1. Scope of Application

1.1 The YFB1 series high breaking capacity miniature circuit breaker (hereinafter referred to as YFB1) is a current limiting high breaking capacity miniature circuit breaker with over-load and short-circuit protection. It is suitable in AC 50/60Hz circuits with a rated voltage up to 230/400V. It can be used as overload and short circuit protections and is not suitable for protection of a motor.

This product complies with GB10963.1.

1.2 Operating Conditions for Normal Use

A. The elevation should not exceed 2000m;

B. The ambient air temperature should not be higher than +40℃ and should not be lower than -5℃ and the mean over 24h should not exceed +35℃;

C. When the ambient air temperature is +40℃, the ambient relative humidity should not exceed 50%. At the low temperature, a relatively high relative humidity is allowed. The monthly average maximum relative humidity in the month with maximum humidity should be 90% and the monthly average minimum temperature should be +25℃ and condensation on the product due to temperature change is allowed;

D. In mediums without risk of explosion, there are no gases and dusts sufficient to corrode metal and damage insulation;

E. This product can be used in places not wetted by rain.

F. This product can be used in places free from obvious shaking and shock vibration.

2. Technical Data

2.1 Classification

A. This product can be classified as Type C for illumination protection and Type D for power protection;

B. This product can be classified as single-pole, two-pole, three-pole and four-pole types by the number of poles;

C. Current specifications: 1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A

2.2 Basic Specifications and technical data are as shown in the table below.

Model	Rated Current (A)	Type (Electrode)	Voltage (V)	Breaking Capacity (A)
YFB1-63	1-63	1	230	6000
		2,3,4	400	
YFB1-63H	1-63	1	230	10000
		2,3,4	400	

2.3 The over-current protection features of the circuit breaker are as shown in the table below.

No.	Model and Specification	Starting State	Test Current (A)	Test Duration	Expected Results	Remarks
1	All values	Cold state	1.13In	t≥h	Non-tripping	
2	All values	Thermal state	1.45In	t<h	Tripping	Immediately following 1 test item
3	In≤32	Cold state	2.55In	1s<t≤60s	Tripping	
	In>32			1s<t≤120s		
4	Type YFB1C	Cold state	5In	t≥0.1s	Non-tripping	
	Type YFB1D		10In			
5	Type YFB1C	Cold state	10In	t<0.1s	Tripping	
	Type YFB1D		14In			

2.4 The feature curves are as shown in Fig. 1 and Fig. 2.

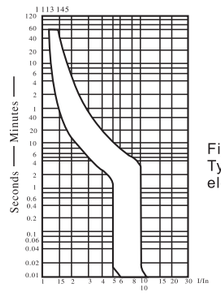


Fig. 1 Feature curve of Type C thermal/ electromagnetic tripping

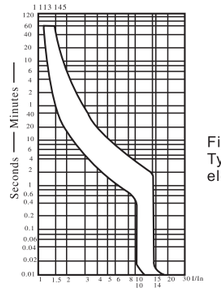


Fig. 2 Feature curve of Type D thermal/ electromagnetic tripping

2.5 YFB1 has a high current limiting capacity to limit the destructive energy caused by short circuit to the maximum extent.

3. Appearance and Installation Dimensions

3.1 YFB1 can be installed by rails. The product appearance and installation dimensions are as shown in Fig. 3 and Fig. 4.

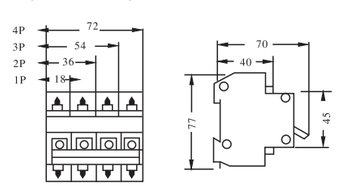


Fig. 3 Product appearance and dimensions *Fig. 4 Dimensions of installation rails*

3.2 Wiring terminals can allow connection of conductors with a cross sectional area of less than 25mm².

4. Use and Maintenance

4.1 The overload feature of this series circuit breaker is set by the manufacturer and must not arbitrarily adjusted during use to avoid the performance from being affected.

4.2 The set temperature of this series circuit breaker is 30+5℃. If multiple circuit breakers are placed into the sealed box body simultaneously, the temperature of the box rises correspondingly and the service current is 0.8In.

4.3 When the ambient temperature changes, the rated current is corrected as shown in the table below.

Temperature / Correction / Current A / Rated current A	0°C	10°C	20°C	30°C	40°C
1	1.16	1.11	1.06	1	0.9
3	3.54	3.38	3.2	3	2.7
6	5.82	5.55	5.29	6	4.6
10	11.87	11.28	10.68	10	9
16	17.45	16.64	15.87	16	13.8
20	23.26	22.18	21.16	20	18.4
25	29.08	27.73	26.45	25	23.1
32	37.76	36	34.14	32	29.2
40	47.47	45.12	42.7	40	36
50	57.09	55	52.6	50	47.3
63	68	65.4	62.7	63	57.1

1. Scope of Application

1.1 The YFB2 series high breaking capacity miniature circuit breaker (hereinafter referred to as YFB2) is a current limiting high breaking capacity miniature circuit breaker with over-load and short-circuit protection. It is suitable in AC 50/60Hz circuits with a rated voltage up to 230/400V. It can be used as overload and short circuit protections and is not suitable for protection of a motor.

This product complies with GB10963.1.

1.2 Operating Conditions for Normal Use

A. The elevation should not exceed 2000m;

B. The ambient air temperature should not be higher than +40℃ and should not be lower than -5℃ and the mean over 24h should not exceed +35℃;

C. When the ambient air temperature is +40℃, the ambient relative humidity should not exceed 50%. At the low temperature, a relatively high relative humidity is allowed. The monthly average maximum relative humidity in the month with maximum humidity should be 90% and the monthly average minimum temperature should be +25℃ and condensation on the product due to temperature change is allowed;

D. In mediums without risk of explosion, there are no gases and dusts sufficient to corrode metal and damage insulation;

E. This product can be used in places not wetted by rain.

F. This product can be used in places free from obvious shaking and shock vibration.

2. Technical Data

2.1 Classification

A. This product can be classified as Type C for illumination protection and Type D for power protection;

B. This product can be classified as single-pole, two-pole, three-pole and four-pole types by the number of poles;

C. Current specifications: 1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A

2.2 Basic Specifications and technical data are as shown in the table below.

Model	Rated Current (A)	Type (Electrode)	Voltage (V)	Breaking Capacity (A)
YFB2-63	1-63	1	230	6000
		2,3,4	400	
YFB2-63H	1-63	1	230	10000
		2,3,4	400	

