international advanced levels.

MAIN TECHNICAL PARAMETERS

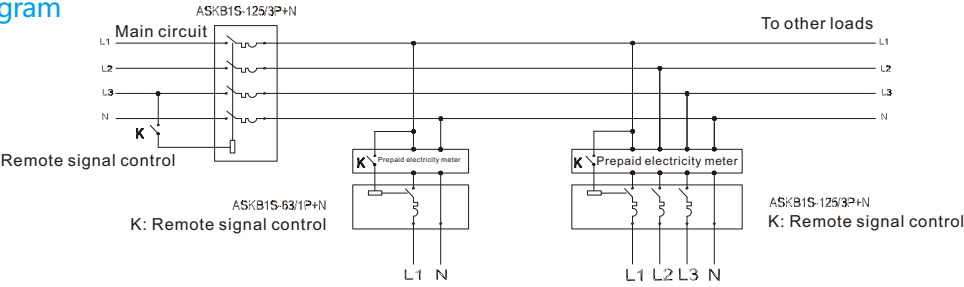
ASKB1S-63/125A Frame				63A	125A
					
No. of poles				1P+N(Single pole, two wires)	3P+N (three-pole four-wire))
Electrical performance					
Functions				Short-circuit protection, overload protection, overvoltage protection, undervoltage protection, isolation, control	
Rated frequency	f	(Hz)		50/60	
Rated operational voltage	Ue	(V AC)		230	400
Over/under voltage protection range	US	(A)		165-275	
Rated current	In	(A)		63 Frame(3、6、10、16、20、25、32、40、50、63)125 Frame(63、80、100、125)	
Instantaneous tripping type				B/C/D	
运行短路能力	Ics=Icn	(kA)	L	4.5	10
			H	6	7.5
Tripper type				Thermal-magnetic+electronictripunit	
Service life	(0~C)	Mechanical service life		20000	
		Electrical service life		8000	
Connection and installation					
For 1P+N, refer to ASKB1-63/2P dimensions; for 3P+N, refer to ASKB1-63/4P dimensions.					

Note: For parameters not specified, please refer to the corresponding current frame ASKB1 series 2P and 4P product data.

Working principle

- When in use, apply a control voltage to the signal controller release unit of the circuit breaker via the signal input port, which can be provided by a remote control line in the prepaid meter. Then, push the handle of the circuit breaker to the closed position to connect the circuit. In case of an overload fault, the overload current causes the thermal bimetallic element to bend, activating the overload trip mechanism and resetting the locking mechanism, thereby disconnecting the circuit. In case of a short-circuit fault, the short-circuit current activates the instantaneous trip mechanism, resetting the locking mechanism to achieve disconnection. When power supply needs to be cut off, the control voltage can be disconnected through the remote control system. At this time, after the signal voltage detection circuit receives the signal, it outputs a voltage signal to the trip coil, pushing the entire trip coil into action, simultaneously driving the locking mechanism to reset, thus achieving the disconnection function.

Electrical schematic diagram

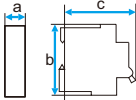


ASKB1L LEAKAGE PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW

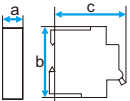
- ASKB1L leakage protection type miniature circuit breaker consist of ASKB1 normal protection type MCB and leakage tripper. ASKB1L is the latest type of current-action type electronic leakage circuit breaker. The main components include zero sequence current transformer, electronic detection board, tripper and the MCB body. ASKB1L is suitable for lighting and power distribution lines of AC 50Hz, rated operational voltage 230V/400V, rated current below 125A, protecting the lines against overload, short-circuit and leakage. The circuit breaker conforms to GB16917.1/22, IEC61009-1 standards.

MAIN TECHNICAL PARAMETERS

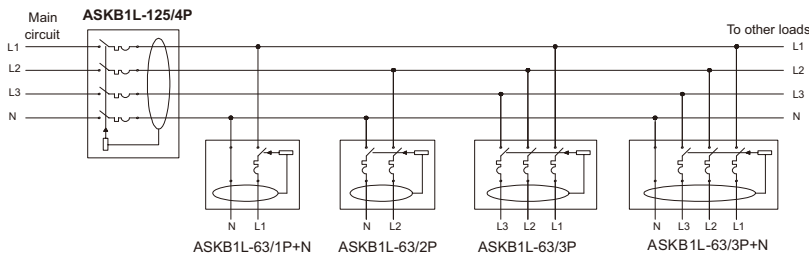
63 Frame										
General power distribution protection (IEC/EN 61009-1; GB 16917.1)										
No. of poles				1P+N	2P	3P	3P+N	4P		
Electrical performance										
Functions				Short-circuit protection, overload protection, leakage protection,isolation, control						
Residual current type				AC type(ensure tripping for sudden applied or slowly rising residual sinusoidal AC currents)						
Rated frequency		f	(Hz)	50/60						
Rated operational voltage		Ue	(V AC)	230	230	400	400	400		
Rated residual action current		I△ n	(mA)	Default 30mA(non-action current 15mA). 50, 100, 200, 300mA is customizable						
Rated current		In	(A)	3, 6, 10, 16, 20, 25, 32, 40, 50, 63						
Instantaneous tripping type				C/D						
Rated residual making and breaking capacity		Im	(A)	2000						
Rated short-circuit capacity		Icu	(kA)	L	Icu=Ics=4.5					
					Icu=Ics=6					
Tripper type		(0 ~ C)	Mechanical service life	Thermomagnetic						
				20000						
Service life		(0 ~ C)	Electrical service life	8000						
Control and indication										
Optional accessories(multiple options available)				Alarm contact SD, auxiliary contact OF						
Connection and installation										
Protection level				IP20						
Wiring capacity			(mm²)	1~25						
Operational temperature			(°C)	-25 ~ +60						
Resistance to heat and humidity				2						
Altitude			(m)	≤2000						
Air relative humidity				Not exceed 95% at +20°C; not exceed 50% at +40°C						
Pollution level				2						
Installation environment				Without strong impact and vibration						
Installation category				Ⅲ						
Installation method				DIN standard rail						
Outline dimensions Width*Height*Depth (mm)			a	1-32A	45	63	90	99	117	
				40-63A	54	72	103	117	135	
			b				96			
			c		76		78			



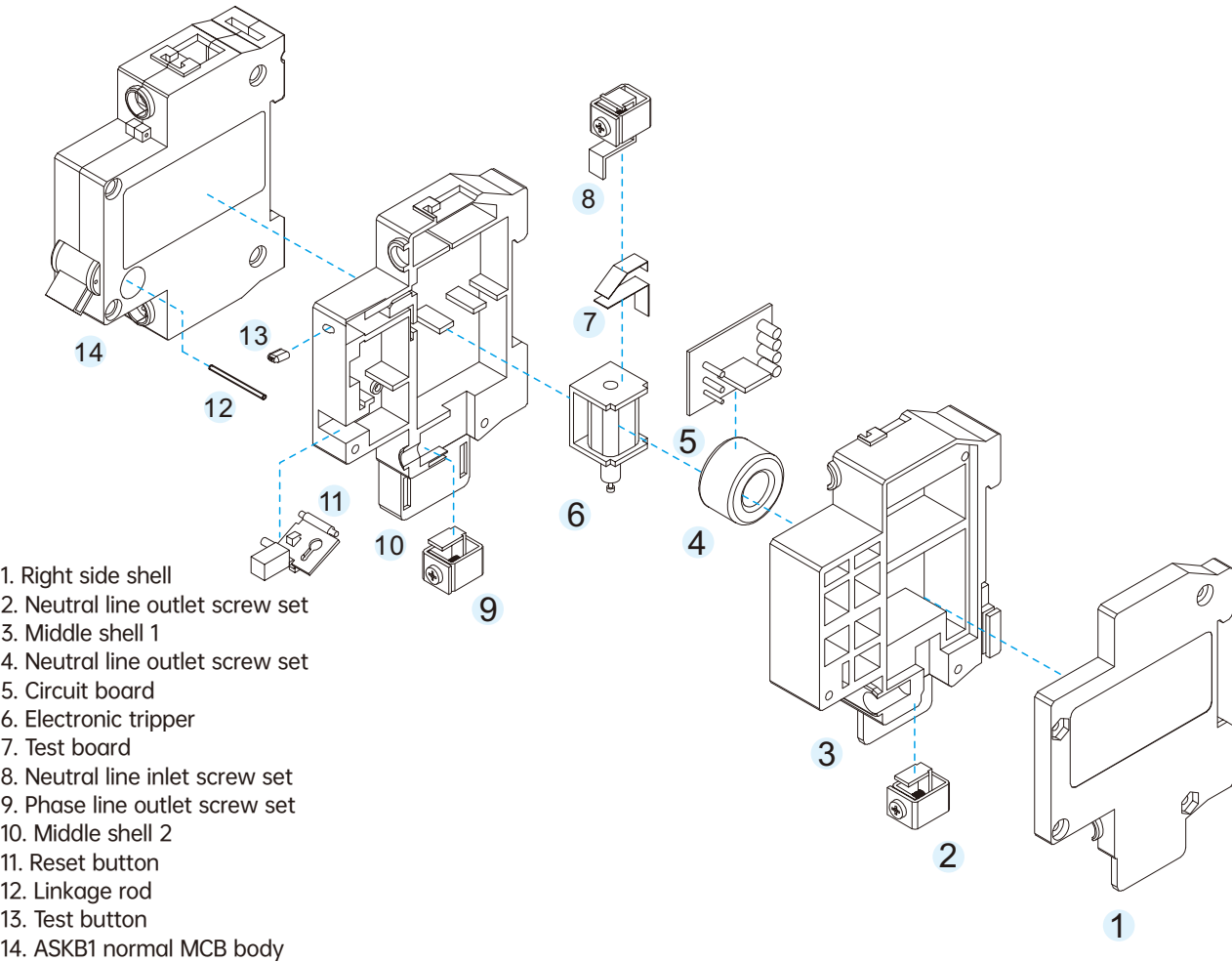
MAIN TECHNICAL PARAMETERS

125 Frame							
General power distribution protection (IEC/EN 61009-1; GB 16917.1)							
No. of poles			1P+N	2P	3P	3P+N	4P
Electrical performance							
Functions							
Residual current type			AC type(ensure tripping for sudden applied or slowly rising residual sinusoidal AC currents)				
Rated frequency	f	(Hz)	50/60				
Rated operational voltage	Ue	(V AC)	230	230	400	400	400
Rated residual action current	IΔn	(mA)	Default 50mA(non-action current 25mA). 30, 100, 200, 300mA is customizable				
Rated current	In	(A)	50, 63, 80, 100, 125				
Instantaneous tripping type			C/D				
Rated residual making and breaking capacity	Im	(A)	2000				
Rated short-circuit capacity	Icu	(kA)	10				
Tripper type			Thermomagnetic				
Service life	(0 ~ C)	Mechanical service life	20000				
		Electrical service life	8000				
Control and indication							
Optional accessories(multiple options available)			Alarm contact SD, auxiliary contact OF				
Connection and installation							
Protection level			IP20				
Wiring capacity		(mm²)	1~25				
Operational temperature		(°C)	-25 ~ +60				
Resistance to heat and humidity			2				
Altitude		(m)	≤2000				
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C				
Pollution level			2				
Installation environment			Without strong impact and vibration				
Installation category			III				
Installation method			DIN standard rail				
Outline dimensions Width*Height*Depth (mm)		a	54	81	108	108	135
		b	113				
		c	78.5				

ELECTRICAL SCHEMATIC DIAGRAM



MAIN STRUCTURE INTRODUCTION



Structure overview	Working method	Circuit board	Electronic tripper	Test button
Leakage protection type miniature circuit breaker is modular structure, which is made of ASKB1 normal MCB body on the left and leakage detection mechanism on the right. The main components include circuit board, current transformer, electronic, etc. The left and right parts are tightly fixed together. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or overloaded, the magnetic tripper or thermal tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit, realizing the protection of the distribution lines. When there is a leakage situation, the current vector sum through the N line current transformer is not equal to zero. The circuit board amplifies the transformer voltage signal, driving the electronic tripping into action, pushing the tripping mechanism in ASKB1 normal type body through the linkage rod to achieve the breaking protection.	The main components use the bidirectional thyristor, which can sensitively detect the milliamp signal from the N-line transformer, and then analyze and process the signal to amplify the signal, relying on the principle of low power control of high power to drive the electronic tripper acts.	The electronic tripper is the main action component of the leakage protection mechanism. After the signal amplified by the circuit board reaches the required voltage to drive the tripper, it acts immediately, driving the linkage rod to drive the tripping mechanism in ASKB1 normal type to break the main circuit for the purpose of protecting the distribution lines.	Leakage protection miniature circuit breaker has test button. When the test button is pressed down, the driving circuit of the electronic tripper is turned on. The tripper acts immediately, driving the relevant mechanism to realize the breaking. It is used for periodic testing of the operating condition of leakage type circuit breakers.

