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 **YIFA® 伊发**
股票代码 (Stock Code): 870154



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LV ELECTRIC COMPONENT

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安全为先, 服务为本

伊发控股集团有限公司
YIFA HOLDING GROUP CO.,LTD.

总部地址: 浙江省乐清市总部经济园7幢2层
Add: 2nd Floor, Building 7, Headquarter Economic Park, Yueqing, Zhejiang.

江西新能源基地: 江西省崇仁县工业园C区
Jiangxi New Energy Base: Area C, Chongren Industrial Zone, Jiangxi Province.

智慧数字化生产基地: 乐清市乐清湾临港经济开发区(外溪路)
Smart digital production base: Yueqing Bay Lingang Economic Development Zone (Waixi Road), Yueqing City.

[Http://www.yifachina.com](http://www.yifachina.com) E-mail: zby@yifachina.com

Tel: 0577-62608111 / 62618888 / 61750085 +86 15990720629



伊发控股集团有限公司
YIFA HOLDING GROUP CO.,LTD.



伊发大型现代化生产基地 (建筑面积: 180000m²)

伊发控股集团是一家以智能化、环保化工业电气为主，涵盖金融、电商、贸易投资等多个产业的国家高新技术企业集团。中国企业500强，中国机械500强，国家星火计划企业，江西省名牌产品，江西省著名商标。国家电网、南方电网、轨道交通、石油石化、国家水利系统优质供应商。旗下江西伊发电力科技股份有限公司已于2016年挂牌上市，股票代码：870154。

集团主要开发、生产、销售光伏电站、风能变电站、环保气体绝缘环网柜、成套电气设备、高压及超高压变电设备、矿用高低压开关柜、矿用变压器、玻璃钢电表箱、不锈钢及透明型箱体、高低压元器件、电线电缆、防爆电器、建筑电器、仪器仪表等等低碳、节能、环保产品以及电力安装工程。其中变压器制造最大容量达到63000KVA，电压等级达220KV。

集团积极导入卓越绩效管理，推行精益生产，实施两化融合、智能制造，打造数字工厂，逐步沉淀形成了富有伊发特色的管理模式。公司在业内较早通过了ISO9001、ISO14001、ISO45001等管理体系认证，在持续增强产品既有技术优势的同时，积极推动产业高质量发展，在智能制造取得丰硕成果。公司长期开展信息化管理能力和智能制造能力的迭代升级，近几年实施应用ERP、PLM、OA、MES、WMS等系统，并大力投入检测设备、生产设备的改造，拥有功能完善的产品试验中心，研发能力、产品质量及可靠性不断提升，通过多系统信息集成以及信息管理系统互联互通，实现设计、制造、物流、质量、服务等制造过程的数字化和信息化管理。并取得了上百个发明专利及实用新型专利，填补了国内空白。

集团公司注重品牌战略，坚持营销创新，以迅速、健康、持续的发展趋势跻身于电气行业前列。在激烈的市场竞争中，伊发在国网、南网屡屡中标，并先后中标北京亚运村、奥运会配套工程等国际知名招标项目，在国际舞台上赢得了广泛的知名度和影响力，引领“中国制造”走向“中国创造”。伊发产品广泛应用于国网、南网、高铁、城市化建设、油田、火电、水电、机场、钢铁公司、供气供暖等重点工程。产品远销日本、美国、俄罗斯、东南亚、中东、非洲等多个国家和地区。遵循一切服务于客户的思想理念，集团公司在国际国内均取得了良好的市场信誉。

科技缔造品质，实干成就梦想。展望未来，伊发将坚持专业化的发展战略，求真务实，开拓创新，以“缔造全球领先的变电企业，成就伊发百年的世界品牌”为目标，我们期望国内外同仁和广大客户一如既往地合作与支持，为“中国梦”贡献更多的力量。

伊发全网光伏储能逆变充电系统解决方案 >>>



2017年1月12日，伊发电力正式挂牌上市（股票代码:870154），标志着伊发进入资本运作元年！
On January 12, 2017, YIFA group was officially listed (stock code :870154), It marks the first year of YIFA capital operation!

伊发智慧智造基地

YIFA Intelligent Manufacturing Base



伊发数字化创新科技中心
YIFA Digital Innovation Technology Center



伊发5G智慧数字化工业园·乐清湾港区一期
YIFA 5G Intelligent Digital Industrial Park Phase I of Yueqing Bay Port Area

Brief of introduction

Yifa Holding Group is a national high-tech enterprise group mainly engaged in intelligent and environmental protection chemical industrial electric, covering finance, e-commerce, trade and investment and other industries. China's top 500 enterprises, China's top 500 machinery, National Spark plan enterprises, Jiangxi province famous brand products, Jiangxi province famous trademark. State Grid, China Southern Power Grid, rail transit, petroleum and petrochemical, national water conservancy system quality suppliers. Its subsidiary, Jiangxi Yifa Electric Power Technology Co., LTD., was listed in 2016 with stock code: 870154.

The group main development, production and sales of pv substation, wind power substation, environmental protection gas insulated ring network cabinet, complete sets of electrical equipment, high pressure and ultrahigh pressure, mine high and low voltage switchgear, mine transformer substation equipment, glass fiber reinforced plastic meter box, stainless steel type and transparent box, high and low voltage components, wire and cable, explosion-proof electric appliance, building electrical appliances, instruments and meters, and so on low carbon, energy saving, environmental protection Products and electrical installation works. The maximum capacity of transformer manufacturing reaches 63000KVA and the voltage grade reaches 220KV.

The group actively introduces performance excellence management, promotes lean production, implements the integration of the two industries, intelligent manufacturing, and builds a digital factory, gradually forming a management mode rich in Ifa characteristics. The company has passed ISO9001, ISO14001, ISO45001 and other management system certification earlier in the industry. While continuously enhancing the existing technical advantages of products, it actively promotes the high-quality development of the industry and has achieved fruitful results in intelligent manufacturing. In recent years, the company has implemented the application of ERP, PLM, OA, MES, WMS and other systems, and invested heavily in the transformation of testing equipment and production equipment. It has a product test center with perfect functions, and its RESEARCH and development capabilities, product quality and reliability have been continuously improved. Through the multi-system information integration and the interconnection of information management system, the digital and information management of design, manufacturing, logistics, quality, service and other manufacturing processes can be realized. And obtained hundreds of invention patents and utility model patents, to fill the gap in China.

The group pays attention to brand strategy, insists on marketing innovation, and ranks in the forefront of electric industry with rapid, healthy and sustainable development trend. In the fierce market competition, Yifa won the bidding of The State Grid, the South net, and won the bidding of the Beijing Asian Games Village, Olympic Games supporting projects and other well-known international bidding projects. Yifa has won extensive popularity and influence on the international stage, leading the "Made in China" to "created in China". Yifa products are widely used in state grid, south grid, high-speed railway, urbanization construction, oil field, thermal power, hydropower, airport, steel company, gas supply and heating and other key projects. Products are exported to Japan, the United States, Russia, Southeast Asia, the Middle East, Africa and other countries and regions. Adhering to the philosophy of serving customers, the group has gained good market reputation both at home and abroad.

Science and technology to create quality, hard work to achieve dreams. Looking forward to the future, Yifa will adhere to the professional development strategy, realistic and pragmatic, pioneering and innovative, with the goal of "creating the world's leading substation enterprise and achieving Yifa's world brand for one hundred years". We look forward to the cooperation and support of colleagues and customers at home and abroad as always, and contribute more to the "Chinese dream".

企业荣誉

Enterprise Honor

YIFA®伊发
股票代码:870154

上市公司 股票代码: 870154
国家电网/南方电网、水利交通A级供应商 中国民营500强企业/中国机械500强企业
国家高新技术企业/国家星火计划企业 国家专精特新“小巨人”企业
浙江省科技型企业/重合同守信用企业 江西省名牌产品/江西省著名商标

List Company Stock code:870154
State Grid/China Southern Power Grid and Water Conservancy and Transportation Grade A Supplier
Top 500 Chinese Private Enterprises/Top 500 Chinese Machinery Enterprises
National High-tech Enterprise/National Spark Plan Enterprise
National specialized, special and new "little giant" enterprise
Zhejiang Provincial Science and Technology Enterprise/Contract-abiding and Trustworthy Enterprise
Jiangxi Province Famous Brand Products/Jiangxi Province Famous Trademarks



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YFB1系列小型断路器

YFB1 Series Miniature Circuit Breaker



适用范围 Scope of Application

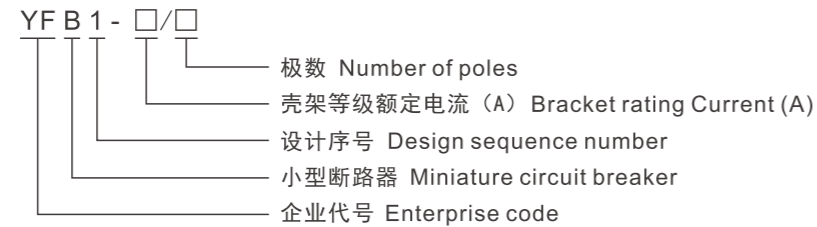
YFB1系列微型高分段小型断路器适用于交流50Hz或60Hz，额定工作电压为AC230V/400V，额定电流至63A的线路中，对线路起过载和短路保护之用，也可以作为线路的不频繁操作转换之用。该断路器适用于商业办公楼、民用住宅及其类似建筑物等场所。

本产品符合GB/T10963.1、IEC60898-1标准，具有国际先进水平。

YFB1 series miniature high-section miniature circuit breaker is suitable for AC 50Hz or 60Hz, rated working voltage is AC230V/400V, rated current to 63A line, overload and short circuit protection of the line, can also be used as the line of infrequent operation conversion. The circuit breaker is suitable for commercial office buildings, residential buildings and similar buildings.

This product conforms to GB/T10963.1, IEC60898-1 standards, with the international advanced level.

型号及含义 Model And Meaning



技术参数 Technical Parameter

- 断路器额定电流: 6A、10A、16A、20A、25A、25A、32A、40A、50A、63A;
- 断路器瞬时脱扣器的供货形式为C型, 其它型式用户可特殊订货, 例如B型或者D型。
- 断路器额定短路分断能力: I_{cn}=I_{cs}=6000A; H型 I_{cn}=I_{cs}=10000A;
- 产品极数及额定工作电压:
U_e=AC230V/AC400V (1P)、U_e=AC230V (1P+N)、U_e=AC400V (2P、3P、3P+N、4P);
- 机械电气寿命:
电气寿命: 6000次;
机械寿命: 20000次。
- Rated current: 6A, 10A, 16A, 20A, 25A, 25A, 32A, 40A, 50A, 63A
- The supply form of the circuit breaker instantaneous release device is type C, and other types of users can place special orders, such as type B or type D.
- Rated short-circuit breaking capacity: I_{cn}=I_{cs}=6000A; Type H I_{cn}=I_{cs}=10000A;
- Number of poles and rated operating voltage: U_e=AC230V/AC400V (1P), U_e=AC230V (1P+N), U_e=AC400V (2P, 3P, 3P+N, 4P);
- Mechanical and electrical life: Electrical life: 6000 times; Mechanical life: 20000 times.