2.3 The over-current protection features of the circuit breaker are as shown in the table below.

No.	Model and Specification	Starting State	Test Current (A)	Test Duration	Expected Results	Remarks
1	All values	Cold state	1.13In	t⩾h	Non-tripping	
2	All values	Thermal state	1.45In	t<h	Tripping	Immediately following 1 test item
3	In⩽32	Cold state	2.55In	1s<t⩽60s	Tripping	
	In>32			1s<t⩽120s		
4	Type YFB2C	Cold state	5In	t⩾0.1s	Non-tripping	
	Type YFB2D		10In			
5	Type YFB2C	Cold state	10In	t<0.1s	Tripping	
	Type YFB2D		14In			

2.4 The feature curves are as shown in Fig. 1 and Fig. 2.

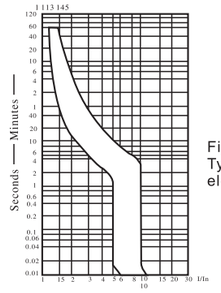


Fig. 1 Feature curve of Type C thermal/ electromagnetic tripping

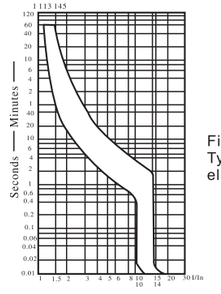


Fig. 2 Feature curve of Type D thermal/ electromagnetic tripping

2.5 YFB2 has a high current limiting capacity to limit the destructive energy caused by short circuit to the maximum extent.

3. Appearance and Installation Dimensions

3.1 YFB2 can be installed by rails. The product appearance and installation dimensions are as shown in Fig. 3 and Fig. 4.

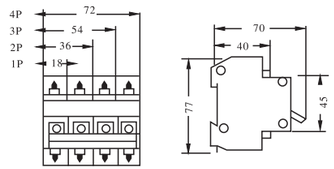


Fig. 3 Product appearance and dimensions

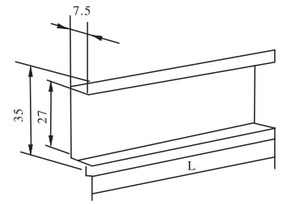


Fig. 4 Dimensions of installation rails

3.2 Wiring terminals can allow connection of conductors with a cross sectional area of less than 25mm².

4. Use and Maintenance

4.1 The overload feature of this series circuit breaker is set by the manufacturer and must not arbitrarily adjusted during use to avoid the performance from being affected.

4.2 The set temperature of this series circuit breaker is 30+5℃. If multiple circuit breakers are placed into the sealed box body simultaneously, the temperature of the box rises correspondingly and the service current is 0.8In.

4.3 When the ambient temperature changes, the rated current is corrected as shown in the table below.

Temperature / Correction / Current A / Rated current A	0°C	10°C	20°C	30°C	40°C
1	1.16	1.11	1.06	1	0.9
3	3.54	3.38	3.2	3	2.7
6	5.82	5.55	5.29	6	4.6
10	11.87	11.28	10.68	10	9
16	17.45	16.64	15.87	16	13.8
20	23.26	22.18	21.16	20	18.4
25	29.08	27.73	26.45	25	23.1
32	37.76	36	34.14	32	29.2
40	47.47	45.12	42.7	40	36
50	57.09	55	52.6	50	47.3
63	68	65.4	62.7	63	57.1

1. Scope of Application

1.1 The YFB3 series high breaking capacity miniature circuit breaker (hereinafter referred to as YFB3) is a current limiting high breaking capacity miniature circuit breaker with over-load and short-circuit protection. It is suitable in AC 50/60Hz circuits with a rated voltage up to 230/400V. It can be used as overload and short circuit protections and is not suitable for protection of a motor.

This product complies with GB10963.1.

1.2 Operating Conditions for Normal Use

A. The elevation should not exceed 2000m;

B. The ambient air temperature should not be higher than +40℃ and should not be lower than -5℃ and the mean over 24h should not exceed +35℃;

C. When the ambient air temperature is +40℃, the ambient relative humidity should not exceed 50%. At the low temperature, a relatively high relative humidity is allowed. The monthly average maximum relative humidity in the month with maximum humidity should be 90% and the monthly average minimum temperature should be +25℃ and condensation on the product due to temperature change is allowed;

D. In mediums without risk of explosion, there are no gases and dusts sufficient to corrode metal and damage insulation;

E. This product can be used in places not wetted by rain.

F. This product can be used in places free from obvious shaking and shock vibration.

2. Technical Data

2.1 Classification

A. This product can be classified as Type C for illumination protection and Type D for power protection;

B. This product can be classified as single-pole, two-pole, three-pole and four-pole types by the number of poles;

C. Current specifications: 1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A

2.2 Basic Specifications and technical data are as shown in the table below.

Model	Rated Current (A)	Type (Electrode)	Voltage (V)	Breaking Capacity (A)
YFB3-63	1-63	1	230	6000
		2,3,4	400	
YFB3-63H	1-63	1	230	10000
		2,3,4	400	

2.3 The over-current protection features of the circuit breaker are as shown in the table below.

No.	Model and Specification	Starting State	Test Current (A)	Test Duration	Expected Results	Remarks
1	All values	Cold state	1.13In	t≥h	Non-tripping	
2	All values	Thermal state	1.45In	t<h	Tripping	Immediately following 1 test item
3	In≤32	Cold state	2.55In	1s<t≤60s	Tripping	
	In>32			1s<t≤120s		
4	Type YFB3C	Cold state	5In	t≥0.1s	Non-tripping	
	Type YFB3D		10In			
5	Type YFB3C	Cold state	10In	t<0.1s	Tripping	
	Type YFB3D		14In			

2.4 The feature curves are as shown in Fig. 1 and Fig. 2.

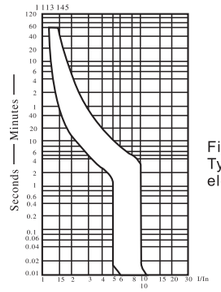


Fig. 1 Feature curve of Type C thermal/ electromagnetic tripping

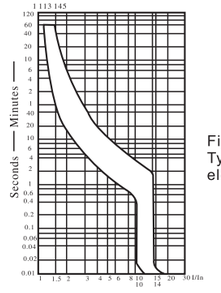


Fig. 2 Feature curve of Type D thermal/ electromagnetic tripping

2.5 YFB3 has a high current limiting capacity to limit the destructive energy caused by short circuit to the maximum extent.