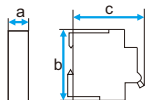


ASKB1L (RCCB TYPE) ELECTROMAGNETIC LEAKAGE PROTECTION
MINIATURE CIRCUIT BREAKER

OVERVIEW

- The ASKB1L (RCCB Type) electromagnetic leakage protection miniature circuit breaker is composed of an ASKB1 standard type and a leakage trip unit, representing the latest generation of electronic current-operated leakage circuit breakers. Its main components include a zero-sequence current transformer, electronic detection board, tripper, and miniature circuit breaker body. It is suitable for AC 50Hz systems with rated operating voltages of 230/400V and rated currents up to 63A in lighting and power distribution lines, providing overload, short-circuit, and ground leakage protection. This product complies with the requirements of GB16917.1/22 and IEC61009-1 standards.

MAIN TECHNICAL PARAMETERS

ASKB1L-63A Frame				
General distribution protection use (IEC/EN 61009-1; GB 16917.1)				
No. of poles			1P+N	3P+N
Electrical performance				
Functions			Short circuit protection, overload protection, leakage protection, isolation, control	
Residual current type			AC Type / A Type / B Type	
Rated frequency	f	(Hz)	50/60	
Rated operational voltage	Ue	(V AC)	230	400
Rated residual operating current	IΔn	(mA)	Default setting: 30mA (non-operating current: 15mA), customizable to 50, 100, 200, or 300mA.	
Rated current	In	(A)	25A, 40A, 63A	
Instantaneous tripping type			B/C/D	
Rated residual making and breaking capacity			(A) 500A(In=25A/40A);630A(In=63A)	
Rated short-circuit capacity			Ics=Icn (kA) 6	
Tripper type			Electromagnetic type	
Service life	(O~C)	Mechanical service life	20000	
		Electrical service life	8000	
Connection and installation				
Protection level			IP20	
Wiring capacity		(mm²)	1~25	
Operational temperature			(°C) -35°C~+70°C, with an average temperature not exceeding +35°C within 24 hours	
Resistance to heat and humidity			2	
Altitude		(m)	≤2000	
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C	
Pollution level			2	
Installation environment			Without strong impact and vibration	
Installation category			III	
Installation method			DIN standard rail	
Outline dimensions Width*Height*Depth (mm)		a	36	72
		b	93	
		c	77	

ASKB1 SERIES OVER-CURRENT TRIPPING CHARACTERISTICS TABLE

Normal Protection Type 63 Frame

Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.13In	All values	T≤1h	Not trip	Cold	The current rises steadily to the specified value within 5s
1.45In	All values	T≤1h	Trip	Hot	Close the auxiliary switch to turn on the power
2.55In	In≤32A	1s < T < 60S	Trip	Cold	Close the auxiliary switch to turn on the power
2.55In	In≤32A	1s < T < 120S	Trip	Cold	Close the auxiliary switch to turn on the power
5In (C)	All values	T≤0.1S	Not trip	Cold	Close the auxiliary switch to turn on the power
10In (C)	All values	T < 0.1S	Trip	Cold	Close the auxiliary switch to turn on the power
10In (C)	All values	T≤0.1S	Not trip	Cold	Close the auxiliary switch to turn on the power
14In (C)	All values	T < 0.1S	Trip	Cold	Close the auxiliary switch to turn on the power

Normal Protection Type 125 Frame

Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.05In	In=63	T≤1h	Not trip	Cold	The current rises steadily to the specified value within 5s
1.05In	In > 63	T < 2h	Not trip	Hot	
1.30In	In=63	T < 1h	Trip	Performed immediately after the previous test	
1.30In	In > 63	T < 2h	Trip	Performed immediately after the previous test	
8In	In > 63	T≤0.2S	Not trip	Cold	
12In	In > 63	T < 0.2S	Trip	Cold	

Gq over/under voltage protection type 63 frame

Test current(A)	Rated current(A)	Rated time	Expected result	Initial result	Notes
1.13In	All values	1≥In	Not trip	Cold	Within 5 seconds following test (a), the current rises to the specified value.
1.45In	All values	1≤1 In	Trip	Hot	
2.55In	≤ 32	1S < t < 60S	Trip	Cold	Close the auxiliary switch to connect the power supply
	> 32	1S < t < 120S			
5In (C)	All values	t≥0.1S	Not trip	Cold	
10In(C)	All values	t < 0.1S	Trip	Cold	
10In(D)	All values	t≥0.1S	Not trip	Cold	
14In(D)	All values	t < 0.1S	Trip	Cold	

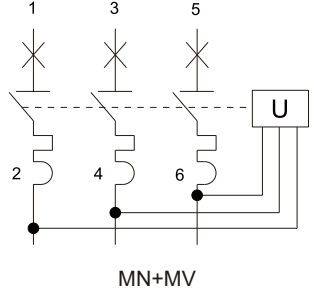
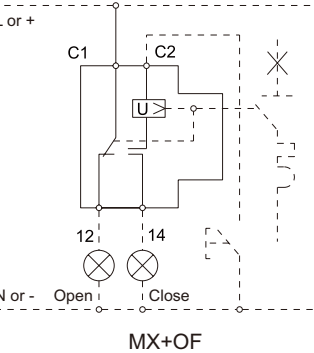
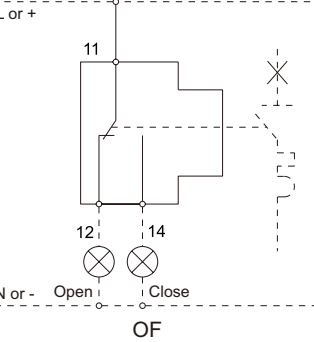
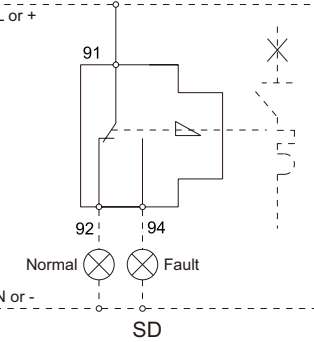
L Leakage Protection Type 63 Frame

Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.13In	6-63	1≥In	Not trip	Cold	The current rises steadily to the specified value within 5s
1.45In	6-63	1≤1 In	Trip	Performed immediately after the previous test	
2.55In	6-63	1S < t < 60S	Trip	Cold	In≤32
		1S < t < 120S	Trip		In > 32
5In	6-63	t≥0.1S	Not trip	Cold	C
10In		t < 0.1S	Trip		
10In		t≥0.1S	Not trip		D
16In		t < 0.1S	Trip		

Note: the "cold" state means at the reference calibration temperature, without load before the test.



Optional accessories – ASKB1 Series

Over-voltage under-voltage tripper: MN+MV Over-voltage under-voltage tripper (MN+MV): for automatic protection in case of over/under voltage in the main circuit Under-voltage protection value:170V±10%(153-187V) Over-voltage protection value:280V±5%(266-294V) Assembly: mounted on the right side of the circuit breaker Application: automatic protection in case of over/under voltage in the main circuit Width:18mm	  MN+MV
Shunt tripper: MX+OF Shunt tripper (MX+OF): for remote control tripping Tripping voltage: DC24, AC220/380V Assembly: mounted on the right side of the circuit breaker Application: remote control the lines to break Width: 18mm	  MX+OF
Auxiliary contact: OF Auxiliary contact (OF): for indication of the circuit breaker status Assembly: mounted on the left side of the circuit breaker Application: indicate the status of the circuit breaker Width: 9mm	  OF
Alarm contact: SD Alarm contact (SD): for indication of the circuit breaker status in the event of fault tripping Assembly: mounted on the left side of the circuit breaker Application: fault alarm indication of equipment and other devices Width: 9mm	  SD

ASKB2 MINIATURE CIRCUIT BREAKER SELECTION TABLE

Product code		Function derivation code		No. of poles		Rated current(A)	
Miniature circuit breaker		No code: normal protection L: leakage protection		1P+N single phase two lines, N line is involved in breaking		6 - 32	
ASK	B	2	L	32	1P+N	AC	C 32A
Company AISIKAI ELECTRIC		Design serial 2: DPN type		Frame ratings 32: 32A frame		Residual current type AC Type: Electromagnetic (default) (Leakage protection optional)	
						Tripper type B: Precision protection type C: Lighting type D: Power type	

Frame Classification:
Normal type(32A frame)
Leakage protection type(L type, 32A frame)

Design marking	Design marking	Model definition 1:	Model definition 2:
 ASKB2	 ASKB2L	ASKB2-32 / 1P+N / 6A 1. compact leakage protection type MCB; 2. 32A frame; 3. single phase two lines, rated current 6A.	ASKB2L-32 / 1P+N / 32A 1. standard leakage protection type MCB; 2. 32A frame ; 3. 4 poles, rated current 32A.

QUALIFICATION DOCUMENTS





ASKB2 NORMAL PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW



- ASKB2 series household miniature circuit breakers are suitable for the end power distribution lines of office buildings, residences and general industrial use. ASKB2 can protect lines against overload and short-circuit, and provide functions of isolation and control. Under normal conditions, MCB can also be used in infrequent on-off control of electrical devices and lighting lines. The MCB are suitable for AC 50/60Hz, rated voltage below 230V, rated current below 32A.

The MCB adopts the innovative "phase line+ N line" design, which can cut off the phase and neutral lines at the same time, achieving higher safety performance and avoiding personal and fire hazards caused by reverse wiring of the phase and neutral lines or high neutral-to-ground potential when using single-pole circuit breakers. The compact design makes its thickness only 18mm, which fully meets the high standard requirements for compact volume of household distribution box. MCB has high breaking capacity, adopts modular design, and can be used with a variety of accessories to meet customers' requirements for other additional functions.

CLASSIFICATION

- Classified by the over-current tripper rated current(A)**
Frame 32: 3, 6, 10, 16, 20, 25, 32A
- Classified by instantaneous tripper type**
B type: protect pure resistive load and low-inductive lighting system
tripping characteristic: instantaneous trip range(3-5)In

C type: protect inductive load and high-inductive lighting system
tripping characteristic: instantaneous trip range(5-10)In

FEATURES

- Innovative "phase line+ N line" structural design. Thickness only 18mm. Save 50% space
Shell with ventilation slot design, active heat dissipation, reduce temperature rise
Composite high conductive material. Longer service life
Ergonomic operation design, non-slip handle for easy operation

APPLICATIONS



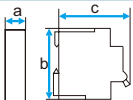
NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

Category	Requirement
Operational temperature	Between -5°C and +40°C. The average value in 24 hours does not exceed +35°C.
Altitude	Lower than 2000 meters.
Operational humidity	The relative humidity at +40°C shall not exceed 50%. Higher relative humidity is allowed at lower temperature. The average maximum relative humidity is 90% in the most humid month
Installation level	The installation level is II, III.
Pollution level	Level 2
Installation method	Install vertically or horizontally. Use YH35-7.5 standard DIN rail.
Installation conditions	The inclination of the mounting surface to the vertical surface does not exceed 5 degrees. Use environment should be without strong impact and vibration.
Wiring method	Fasten the wires using screws.
Wire inlet method	Wiring reversely is acceptable for normal type. Wiring reversely is prohibited for leakage type.