断路器过电流保护特性:
Circuit breaker overcurrent protection characteristics:

NO.	Rated current	Initial state	Experimental current	Fixed time	Expected result
1	I _n ≤ 63	冷态 Cold state	1.13I _n	t ≤ 1h	不脱扣 Don't trip
	I _n > 63			t ≤ 2h	
2	I _n ≤ 63	Immediately after the preceding test	1.45I _n	t < 1h	脱扣 trip
	I _n > 63			t < 2h	
3	I _n ≤ 32	冷态 Cold state	2.55I _n	1s < t < 60s	脱扣 trip
	I _n > 32			1s < t < 120s	
4	Type C	冷态 Cold state	5I _n	t ≤ 0.1s	不脱扣 Don't trip
				10I _n	t < 0.1s

YFB1系列小型断路器

YFB1 Series Miniature Circuit Breaker

产品特点 Product characteristics

- 额定分断能力高，最高可达10kA；
- 在正常工作时，触头只能停留在闭合或断开位置；
- 维型接线端子，安装方便。
- High rated breaking capacity, up to 10kA;
- In normal operation, the contact can only stay in the closed or disconnected position;
- Dimensional connection extender, easy to install.

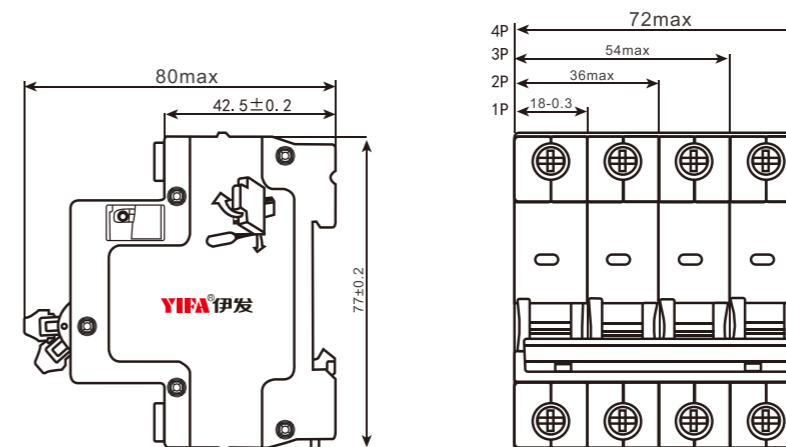
主要结构 Main structure

- 断路器主要由绝缘外壳、操作机构、延时、瞬时脱扣器、触头和灭弧室等组成。
- 操作机构为自由脱扣机构，在正常工作或非正常工作时，触头只能停留在闭合或断开位置，多极断路器的动触头由机械联动，各极基本上同时闭合或断开。
- The circuit breaker is mainly composed of insulation housing, operating mechanism, delay, instantaneous release device, contact and arc extinguishing chamber.
- The operating mechanism is a free trip mechanism, in normal work or abnormal work, the contact can only stay in the closed or disconnected position, the moving contact of the multi-pole circuit breaker by mechanical linkage, each pole is basically closed or disconnected at the same time.

工作原理 Working principle

- 将手柄推向ON位置时，手柄至一定角度时，能把触头瞬时闭合，排除了操作对触头闭合速度的影响，当线路发生过载故障时，过载电流使双金属片弯曲，推动锁扣脱扣，机构带动触头迅速分断，切断电路；当线路发生短路故障时，短路电流通过线圈把电磁铁吸合，杠杆把锁扣顶开，使之脱扣，实现切断电路的功能；
- 断路器具有限流作用。短路时，铁芯使顶杆把触头顶开、同时也把锁扣顶开、电弧电阻使短路电流下降，起到限流作用，机构同时动作，使触头保持在断开位置，电弧经过灭弧系统的综合作用，快速的熄灭。
- When the handle is pushed to the ON position, when the handle is at a certain Angle, the contact can be closed instantaneously, eliminating the influence of operation on the closing speed of the contact. When the overload fault occurs in the line, the overload current makes the bimetal sheet bend, pushes the lock to release, and the mechanism drives the contact to break quickly and cut off the circuit. When a short circuit fault occurs in the line, the short circuit current draws the electromagnet through the coil, and the lever opens the lock top to make it release, so as to achieve the function of cutting off the circuit;
- Circuit breakers have limited flow action. In short circuit, the iron core makes the rod open the top of the contact and the lock open the top of the lock. The arc resistance makes the short circuit current drop and plays the role of current limiting. The mechanism acts at the same time to keep the contact in the disconnecting position.

外形及安装尺寸 Outline and mounting dimensions



YFB6系列小型断路器

YFB6 Series Miniature Circuit Breaker



适用范围 Scope of Application

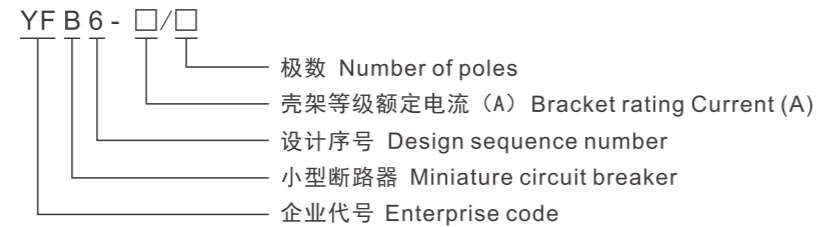
YFB1系列微型高分段小型断路器适用于交流50Hz或60Hz，额定工作电压为AC230V/400V，额定电流至80A的线路中，对线路起过载和短路保护之用，也可以作为线路的不频繁操作转换之用。该断路器适用于商业办公楼、民用住宅及其类似建筑物等场所。

本产品符合GB/T10963.1、IEC60898-1标准，具有国际先进水平。

YFB1 series miniature high-section miniature circuit breaker is suitable for AC 50Hz or 60Hz, rated working voltage is AC230V/400V, rated current to 80A line, overload and short circuit protection of the line, can also be used as the line of infrequent operation conversion. The circuit breaker is suitable for commercial office buildings, residential buildings and similar buildings.

This product conforms to GB/T10963.1, IEC60898-1 standards, with the international advanced level.

型号及含义 Model And Meaning



技术参数 Technical Parameter

- 断路器额定电流: 6A、10A、16A、20A、25A、25A、32A、40A、50A、63A;
- 断路器瞬时脱扣器的供货形式为C型, 其它型式用户可特殊订货, 例如B型或者D型。
- 断路器额定短路分断能力: YFB2-80系列 $I_{cn}=I_{cs}=3000A$; YFB6系列 $I_{cn}=I_{cs}=6000A$
- 产品极数及额定工作电压:
 $U_e=AC230V/AC400V(1P)$ 、 $U_e=AC230V(1P+N)$ 、 $U_e=AC400V(2P、3P、3P+N、4P)$;
- 机械电气寿命:
 电气寿命: 6000次;
 机械寿命: 20000次。
- Rated current: 6A, 10A, 16A, 20A, 25A, 25A, 32A, 40A, 50A, 63A, 80A
- The supply form of the circuit breaker instantaneous release device is type C, and other types of users can place special orders, such as type B or type D.
- Rated short-circuit breaking capacity: YFB6 series $I_{cn}=I_{cs}=6000A$
- Number of poles and rated operating voltage: $U_e=AC230V/AC400V(1P)$, $U_e=AC230V(1P+N)$, $U_e=AC400V(2P, 3P, 3P+N, 4P)$;
- Mechanical and electrical life: Electrical life: 6000 times; Mechanical life: 20000 times.

断路器过电流保护特性:
Circuit breaker overcurrent protection characteristics:

NO.	Rated current	Initial state	Experimental current	Fixed time	Expected result
1	$I_n \leq 80$	冷态 Cold state	1.13 I_n	$t \leq 1h$	不脱扣 Don't trip
	$I_n > 80$			$t \leq 2h$	
2	$I_n \leq 80$	Immediately after the preceding test	1.45 I_n	$t < 1h$	脱扣 trip
	$I_n > 80$			$t < 2h$	
3	$I_n \leq 32$	冷态 Cold state	2.55 I_n	$1s < t < 60s$	脱扣 trip
	$I_n > 32$			$1s < t < 120s$	
4	Type C	冷态 Cold state	51 I_n	$t \leq 0.1s$	不脱扣 Don't trip
				$10I_n$	$t < 0.1s$

YFB6系列小型断路器

YFB6 Series Miniature Circuit Breaker

产品特点 Product characteristics

- 额定分断能力高，最高可达6kA；
- 在正常工作时，触头只能停留在闭合或断开位置；
- 维型接线端子，安装方便。
- High rated breaking capacity, up to 6kA;
- In normal operation, the contact can only stay in the closed or disconnected position;
- Dimensional connection extender, easy to install.

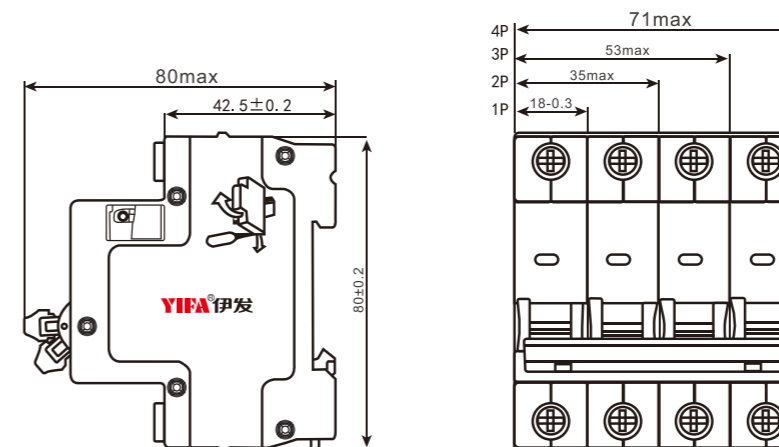
主要结构 Main structure

- 断路器主要由绝缘外壳、操作机构、延时、瞬时脱扣器、触头和灭弧室等组成。
- 操作机构为自由脱扣机构，在正常工作或非正常工作时，触头只能停留在闭合或断开位置，多极断路器的动触头由机械联动，各极基本上同时闭合或断开。
- The circuit breaker is mainly composed of insulation housing, operating mechanism, delay, instantaneous release device, contact and arc extinguishing chamber.
- The operating mechanism is a free trip mechanism, in normal work or abnormal work, the contact can only stay in the closed or disconnected position, the moving contact of the multi-pole circuit breaker by mechanical linkage, each pole is basically closed or disconnected at the same time.

工作原理 Working principle

- 将手柄推向ON位置时，手柄至一定角度时，能把触头瞬时闭合，排除了操作对触头闭合速度的影响，当线路发生过载故障时，过载电流使双金属片弯曲，推动锁扣脱扣，机构带动触头迅速分断，切断电路；当线路发生短路故障时，短路电流通过线圈把电磁铁吸合，杠杆把锁扣顶开，使之脱扣，实现切断电路的功能；
- 断路器具有限流作用。短路时，铁芯使顶杆把触头顶开、同时也把锁扣顶开、电弧电阻使短路电流下降，起到限流作用，机构同时动作，使触头保持在断开位置，电弧经过灭弧系统的综合作用，快速的熄灭。
- When the handle is pushed to the ON position, when the handle is at a certain Angle, the contact can be closed instantaneously, eliminating the influence of operation on the closing speed of the contact. When the overload fault occurs in the line, the overload current makes the bimetal sheet bend, pushes the lock to release, and the mechanism drives the contact to break quickly and cut off the circuit. When a short circuit fault occurs in the line, the short circuit current draws the electromagnet through the coil, and the lever opens the lock top to make it release, so as to achieve the function of cutting off the circuit;
- Circuit breakers have limited flow action. In short circuit, the iron core makes the rod open the top of the contact and the lock open the top of the lock. The arc resistance makes the short circuit current drop and plays the role of current limiting. The mechanism acts at the same time to keep the contact in the disconnecting position.