3. Appearance and Installation Dimensions

3.1 YFB3 can be installed by rails. The product appearance and installation dimensions are as shown in Fig. 3 and Fig. 4.

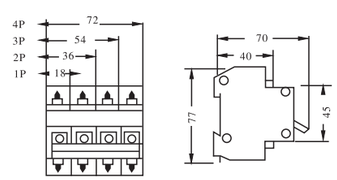


Fig. 3 Product appearance and dimensions

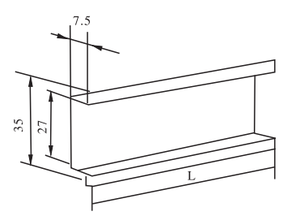


Fig. 4 Dimensions of installation rails

3.2 Wiring terminals can allow connection of conductors with a cross sectional area of less than 25mm².

4. Use and Maintenance

4.1 The overload feature of this series circuit breaker is set by the manufacturer and must not arbitrarily adjusted during use to avoid the performance from being affected.

4.2 The set temperature of this series circuit breaker is 30+5℃. If multiple circuit breakers are placed into the sealed box body simultaneously, the temperature of the box rises correspondingly and the service current is 0.8In.

4.3 When the ambient temperature changes, the rated current is corrected as shown in the table below.

Temperature / Correction / Current A / Rated current A	0°C	10°C	20°C	30°C	40°C
1	1.16	1.11	1.06	1	0.9
3	3.54	3.38	3.2	3	2.7
6	5.82	5.55	5.29	6	4.6
10	11.87	11.28	10.68	10	9
16	17.45	16.64	15.87	16	13.8
20	23.26	22.18	21.16	20	18.4
25	29.08	27.73	26.45	25	23.1
32	37.76	36	34.14	32	29.2
40	47.47	45.12	42.7	40	36
50	57.09	55	52.6	50	47.3
63	68	65.4	62.7	63	57.1

1. Scope of Application

1.1 The YFB6 series high breaking capacity miniature circuit breaker (hereinafter referred to as YFB6) is a current limiting high breaking capacity miniature circuit breaker with over-load and short-circuit protection. It is suitable in AC 50/60Hz circuits with a rated voltage up to 230/400V. It can be used as overload and short circuit protections and is not suitable for protection of a motor.

This product complies with GB10963.1.

1.2 Operating Conditions for Normal Use

A. The elevation should not exceed 2000m;

B. The ambient air temperature should not be higher than +40℃ and should not be lower than -5℃ and the mean over 24h should not exceed +35℃;

C. When the ambient air temperature is +40℃, the ambient relative humidity should not exceed 50%. At the low temperature, a relatively high relative humidity is allowed. The monthly average maximum relative humidity in the month with maximum humidity should be 90% and the monthly average minimum temperature should be +25℃ and condensation on the product due to temperature change is allowed;

D. In mediums without risk of explosion, there are no gases and dusts sufficient to corrode metal and damage insulation;

E. This product can be used in places not wetted by rain.

F. This product can be used in places free from obvious shaking and shock vibration.

2. Technical Data

2.1 Classification

A. This product can be classified as Type C for illumination protection and Type D for power protection;

B. This product can be classified as single-pole, two-pole, three-pole and four-pole types by the number of poles;

C. Current specifications: 1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A

2.2 Basic Specifications and technical data are as shown in the table below.

Model	Rated Current (A)	Type (Electrode)	Voltage (V)	Breaking Capacity (A)
YFB6-63	1-63	1	230	6000
		2,3,4	400	
YFB6-63H	1-63	1	230	10000
		2,3,4	400	

2.3 The over-current protection features of the circuit breaker are as shown in the table below.

No.	Model and Specification	Starting State	Test Current (A)	Test Duration	Expected Results	Remarks
1	All values	Cold state	1.13In	t≥h	Non-tripping	
2	All values	Thermal state	1.45In	t<h	Tripping	Immediately following 1 test item
3	In≤32	Cold state	2.55In	1s<t≤60s	Tripping	
	In>32			1s<t≤120s		
4	Type YFB6C	Cold state	5In	t≥0.1s	Non-tripping	
	Type YFB6D		10In			
5	Type YFB6C	Cold state	10In	t<0.1s	Tripping	
	Type YFB6D		14In			

2.4 The feature curves are as shown in Fig. 1 and Fig. 2.

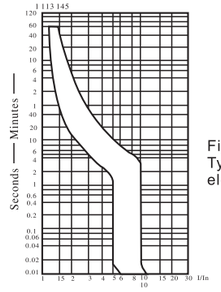


Fig. 1 Feature curve of Type C thermal/ electromagnetic tripping

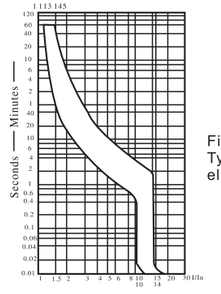


Fig. 2 Feature curve of Type D thermal/ electromagnetic tripping

2.5 YFB6 has a high current limiting capacity to limit the destructive energy caused by short circuit to the maximum extent.

3. Appearance and Installation Dimensions

3.1 YFB6 can be installed by rails. The product appearance and installation dimensions are as shown in Fig. 3 and Fig. 4.

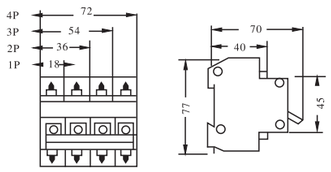


Fig. 3 Product appearance and dimensions

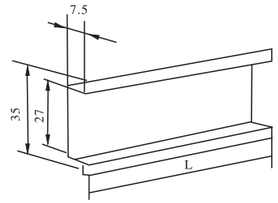


Fig. 4 Dimensions of installation rails

3.2 Wiring terminals can allow connection of conductors with a cross sectional area of less than 25mm².

4. Use and Maintenance

4.1 The overload feature of this series circuit breaker is set by the manufacturer and must not arbitrarily adjusted during use to avoid the performance from being affected.

4.2 The set temperature of this series circuit breaker is 30+5℃. If multiple circuit breakers are placed into the sealed box body simultaneously, the temperature of the box rises correspondingly and the service current is 0.8In.