STANDARDS

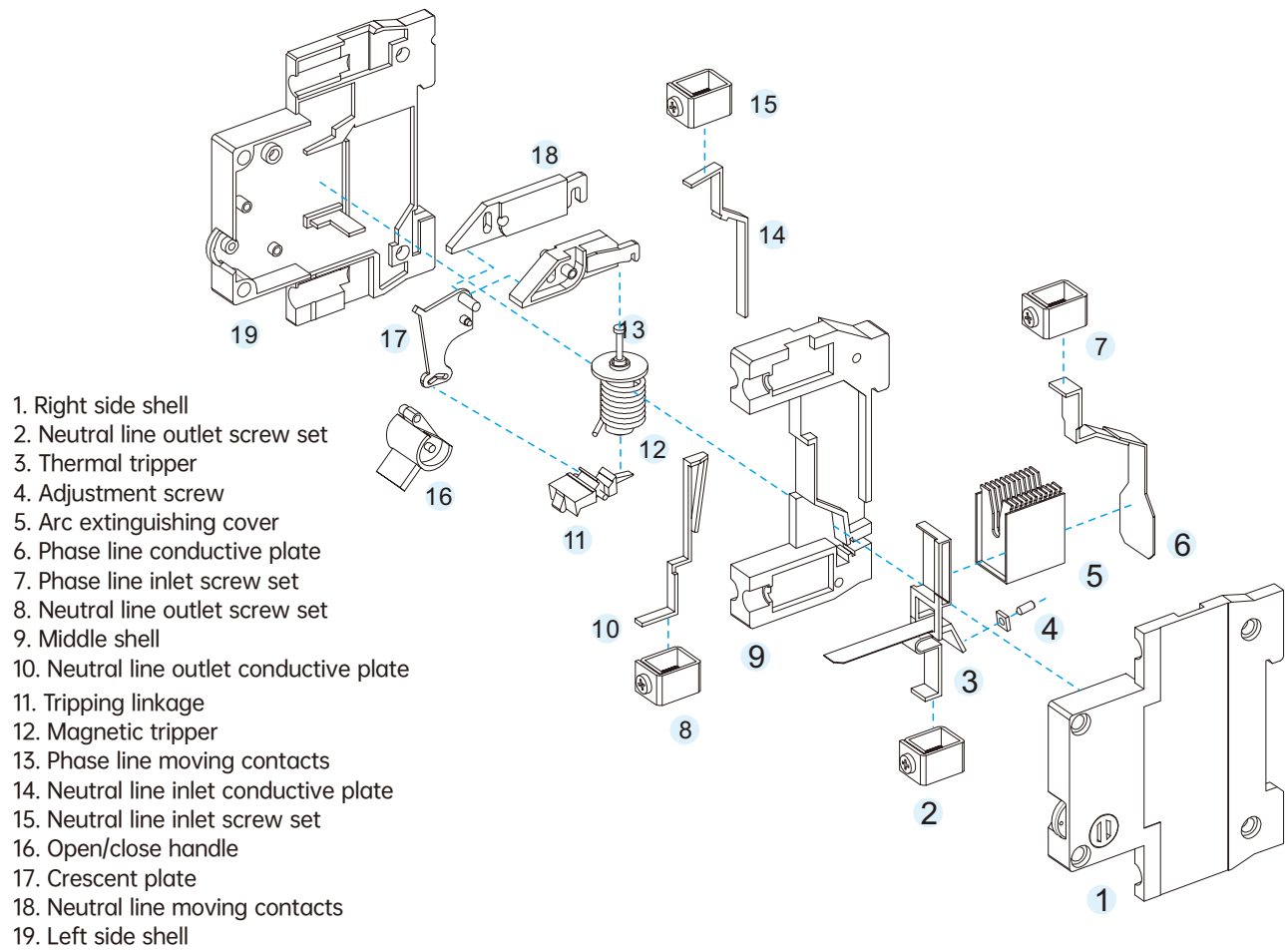
GB10963.1、IEC60898-1

MAIN TECHNICAL PARAMETERS

32 Frame				
General power distribution protection				
No. of poles			1P+N: single phase two lines, N line is involved in breaking	
Electrical performance				
Functions		Short-circuit protection, overload protection, isolation, control		
Rated frequency	f	(Hz)	50/60	
Rated operational voltage	Ue	(V AC)	230	
Rated current	In	(A)	6, 10, 16, 20, 25, 32	
Impulse withstand voltage	Uimp	(kV)	4	
Instantaneous tripping type			C/D	
Rated short-circuit capacity	Icu	(kA)	3	
Tripper type			Thermomagnetic	
Service life (0 ~ C)	Mechanical service life		20000	
	Electrical service life		8000	
Connection and installation				
Optional accessories				
Control and indication				
Protection level			IP20	
Handle lock			None	
Wiring capacity			(mm²)	1~25
Operational temperature			(°C)	-5 ~ +40
Resistance to heat and humidity			2	
Altitude			(m)	≤2000
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C	
Pollution level			2	
Installation environment			Without strong impact and vibration	
Installation category			III	
Installation method			DIN standard rail	
Outline dimensions Width*Height*Depth (mm)		a	18	
		b	81	
		c	76	



MAIN STRUCTURE INTRODUCTION



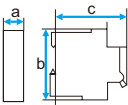
Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Normal protection type miniature circuit breaker is one-piece structure, which is made of precise combination of internal parts. The left and right shells enclose the operating mechanism, moving/fixed contacts, thermal tripper, magnetic tripper, and arc extinguishing cover. Manual operation is used for open/close operation.	The manual operation on the open/close handle makes the phase lines and neutral line switch on/off simultaneously, realizing the on-off of the circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper pushes the free tripping mechanism into action, breaking the phase lines and neutral line of the main circuit. When the circuit is overloaded, the thermal tripper pushes the free tripping mechanism into action, breaking the phase lines and neutral line of the main circuit to realize the protection of the distribution lines.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromagnetic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal component of the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.

ASKB2L LEAKAGE PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW

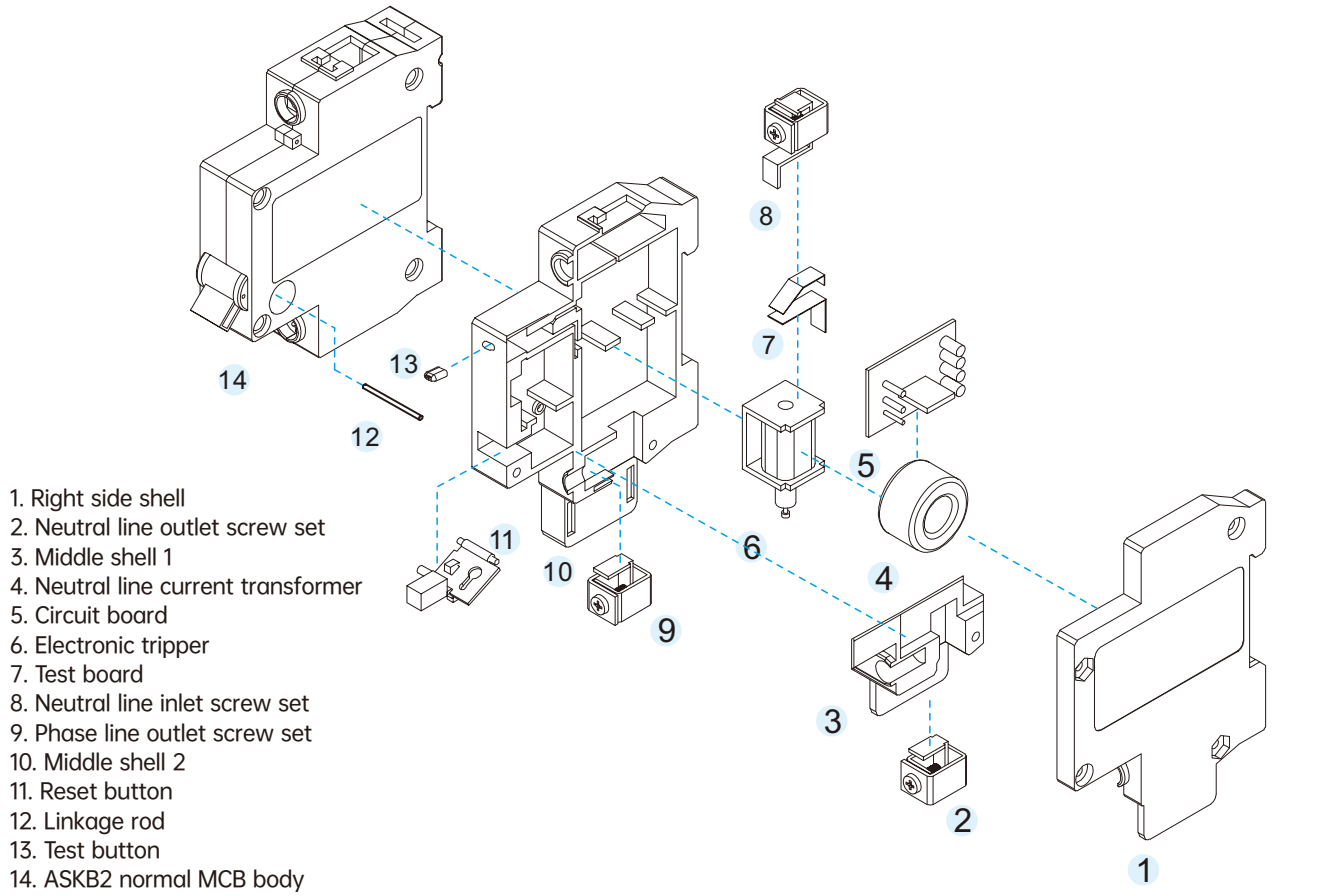
- ASKB2L leakage protection type miniature circuit breaker is suitable for lines of AC 50Hz, rated operational voltage 230V, rated current below 32A, used for indirect contact protection for people, and over-current protection for buildings and lines for similar purposes. ASKB2L also provide protection against fires caused by persistent ground faults due to the inaction of the over-current protection devices. Leakage circuit breakers with over-voltage protection also protect against excessive voltage increases due to grid faults. This series of residual current-action circuit breakers have been increasingly used in low-voltage distribution systems as backup protection for ground faults and direct contact and indirect contact electric shocks.

MAIN TECHNICAL PARAMETERS

63 Frame					
General power distribution protection (IEC/EN 61009-1; GB 16917.1)					
No. of poles				1P+N: single phase two lines, N line is involved in breaking	
Electrical performance					
Functions				Short-circuit protection, overload protection, isolation, control	
Residual current type				AC type(ensure tripping for sudden applied or slowly rising residual sinusoidal AC currents)	
Rated frequency	f	(Hz)	50/60		
Rated operational voltage	U _e	(V AC)	230		
Rated residual action current	I _{Δn}	(mA)	Default 30mA(non-action current 15mA)		
Rated current	I _n	(A)	6, 10, 16, 20, 25, 32		
Instantaneous tripping type			C/D		
Rated residual making and breaking capacity	I _m	(A)	2000		
Rated short-circuit capacity	I _{cu}	(kA)	3		
Tripper type			Thermomagnetic		
Service life	(0 ~ C)	Mechanical service life	20000		
		Electrical service life	8000		
Control and indication					
Optional accessories(multiple options available)				None	
Connection and installation					
Protection level			IP20		
Wiring capacity			(mm ²)	1~25	
Operational temperature			(°C)	-25 ~ +60	
Resistance to heat and humidity			2		
Altitude			(m)	≤2000	
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C		
Pollution level			2		
Installation environment			Without strong impact and vibration		
Installation category			III		
Installation method			DIN standard rail		
Outline dimensions			a	36	
Width*Height*Depth (mm)			b	81	
			c	76	



MAIN STRUCTURE INTRODUCTION



Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Leakage protection type miniature circuit breaker is modular structure, which is made of ASKB2 normal MCB body on the left and leakage detection mechanism on the right. The main components include circuit board, current transformer, electronic, etc. The left and right parts are tightly fixed together. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or overloaded, the magnetic tripper or thermal tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit, realizing the protection of the distribution lines. When there is a leakage situation, the current vector sum through the N line current transformer is not equal to zero. The circuit board amplifies the transformer voltage signal, driving the electronic tripping into action, pushing the tripping mechanism in ASKB2 normal type body through the linkage rod to achieve the breaking protection.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromagnetic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal component of the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.