外形及安装尺寸 Outline and mounting dimensions



YFB1-125P系列小型断路器

YFB1-125P Series Miniature Circuit Breaker



适用范围 Scope of Application

YFB1-125小型塑料外壳式断路器是一种具有过载与短路双重保护的高分断小型塑料外壳式断路器,适用于额定电流至125A,额定电压50Hz、AC230V/400V的电路,对电路过载/短路保护之用,它不适用电动机保护用。

本产品符合标准:GB/T14048.2-2020

YFB1-125 small plastic shell circuit breaker is a kind of high-break small plastic shell circuit breaker with double protection of overload and short circuit, suitable for rated current to 125A, rated voltage 50Hz, AC230V/400V circuit, for circuit overload/short circuit protection, it is not suitable for motor protection.

This product conforms to the standard :GB/T14048.2-2020

型号及含义 Model And Meaning

YFB1-125 □/□

- 分断能力:普通无代号,“H”表示高分断
Breaking ability: ordinary no code, "H" means high score
- “P”外壳材料为热塑型阻燃聚酰胺塑料PA6;
“D”外壳材料为热固型不饱和聚酯玻璃纤维增强膜塑料DMC。
"P" shell material is thermoplastic flame retardant polyamide plastic PA6;
"D" shell material is thermosetting unsaturated polyester glass fiber reinforced film plastic DMC
- 壳架电流等级
Frame current level
- 设计代号
Design code
- 企业代号
Enterprise code

技术参数 Technical Parameter

额定电流(A) Rated current (A)	类型(极) Type (pole)	电压(V) Voltage (V)	分断能力(A) Breaking capacity (A)
50,63,80,100,125	1P+N	230/400	6
	2P,3P,4P	400	15
延时保护脱扣电流 Delay protection trip current	试验电流 Test current	预期时间 time	预期结果 Expected result
	1.05I _n (冷态/cold)	t > 2h	不脱扣 non-trip
	1.3I _n (热态/hot)	t ≤ 2h	脱扣 trip
瞬时短路保护 Instantaneous short circuit protection	Type C	10I _n ±20%	-20%不脱扣 +20%脱扣 -20% non-trip +20% trip
	Type D	12I _n ±20%	

适用范围 Scope of Application

励磁带延时断路器的工作电压为额定电压的70%~110%范围任何值;脱扣器极上施加控制电压,即信号电(可由远程控制线路或IC卡电度表提供)然后将断路器手柄推向闭合位置合闸。

当需要远程控制(或IC卡电度表欠费时)可以通过控制系统断开。断路器能在0.5s≤t≤2s可靠分断,同时断路器还具备短路和过载功能。

接线时一定要注意电源线上进下出,火线、零线极性正确。

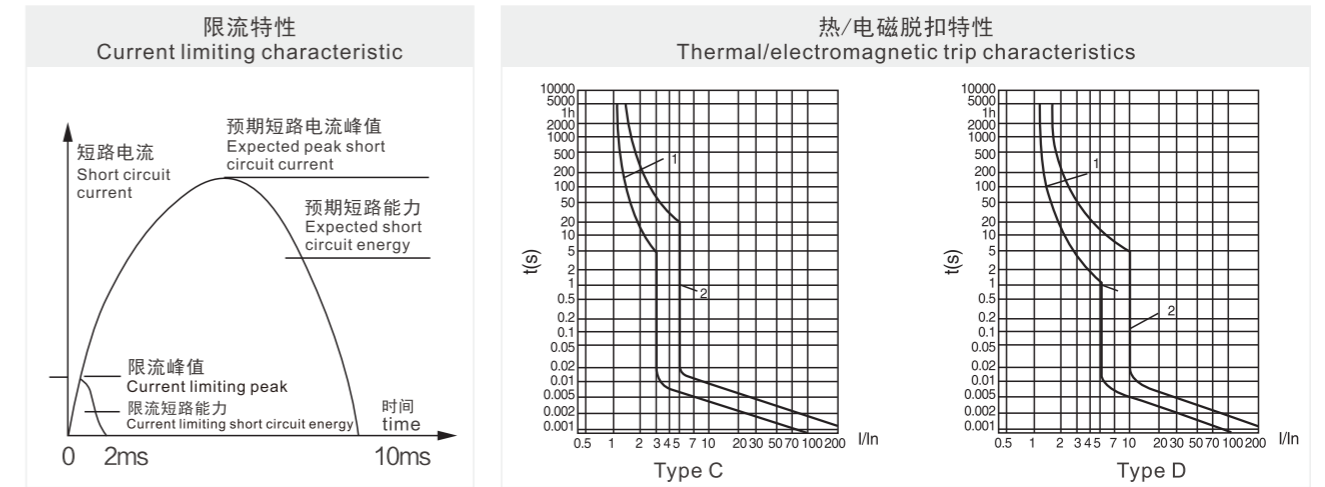
YFB1-125P系列小型断路器

YFB1-125P Series Miniature Circuit Breaker

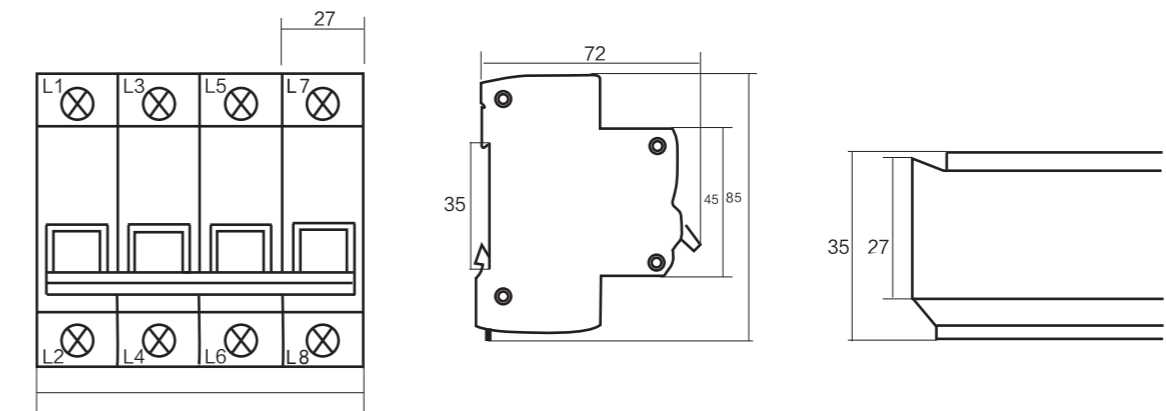
The operating voltage of the shunt circuit breaker with delay is any value in the range of 70%-110% of the rated voltage; A control voltage, i.e. signal electricity (which can be supplied by a remote control line or IC card meter) is applied to the release pole and the breaker handle is pushed to the closed position to close.

When the need for remote control (or IC card meter arrears) can be disconnected through the control system. The circuit breaker can be reliably broken at 0.5s≤t≤2s, and the circuit breaker also has short circuit and overload functions.

When wiring, be sure to pay attention to the power line up and down, live wire, neutral wire polarity is correct.



外形及安装尺寸 Outline and mounting dimensions



YF47系列小型断路器

YF47 Series Miniature Circuit Breaker



适用范围 Scope of Application

YF47系列高分断小型断路器(以下简称YF47)是一种具有过载与短路双重保护的限流型高分断小型断路器,其适用于交流50/60Hz,额定电压230/400V及以下的电路中,作为线路过载和短路保护之用,它不适用于保护电动机。

本产品符合GB10963.1。

Yf47 series high break miniature circuit breaker (hereinafter referred to as YF47) is a kind of current limiting type high break miniature circuit breaker with double protection of overload and short circuit, which is suitable for AC 50/60Hz, rated voltage 230/400V and below the circuit, as the line overload and short circuit protection, it is not suitable for protecting the motor.

This product conforms to GB10963.1.

正常工作条件 Normal working condition

- 海拔不超过2000m;
- 周围空气温度不高于+40°C及不低于-5°C, 24h的平均值不超过+35°C;
- 周围的相对湿度, 在周围空气温度为+40°C时不超过50%;在较低温度下允许有较大相对湿度, 最湿月的月平均最大相对湿度为90%, 同时该月的月平均最低温度为+25°C, 并允许因温度变化发在产品上的凝露;
- 在无爆炸危险介质中, 且介质中无足以腐蚀金属和破坏绝缘的气体与尘埃;
- 在没有雨雪侵袭的地方;
- 无明显摇动和冲击振动的地方。
- The altitude does not exceed 2000m;
- The ambient air temperature is not higher than +40°C and not lower than -5°C, and the average value of 24h is not more than +35°C;
- Surrounding relative humidity, not more than 50% when the ambient air temperature is +40°C; At a lower temperature, a higher relative humidity is allowed. The monthly average maximum relative humidity of the wettest month is 90%, while the monthly average minimum temperature of the month is +25°C, and condensation on the product is allowed due to temperature changes.
- In a medium without explosion risk, and there is no gas and dust sufficient to corrode metal and destroy insulation in the medium;
- Where there is no rain or snow;
- Where there is no obvious shaking and shock vibration.

技术参数 Technical Parameter

- 分类
 - 按用途分有:C型用于照明保护, D型用于动力保护;
 - 按极数分有:单极、二极、三极、四极;
 - 电流规格 1、3、6、10、16、20、25、32、40、50、63A
- sort
 - Divided by use: Type C for lighting protection, type D for power protection;
 - According to the number of poles, there are: unipolar, two-pole, three-pole, four-pole;
 - Current specifications 1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63A

YF47系列小型断路器

YF47 Series Miniature Circuit Breaker

YIFA 伊发
股票代码:870154

基本规格及参数见下表:

Basic specifications and parameters are shown in the following table:

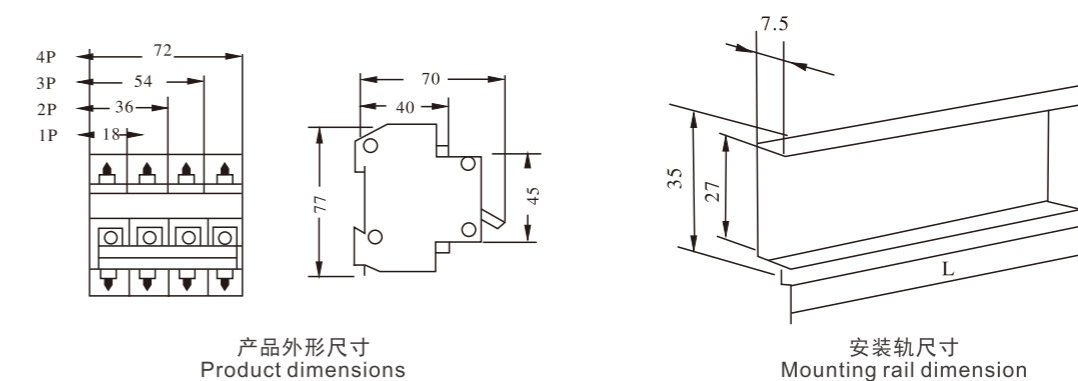
型号 Model number	额定电流 (A) Rated current (A)	类型 (极) Type (pole)	电压 (V) Voltage (V)	分断能力 (A) Breaking capacity (A)
YF47-63	40-63	1	230	4000
		2,3,4	400	
YF47-63	1-32	1	230	4500
		2,3,4	400	

断路器的过流保护特性见下表:

The overcurrent protection characteristics of circuit breakers are shown in the following table:

序号 NO.	型号规格 Type specification	起始状态 Initial state	试验电流 (A) Test current (A)	试验时间 Test time	预期结果 Expected result	备注 Remarks
1	所有值 All values	冷态 Cold state	1.13In	t≥1h	不脱扣 non-trip	
2	所有值 All values	热态 Hot state	1.45In	t<1h	脱扣 trip	紧接着1项实验 Followed by one experiment
3	In≤32	冷态 Cold state	2.55In	1s<t≤60s	脱扣 trip	
	In>32			1s<t≤120s		
4	C型 Type C	冷态 Cold state	5In	t≥0.1s	不脱扣 non-trip	
	D型 Type D		10In			
5	D型 Type D	冷态 Cold state	10In	t<0.1s	脱扣 trip	
	D型 Type D		14In			