4.3 When the ambient temperature changes, the rated current is corrected as shown in the table below.

Temperature / Correction / Current A / Rated current A	0°C	10°C	20°C	30°C	40°C
1	1.16	1.11	1.06	1	0.9
3	3.54	3.38	3.2	3	2.7
6	5.82	5.55	5.29	6	4.6
10	11.87	11.28	10.68	10	9
16	17.45	16.64	15.87	16	13.8
20	23.26	22.18	21.16	20	18.4
25	29.08	27.73	26.45	25	23.1
32	37.76	36	34.14	32	29.2
40	47.47	45.12	42.7	40	36
50	57.09	55	52.6	50	47.3
63	68	65.4	62.7	63	57.1

1. Application

YF47-63 series high-breaking miniature circuit breaker has advanced structure, reliable performance, high breaking capacity and beautiful appearance. The shell and components are made of impact-resistant and flame-retardant materials. Applicable to AC 50Hz or 60Hz rated working voltage below 400V, rated current is below 63A. Mainly used for the lighting of office buildings, residential buildings and similar buildings, overload of distribution lines and equipment, short circuit protection, can also be used as infrequent conversion of lines under normal conditions.

2. Performance and Features

YF47-63 series high-breaking miniature circuit breaker is a new product to replace the original DZ47-63 miniature circuit breaker. It was developed on the basis of DZ47-63 miniature circuit breaker. Its appearance is more beautiful and generous than the DZ47-63 miniature circuit breaker, avoiding the shortage of the original DZ47-63 miniature circuit breaker.

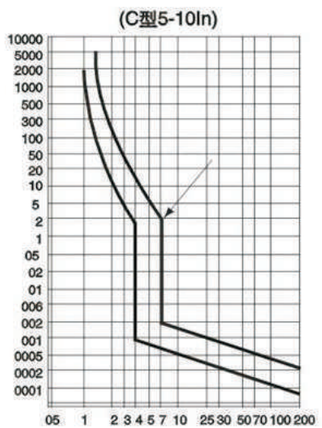
The product complies with GB10963 and EC60898 standards, and it is the first self-developed product of Yifa Company.

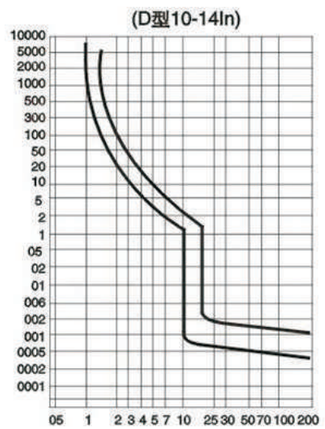
3. Basic Parameters

Rated current (A)	Number of poles (P)	Rated voltage (V)	Rated short-circuit breaking capacity	
			Expected test circuit current (A)	Test line power factor
6、10、16、20 25、32、40	1	230\400	6000	0.65~7.0
	2、3、4	400	6000	0.65~7.0
50、63	1	230\400	4500	0.75~8.0
	2、3、4	400	4500	0.75~8.0

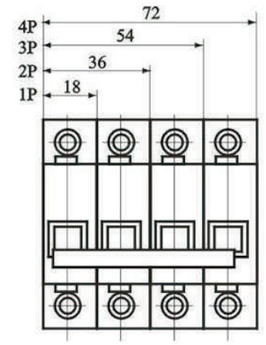
Note: 1. Mechanical life: 20000 times (break-through)
2. Resistance to heat and humidity: Class 2 (temperature 55 ° C, relative humidity 95%)
3. The band clamp connection using terminals, wire cross-section up: 25mm².

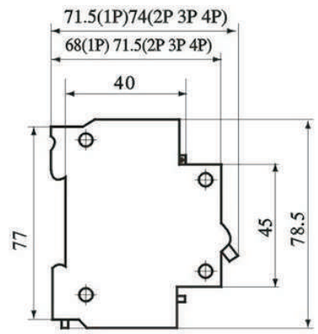
4. Operating characteristic

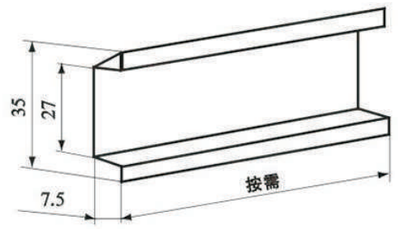




5. Shape and size







1. Scope of Application

The HL32-100 (INT) series disconnector is used in AC 50 or 60Hz power distribution circuits and control circuits with a voltage up to 400V. It can be used as a supporting element of the PZ20 terminal combination appliance and can be also used separately. It is widely applied in industrial and mining enterprises, high-ride buildings, commercial and family buildings. It is installed by using the TH35-7.5 steel mounting rail.

The product complies with such standards as GB14048.3, IEC60947-3, etc.

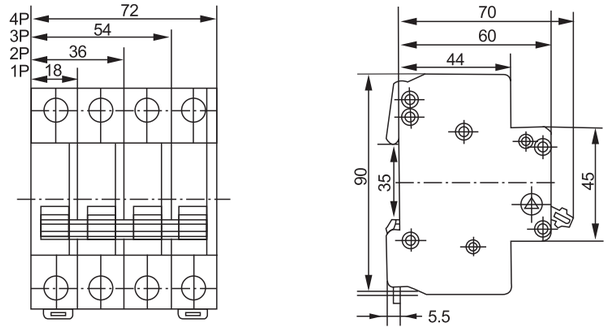
2. Model Designation

HL 32□ - □ ＼ □

- Pole number (1, 2, 3, 4)
- Rated current(A)
- Design serial number (1: hand pull type D: large shell hand pull type)
- Disconnector

3. Main Technical Data

Rated insulation voltage in(v)	Rated operating voltage (v)	Rated impulse withstand voltage	Rated operating current in(A)	Service Type	Rated short-time withstand current Uimp	Rated make-break capacity kA	Mechanical life (times)
660	230v(1p) 230v400v	6kv	16/32/63/100	AC-22	1.2KA	2KA	10000



5. Instructions for Ordering

In the order, the user must specify the product name, model, specification, rated current, pole number and ordered quantity.