ASKB3L SERIES ELECTRONIC LEAKAGE MINIATURE CIRCUIT
BREAKER QUICK SELECTION TABLE

Miniature circuit breaker
Product code

L: Electronic leakage
Function derivation code

L: 4.5 kA
H: 6 kA
Breaking capacity code

1P+N: Single-phase
2P:2 poles
3P+N: Three-phase
4P:4 poles
No. of poles

6-80A
Rated current (A)

ASK

B

3

L

-

80

H

/

1P+N

/

AC

/

C

80A

Company
AISIKAI ELECTRIC

Design serial

Frame ratings
80:80A Frame

Residual current type
AC type: Electromagnetic (default)
A-type: Electronic type

Trip unit type code
B: Precision protection type
C: Lighting type
D: Power type

Design marking

Model definition :
ASKB3L-80/1P+N/80A
1.Electronic leakage;
2.80A Frame;
3.Single-phase two-wire, rated current 80A.

NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

Category	Requirement
Operational temperature	Between -35℃ and +70℃. The average value in 24 hours does not exceed +35℃.
Altitude	Lower than 2000 meters.
Operational humidity	The relative humidity at +40 ℃ shall not exceed 50%. Higher relative humidity is allowed at lower temperature. The average maximum relative humidity is 90% in the most humid month
Installation level	The installation level is II, III.
Pollution level	Level 2
Installation method	Install vertically or horizontally. Use YH35-7.5 standard DIN rail.
Installation conditions	The inclination of the mounting surface to the vertical surface does not exceed 5 degrees. Use environment should be without strong impact and vibration.
Wiring method	Fasten the wires using screws.
Wire inlet method	Wiring reversely is acceptable for normal type. Wiring reversely is prohibited for leakage type.

QUALIFICATION DOCUMENTS



ASKB3L ELECTRONIC LEAKAGE MICRO-CIRCUIT BREAKER

OVERVIEW

- ASKB3L series leakage circuit breakers are suitable for AC 50Hz, rated voltage up to 230V-400V, and rated current up to 80A. When a person is electrocuted or the grid leakage exceeds the specified value, the leakage circuit breaker can quickly cut off the power supply in a very short time, protecting people and electrical equipment, and avoiding damage caused by overvoltage of the grid.

It has overload, short-circuit, and leakage protection functions, and can also be used for infrequent switching of electrical devices and lighting lines under normal conditions, especially suitable for industrial and commercial lighting distribution systems.

The product is small in size, compact in structure, cost-effective compared to other similar products, aesthetically pleasing, and has high breaking capacity, making it a good choice for home distribution.

CLASSIFICATION

- Classified by over-current tripper type

B type: Protecting high-precision instruments

Trip characteristic: Instantaneous trip range (3-5) I_n

C type: protect inductive load and high-inductive lighting system

tripping characteristic: instantaneous trip range(5-10) I_n

D type: protect high-inductive load and impact load with high starting current (motors, transformers, etc.)

tripping characteristic: instantaneous trip range(10-14) I_n

FEATURES

- Innovative structural design. Breaking capacity up to 8KA
Shell with ventilation slot design, active heat dissipation, reduce temperature rise
Composite high conductive material. Longer service life
Ergonomic operation design, non-slip handle for easy operation



APPLICATIONS

STANDARDS

GB10963.1、IEC60898-1

ASKB3L SERIES OVERCURRENT TRIP CHARACTERISTICS TABLE

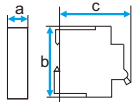
Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.13 I_n	All values	$t \geq 1h$	Not trip	Cold	The current rises steadily to the specified value within 5s
1.45 I_n	All values	$t < 1h$	Trip	Hot	
2.55 I_n	$I_n \leq 32$	$1s < t \leq 60s$	Trip	Cold	
	$I_n > 32$	$1s < t \leq 60s$	Trip	Cold	Close the auxiliary switch to connect the power supply
5 I_n (C)	C type	$t \geq 0.1s$	Not trip	Cold	
10 I_n (C)	C type	$t < 0.1s$	Trip	Cold	
10 I_n (D)	D type	$t \geq 0.1s$	Not trip	Cold	
14 I_n (D)	D type	$t < 0.1s$	Trip	Cold	

Note: "Cold state" refers to no load before testing at the reference setting temperature.

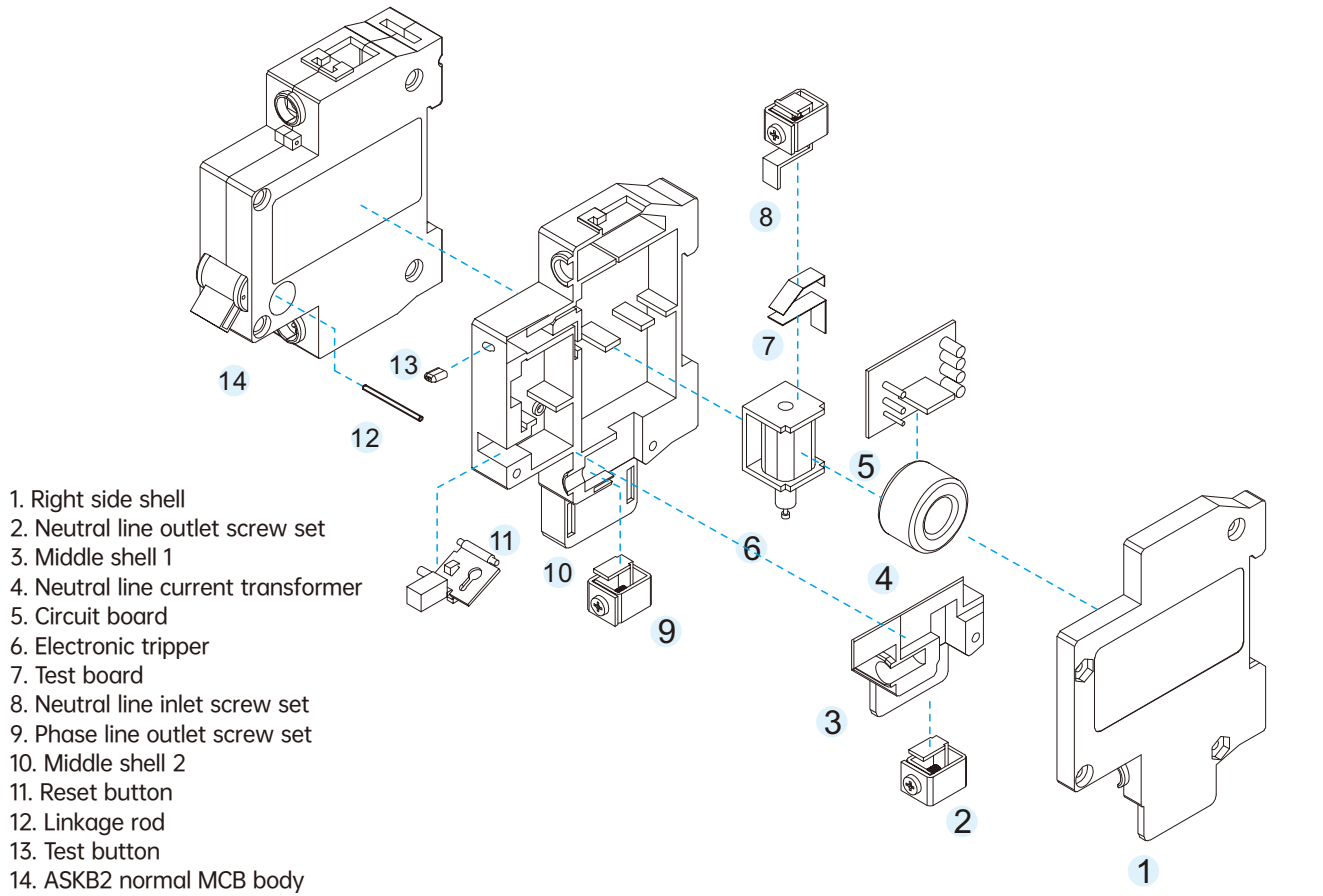
B-type: 3 I_n $t \geq 0.1s$ no trip, 5 I_n $t < 0.1s$ trip

ASKB3L ELECTRONIC LEAKAGE MICRO-CIRCUIT BREAKER

TECHNICAL PARAMETERS

ASKB3L-80 Frame						
General power distribution protection use						
No. of poles			1P+N	2P	3P+N	4P
Electrical performance						
Functions			Short-circuit protection, overload protection, leakage protection,isolation, control			
Rated frequency	f	(Hz)	50/60			
Rated operational voltage	Ue	(V AC)	230			
Rated current	In	(A)	6、10、16、20、25、32、40、50、63、80			
Impulse withstand voltage	Uimp	(kV)	4			
Instantaneous tripping type			B/C/D			
Operating short-circuit capability	Ics=Icn	L	4.5			
		H	6			
Tripper type			Thermomagnetic			
Residual current type			AC/A type			
Rated residual action current	IΔn(mA)	AC type	30,50,100			
Rated non-operating residual current	IΔno(mA)	A type	15,25,50			
Service life	(0-C)	Mechanical service life	20000			
		Electrical service life	8000			
Connection and installation						
Protection level			IP20			
Handle lock			None			
Wiring capacity		(mm²)	1~25			
Operational temperature		(°C)	-35°C~+70°C, with an average temperature not exceeding +35°C within 24 hours			
Resistance to heat and humidity			2			
Altitude		(m)	≤2000			
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C			
Pollution level			2			
Installation environment			Without strong impact and vibration			
Installation category			III			
Installation method			DIN standard rail			
Outline dimensions		a	36		72	
Width*Height*Depth (mm)		b	82		82	
		c	72.6		72.6	

MAIN STRUCTURE INTRODUCTION



Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Leakage protection type miniature circuit breaker is modular structure, which is made of ASKB2 normal MCB body on the left and leakage detection mechanism on the right. The main components include circuit board, current transformer, electronic, etc. The left and right parts are tightly fixed together. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or overloaded, the magnetic tripper or thermal tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit, realizing the protection of the distribution lines. When there is a leakage situation, the current vector sum through the N line current transformer is not equal to zero. The circuit board amplifies the transformer voltage signal, driving the electronic tripping into action, pushing the tripping mechanism in ASKB2 normal type body through the linkage rod to achieve the breaking protection.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromagnetic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal component of the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.

ASKB4L SERIES ELECTRONIC RESIDUAL LEAKAGE ACTION MINIATURE
CIRCUIT BREAKER QUICK SELECTION TABLE

Miniature circuit breaker Product code		L: Electronic type residual leakage action Function derivation code		L: 4.5 kA H: 6 kA Breaking capacity code		1P+N: Single-phase 2P:2 Poles No. of poles		6-63 Rated current(A)	
ASK	B	4	L	63	H	1P+N	AC	C	63A
Company AISIKAI ELECTRIC		Design serial		Frame ratings 63:63A frame		Residual current type AC type: Electromagnetic (default) A-type: Electronic type		Tripper type B: Precision protection type C: Lighting type D: Power type	
Design marking		Model definition : ASKB4L-63/1P+N/63A 1, Electronic type residual leakage action; 2, 63A frame; 3, Single-phase two-wire, rated current 63A.							

NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

Category	Requirement
Operational temperature	Between -35℃ and +70℃. The average value in 24 hours does not exceed +35℃.
Altitude	Lower than 2000 meters.
Operational humidity	The relative humidity at +40℃ shall not exceed 50%. Higher relative humidity is allowed at lower temperature. The average maximum relative humidity is 90% in the most humid month
Installation level	The installation level is II, III.
Pollution level	Level 2
Installation method	Install vertically or horizontally. Use YH35-7.5 standard DIN rail.
Installation conditions	The inclination of the mounting surface to the vertical surface does not exceed 5 degrees. Use environment should be without strong impact and vibration.
Wiring method	Fasten the wires using screws.
Wire inlet method	Wiring reversely is acceptable for normal type. Wiring reversely is prohibited for leakage type.

