ASKB5 MINIATURE CIRCUIT BREAKER SELECTION TABLE

ASK	B	5	L	—	63	H	/	1P+N	/	C	40A

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

Company
AISIKAI ELECTRIC

Design serial
5: basic type

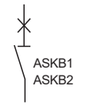
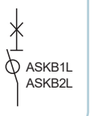
Frame ratings
40: 40A frame(leakage type)
63: 63A frame(normal type, leakage type)

Frame ratings

B5 type	B5L type
1P: 1 poles	1P+N: single phase
2P: 2 poles	2P: 2 poles
3P: 3 poles	3P: 3 poles
4P: 4 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


CCC


CCC


CCC


CCC


CCC


CE


ISO

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


Civil Commercial Industrial

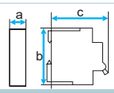
STANDARDS

GB10963.1、IEC60898-1

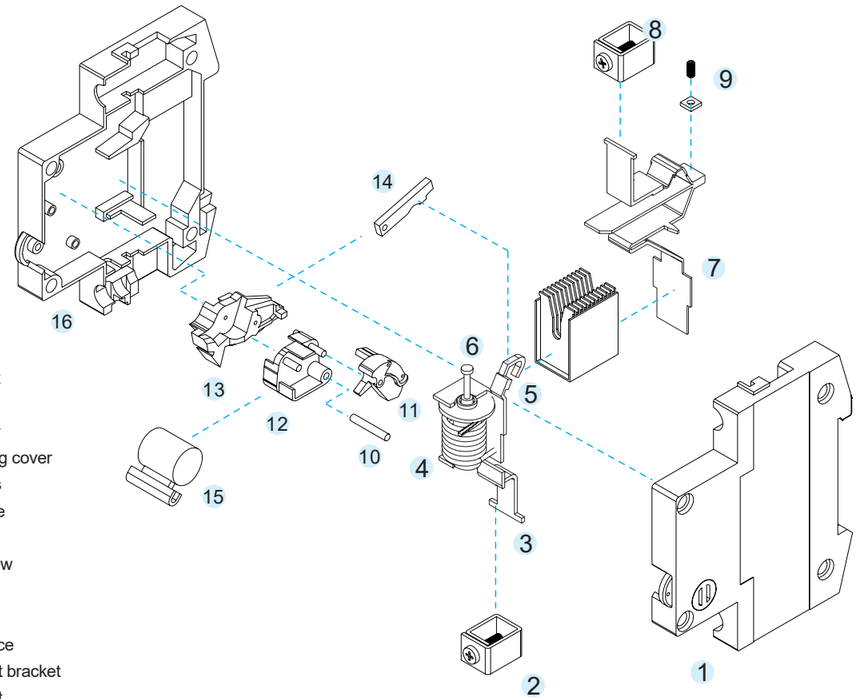
NORMAL OPERATIONAL CONDITIONS AND INSTALLATION METHODS

Category	Requirement
Operational temperature	Between -5℃ and +40℃. 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.

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	(℃)			-5 ~ +40			
Resistance to heat and humidity				2			
Altitude	(m)			⩽2000			
Air relative humidity				Not exceed 95% at +20℃; not exceed 50% at +40℃			
Pollution level				2			
Installation environment				Without strong impact and vibration			
Installation category				Ⅱ ; Ⅲ			
Installation method				DIN standard rail			
Outline dimensions Width*Height*Depth (mm)			a	18	36	54	72
			b	83			
			c	78			

MAIN STRUCTURE INTRODUCTION



1. Right side shell
2. Outlet screw set
3. Thermal tripper
4. Magnetic tripper
5. Arc extinguishing cover
6. Moving contacts
7. Conductive plate
8. Inlet screw set
9. Adjustment screw
10. Shaft
11. Crescent plate
12. Indication device
13. Moving contact bracket
14. Moving contact
15. Handle
16. Base shell

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.