1. Scope of Application

HI321-100 isolation switch (hereinafter referred to as the switch) is suitable for ac 5060Hz, rated voltage 230V, rated current to 63A resistance circuits, mainly for connecting or disconnecting the circuit without load, for connecting or isolating the circuit to the power supply. It is especially suitable for effectively isolating the power supply and preventing the accidental switch during the circuit maintenance, so as to ensure the operator's operation safety.

The switch meets GB14048.3 and ec60947-3 standards

2. Model Designation

HL 321 - 100

- Shell rack rated current
- Design serial number
- Disconnector

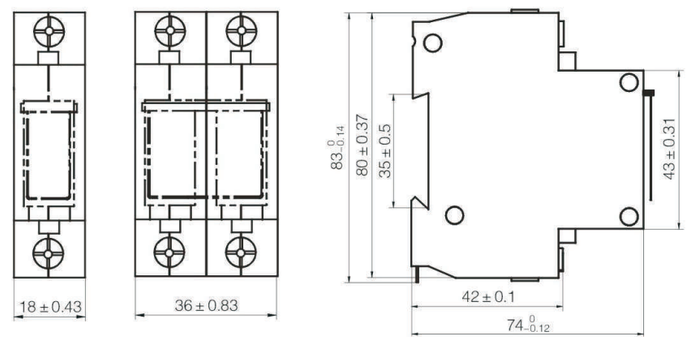
3. Main parameters and technical performance

Specifications:
1. Ie rated working current:
HL321:32A, 63A;HL32D: 80A, 100A, 125A
2. According to the number of poles: single pole, two pole, three pole, four pole;
3. Rated frequency: 50/60hz.

Basic parameters and main performance:

1. Rated working voltage Ue:230V;
2. Rated operating current Ie:HL321:32A, 63A;HL32D: 80 a, 100 a, 125 a
3. Rated short-time withstand current IcW:12Ie(power-on time is 1s);
4. Rated short circuit connection capacity LCM :20|e(energizing time: 0.1s);
5. Rated impact resistance voltage Uimp(1.2/50u s, 2000m):4kV.
6. Operation performance: no load for 8,500 times, loaded1500 times, total 10000 times, operating frequency is 120 times/hour
7. Switch on the power factor COS Φ = 0.65 cases, should be able to on and off for 3 Ie (Ue) 1.05 the proper overload 5 times (interval) 30 seconds.

4. Appearance and Installation Dimensions: see the attached drawings



1. Purpose

The YFNL series residual current circuit breaker is suitable in AC 50Hz circuits with a rated voltage up to 400V and rated current up to 63A for protection against electric shock and electric leakage. Additionally, it has the over-load and short circuit protections and can be also used as non-frequent conversion of the lines in normal cases. When it also has the over-voltage protection function, it can also protect against excessive voltage rise (such as the voltage rise caused by misconnection of central line and disconnection) caused by the malfunction of the power grid.

This product complies with GB16917.1-2014.

2、Normal Operating Conditions

2.1 Ambient Air Temperature

The ambient air temperature is -5℃~+40℃ and the mean value over a period of 24h does not exceed 35℃.

2.2 Elevation: the elevation of the place where this product is installed does not exceed 2000m.

2.3 Atmospheric Conditions

The relative humidity of the air in the place where this product is installed does not exceed 50% at the highest temperature of +40℃ . The monthly average lowest temperature in the month with the highest humidity does not exceed +25℃ and the relative humidity does not exceed 90%.

2.4 Installation Category

The installation is of the II and III category.

2.5 Class of pollution: the pollution if of the 2nd class.

2.6 Installation Type: this product is installed by using the standard rail.

2.7 Installation Conditions

The magnetic field intensity in any direction of the external magnetic field in the place where this product is installed should not exceed 5 times of the geomagnetic field. The residual-current circuit breaker should generally be installed vertically. The power supply can be connected by moving the handle upwards. At the position where this product is installed, there should be no significant shock and vibration and corrosive or explosive gas.

2.8 Wiring Method

Wires are connected by compression with screws.

3、Model Designation

YF N L- □

- Shell rated current (A)
- Electronic type residual current circuit breaker
- Neutral line wiring mode derived symbol
- Enterprise code

4、Classification

4.1 This product can be classified by rated current as: 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A and 63A.

4.2 This product can be classified by pole number as one-pole and two wire circuit breaker.

4.3 This product can be classified by protection type as: overload, short circuit and leakage protection: over-voltage is also provided in addition to overload, short circuit and leakage protection.

4.4 This product can be classified by the instantaneous release feature as: Type C and D.

Instructions for Installation and Use of YFNL Residual Current Circuit Breaker
YIFA®
Stock code: 870154

5、Structure and Operating Principles

5.1 Structure

The residual current release mainly consists of a zero sequence transformer, an electronic judgment control circuit, a release push rod and a test button.

5.2 Operating Principles

When the handle of the residual current circuit breaker is put to the NO position, the mechanical mechanism drives the moving contact to move towards the fixed contact and contact the fixed contact securely. When the circuit is connected and an overload malfunction occurs to the line, the overload current causes the thermal bimetal element to be bent and push the lever to recover the mechanical locking mechanism; the moving contact is rapidly separated from the fixed contact to realize the circuit disconnection. When a short-circuit malfunction occurs to the circuit, the short-circuit current causes the instantaneous release to operate, the core push rod pushes the lever to recover the locking mechanism for the purpose of realizing the disconnection function. When a leakage or electric shock malfunction occurs to the circuit, the signal output by the zero sequence transformer triggers the controllable silicon to be connected, the moving push rod of the powered release iron core pushes the circuit breaker to be released, causing the residual current circuit breaker to cut off power within 0.3s for the purpose of realizing the leakage protection function. By leveraging the voltage division principle, the over-voltage signal is obtained and triggers the controllable silicon to be connected, the iron core of the residual current release operates, the push rod pushes the circuit breaker to be released, causing the leakage circuit breaker to cut off power within 0.35s to realize the over-voltage protection function.