QUALIFICATION DOCUMENTS



ASKB4L ELECTRONIC RESIDUAL LEAKAGE ACTION MICRO-CIRCUIT BREAKER

OVERVIEW



- ASKB4L series leakage circuit breakers are suitable for AC 50Hz, rated voltage 230V, and rated current up to 63A and below. They are used for indirect contact protection of people, as well as overcurrent protection of buildings and similar applications. They can also provide protection against fire caused by grounding faults that persist due to the non-operation of overcurrent protection devices. Leakage circuit breakers with overvoltage protection also protect against excessive voltage rise caused by grid faults. This series of leakage circuit breakers has been increasingly adopted in low-voltage distribution systems as backup protection for grounding faults and direct contact, indirect contact electric shocks.

CLASSIFICATION

- Classified by over-current tripper type**
 - B type: Protecting high-precision instruments
 - Trip characteristic: Instantaneous trip range (3-5) In
 - C type: protect inductive load and high-inductive lighting system
 - tripping characteristic: instantaneous trip range(5-10)In
 - D type: protect high-inductive load and impact load with high starting current (motors, transformers, etc.)
 - tripping characteristic: instantaneous trip range(10-14) In
- Innovative structural design. Breaking capacity up to 6KA
- Shell with ventilation slot design, active heat dissipation, reduce temperature rise
- Composite high conductive material. Longer service life
- Ergonomic operation design, non-slip handle for easy operation



APPLICATIONS

STANDARDS

GB10963.1、IEC60898-1

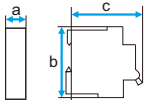
ASKB4LSERIES OVER-CURRENT TRIPPING CHARACTERISTICS TABLE

Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.13In	All values	t≥1h	Not trip	Cold	The current rises steadily to the specified value within 5s
1.45In	All values	t < 1h	Trip	Hot	
2.55In	In≤32	1S < t < 60s	Trip	Cold	
5In (C)	All values	t≥0.1S	Not trip	Cold	Close the auxiliary switch to connect the power supply
10In (C)	All values	t < 0.1S	Trip	Cold	
10In (D)	All values	t≥0.1S	Not trip	Cold	
14In (D)	All values	t < 0.1S	Trip	Cold	

Note: "Cold state" refers to no load before testing at the reference setting temperature.

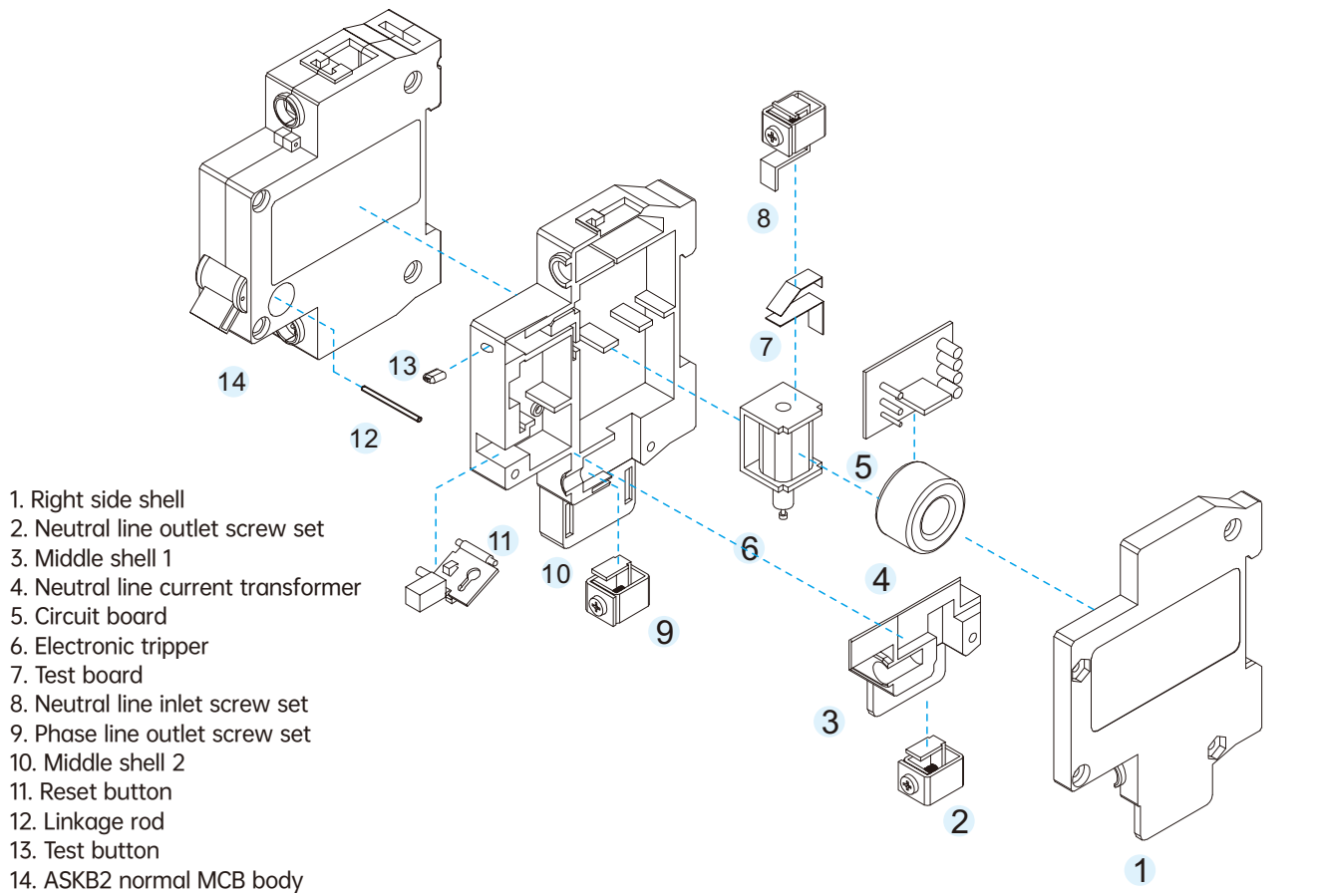
ASKB4L ELECTRONIC RESIDUAL LEAKAGE ACTION MICRO-CIRCUIT BREAKER

MAIN TECHNICAL PARAMETERS

ASKB4L-63 Frame					
For general power distribution protection					
No. of poles				1P+N	2P
Electrical performance					
Functions				Short-circuit protection, overload protection, leakage protection,isolation, control	
Rated frequency	f	(Hz)	50/60		
Rated operational voltage	Ue	(V AC)	230		
Rated current	In	(A)	6、10、16、20、25、32、40、50、63		
Impulse withstand voltage	Uimp	(kV)	4		
Instantaneous tripping type			B/C/D		
Operating short-circuit capability	Ics=Icn	L	4.5		
		H	6		
Tripper type			Thermomagnetic		
Residual current type			AC/A type		
Rated leakage action current	mA	AC type	30,50,75,100		
		A type	30,100,300		
Service life	(0~C)	Mechanical service life	20000		
		Electrical service life	8000		
Connection and installation					
Protection level				IP20	
Handle lock				None	
Wiring capacity		(mm²)	1~10		
Operational temperature		(°C)	-35°C~+70°C, with an average temperature not exceeding +35°C within 24 hours		
Resistance to heat and humidity			2		
Resistance to heat and humidity		(m)	≤2000		
Air relative humidity				Not exceed 95% at +20°C; not exceed 50% at +40°C	
Pollution level				2	
Installation environment				Without strong impact and vibration	
Installation category				III	
Installation method				DIN standard rail	
Outline dimensions Width*Height*Depth (mm)			a	36	
			b	74	
			c	79	



MAIN STRUCTURE INTRODUCTION



Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Leakage protection type miniature circuit breaker is modular structure, which is made of ASKB2 normal MCB body on the left and leakage detection mechanism on the right. The main components include circuit board, current transformer, electronic, etc. The left and right parts are tightly fixed together. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or overloaded, the magnetic tripper or thermal tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit, realizing the protection of the distribution lines. When there is a leakage situation, the current vector sum through the N line current transformer is not equal to zero. The circuit board amplifies the transformer voltage signal, driving the electronic tripping into action, pushing the tripping mechanism in ASKB2 normal type body through the linkage rod to achieve the breaking protection.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromagnetic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal component of the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.

ASKB5 MINIATURE CIRCUIT BREAKER SELECTION TABLE

Product code Miniature circuit breaker		Function derivation code No code: normal protection L:leakage protection		Breaking capacity L: 6 kA H: 10 kA		Tripper type C: Lighting type D: Power type	
ASK	B	5	L — 63	H	/ 1P+N	/ C	40A
Company AISIKAI ELECTRIC		Design serial 5: basic type		Frame ratings 40: 40A frame(leakage type) 63: 63A frame(normal type, leakage type)		Frame ratings B5 type 1P: 1 poles 2P: 2 poles 3P: 3 poles 4P: 4 poles B5L type 1P+N: single phase 2P: 2 poles 3P: 3 poles 3P+N: 3 phases 4P: 4 poles	
						Rated current (A) 6 - 63	

Frame Classification:

Normal type(63A frame)
Leakage protection type(L type, 40A frame, 63A frame)

Design marking	Design marking	Model definition 1:	Model definition 2:
 ASKB1 ASKB2	 ASKB1L ASKB2L	ASKB5-63 / L / 4P / 40A 1. standard normal protection type MCB; 2. 63A frame; 3. 4 poles, rated current 40A.	ASKB5L-63 / 3P+N / 63A 1. standard leakage protection type MCB; 2. 63A frame; 3. three phases four lines, rated current 63A.

QUALIFICATION DOCUMENTS





ASKB5 NORMAL PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW



- ASKB5 normal protection type miniature circuit breaker has features as advanced structure, reliable performance, high breaking capacity, beautiful and compact appearance, etc. Shell and three parts are made of impact resistant and high flame retardant materials. ASKB5 are suitable for AC 50Hz or 60Hz, rated operational voltage below 400V, rated current below 63A. MCB are mainly used for the overload and short-circuit protection of lines and equipment in lighting and power distribution in office buildings, residences and similar buildings. Under normal conditions, MCB can also be used in infrequent on-off control of electrical devices and lighting lines.

CLASSIFICATION

- Classified by the over-current tripper rated current (A)
Frame 63: 6, 10, 16, 20, 25, 32, 40, 50, 63A
- Classified by over-current tripper type
C type: protect inductive load and high-inductive lighting system
tripping characteristic: instantaneous trip range(5-10)In
D type: protect high-inductive load and impact load with high starting current
(motors, transformers, etc.)
tripping characteristic: instantaneous trip range (10-16)In

FEATURES

- Innovative structural design. Breaking capacity up to 10KA
Shell with ventilation slot design, active heat dissipation, reduce temperature rise
Composite high conductive material. Longer service life
Ergonomic operation design, non-slip handle for easy operation

APPLICATIONS



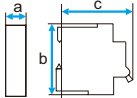
NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

Category	Requirement
Operational temperature	Between -5°C and +40°C. The average value in 24 hours does not exceed +35°C.
Altitude	Lower than 2000 meters.
Operational humidity	The relative humidity at +40°C shall not exceed 50%. Higher relative humidity is allowed at lower temperature. The average maximum relative humidity is 90% in the most humid month
Installation level	The installation level is II, III.
Pollution level	Level 2
Installation method	Install vertically or horizontally. Use YH35-7.5 standard DIN rail.
Installation conditions	The inclination of the mounting surface to the vertical surface does not exceed 5 degrees. Use environment should be without strong impact and vibration.
Wiring method	Fasten the wires using screws.
Wire inlet method	Wiring reversely is acceptable for normal type. Wiring reversely is prohibited for leakage type.