外形及安装尺寸 Outline and mounting dimensions



产品外形尺寸
Product dimensions

安装轨尺寸
Mounting rail dimension

HL32-100系列隔离开关

HL32-100 Series Isolation Switch



适用范围 Scope of Application

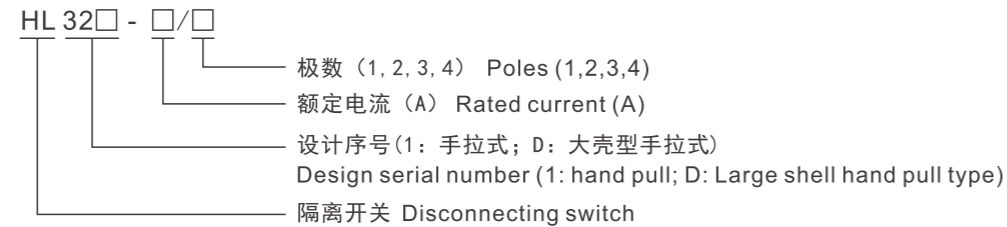
HL32-100 (INT) 系列隔离开关用于交流50或60Hz、电压至400V的配电电路和控制电路中。既可作为PZ20终端组合电器的配套元件，又可单独使用。广泛应用于工矿企业、高层建筑、商业及家庭等场所。采用TH35-7.5型钢安装轨安装。

产品符合GB/T14048.3、IEC60947-3等标准。

The HL32-100(INT) series isolators are used in distribution circuits and control circuits with AC 50 or 60Hz and voltage up to 400V. It can be used as a supporting component of PZ20 terminal combined electrical appliances, and can be used alone. Widely used in industrial and mining enterprises, high-rise buildings, commercial and family places. It is installed with TH35-7.5 steel mounting rail.

Products comply with GB/T14048.3, IEC60947-3 and other standards.

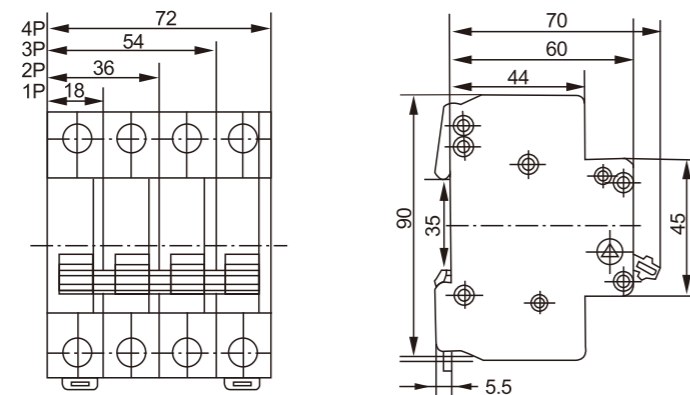
型号及含义 Model And Meaning



技术参数 Technical Parameter

额定绝缘电压 U_n (V) Rated insulation voltage U_n (V)	额定工作电压 (V) Rated operating voltage (V)	额定冲击耐受电压 U_{imp} Rated impulse withstand voltage U_{imp}	额定工作电流 I_n (A) Rated working current I_n (A)	使用类别 Category of use	额定短时耐受电流 I_{cw} Rated short-time withstand current I_{cw}	额定通断能力 kA Rated on-off capacity kA	机械寿命 (次) Mechanical life (second)
660V	230V(1P) 230V400V	6kA	32,63,100	AC-22	1.2kA/1s	2kA	10000

外形及安装尺寸 Outline and mounting dimensions



HL32-100系列隔离开关 (手拉式)

HL32-100 Series Isolation Switch(Hand pull)

YIFA® 伊发
股票代码:870154



适用范围 Scope of Application

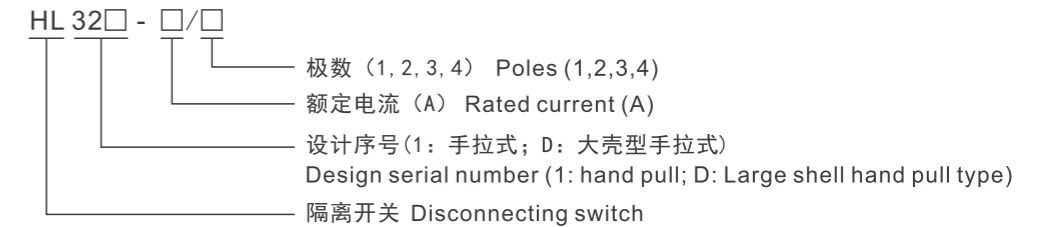
HL32-100 (INT) 系列隔离开关用于交流50或60Hz、电压至400V的配电电路和控制电路中。既可作为PZ20终端组合电器的配套元件，又可单独使用。广泛应用于工矿企业、高层建筑、商业及家庭等场所。采用TH35-7.5型钢安装轨安装。

产品符合GB/T14048.3、IEC60947-3等标准。

The HL32-100(INT) series isolators are used in distribution circuits and control circuits with AC 50 or 60Hz and voltage up to 400V. It can be used as a supporting component of PZ20 terminal combined electrical appliances, and can be used alone. Widely used in industrial and mining enterprises, high-rise buildings, commercial and family places. It is installed with TH35-7.5 steel mounting rail.

Products comply with GB/T14048.3, IEC60947-3 and other standards.

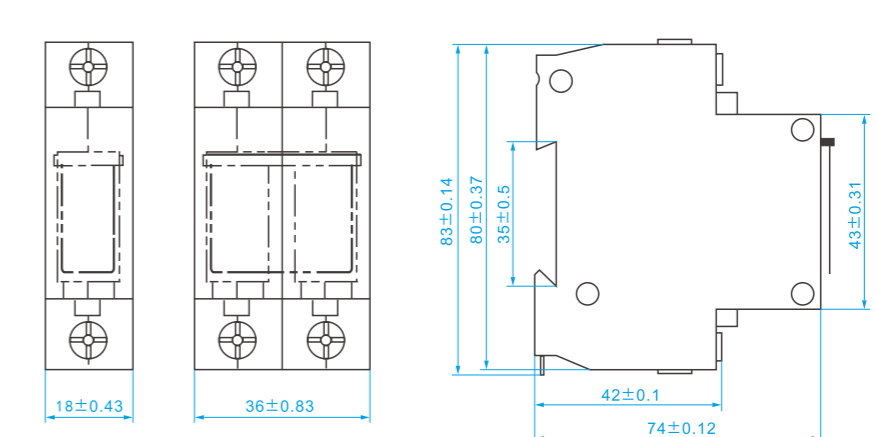
型号及含义 Model And Meaning



技术参数 Technical Parameter

额定绝缘电压 U_n (V) Rated insulation voltage U_n (V)	额定工作电压 (V) Rated operating voltage (V)	额定冲击耐受电压 U_{imp} Rated impulse withstand voltage U_{imp}	额定工作电流 I_n (A) Rated working current I_n (A)	使用类别 Category of use	额定短时耐受电流 I_{cw} Rated short-time withstand current I_{cw}	额定通断能力 kA Rated on-off capacity kA	机械寿命 (次) Mechanical life (second)
660V	230V(1P) 230V400V	6kA	32,63,100	AC-22	1.2kA/1s	2kA	10000

外形及安装尺寸 Outline and mounting dimensions



YFB1LE-80系列高分断漏电断路器

YFB1LE-80 Series high Score Leakage Circuit Breaker



适用范围 Scope of Application

YFB1LE-80系列智能漏电断路器(以下简称RCBO)适用于交流50Hz, 额定电压至230V-400V, 额定电流至80A的电路中, 当人身触电或电网泄漏电流超过规定值时, 漏电断路器能在极短的时间内迅速切断电源, 保护人身及用电设备的安全, 并能避免因电网过电压而对设备造成损坏。具有过载、短路、漏电保护功能, 也可在正常情况下不频繁地通断电器装置和照明线路, 尤其适用于工业和商业照明配电系统。

产品体积小, 结构紧凑, 性价比优于其它同类产品, 外形美观, 分断能力高, 是家用配电的良好选择。

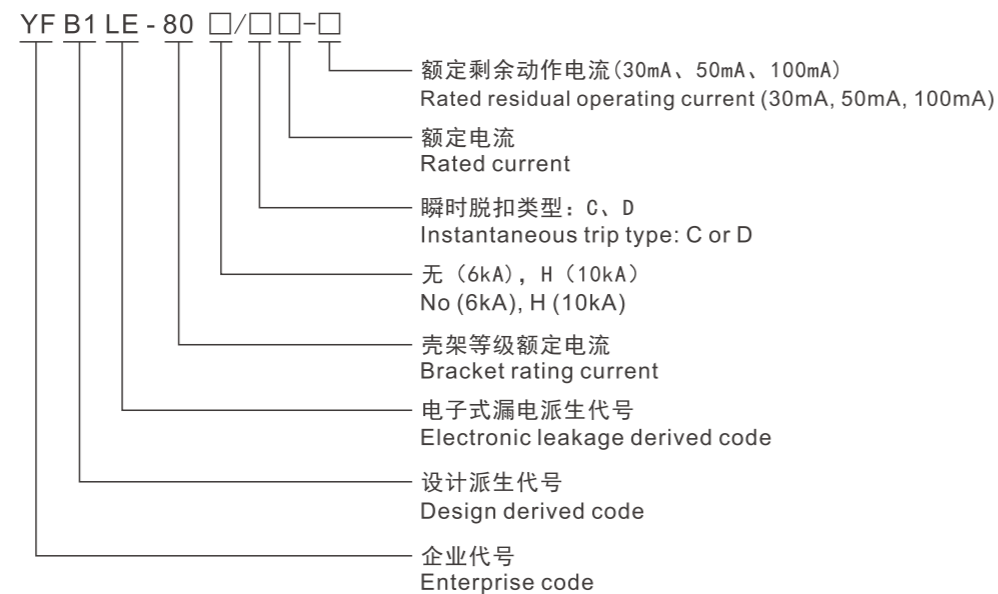
本产品符合GB/T 16917.1和IEC 61009-1标准, 获得CCC认证。

YFB1LE-80 series intelligent leakage circuit breaker (hereinafter referred to as RCBO) is suitable for AC 50Hz, rated voltage to 230V-400V, rated current to 80A circuit, when the personal shock or power grid leakage exceeds the specified value, leakage circuit breaker can quickly cut off the power supply in a very short time, to protect the safety of people and electrical equipment. It can also avoid damage to equipment caused by power grid overvoltage. It has the function of overload, short circuit and leakage protection, and can also be switched on and off electrical devices and lighting lines infrequently under normal circumstances, especially for industrial and commercial lighting distribution systems.

The product has the advantages of small size, compact structure, better cost performance than other similar products, beautiful appearance, high breaking capacity, and is a good choice for household power distribution.

This product complies with GB/T 16917.1 and IEC 61009-1 standards and is certified by CCC.

型号及含义 Model And Meaning



技术参数 Technical Parameter

• 漏电特性

- 额定剩余动作电流 $I_{\Delta n}$ (mA): 30、50、100、200、300。
- 额定剩余不动作电流 $I_{\Delta no}$ (mA): 15、25、50、100、150。
- 额定剩余动作电流时最大分断时间: 0.1s、0.2s。

YFB1LE-80系列高分断漏电断路器

YFB1LE-80 Series high Score Leakage Circuit Breaker

• Leakage characteristic

Rated residual operating current $I_{\Delta n}$ (mA): 30, 50, 100, 200, 300.