6、Main Technical Data

6.1 The rated make-break capacity of the residual current circuit breaker after assembly is as shown in the table below.

Inm A Shell rated current Inm A	Number of poles	Neutral line	Rated current In(A)	Rated short-circuit make-break capacity In(A)			Type of over-current instantaneous release
				Voltage (V)	Make-break capacity Im(A)	COSφ	
63	1	N	6.10.16.20.25.32.40.50.63	230	6000	0.7	C

6.2 Over-current protection features are as shown in the table below.

No.	Rated current In A	Starting state	Test current A	Specified time T	Expected Result	Test ambient temperature	Remarks
a	All values	Cold state	1.13In	t≥1h	Non tripping	30℃~35℃	
b	All values	Thermal state	1.45In	t<1h	Tripping	30℃~35℃	Following Item a), within 5s after test the current is increased to the specified current.
c	≤32	Cold state	2.55In	1S<t<60S	Tripping	30℃~35℃	
	>32	Cold state		1S<t<120S			
d	All values	Cold state	5In(Type C) 10In(Type D)	t≥0.1S	Non tripping	30℃~35℃	The auxiliary switch is closed to connect the power supply.
e	All values	Cold state	10n(Type D) 14In(Type D)	t≥0.1S	Tripping	30℃~35℃	
f	All values	Cold state	1.13In	t≥1h	Non tripping	-5±2℃	
g	All values	Thermal state	1.9In	t<1h	Tripping	-5±2℃	Following Item f), within 5s after test the current is increased to the specified current.
h	All values	Cold state	In	t≥1h	Non tripping	40±2℃	

6.3 Operation Features of Residual Current

a. Rated residual operating current I△n(mA): 30, 50, 100, 300

b. Rated residual non-operating current I△no(mA): 15, 25, 50, 150

c. Rated residual current longest break time: 0.3s;

d. Rated residual make-break capacity 1△m: 2000A.

6.4 Over-voltage Operating Features

The over-voltage operating setting value Uvo is 280V±5%.

6.5 Mechanical and Electrical Lives

The residual current circuit breaker can withstand 4000 operation cycles and the electrical life is 2000 operations.

7, The appearance and installation dimensions are as shown in Fig. 1.

The installation rail dimensions are as shown in Fig. 2.

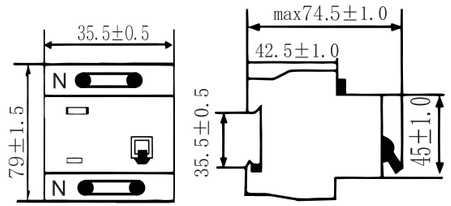


Fig. 1

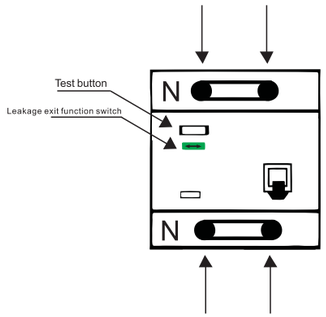


Fig. 2

8, Installation of Residual Current Circuit Breaker

a. During installation, it should be checked whether basic technical data on the nameplate and mark meet requirements.

b. Check the residual current circuit breaker and manually operate it several times. The circuit breaker should operate flexibly. You must not install the circuit breaker until you have confirmed that it is in good and complete condition.

c. The residual current circuit breaker should be installed vertically with the handle located below. You can put the handle upwards to close the moving contact to connect the power supply.

d. The incoming line terminal is located at the upper side of the handle and the outgoing line terminal is located at the lower side of the handle. The “N” terminal on the one-pole and two-wire, three-pole and four-wire and four-pole and four-wire residual current circuit breakers is connected with the neutral line. You must not incorrectly wire the line.

9, Precautions

a. The incoming line terminal “N” on the residual current circuit breaker must be connected with the neutral line, otherwise, the electric leakage or electric shock protection cannot be achieved.

b. The assembled residual current circuit breaker cannot protect against the risk of electric shock caused by the simultaneous contact with two lines of the protected circuit.

c. The residual current circuit breaker must not be affected by rain and snow during the transportation, keeping and use processes.

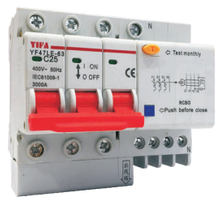
1, Scope of Application

YF47LE-63 series leakage circuit breaker is suitable for AC 50Hz, rated voltage 400V (rated) current 32A (50A), with leakage protection, overload, short circuit and other protection functions, and can also increase overvoltage protection according to user needs. Mainly used for the protection of architectural lighting and distribution systems.

This product complies with the standards of GB16917.1 and EC61009-1.

2, Structural Feature

The YF47LE-63 series leakage circuit breaker is assembled by DZ47 high-breaking miniature circuit breaker and leakage release. Leakage circuit breaker is a current-operating electronic leakage circuit breaker, which is mainly composed of zero-sequence current transformer, electronic component board, leakage release and circuit breaker with overload and short circuit protection.



3, Model Description

YF 47 LE - 63 / □ □

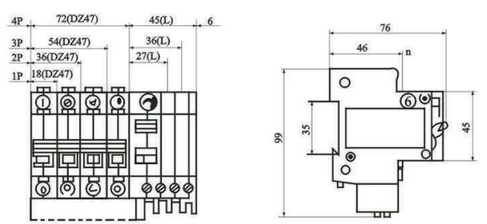
- Rated residual operating current
- Number of poles
- Rack rated current
- Electronic residual leakage action
- Design code
- Enterprise code

4, Main technical parameters

Rack rated current	Number of poles	Neutral line	Rated current In A	Rated short-circuit segmentation capability			Rated leakage current	Rated leakage non-operating current
				Voltage(V)	Segmentation ability	COSφ		
32	1	N	6.10.16 20.25.32	230	6000	0.7	30 50 100 300	15 25 50 150
32	2			400	6000	0.7		
32	3			400	6000	0.7		
32	3	N		400	6000	0.7		
32	4			400	6000	0.7		
63	1	N	40.50.63A	230	4500	0.8		
63	2			400	4500	0.8		
63	3			400	4500	0.8		
63	3	N		400	4500	0.8		
63	4			400	4500	0.8		

Note: The wiring is connected with a clamped terminal block for connecting hard cables of 10mm2 or less.

5, Shape and installation size



1、Scope of Application

The YFID-63 residual-current operated circuit breaker (without over-current protection) is applicable in AC 50Hz circuits with a rated voltage of two-pole 230V and four-pole 400V and a rated current of up to 63A. When electric shock occurs or the leakage current of the power grid exceeds the specified value, the residual current operated circuit breaker can rapidly cut off the malfunctioning power within an extremely short time to protect human body and electric equipment and it can be also used for non-frequent change-over startup of the circuit.

This product is suitable in industrial buildings, commercial buildings, high-rise buildings and residential buildings.