STANDARDS

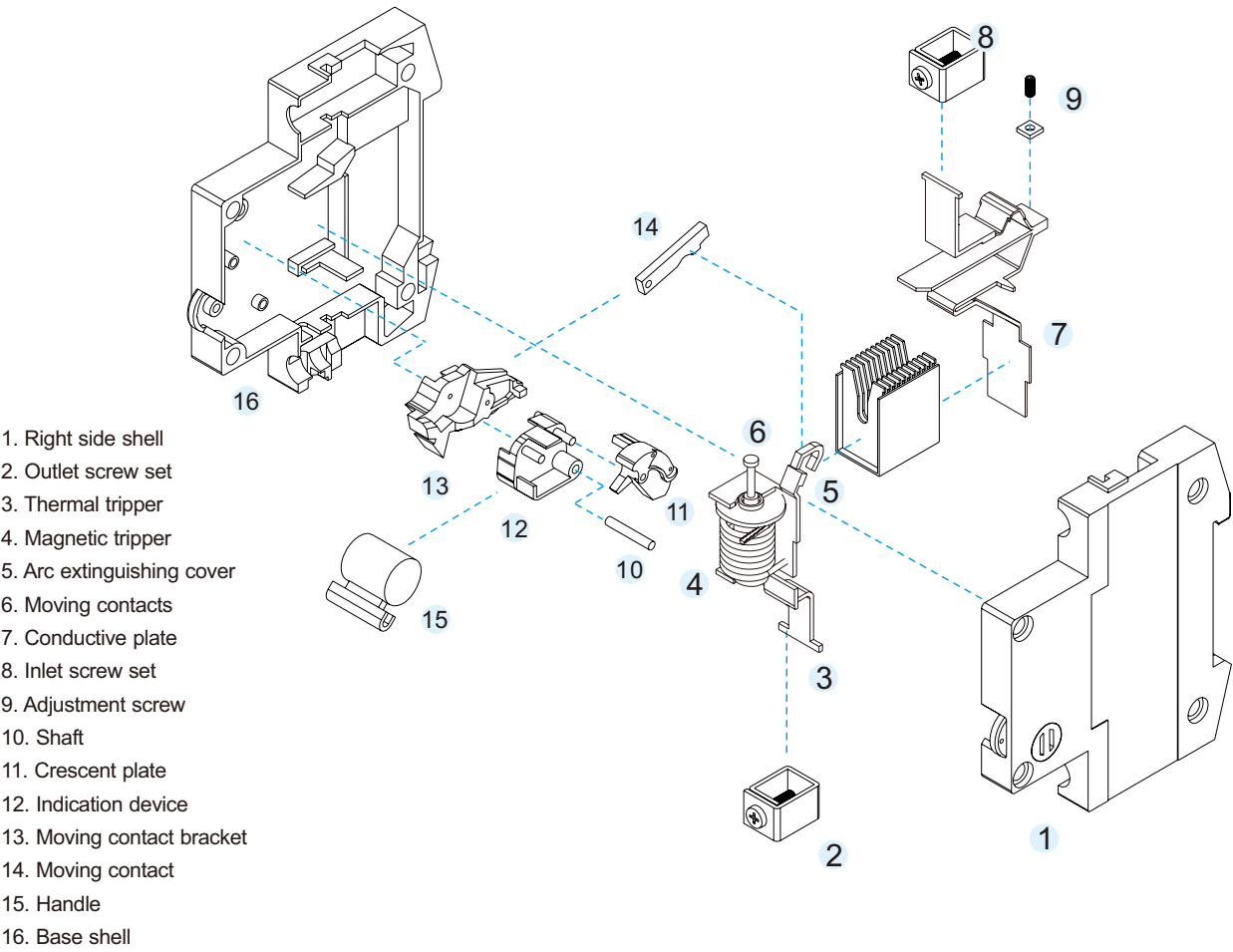
GB10963.1、IEC60898-1

MAIN TECHNICAL PARAMETERS

63 Frame									
General power distribution protection									
									
No. of poles		1P		2P	3P	4P			
Electrical performance									
Functions					Short-circuit protection, overload protection, isolation, control				
Rated frequency		f	(Hz)	50/60					
Rated operational voltage		Ue	(V AC)	230/400	400	400	400		
Rated current		In	(A)	6, 10, 16, 20, 25, 32, 40, 50, 63					
Impulse withstand voltage		Uimp	(kV)	4					
Rated insulation voltage		Ui	(V)	500					
Instantaneous tripping type					C/D				
Rated short-circuit capacity		Icu	(kA)	L	Icu=Ics=6				
					H	Icu=Ics=10			
Tripper type						Thermomagnetic			
Service life	(0 ~ C)	Mechanical service life		20000					
		Electrical service life		10000					
Control and indication									
Optional accessories(multiple options available)					Alarm contact SD, auxiliary contact OF, shunt tripper MX+OF or over-voltage under-voltage tripper MN+MV (choose one of the two)				
Connection and installation									
Protection level					Ip20				
Handle lock					None				
Wiring capacity			(mm²)	1~25					
Operational temperature			(°C)	-5 ~ +40					
Resistance to heat and humidity					2				
Altitude			(m)	≤2000					
Air relative humidity					Not exceed 95% at +20°C; not exceed 50% at +40°C				
Pollution level					2				
Installation environment					Without strong impact and vibration				
Installation category					II ; III				
Installation method					DIN standard rail				
Outline dimensions			a	18	36	54	72		
Width*Height*Depth (mm)			b	83					
			c	78					



MAIN STRUCTURE INTRODUCTION



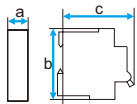
Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Normal protection type miniature circuit breaker is one-piece structure, which is made of precise combination of internal parts. The left and right shells enclose the operating mechanism, moving/fixed contacts, thermal tripper, magnetic tripper, and arc extinguishing cover. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or seriously overloaded, the magnetic tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit. When the circuit is overloaded, the thermal tripper pushes the free tripping mechanism into action, breaking the main circuit to realize the protection of the distribution lines.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromagnetic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal component of the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.

ASKB5L LEAKAGE PROTECTION MINIATURE CIRCUIT BREAKER

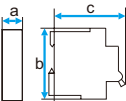
OVERVIEW

- ASKB5L leakage protection type miniature circuit breaker consist of ASKB5 normal protection type MCB and leakage tripper. ASKB5L is the latest type of current-action type electronic leakage circuit breaker. The main components include zero sequence current transformer, electronic detection board, tripper and the MCB body. ASKB1L is suitable for lighting and power distribution lines of AC 50Hz, rated operational voltage 230V/400V, rated current below 63A, protecting the lines against overload, short-circuit and leakage.

MAIN TECHNICAL PARAMETERS

40 Frame															
General power distribution protection (IEC/EN 61009-1; GB 16917.1)															
No. of poles				1P+N		2P		3P		3P+N		4P			
Electrical performance															
Functions				Short-circuit protection, overload protection, leakage protection, isolation, control											
Residual current type				AC type(ensure tripping for sudden applied or slowly rising residual sinusoidal AC currents)											
Rated frequency		f (Hz)		50/60											
Rated operational voltage		U _e (V AC)		230		230		400		400		400			
Rated residual action current		I Δ n (mA)		Default 30mA(non-action current 15mA). 50, 100, 200, 300mA is customizable											
Rated current		I _n (A)		6, 10, 16, 20, 25, 32, 40											
Instantaneous tripping type				C/D											
Rated residual making and breaking capacity		I _m (A)		2000											
Impulse withstand voltage		U _i (A)		500											
Rated insulation voltage		U _{imp} (kV)		4											
Rated short-circuit capacity		I _{cu} (kA)		L											
				H											
Tripper type				Thermomagnetic											
Service life (0 ~ C)		Mechanical service life		20000											
		Electrical service life		10000											
Control and indication															
Optional accessories(multiple options available)				Alarm contact SD, auxiliary contact OF											
Connection and installation															
Protection level				IP20											
Wiring capacity		(mm ²)		1~ 25											
Operational temperature		(°C)		-25 ~ +60											
Resistance to heat and humidity				2											
Altitude		(m)		≤2000											
Air relative humidity				Not exceed 95% at +20°C; not exceed 50% at +40°C											
Pollution level				2											
Installation environment				Without strong impact and vibration											
Installation category				III											
Installation method				DIN standard rail											
Outline dimensions Width*Height*Depth (mm)				a		45		63		90		99		117	
				b		98.5									
				c		76.8		77.8							



63 Frame								
General power distribution protection (IEC/EN 61009-1; GB 16917.1)								
No. of poles		1P+N		2P		3P	3P+N	4P
Electrical performance								
Functions		Short-circuit protection, overload protection, leakage protection,isolation, control						
Residual current type		AC type(ensure tripping for sudden applied or slowly rising residual sinusoidal AC currents)						
Rated frequency	f	(Hz)	50/60					
Rated operational voltage	Ue	(V AC)	230	230	400	400	400	
Rated residual action current	I△n	(mA)	Default 30mA(non-action current 15mA). 50, 100, 200, 300mA is customizable					
Rated current	In	(A)	50 , 60					
Instantaneous tipping type		C/D						
Rated residual making and breaking capacity	Im	(A)	2000					
Rated short-circuit capacity	Icu	(kA)	L	Icn=Ics=6				
				H	Icn=Ics=10			
Tripper type		Thermomagnetic						
Service life	(0 ~ C)	Mechanical service life		20000				
		Electrical service life		10000				
Control and indication								
Optional accessories(multiple options available)			Alarm contact SD, auxiliary contact OF					
Connection and installation								
Protection level		IP20						
Wiring capacity	(mm²)		1~ 25					
Operational temperature	(°C)		-25 ~ +60					
Resistance to heat and humidity		2						
Altitude	(m)		≤2000					
Air relative humidity		Not exceed 95% at +20°C; not exceed 50% at +40°C						
Pollution level		2						
Installation environment		Without strong impact and vibration						
Installation category		III						
Installation method		DIN standard rail						
Outline dimensions			a	54	72	117	117	135
Width*Height*Depth (mm)			b	98.5				
			c	77	78.5			