Rated remaining inactive current $I_{\Delta no}$ (mA): 15, 25, 50, 100, 150.

Maximum breaking time at rated remaining operating current: 0.1s, 0.2s.

RCBO额定短路分断能力见表1

RCBO rated short circuit breaking capacity are shown in table 1

Table 1

壳架等级额定电流 I_{nm} A Housing grade Rated current I_{nm} A	极数 (P) Number of poles (P)	额定电流 I_n (A) Rated current I_n (A)	过电流瞬时脱扣器类型 Type of transient overcurrent trip device	额定短路能力 (I_{cn}) Rated short circuit capacity (I_{cn})	额定剩余接通和分断能力 ($I_{\Delta m}$) Rated remaining making and breaking capacity ($I_{\Delta m}$)			机械寿命 (次) Mechanical life (second)	电气寿命 (次) Electrical life (s)
					Voltage (V)	$I_{\Delta m}$ (A)	$\text{COS}\Phi$		
80	1P+N/2P/ 3P/3+N/4P	6,10,16,20 25,32,40 50,63,80	B\C,D	6000	230	2000	0.8	20000	10000

RCBO寿命见表2

RCBO life are shown in table 2

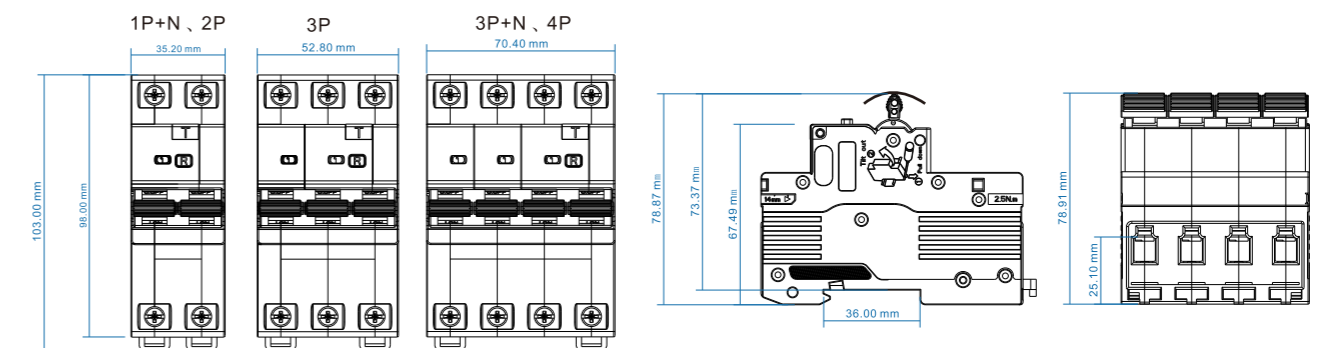
Table 2

No.	额定电流 I_n (A) Rated current I_n (A)	起始状态 Initial state	试验电流 A Test current A	规定时间 t Specified time t	预期结果 Expected result	试验环境温度 Test ambient temperature	备注 For note
a	所有值 All values	冷态 Cold state	1.13 I_n	$t \geq 1h$	不脱扣 Don't trip	30 °C ~ 35 °C	紧接a项试验后5s内升至规定电流
b	所有值 All values	热态 Hot state	1.45 I_n	$t < 1h$	脱扣 trip		
c	≤ 32 > 32	冷态 Cold state	2.55 I_n	$1s < t < 60s$ $1s < t < 120s$	脱扣 trip		
d	Type C	冷态 Cold state	5 I_n (Type C)	$t \geq 0.1s$	不脱扣 Don't trip	30 °C ~ 35 °C	闭合辅助开关接通电源 Turn on the auxiliary switch to power on
e	Type C	冷态 Cold state	10 I_n (Type C)	$t < 0.1s$	脱扣 trip		
f	Type D	冷态 Cold state	10 I_n (Type D)	$t \geq 0.1s$	不脱扣 Don't trip		
g	Type D	冷态 Cold state	14 I_n (Type D)	$t < 0.1s$	脱扣 trip		

注: “冷态”指在基准整定温度下, 试验前不带负载。

Note: "Cold state" means no load before the test at the reference setting temperature.

外形及安装尺寸 Outline and mounting dimensions



YFB9LE-80智能漏电监测微型断路器

YFB9LE-80 Intelligent Leakage Monitoring Circuit Breaker



功能和特性 Functions and features

- 线路保护功能: 过载保护、短路保护;
 - 剩余电流保护功能: 可开启或关闭, 在剩余电流保护功能打开的情况下, 超过剩余电流动作整定值时, 在规定的延时间执行剩余电流保护动作;
 - 测量功能: 主回路电流、剩余电流测量、内部温度测量功能:(可扩展电压测量功能)
 - 断路器状态检测功能: 断路器合分闸检测、过载或短路脱扣检测、剩余电流动作脱扣检测;
 - 剩余电流试验功能: 具有试验按钮, 在按动试验按钮时, 能够验证断路器剩余电流保护动作的功能;
 - LED指示功能: LED指示断路器运行状态、通信状态和故障状态;
 - 时钟功能: 断路器内部集成软时钟功能。控制中心通过通信方式远程初始时间进行整定, 断路器通过内部的主频及一定的算法进行时钟更新, 当发生故障时, 能够记录故障的具体时刻。
 - 温度检测功能: 断路器内部具有温度检测功能: 根据内部温度和回路电流数据进行分析, 确定现场是否存在主回路线路虚接导致断路器内部温度过高进而损坏断路器的故障。
 - 通信功能: 将本地监测的主回路电流、剩余电流、断路器的通断、过载或短路脱扣状态、断路器内部温度等通过无线蓝牙方式上传至监控中心;
 - 远程升级功能: 可以通过无线方式对断路器进行远程升级;
 - 故障电流录波功能: 当断路器发生过载或短路故障时, 断路器可以记录到其脱扣前后各2个周波的电流实时值, 每个周波固定频率采集16个点, 每个数据点以2个字节记录。
- Line protection function: overload protection, short circuit protection;
 - Residual current protection function: can be turned on or off, in the case of residual current protection function is turned on, exceeds the residual current action setting value, the residual current protection action is executed within the specified delay time;
 - Measuring function: main loop current, residual current measurement, internal temperature measurement function :(extensible voltage measurement function)Circuit breaker status detection function: circuit breaker opening and closing detection, overload or short circuit trip detection, residual current action trip detection;
 - Residual current test function: with a test button, when pressing the test button, can verify the circuit breaker residual current protection function;
 - LED indicator function: LED indicates the circuit breaker operating status, communication status and fault status;
 - Clock function: The circuit breaker integrates the soft clock function. The control center adjusts the initial time remotely by means of communication, and the circuit breaker updates the clock through the internal main frequency and a certain algorithm. When a fault occurs, the specific time of the fault can be recorded.
 - Temperature detection function: the circuit breaker has temperature detection function inside; Analyze the internal temperature and circuit current data to determine whether the circuit breaker is damaged due to excessive internal temperature caused by virtual connection of the main circuit line.
 - Communication function: Upload the local monitoring of the main circuit current, residual current, circuit breaker on/off, overload or short circuit trip state, circuit breaker internal temperature, etc. to the monitoring center through wireless Bluetooth;
 - Remote upgrade function: the circuit breaker can be remotely upgraded through wireless mode;
 - Fault current recording function: When the circuit breaker is overloaded or short-circuited, the circuit breaker can record the current real-time value of 2 cycles before and after its trip. Each cycle collects 16 points at a fixed frequency, and each data point is recorded with 2 bytes.

YFB9LE-80智能漏电监测微型断路器

YFB9LE-80 Intelligent Leakage Monitoring Circuit Breaker

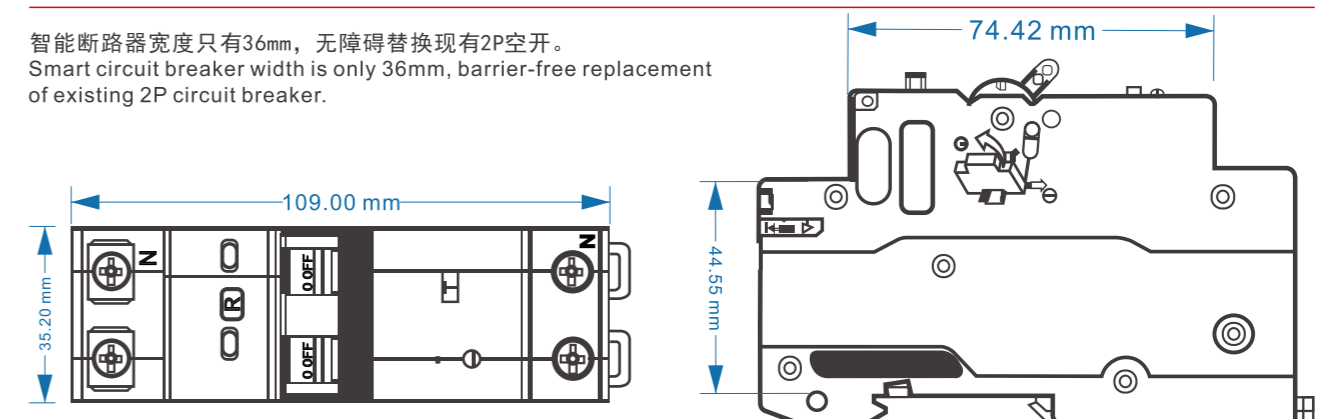
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技术参数 Technical Parameter

壳架等级电流 I_{nm} (A) Frame grade current I_{nm} (A)	80
额定电流 I_n (A) Rated current I_n (A)	40, 50, 63, 80
额定工作电压 U_e Rated operating voltage U_e	AC230V
额定绝缘电压 U_i Rated insulation voltage U_i	AC400V
额定频率 (Hz) Fixed frequency (Hz)	50
额定冲击耐受电压 U_{imp} (kV) Rated impulse withstand voltage U_{imp} (kV)	4
额定运行短路分断能力 I_{cs} (kA) Rated operating short-circuit breaking capacity I_{cs} (kA)	6
额定剩余接通和分断能力 $I_{\Delta m}$ (kA) Rated remaining making and breaking capacity $I_{\Delta m}$ (kA)	1.5
额定剩余电流动作值 $I_{\Delta n}$ (A) Rated residual current operation value $I_{\Delta n}$ (A)	0.05~0.5可调 (可关闭) 0.05 ~ 0.5 Adjustable (can be closed)
额定剩余电流不动作值 $I_{\Delta no}$ Rated residual current inactive value $I_{\Delta no}$	0.8 $I_{\Delta n}$
剩余电流动作延时时间 (ms) Residual current Action delay time (ms)	200~500可调 200 ~500 adjustable
极限不驱动时间 (s) Ultimate non-drive time (s)	2 $I_{\Delta n}$ 时, 为0.06s For 2 $I_{\Delta n}$, it is 0.06s
瞬时脱扣类型 Instantaneous trip type	C型 Type C
剩余电流动作特性类型 Residual current operating characteristic type	AC
回路电流测量范围 Loop current measurement range	0~14 I_n
机械/电气寿命(次) Mechanical/electrical life (s)	10000/4000
防护等级 Class of protection	IP20
安装方式 Installation mode	标准导轨安装 Standard rail mounting
接线能力 Wiring capacity	最大35mm ² Max. 35mm ²

外形及安装尺寸 Outline and mounting dimensions

智能断路器宽度只有36mm, 无障碍替换现有2P空开。
Smart circuit breaker width is only 36mm, barrier-free replacement of existing 2P circuit breaker.