This product complies with GB16916.1 and IEC61008-1 and is certified with CCC, SEMKO, CE, RCC, FIMKO, EAC and Ukraine certifications.

2.Model Designation

YF ID - 63

- 63 — Molded case rating current
- ID — Electromagnetic residual current operated circuit breaker
- YF — Enterprise characteristic code

3、Main Technical Data and Technical Performance

Table 1

Item	Value
Rated voltage	230V AC(IP+N), 400V AC(3P+N)
Rated current	25A, 40A, 63A
Rated residual operating current	0.03A,0.1A,0.3A
Number of poles	1P+N, 3P+N
Classified by operating condition in case of DC component	Type AC
Rated limit short-circuit current	6000A
Rated limit residual short-circuit current	6000A
Rated make-break capacity	500A(In=25,40A);630A(In=63A)
Rated residual access and disconnection capacity	500A(In=25,40A);630A(In=63A)
Rated residual non-operating current	0.51△**n**
Duration for residual current operated breaking	See Table 2
Mechanical electrical life	See Table 3
Tightening torque	(2.5-4.0)n-m
Appearance and installation dimensions	See Fig. 1 and Fig. 2
Class of pollution	Class 2
Protection class	Ip20
Installation category	Class II

3、1 Duration for Residual Current Operated Breaking

Table 2

In	I△n	Breaking duration (s) when the residual current (I△) is equal to the following values				
A	A	I△n	2I△n	5I△n	5A,10A,20A,50A, 100A,200A,500A	
25,40,63	0.03,0.1,0.3	0.1	0.08	0.04	0.04	Maximum breaking duration

3、2 Mechanical Electrical Life

The residual current operated circuit breaker should be able to withstand the number of cycles as specified in Table 3.

Table 3

In(A)	Number of operation cycles		Operation frequency (times/hour)
	Number of loaded operations	Number of unloaded operations	
25	2000	2000	240
40,63	2000	1000	120

4、Structural Characteristics

4.1 The auxiliary power supply is not required. The shortcomings that the interference immunity of electronic type product is poor, the product is greatly affected by the fluctuation of the voltage of the power grid and the protection cannot be realized due to the breaking of the neutral line are overcome and the scope of protection by the residual current is broadened.

4.2 The rated limit short-circuit current is up to 6kA.

4.3 Such plastic parts as the case, etc. are made from high fire retardant, highly temperature resistant and shock resistant plastics.

4.4 Dimensions are modular and installation is easy.

4.5 The dynamic test device makes the buttons more flexible and reliable.

4.6 Insulated shock resistant voltage performance:

a. All electrodes are connected and a peak voltage of 6000V can be withstood with the neutral pole.

b. All electrodes are connected with the neutral pole and a peak voltage of 8000V can be withstood with the metallic support.

4.7 SCPD: 100A gG.

4.8 Elevation: ⩽2000m.

1、Scope of Application

The YF360 residual-current operated circuit breaker (without over-current protection) is applicable in AC 50Hz circuits with a rated voltage of two-pole 230V and four-pole 400V and a rated current of up to 63A. When electric shock occurs or the leakage current of the power grid exceeds the specified value, the residual current operated circuit breaker can rapidly cut off the malfunctioning power within an extremely short time to protect human body and electric equipment and it can be also used for non-frequent change-over startup of the circuit.

This product is suitable in industrial buildings, commercial buildings, high-rise buildings and residential buildings.

This product complies with GB16916.1 and IEC61008-1 and is certified with CCC, SEMKO, CE, RCC, FIMKO, EAC and Ukraine certifications.

2.Model Designation

YF 360 - 63

- 63 — Molded case rating current
- 360 — Electromagnetic residual current operated circuit breaker
- YF — Enterprise characteristic code

3、Main Technical Data and Technical Performance

Table 1

Item	Value
Rated voltage	230V AC(IP+N), 400V AC(3P+N)
Rated current	25A, 40A, 63A
Rated residual operating current	0.03A,0.1A,0.3A
Number of poles	1P+N, 3P+N
Classified by operating condition in case of DC component	Type AC
Rated limit short-circuit current	6000A
Rated limit residual short-circuit current	6000A
Rated make-break capacity	500A(In=25,40A);630A(In=63A)
Rated residual access and disconnection capacity	500A(In=25,40A);630A(In=63A)
Rated residual non-operating current	0.51△**n**
Duration for residual current operated breaking	See Table 2
Mechanical electrical life	See Table 3
Tightening torque	(2.5-4.0)n-m
Appearance and installation dimensions	See Fig. 1 and Fig. 2
Class of pollution	Class 2
Protection class	Ip20
Installation category	Class II

3、1 Duration for Residual Current Operated Breaking

Table 2

In	I△n	Breaking duration (s) when the residual current (I△) is equal to the following values				
A	A	I△n	2I△n	5I△n	5A,10A,20A,50A, 100A,200A,500A	
25,40,63	0.03,0.1,0.3	0.1	0.08	0.04	0.04	Maximum breaking duration

3、2 Mechanical Electrical Life

The residual current operated circuit breaker should be able to withstand the number of cycles as specified in Table 3.

Table 3

In(A)	Number of operation cycles		Operation frequency (times/hour)
	Number of loaded operations	Number of unloaded operations	
25	2000	2000	240
40,63	2000	1000	120

4、Structural Characteristics

4.1 The auxiliary power supply is not required. The shortcomings that the interference immunity of electronic type product is poor, the product is greatly affected by the fluctuation of the voltage of the power grid and the protection cannot be realized due to the breaking of the neutral line are overcome and the scope of protection by the residual current is broadened.

4.2 The rated limit short-circuit current is up to 6kA.

4.3 Such plastic parts as the case, etc. are made from high fire retardant, highly temperature resistant and shock resistant plastics.

4.4 Dimensions are modular and installation is easy.

4.5 The dynamic test device makes the buttons more flexible and reliable.

4.6 Insulated shock resistant voltage performance:

a. All electrodes are connected and a peak voltage of 6000V can be withstood with the neutral pole.

b. All electrodes are connected with the neutral pole and a peak voltage of 8000V can be withstood with the metallic support.