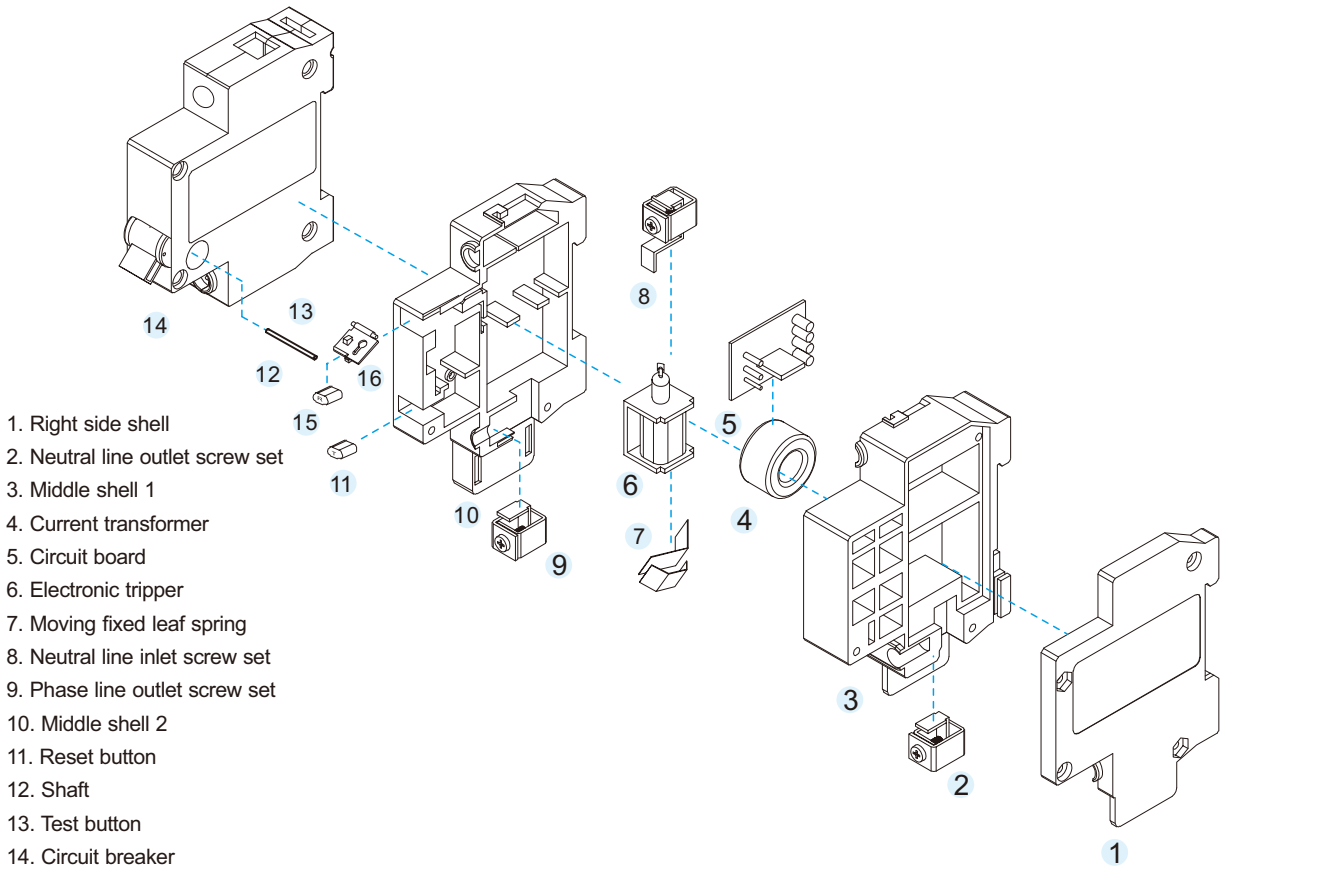
APPLICATIONS



STANDARDS

GB10963.1、IEC60898-1

MAIN STRUCTURE INTRODUCTION



Structure overview	Working method	Circuit board	Electronic tripper	Test button
Leakage protection type miniature circuit breaker is modular structure, which is made of ASKB5 normal MCB body on the left and leakage detection mechanism on the right. The main components include circuit board, current transformer, electronic, etc. The left and right parts are tightly fixed together. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or overloaded, the magnetic tripper or thermal tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit, realizing the protection of the distribution lines. When there is a leakage situation, the current vector sum through the N line current transformer is not equal to zero. The circuit board amplifies the transformer voltage signal, driving the electronic tripping into action, pushing the tripping mechanism in ASKB5 normal type body through the linkage rod to achieve the breaking protection.	The main components use the bidirectional thyristor, which can sensitively detect the milliamp signal from the N-line transformer, and then analyze and process the signal to amplify the signal, relying on the principle of low power control of high power to drive the electronic tripper acts.	The electronic tripper is the main action component of the leakage protection mechanism. After the signal amplified by the circuit board reaches the required voltage to drive the tripper, it acts immediately, driving the linkage rod to drive the tripping mechanism in ASKB5 normal type to break the main circuit for the purpose of protecting the distribution lines.	Leakage protection miniature circuit breaker has test button. When the test button is pressed down, the driving circuit of the electronic tripper is turned on. The tripper acts immediately, driving the relevant mechanism to realize the breaking. It is used for periodic testing of the operating condition of leakage type circuit breakers.



ASKB5 SERIES OVER-CURRENT TRIPPING CHARACTERISTICS TABLE

Normal Protection Type 63 Frame

Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.13In	All values	T≤1h	Not trip	Cold	The current rises steadily to the specified value within 5s
1.45In	All values	T≤1h	trip	Hot	Close the auxiliary switch to turn on the power
2.55In	In≤32A	1s < T < 60S	trip	Cold	Close the auxiliary switch to turn on the power
2.55In	In≤32A	1s < T < 120S	trip	Cold	Close the auxiliary switch to turn on the power
5In(C)	All values	T≤0.1S	Not trip	Cold	Close the auxiliary switch to turn on the power
10In(C)	All values	T < 0.1S	trip	Cold	Close the auxiliary switch to turn on the power
10In(C)	All values	T≤0.1S	Not trip	Cold	Close the auxiliary switch to turn on the power
14In(C)	All values	T < 0.1S	trip	Cold	Close the auxiliary switch to turn on the power

L Leakage Protection Type 63 Frame

Test current (A)	Rated current (A)	Rated time	Expected result	Initial result	Notes
1.13In	6-63	1≥In	Not trip	Cold	
1.45In	6-63	1≤1 In	Trip	Performed immediately after the previous test	The current rises steadily to the specified value within 5s
2.55In	6-63	1S < t < 60S	Trip	Cold	In≤32
		1S < t < 120S	Trip		In > 32
5In	6-63	t≥0.1S	Not trip	Cold	C
10In		t < 0.1S	Trip		
10In		t≥0.1S	Not trip		
16In		t < 0.1S	Trip		

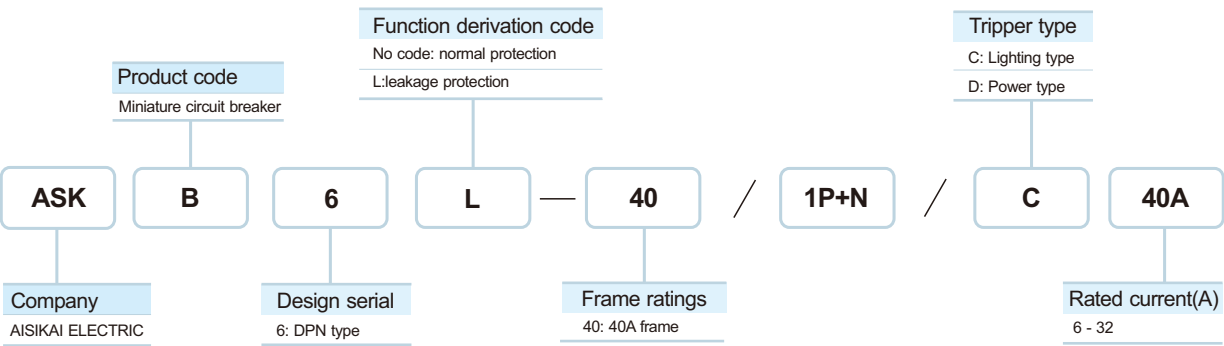
Note: the "cold" state means at the reference calibration temperature, without load before the test.

Optional accessories – ASKB5 Series

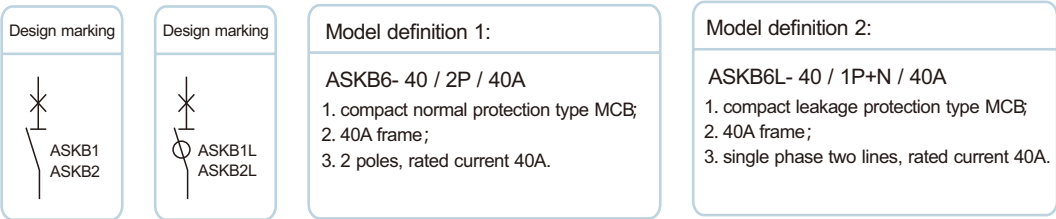
Over-voltage under-voltage tripper: MN+MV Over-voltage under-voltage tripper (MN+MV): for automatic protection in case of over/under voltage in the main circuit Under-voltage protection value:170V±10%(153-187V) Over-voltage protection value:280V±5%(266-294V) Assembly: mounted on the right side of the circuit breaker Application: automatic protection in case of over/under voltage in the main circuit Width:18mm	
Shunt tripper: MX+OF Shunt tripper (MX+OF): for remote control tripping Tripping voltage: DC24, AC220/380V Assembly: mounted on the right side of the circuit breaker Application: remote control the lines to break Width: 18mm	
Auxiliary contact: OF Auxiliary contact (OF): for indication of the circuit breaker status Assembly: mounted on the left side of the circuit breaker Application: indicate the status of the circuit breaker Width: 9mm	
Alarm contact: SD Alarm contact (SD): for indication of the circuit breaker status in the event of fault tripping Assembly: mounted on the left side of the circuit breaker Application: fault alarm indication of equipment and other devices Width: 9mm	



ASKB6 MINIATURE CIRCUIT BREAKER SELECTION TABLE



Frame Classification:
Normal type(40A frame)
Leakage protection type(L type, 40A frame)



QUALIFICATION DOCUMENTS



ASKB6 NORMAL PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW



ASKB6 series household miniature circuit breakers are suitable for the end power distribution lines of office buildings, residences and general industrial use. ASKB2 can protect lines against overload and short-circuit, and provide functions of isolation and control. Under normal conditions, MCB can also be used in infrequent on-off control of electrical devices and lighting lines. The MCB are suitable for AC 50/60Hz, rated voltage below 230V, rated current below 40A.

The MCB adopts the innovative "phase line+ N line" design, which can cut off the phase and neutral lines at the same time, achieving higher safety performance and avoiding personal and fire hazards caused by reverse wiring of the phase and neutral lines or high neutral-to-ground potential when using single-pole circuit breakers. The compact design makes its thickness only 18mm, which fully meets the high standard requirements for component volume of household distribution box. MCB has high breaking capacity, adopts modular design, and can be used with a variety of accessories to meet customers' requirements for other additional functions.

CLASSIFICATION

- Classified by the over-current tripper rated current(A)
Frame 40: 3, 6, 10, 16, 20, 25, 32, 40
- Classified by instantaneous tripper type
B type: protect pure resistive load and low-inductive lighting system
tripping characteristic: instantaneous trip range(3-5)In
C type: protect inductive load and high-inductive lighting system
tripping characteristic: instantaneous trip range(5-10)In

FEATURES

- Innovative "phase line+ N line" structural design. Thickness only 18mm. Save 50% space
Shell with ventilation slot design, active heat dissipation, reduce temperature rise
Composite high conductive material. Longer service life
Ergonomic operation design, non-slip handle for easy operation

APPLICATIONS



STANDARDS

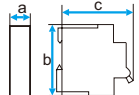
GB10963.1、IEC60898-1

NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

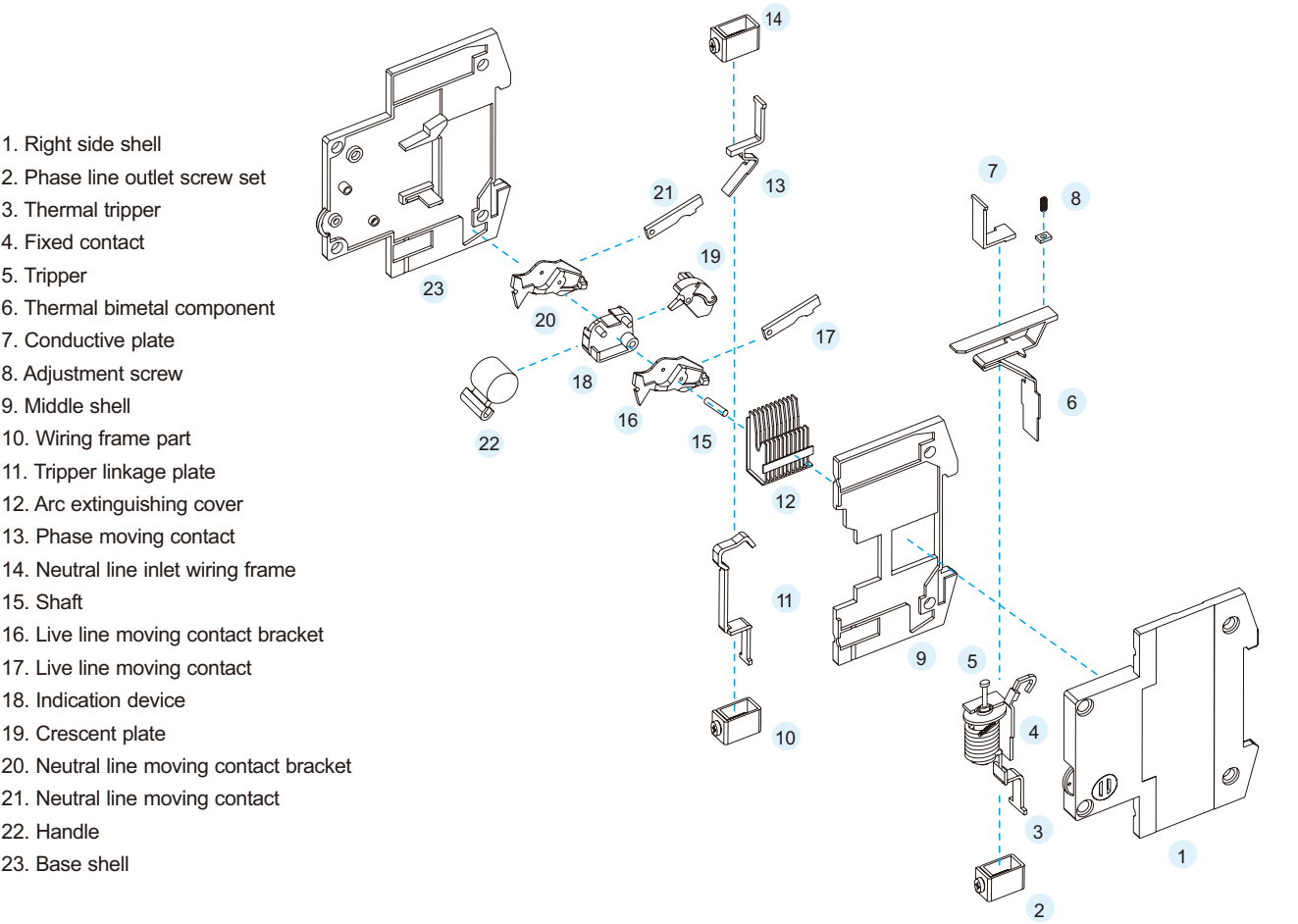
Category	Requirement
Operational temperature	Between -5°C and +40°C. The average value in 24 hours does not exceed +35°C.
Altitude	Lower than 2000 meters.
Operational humidity	The relative humidity at +40 shall not exceed 50%. Higher relative humidity is allowed at lower temperature. The average maximum relative humidity is 90% in the most humid month
Installation level	The installation level is II, III.
Pollution level	Level 2
Installation method	Install vertically or horizontally. Use YH35-7.5 standard DIN rail.
Installation conditions	The inclination of the mounting surface to the vertical surface does not exceed 5 degrees. Use environment should be without strong impact and vibration.
Wiring method	Fasten the wires using screws.
Wire inlet method	Wiring reversely is acceptable for normal type. Wiring reversely is prohibited for leakage type.