YFB1LE-125系列漏电断路器

YFB1LE-125 Series Leakage Circuit Breaker



适用范围 Scope of Application

YFB1LE-125系列漏电脱扣器与YFB1-125P小型断路器拼装成漏电断路器，它适用于交流50Hz、额定电压至400V，额定电流至125A的电路中，作为人身触电和设备漏电保护之用，并且有过载、短路保护功能，也可以在正常情况下作为线路的不频繁转换之用。当它兼有过电压保护功能时，除了以上功能外，还能对由于电网故障引起的电压过度升高(例如由于中心线错接、断开、三相负载不平衡引起的电压升高)进行保护。

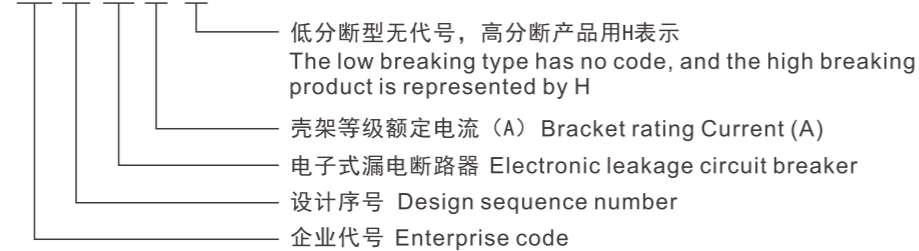
本产品符合GB14048.2 GB60963.1标准。

YFB1LE-125 series leakage trip device and YFB1-125P small circuit breaker are assembled into leakage circuit breaker, which is suitable for AC 50Hz, rated voltage to 400V, rated current to 125A circuit, as a personal shock and equipment leakage protection, and has overload and short circuit protection function. It can also be used as an infrequent conversion of the line under normal circumstances. When it has the function of overvoltage protection, in addition to the above functions, it can also protect against excessive voltage rise caused by power grid faults (such as voltage rise caused by misconnection, disconnection of the center line, and three-phase load imbalance).

This product conforms to GB14048.2GB60963.1 standard.

型号及含义 Model And Meaning

YFB1LE□□



分类 Classification

- 按额定电流分:63A、80A、100A、125A。
- 按极数分:单极两线、两极、三极、三极四线，四极。
- 按保护种类分:有过载、短路及漏电保护;除过载、短路，漏电保护外并兼有过压保护二种。
- 按瞬时脱扣器特性分:C型、D型。
- According to the rated current :63A, 80A, 100A, 125A.
- Points by the number of poles: unipolar two lines, two poles, three poles, three poles, four lines, four poles.
- According to the type of protection: overload, short circuit and leakage protection; In addition to overload, short circuit, leakage protection and overvoltage protection two.
- According to the characteristics of instantaneous trip device: type C, type D.

技术参数 Technical Parameter

- 剩余电流动作特性
 - 额定剩余动作电流 $I_{\Delta n}$ (mA) : 30, 50, 100, 300。(根据需要可设漏电退出功能)
 - 额定剩余不动作电流 $I_{\Delta no}$ (mA) : 15, 25, 50, 150。
 - 额定剩余电流最大分断时间: 0.1S。
 - 额定剩余接通分断能力 $I_{\Delta m}$: 2000A。
- 机械电气寿命
漏电断路器能承受4000次操作循环，其中电气寿命为2000次。

YFB1LE-125系列漏电断路器

YFB1LE-125 Series Leakage Circuit Breaker

- Residual current action characteristics
 - Rated residual operating current $I_{\Delta n}$ (mA):30,50,100,300. (Leakage exit function can be set as required)
 - Rated residual inactive current $I_{\Delta no}$ (mA):15,25,50,150.
 - Maximum breaking time of rated remaining current: 0.1S.
 - Rated remaining making and breaking capacity $I_{\Delta m}$:2000A.
- Overvoltage operating characteristics
The overvoltage operation setting U_{vo} is 280V±5%.
- Mechanical electrical life
Leakage circuit breakers can withstand 4000 operating cycles, of which the electrical life is 2000 times.

拼装后的漏电断路器额定接通分断能力见下表

The rated making and breaking capacity of the leakage circuit breaker after assembly is shown in the following table.

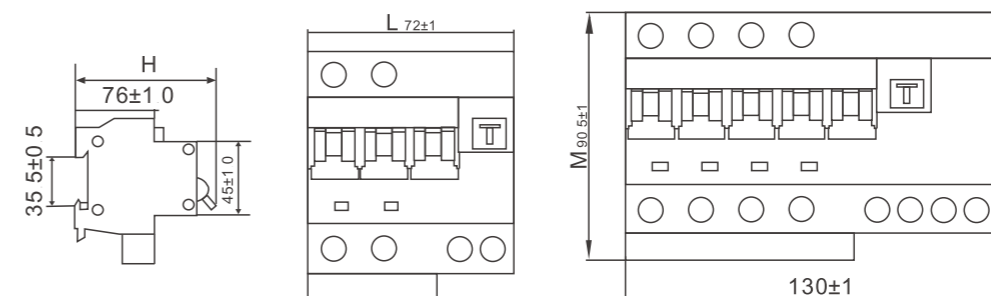
壳架等级额定电流 I_{nm} A Housing grade Rated current I_{nm} A	极数 (P) Number of poles (P)	加中性线 Plus neutral	额定电流 I_n (A) Rated current I_n (A)	额定剩余接通和分断能力 ($I_{\Delta m}$) Rated remaining making and breaking capacity ($I_{\Delta m}$)			过电流瞬时脱扣器类型 Type of transient overcurrent trip device
				电压 Voltage (V)	$I_{\Delta m}$ (A)	COS ϕ	
125	1	N	63,80,100,125	230	10000	0.7	C,D
	2						
	3						
	3	N					
	4			400			

过电流保护特性见下表

The overcurrent protection characteristics are shown in the following table.

No.	额定电流 I_{nm} A Rated current I_{nm} A	起始状态 Initial state	试验电流A Test current A	规定时间t Specified time t	预期结果 Expected result	实验环境温度 Experimental ambient temperature	备注 Remarks
a	所有值 All values	冷态 Cold state	1.13 I_n	$t \geq 1h$	不脱扣 non-trip	30°C-35°C	
b	所有值 All values	热态 Hot state	1.45 I_n	$t < 1h$	脱扣 trip	30°C-35°C	紧接a)项试验后5s内升到规定电流
c	≤ 32	冷态 Cold state	2.55 I_n	$1s < t < 60s$	脱扣 trip	30°C-35°C	
	> 32	冷态 Cold state		$1s < t < 120s$			
d	所有值 All values	冷态 Cold state	5 I_n (C型) 10 I_n (D型)	$t \geq 0.1s$	不脱扣 non-trip	30°C-35°C	闭合辅助开关接通电源 Turn on the auxiliary switch to power on
e	所有值 All values	冷态 Cold state	10 I_n (C型) 14 I_n (D型)	$t < 0.1s$	脱扣 trip	30°C-35°C	
f	所有值 All values	冷态 Cold state	1.13 I_n	$t \geq 1h$	不脱扣 non-trip	-5±2°C	
g	所有值 All values	热态 Hot state	1.9 I_n	$t < 1h$	脱扣 trip	-5±2°C	紧接f)项试验后5s内升到规定电流
h	所有值 All values	冷态 Cold state	I_n	$t \geq 1h$	不脱扣 non-trip	40±2°C	

外形及安装尺寸 Outline and mounting dimensions



YF47LE-63系列漏电断路器

YF47LE-63 Series Leakage Circuit Breaker



适用范围 Scope of Application

YF47LE-63系列漏电断路器(以下简称漏电断路器)适用于交流50/60Hz, 额定电压AC230/400V额定电流至63A的线路中, 当人身触电或电网泄漏电流超过规定值时, 漏电断路器能在极短的时间内迅速切断故障电源, 保护人身及用电设备的安全, 漏电断路器具有过载和短路保护功能, 可用来保护线路或电动机的过载和短路, 亦可在正常情况下作为线路的不频繁操作转换之用。

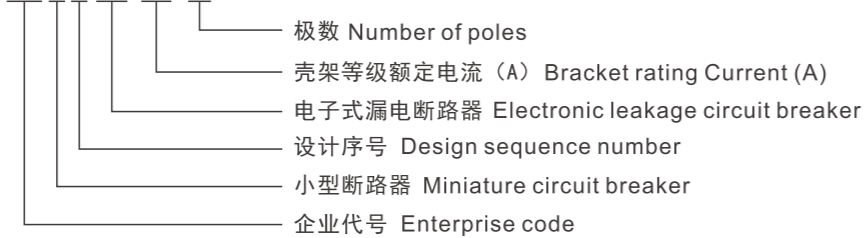
本产品符合GB/T16917.1 GB/T16917.22标准。

YF47LE-63 series leakage circuit breaker (hereinafter referred to as leakage circuit breaker) is suitable for AC 50/60Hz, rated voltage AC230/400V rated current to 63A line, when the personal shock or power grid leakage current exceeds the specified value, leakage circuit breaker can quickly cut off the fault power in a very short time. To protect the safety of personal and electrical equipment, leakage circuit breaker has overload and short circuit protection function, which can be used to protect the overload and short circuit of the line or the motor, and can also be used as the infrequent operation of the line under normal circumstances.

This product complies with GB/T16917.1 GB/T16917.22 standard.

型号及含义 Model And Meaning

YF 4 7 LE-63/□



技术参数 Technical Parameter

型号 Model number	YF47LE-63	
极数 (P) Number of poles (P)	1P+N, 2P, 3P, 3P+N, 4P	
短路脱扣特性 Short-circuit trip characteristics	C型, D型 Type C, type D	
额定电压Ue (V) Rated voltage Ue(V)	AC230/400V	
额定电流In (A) Rated current In(A)	6, 10, 16, 20, 25, 32, 40, 50, 63	
壳架等级额定电流Inm (A) Bracket rating Current Inm(A)	63	
额定剩余动作电流IΔn (mA) Rated residual operating current IΔn(mA)	30, 50	
额定剩余不动作电流IΔno (mA) Rated residual inactive current IΔno(mA)	15, 25	
额定短路分断能力Icu (A) Rated short-circuit breaking capacity Icu(A)	6A-32A, 4500A, 40A-63A, 3000A	
额定剩余接通分断能力IΔm (A) Rated residual making and breaking capacity IΔm(A)	2000	
机械电气寿命 Mechanical electrical life	电气化寿命 Electrified life	1500次, COSΦ0.85-0.9
	机械寿命 Mechanical life	8500次

YF47LE-63系列漏电断路器

YF47LE-63 Series Leakage Circuit Breaker

YIFA®伊发
股票代码: 870154

剩余电流动作的分断时间:

Breaking time of residual current action:

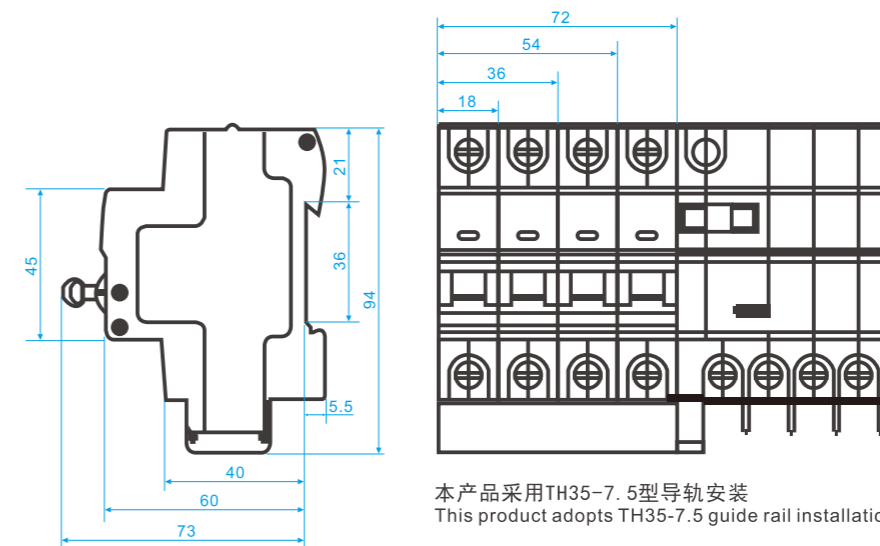
型号 Model number	In/A	IΔn/A	剩余电流 (IΔ) 等于下列值时的分断时间和不驱动时间标准值/s Residual current (I delta) is equal to the following values when breaking time and don't drive time standard/s					
			IΔn	2 IΔn	5 IΔn ^a	5A, 10A, 20A, 50A, 100A, 200A, 500A ^b	IΔt ^c	
一般型 General type	任何值 Any value	任何值 Any value	0.3	0.15	0.04	0.04	0.04	最大分断时间 Maximum breaking time
S型 Type S	≥25	>0.030	0.5	0.2	0.15	0.15	0.15	最大分断时间 Maximum breaking time
			0.13	0.06	0.05	0.04	0.04	最小不驱动时间 Minimum no-drive time

过电流脱扣特性表

Overcurrent trip characteristic table

额定电流In (A) Rated current In(A)	实验电流 Experimental current	起始状态 Initial state	实验时间 (t) Experiment duration (t)	实验结果 Experimental result	备注 Remarks
6, 10, 16, 20, 25, 32, 40, 50, 63	1.13 In	冷态 Cold state	t ≥ 1h	不脱扣 non-trip	
	1.45 In	热态 Hot state	t < 1h	脱扣 trip	电流在5s内稳定的上升至规定值
	2.55 In	冷态 Cold state	1s < t < 60s	脱扣 trip	In ≤ 32A
			1s < t < 120s	脱扣 trip	In > 32A
C	5 In	冷态 Cold state	t ≥ 0.1s	不脱扣 non-trip	通过闭合辅助开关接通电流
	10 In	冷态 Cold state	t < 0.1s	脱扣 trip	Switch on by closing the auxiliary switch Electric current

外形及安装尺寸 Outline and mounting dimensions



极数 Number of poles	大壳型宽尺寸 Large shell type wide size	极数 Number of poles	小壳型宽尺寸 Small shell type wide size
1P+N	54mm	1P+N	45mm
2P	72mm	2P	63mm
3P	103mm	3P	90mm
3P+N	117mm	3P+N	99mm
4P	135mm	4P	117mm

YFB1Z-125电能表外置断路器(费控型)

YFB1Z-125 Electric Energy Meter External Circuit Breaker



适用范围 Scope of Application

YFB1Z-125电能表外置断路器是全自动预付费断路器，适用于交流50Hz或60Hz，额定工作电压为AC230V/400V，额定电流6A至125A的线路中，对线路进行远距离控制分断或自动合闸，同时对线路起过载和短路保护的作用，也可以作为线路的不频繁操作转换之用，是IC卡预付费电度表专用外置断路器。广泛应用于低压用电网建设、电站建设、机场、港口、铁路、通信、雷达站、交通信号、工矿企业，同时也可作为居民小区集中抄表与控制收费、住宅、宾馆、商店、写字楼、智能家居的最佳理想产品。

本产品符合GB10963.1、IEC60898-1标准、南方电网及国家电网《费控电能表用外置低压断路器技术规范》。

YFB1Z-125 external circuit breaker is a fully automatic pre-paid circuit breaker, suitable for AC 50Hz or 60Hz, rated operating voltage AC230V/400V, rated current 6A to 125A line, remote control of the line breaking or automatic closing, while the line plays the role of overload and short circuit protection. It can also be used for the infrequent operation of the line conversion, and the IC card prepaid kilowatt-hour meter is equipped with an external special circuit breaker. Widely used in low-voltage power grid construction, power station construction, airports, ports, railways, communications, radar stations, traffic signals, industrial and mining enterprises, but also as a residential area centralized meter reading and control charges, residential, hotels, shops, office buildings, smart home the best ideal products.

This product conforms to GB10963.1, IEC60898-1 standards, China Southern Power Grid and State Grid "Technical Specification for external low-voltage circuit breakers for charge control energy meters".

型号及含义 Model And Meaning

YFB1Z-125



技术参数 Technical Parameter

- 断路器按额定电流 I_n 分：6A、10A、16A、20A、25A、32A、40A、50A、63A、80A、100A、125A。
- 按极数分：2P、3P、4P。
- 技术参数：
 - 1) 断路器瞬时脱扣的供货形式为C型，其它型式用户可特殊订货。
 - 2) 断路器额定运行短路分断能力： $I_{cn}=I_{cs}=10kA$ 。
 - 3) C型断路器过电流保护特性（见表1）。
 - 4) 断路器工作电压范围60%~120%；断路器控制信号采用AC220V电压。断路器反馈信号为220V电压，当外置断路器处于合闸状态时，反馈电压为220V；当断路器处于分闸状态时，反馈端无反馈信号。
 - 5) 连接外部信号控制线断路器配有电能表接线端子，截面积0.75mm²，长度30cm(其他长度可特殊生产)带有压接好的接线端子。
 - 6) 电气寿命： ≥ 6000 次；机械寿命 ≥ 10000 次。
 - 7) 断路器合闸时间 $\leq 3s$ ，上电响应延时时间 $\geq 7s$ （可根据用户具体要求设定），欠费断电时间 $\leq 2s$ 。
 - 8) 断路器在合闸或欠费分闸后，在空载下相线泄漏电流小于0.2mA，控制电平电流小于1mA。

YFB1Z-125电能表外置断路器(费控型)

YFB1Z-125 Electric Energy Meter External Circuit Breaker

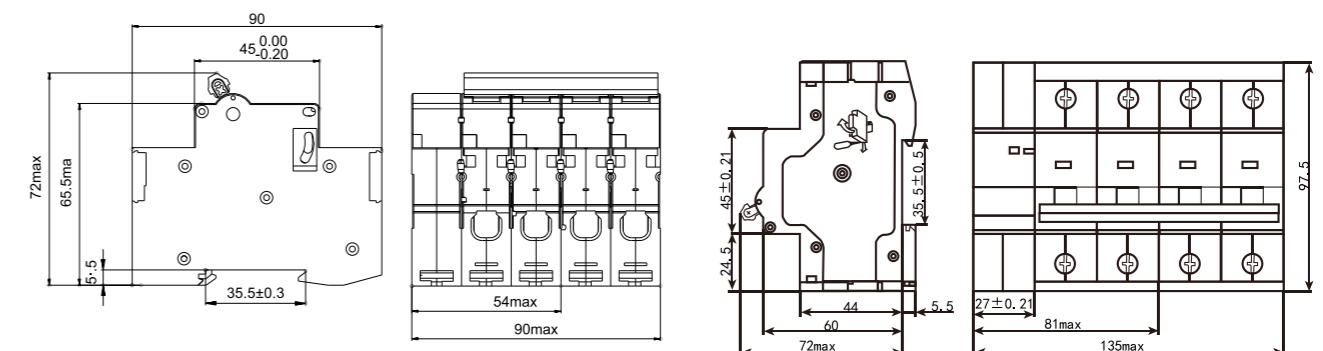
YIFA® 伊发
股票代码:870154

- Circuit breaker according to rated current I_n : 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A, 125A.
- By the number of poles: 2P, 3P, 4P.
- Technical parameters:
 - 1) The supply form of the circuit breaker instantaneous trip is type C, and other types of users can place special orders.
 - 2) Circuit breaker rated short circuit breaking capacity: $I_{cn}=I_{cs}=10kA$.
 - 3) Type C circuit breaker overcurrent protection characteristics (see Table 1).
 - 4) Circuit breaker operating voltage range 60%-120%; Circuit breaker control signal adopts AC220V voltage. The circuit breaker feedback signal is 220V power. When the external circuit breaker is in the closing state, the feedback voltage is 220V; When the circuit breaker is in the opening state, there is no feedback signal at the feedback end.
 - 5) Connect the external signal control line circuit breaker is equipped with an energy meter terminal, cross-sectional area of 0.75mm², length of 30cm (other lengths can be specially produced) with crimped terminal.
 - 6) Electrical life: ≥ 6000 times; Mechanical life ≥ 10000 times.
 - 7) Circuit breaker closing time $\leq 3s$, power-on response delay time $\geq 7s$ (can be set according to the specific requirements of users), unpaid power failure time $\leq 2s$.
 - 8) After the circuit breaker is switched on or off, the phase line leakage current under no-load is less than 0.2mA, and the control level current is less than 1mA.

Table 1

No.	实验电流 (A) Experimental current (A)	起始状态 Initial state	脱扣或不脱扣时间极限 Trip or non-trip time limit	预期结果 Expected result	环境温度 Ambient temperature	备注 Remarks
1	1.13 I_n	冷态 Cold state	$t \leq 1h$ $I_n \leq 63A$	不脱扣 non-trip	30°C-35°C	
			$t \leq 2h$ $I_n > 63A$			
2	1.45 I_n	紧接着前项实验后进行 Immediately after the previous experiment	$t \leq 1h$ $I_n \leq 63A$	脱扣 trip	30°C-35°C	电流在5s内稳定 Current stability within 5 s
			$t \leq 2h$ $I_n > 63A$			
3	2.55 I_n	冷态 Cold state	$1s < t < 60s$ $I_n \leq 32A$	脱扣 trip	30°C-35°C	
			$1s < t < 120s$ $I_n > 32A$			
4	5 I_n	冷态 Cold state	$t \leq 0.1s$	不脱扣 non-trip	30°C-35°C	通过闭合辅助开关接通电源 Turn on the power by closing the auxiliary switch
	10 I_n		$t < 0.1s$	脱扣 trip		

外形及安装尺寸 Outline and mounting dimensions



80A及以下断路器外形尺寸
80A and below circuit breaker dimensions

80A及以上断路器外形尺寸
80A and above circuit breaker dimensions

YFB1Z系列光伏外置断路器(光伏专用型)

YFB1Z Series Photovoltaic External Circuit Breaker



适用范围 Scope of Application

YFB1Z系列光伏断路器具备过压保护、欠压保护、断相保护、停电跳闸，电压恢复正常后自动合闸功能。适用于交流50Hz或60Hz，额定工作电压为AC230V/400V，额定电流6A至125A的线路中，同时对线路起过载和短路保护的作用，也可以作为线路的不频繁操作转换之用，是光伏并网专用断路器。

本产品符合GB10963.1、IEC60898-1标准。

YFB1Z series of photovoltaic circuit breakers have overvoltage protection, undervoltage protection, phase break protection, power failure trip, automatic closing function after the voltage returns to normal. It is suitable for AC 50Hz or 60Hz, rated working voltage is AC230V/400V, rated current 6A to 125A in the line, while the line plays the role of overload and short circuit protection, and can also be used as the line's infrequent operation conversion, is a photovoltaic grid-connected special circuit breaker.

This product conforms to GB10963.1, IEC60898-1 standard.