4.7 SCPD: 100A gG.

4.8 Elevation: ≤2000m.

1、Scope of Application

The YF360L-63 residual-current operated circuit breaker (without over-current protection) is applicable in AC 50Hz circuits with a rated voltage of two-pole 230V and four-pole 400V and a rated current of up to 63A. When electric shock occurs or the leakage current of the power grid exceeds the specified value, the residual current operated circuit breaker can rapidly cut off the malfunctioning power within an extremely short time to protect human body and electric equipment and it can be also used for non-frequent change-over startup of the circuit.

This product is suitable in industrial buildings, commercial buildings, high-rise buildings and residential buildings.

This product complies with GB16916.1 and IEC61008-1 and is certified with CCC.

2.Model Designation

YF 360 L - 63

- 63 — Molded case rating current
- L — Electronic type
- 360 — Electromagnetic residual current operated circuit breaker
- YF — Enterprise characteristic code

3、Main Technical Data and Technical Performance

Table 1

Item	Value
Rated voltage	230V AC(IP+N), 400V AC(3P+N)
Rated current	25A, 40A, 63A
Rated residual operating current	0.03A,0.1A,0.3A
Number of poles	1P+N, 3P+N
Rated limit short-circuit current	6000A
Rated limit residual short-circuit current	6000A
Rated make-break capacity	500A(In=25,40A);630A(In=63A)
Rated residual access and disconnection capacity	500A(In=25,40A);630A(In=63A)
Rated residual non-operating current	0.51△**n**
Duration for residual current operated breaking	See Table 2
Mechanical electrical life	See Table 3
Tightening torque	(2.5-4.0)n-m
Appearance and installation dimensions	See Fig. 1 and Fig. 2
Class of pollution	Class 2
Protection class	Ip20
Installation category	Class II

3、1 Duration for Residual Current Operated Breaking

Table 2

In	I△n	Breaking duration (s) when the residual current (I△) is equal to the following values				
A	A	I△n	2I△n	5△n	5A,10A,20A,50A, 100A,200A,500A	
25,40,63	0.03	0.1	0.08	0.04	0.04	Maximum breaking duration

3、2 Mechanical Electrical Life

The residual current operated circuit breaker should be able to withstand the number of cycles as specified in Table 3.

Table 3

In(A)	Number of operation cycles		Operation frequency (times/hour)
	Number of loaded operations	Number of unloaded operations	
25	2000	2000	240
40,63	2000	1000	120

4、Structural Characteristics

4.1 The auxiliary power supply is not required. The shortcomings that the interference immunity of electronic type product is poor, the product is greatly affected by the fluctuation of the voltage of the power grid and the protection cannot be realized due to the breaking of the neutral line are overcome and the scope of protection by the residual current is broadened.

4.2 The rated limit short-circuit current is up to 6kA.

4.3 Such plastic parts as the case, etc. are made from high fire retardant, highly temperature resistant and shock resistant plastics.

4.4 Dimensions are modular and installation is easy.

4.5 The dynamic test device makes the buttons more flexible and reliable.

4.6 Insulated shock resistant voltage performance:

a. All electrodes are connected and a peak voltage of 6000V can be withstood with the neutral pole.

b. All electrodes are connected with the neutral pole and a peak voltage of 8000V can be withstood with the metallic support.

4.7 SCPD: 100A gG.

4.8 Elevation: ≤2000m.

1、Scope of Application

The YFIDL-63 residual-current operated circuit breaker (without over-current protection) is applicable in AC 50Hz circuits with a rated voltage of two-pole 230V and four-pole 400V and a rated current of up to 63A. When electric shock occurs or the leakage current of the power grid exceeds the specified value, the residual current operated circuit breaker can rapidly cut off the malfunctioning power within an extremely short time to protect human body and electric equipment and it can be also used for non-frequent change-over startup of the circuit.

This product is suitable in industrial buildings, commercial buildings, high-rise buildings and residential buildings.

This product complies with GB16916.1 and IEC61008-1 and is certified with CCC.

2.Model Designation

YF ID L - 63

- 63 — Molded case rating current
- L — Electronic type
- ID — Electromagnetic residual current operated circuit breaker
- YF — Enterprise characteristic code

3、Main Technical Data and Technical Performance

Table 1

Item	Value
Rated voltage	230V AC(IP+N), 400V AC(3P+N)
Rated current	25A, 40A, 63A
Rated residual operating current	0.03A,0.1A,0.3A
Number of poles	1P+N, 3P+N
Rated limit short-circuit current	6000A
Rated limit residual short-circuit current	6000A
Rated make-break capacity	500A(In=25,40A);630A(In=63A)
Rated residual access and disconnection capacity	500A(In=25,40A);630A(In=63A)
Rated residual non-operating current	0.51△**n**
Duration for residual current operated breaking	See Table 2
Mechanical electrical life	See Table 3
Tightening torque	(2.5-4.0)n-m
Appearance and installation dimensions	See Fig. 1 and Fig. 2
Class of pollution	Class 2
Protection class	Ip20
Installation category	Class II

3，1 Duration for Residual Current Operated Breaking

Table 2

In	I△n	Breaking duration (s) when the residual current (I△) is equal to the following values				
A	A	I△n	2I△n	5△n	5A,10A,20A,50A, 100A,200A,500A	
25,40,63	0.03	0.1	0.08	0.04	0.04	Maximum breaking duration

3，2 Mechanical Electrical Life

The residual current operated circuit breaker should be able to withstand the number of cycles as specified in Table 3.

Table 3

In(A)	Number of operation cycles		Operation frequency (times/hour)
	Number of loaded operations	Number of unloaded operations	
25	2000	2000	240
40,63	2000	1000	120

4、Structural Characteristics

4.1 The auxiliary power supply is not required. The shortcomings that the interference immunity of electronic type product is poor, the product is greatly affected by the fluctuation of the voltage of the power grid and the protection cannot be realized due to the breaking of the neutral line are overcome and the scope of protection by the residual current is broadened.

4.2 The rated limit short-circuit current is up to 6kA.

4.3 Such plastic parts as the case, etc. are made from high fire retardant, highly temperature resistant and shock resistant plastics.

4.4 Dimensions are modular and installation is easy.

4.5 The dynamic test device makes the buttons more flexible and reliable.

4.6 Insulated shock resistant voltage performance:

a. All electrodes are connected and a peak voltage of 6000V can be withstood with the neutral pole.

b. All electrodes are connected with the neutral pole and a peak voltage of 8000V can be withstood with the metallic support.

4.7 SCPD: 100A gG.

4.8 Elevation: ⩽2000m.