MAIN TECHNICAL PARAMETERS

63 Frame				
General power distribution protection				
No. of poles			1P+N: single phase two lines, N line is involved in breaking	
Electrical performance				
Functions			Short-circuit protection, overload protection, isolation, control	
Rated frequency	f	(Hz)	50/60	
Rated operational voltage	Ue	(V AC)	230	
Rated current	In	(A)	6, 10, 16, 20, 25, 32, 40	
Impulse withstand voltage	Uimp	(kV)	4	
Instantaneous tripping type			C/D	
Rated short-circuit capacity	Icu	(kA)	L	Icu=Ics=4
			H	Icu=Ics=6
Tripper type			Thermomagnetic	
Service life	(0 ~ C)	Mechanical service life	20000	
		Electrical service life	8000	
Control and indication				
Optional accessories(multiple options available)			None	
Connection and installation				
Protection level			IP20	
Handle lock			None	
Wiring capacity		(mm²)	1~25	
Operational temperature		(°C)	-5 ~ +40	
Resistance to heat and humidity			2	
Altitude		(m)	≤2000	
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C	
Pollution level			2	
Installation environment			Without strong impact and vibration	
Installation category			III	
Installation method			DIN standard rail	
Outline dimensions		a	18	
Width*Height*Depth (mm)		b	83	
		c	76	

OVERVIEW



Structure overview	Working method	Magnetic tripper	Thermal tripper	Arc extinguishing cover
Normal protection type miniature circuit breaker is one-piece structure, which is made of precise combination of internal parts. The left and right shells enclose the operating mechanism, moving/fixed contacts, thermal tripper, magnetic tripper, and arc extinguishing cover. Manual operation is used for open/close operation.	The manual operation on the open/close handle makes the phase lines and neutral line switch on/off simultaneously, realizing the on-off of the circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper pushes the free tripping mechanism into action, breaking the phase lines and neutral line of the main circuit. When the circuit is overloaded, the thermal tripper pushes the free tripping mechanism into action, breaking the phase lines and neutral line of the main circuit to realize the protection of the distribution lines.	The coil of the magnetic tripper is connected in series with the main circuit. When the circuit is short-circuited or seriously overloaded, the magnetic tripper generate magnetic force due to electromag-netic induction, instantly making the armature pull in, pushing the free tripping mechanism into action and the main contact breaks the main circuit.	The coil of the thermal tripper is connected in series with the main circuit. When the circuit is overloaded, the thermal component of the thermal tripper heats up due to the increasing current, bending the bimetal strip, pushing the free tripping mechanism into action within a certain period of time and completing the protection breaking.	MCB adopts multi-layer stacked arc extinguishing cover. Its mounting position is below the contact. Each piece of arc extinguishing plate is at an angle of 60 degrees from the horizontal plane. In the breaking process, through the electromagnetic field induction force and the air flow, the arc is instantly imported into the arc extinguishing cover, realizing rapid arc extinguishing.

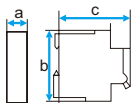


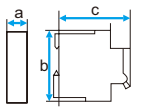
ASKB6L LEAKAGE PROTECTION MINIATURE CIRCUIT BREAKER

OVERVIEW

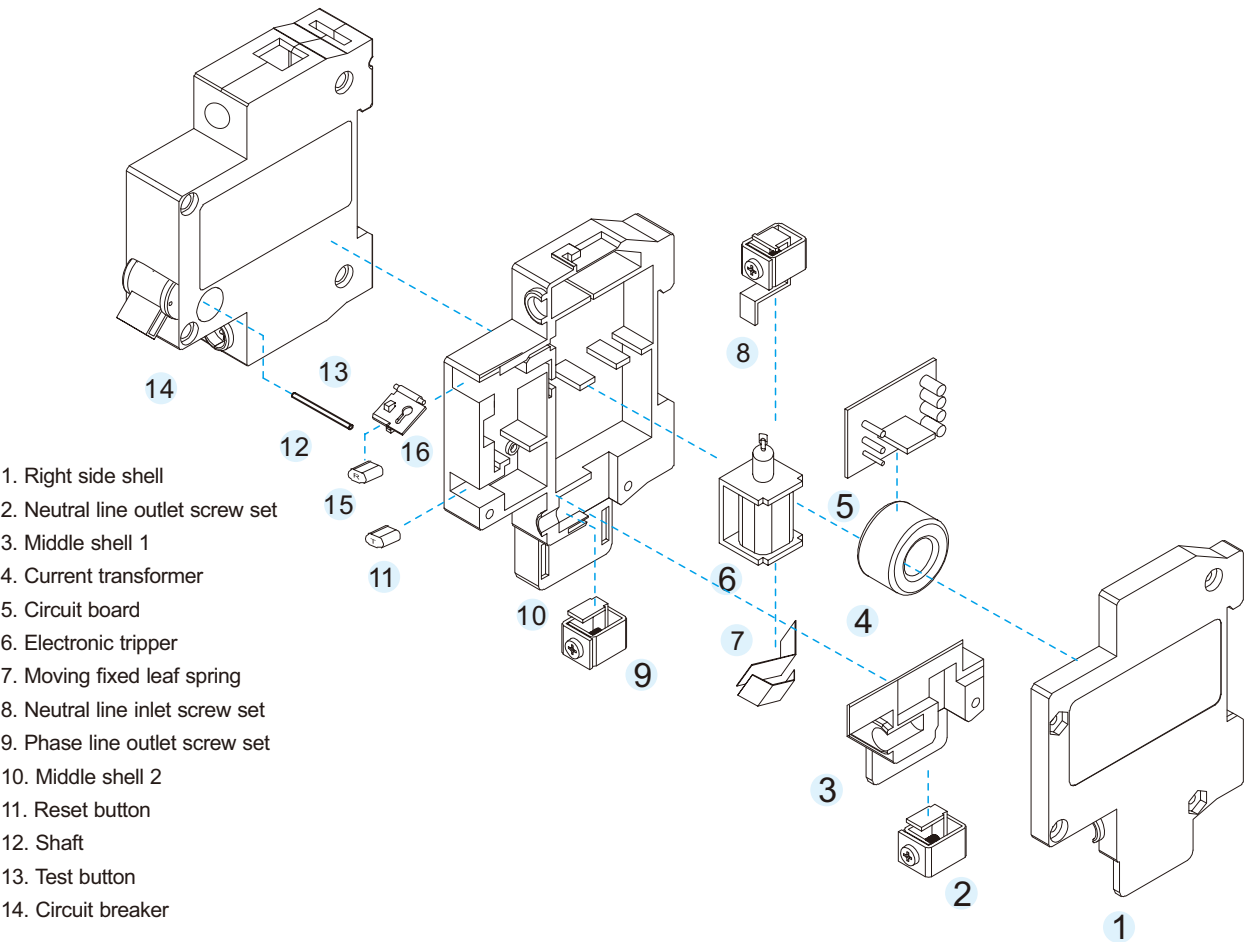
- ASKB6L leakage protection type miniature circuit breaker is suitable for lines of AC 50Hz, rated operational voltage 230V, rated current below 32A, used for indirect contact protection for people, and over-current protection for buildings and lines for similar purposes. ASKB6L also provide protection against fires caused by persistent ground faults due to the inaction of the over-current protection devices. Leakage circuit breakers with over-voltage protection also protect against excessive voltage increases due to grid faults. This series of residual current-action circuit breakers have been increasingly used in low-voltage distribution systems as backup protection for ground faults and direct contact and indirect contact electric shocks.

MAIN TECHNICAL PARAMETERS

63 Frame					
General power distribution protection (IEC/EN 61009-1; GB 16917.1)					
No. of poles			1P+N: single phase two lines, N line is involved in breaking		
Electrical performance					
Functions			Short-circuit protection, overload protection, isolation, control		
Residual current type			AC type(ensure tripping for sudden applied or slowly rising residual sinusoidal AC currents)		
Rated frequency	f	(Hz)	50/60		
Rated operational voltage	Ue	(V AC)	230		
Rated residual action current	IΔn	(mA)	Default 30mA(non-action current 15mA)		
Rated current	In	(A)	6, 10, 16, 20, 25, 32, 40		
Instantaneous tripping type			C/D		
Rated residual making and breaking capacity			Im	(A) 2000	
Rated short-circuit capacity			Icu	(kA)	L Icu=Ics=4.5
				H Icu=Ics=6	
Tripper type			Thermomagnetic		
Service life	(0 ~ C)	Mechanical service life		20000	
		Electrical service life		8000	
Control and indication					
Optional accessories(multiple options available)			Not available		
Connection and installation					
Protection level			IP20		
Wiring capacity		(mm²)	1~25		
Operational temperature		(°C)	-25 ~ +60		
Resistance to heat and humidity			2		
Altitude		(m)	≤2000		
Air relative humidity			Not exceed 95% at +20°C; not exceed 50% at +40°C		
Pollution level			2		
Installation environment			Without strong impact and vibration		
Installation category			III		
Installation method			DIN standard rail		
Outline dimensions			a	36	
Width*Height*Depth			b	92	
(mm)			c	76	



OVERVIEW



Structure overview	Working method	Circuit board	Electronic tripper	Test button
Leakage protection type miniature circuit breaker is modular structure, which is made of ASKB6 normal MCB body on the left and leakage detection mechanism on the right. The main components include circuit board, current transformer, electronic, etc. The left and right parts are tightly fixed together. Manual operation is used for open/close operation.	Miniature circuit breakers achieve the on-off of the circuit through the manual operation on the open/close handles. When the circuit is short-circuited or overloaded, the magnetic tripper or thermal tripper pushes the free tripping mechanism into action and the main contact breaks the main circuit, realizing the protection of the distribution lines. When there is a leakage situation, the current vector sum through the N line current transformer is not equal to zero. The circuit board amplifies the transformer voltage signal, driving the electronic tripping into action, pushing the tripping mechanism in ASKB6 normal type body through the linkage rod to achieve the breaking protection.	The main components use the bidirectional thyristor, which can sensitively detect the milliamp signal from the N-line transformer, and then analyze and process the signal to amplify the signal, relying on the principle of low power control of high power to drive the electronic tripper acts.	The electronic tripper is the main action component of the leakage protection mechanism. After the signal amplified by the circuit board reaches the required voltage to drive the tripper, it acts immediately, driving the linkage rod to drive the tripping mechanism in ASKB6 normal type to break the main circuit for the purpose of protecting the distribution lines.	Leakage protection miniature circuit breaker has test button. When the test button is pressed down, the driving circuit of the electronic tripper is turned on. The tripper acts immediately, driving the relevant mechanism to realize the breaking. It is used for periodic testing of the operating condition of leakage type circuit breakers.