型号及含义 Model And Meaning

YFB1Z-125



使用条件 Conditions of use

1. 使用环境温度为 $-10^{\circ}\text{C}\sim+70^{\circ}\text{C}$; 24h内平均不超过 $+35^{\circ}\text{C}$ 。
2. 安装地点的海拔高度一般不超过2000m。
3. 大气条件: 安装地点的空气相对湿度在最高温度 $+40^{\circ}\text{C}$ 时不超过50%，在最湿月的平均最低温度不超过 $+20^{\circ}\text{C}$ 时相对湿度不超过90%。
4. 安装类别为II类。
5. 污染等级为2级。

1. The ambient temperature is $-10^{\circ}\text{C}\sim+70^{\circ}\text{C}$; The average temperature within 24h does not exceed $+35^{\circ}\text{C}$.
2. The elevation of the installation site is generally not more than 2000m.
3. Atmospheric conditions: The relative humidity of the air at the installation site does not exceed 50% at the highest temperature $+40^{\circ}\text{C}$, and the relative humidity does not exceed 90% when the average minimum temperature of the wettest month does not exceed $+20^{\circ}\text{C}$.
4. The installation category is Class II.
5. The pollution level is level 2.

技术参数 Technical Parameter

- 断路器按额定电流 I_n 分: 6A、10A、16A、20A、25A、32A、40A、50A、63A、80A、100A、125A。
- 按极数分: 2P、4P。
- 技术参数:
 - 1) 断路器瞬时脱扣的供货形式为C型，其它型式用户可特殊订货。
 - 2) 断路器额定运行短路分断能力: $I_{cn}=I_{cs}=10\text{kA}$ 。
 - 3) C型断路器过电流保护特性(见表1)。
 - 4) 断路器过压为290V, 过压恢复电压275V, 欠压145V, 欠压恢复电压155V。误差 $\pm 5\text{V}$ 。

YFB1Z系列光伏外置断路器(光伏专用型)

YFB1Z Series Photovoltaic External Circuit Breaker

YIFA® 伊发
股票代码: 870154

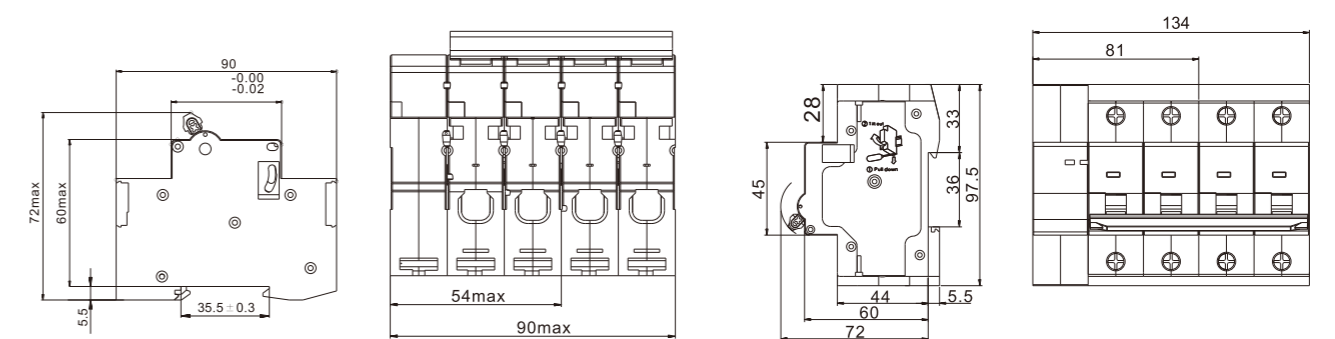
- 5) 断路器合闸延时5S, 分闸延时2S。
- 6) 电气寿命: ≥ 6000 次; 机械寿命 ≥ 10000 次。

- Circuit breaker according to rated current I_n : 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A, 125A.
- According to the number of poles: 2P, 4P.
- Technical parameters:
 - 1) The supply form of the circuit breaker instantaneous trip is type C, and other types of users can place special orders.
 - 2) Circuit breaker rated short circuit breaking capacity: $I_{cn}=I_{cs}=10\text{kA}$.
 - 3) Type C circuit breaker overcurrent protection characteristics (see Table 1).
 - 4) The breaker overvoltage is 290V, overvoltage recovery voltage is 275V, undervoltage is 145V, undervoltage recovery voltage is 155V. Error $\pm 5\text{V}$.
 - 5) Circuit breaker closing delay 5S, opening delay 2S.
 - 6) Electrical life: ≥ 6000 times; Mechanical life ≥ 10000 times.

Table 1

No.	实验电流 (A) Experimental current (A)	起始状态 Initial state	脱扣或不脱扣时间极限 Trip or non-trip time limit		预期结果 Expected result	环境温度 Ambient temperature	备注 Remarks
1	$1.13 I_n$	冷态 Cold state	$t \leq 1\text{h}$ $t \leq 2\text{h}$	$I_n \leq 63\text{A}$ $I_n > 63\text{A}$	不脱扣 non-trip	$30^{\circ}\text{C}\sim 35^{\circ}\text{C}$	
2	$1.45 I_n$	紧接着前项实验后进行 Immediately after the previous experiment	$t \leq 1\text{h}$ $t \leq 2\text{h}$	$I_n \leq 63\text{A}$ $I_n > 63\text{A}$	脱扣 trip	$30^{\circ}\text{C}\sim 35^{\circ}\text{C}$	电流在5s内稳定 Current stability within 5 s
3	$2.55 I_n$	冷态 Cold state	$1\text{s} < t < 60\text{s}$ $1\text{s} < t < 120\text{s}$	$I_n \leq 32\text{A}$ $I_n > 32\text{A}$	脱扣 trip	$30^{\circ}\text{C}\sim 35^{\circ}\text{C}$	
4	$5 I_n$ $10 I_n$	冷态 Cold state	$t \leq 0.1\text{s}$ $t < 0.1\text{s}$		不脱扣 non-trip 脱扣 trip	$30^{\circ}\text{C}\sim 35^{\circ}\text{C}$	通过闭合辅助开关接通电源 Turn on the power by closing the auxiliary switch

外形及安装尺寸 Outline and mounting dimensions



80A及以下断路器外形尺寸
80A and below circuit breaker dimensions

80A及以上断路器外形尺寸
80A and above circuit breaker dimensions

YFB1Z系列光伏费控外置断路器

YFB1Z Series Photovoltaic Cost Control External Circuit Breaker



适用范围 Scope of Application

YFB1Z系列光伏费控断路器具备过压保护、欠压保护、断相保护、失压保护，电压恢复正常后自动合闸功能。具有控制、反馈功能，可以跟电能表的控制、反馈接口进行连接。适用于交流50Hz或60Hz，额定工作电压为AC230V/400V，额定电流6A至125A的线路中，同时对线路起过载和短路保护的作用，也可以作为线路的不频繁操作转换之用。

本产品符合GB10963.1、IEC60898-1标准。

YFB1Z series photovoltaic cost control circuit breaker with overvoltage protection, undervoltage protection, phase break protection, loss of voltage protection, automatic closing function after the voltage returns to normal. With control and feedback function, it can be connected with the control and feedback interface of the energy meter. It is suitable for AC 50Hz or 60Hz, rated working voltage is AC230V/400V, rated current 6A to 125A in the line, while the line plays the role of overload and short circuit protection, and can also be used as the line's infrequent operation conversion.

This product conforms to GB10963.1, IEC60898-1 standard.

型号及含义 Model And Meaning

YFB1Z-125



使用条件 Conditions of use

- 1. 使用环境温度为-25℃~+70℃；24h内平均不超过+35℃。
 - 2. 安装地点的海拔高度一般不超过2000m。
 - 3. 大气条件：安装地点的空气相对湿度在最高温度+40℃时不超过50%，在最湿月的平均最低温度不超过+20℃时相对湿度不超过95%。
 - 4. 安装类别为II类。
 - 5. 污染等级为2级。
- 1. The ambient temperature is -25℃~+70℃；The average temperature within 24h does not exceed +35℃.
 - 2. The elevation of the installation site is generally not more than 2000m.
 - 3. Atmospheric conditions: The relative humidity of the air at the installation site shall not exceed 50% at the maximum temperature of +40℃, and the relative humidity shall not exceed 95% at the average minimum temperature of +20℃ in the wettest month.
 - 4. The installation category is Class II.
 - 5. The pollution level is level 2.

技术参数 Technical Parameter

- 断路器按额定电流 I_n 分：6A、10A、16A、20A、25A、32A、40A、50A、63A、80A、100A、125A。
- 接极数分：2P、4P。
- 技术参数：
 - 1) 断路器瞬时脱扣的供货形式为C型，其它型式用户可特殊订货。
 - 2) 断路器额定运行短路分断能力： $I_{cn}=I_{cs}=10kA$ 。
 - 3) C型断路器过电流保护特性（见表1）。

YFB1Z系列光伏费控外置断路器

YFB1Z Series Photovoltaic Cost Control External Circuit Breaker

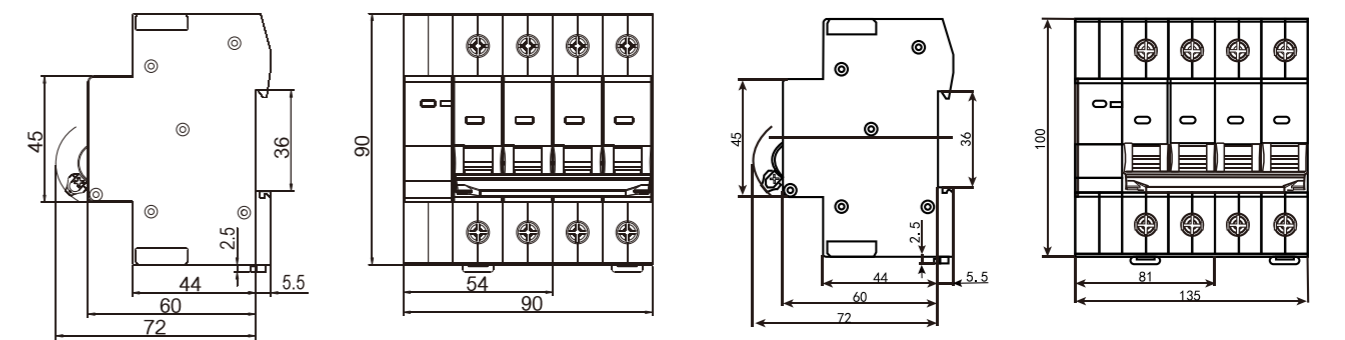
- 4) 断路器过压为 $290\pm 10V$ ，过压恢复电压 $280\pm 10V$ ，欠压 $160\pm 10V$ ，欠压恢复电压 $190\pm 10V$ 。
- 5) 断路器合闸延时2S-10S，分闸延时1S。
- 6) 电气寿命： ≥ 6000 次；机械寿命 ≥ 10000 次。

- Circuit breaker according to rated current I_n : 6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A, 100A, 125A.
- According to the number of poles: 2P, 4P.
- Technical parameters:
 - 1) The supply form of the circuit breaker instantaneous trip is type C, and other types of users can place special orders.
 - 2) Circuit breaker rated short circuit breaking capacity: $I_{cn}=I_{cs}=10kA$.
 - 3) Type C circuit breaker overcurrent protection characteristics (see Table 1).
 - 4) The breaker overvoltage is $290\pm 10V$, overvoltage recovery voltage $280\pm 10V$, undervoltage $160\pm 10V$, undervoltage recovery voltage $190\pm 10V$.
 - 5) Circuit breaker closing delay 2S-10S, opening delay 1S.
 - 6) Electrical life ≥ 6000 times; Mechanical life ≥ 10000 times.

Table 1

No.	实验电流 (A) Experimental current (A)	起始状态 Initial state	脱扣或不脱扣时间极限 Trip or non-trip time limit	预期结果 Expected result	环境温度 Ambient temperature	备注 Remarks
1	1.13 I_n	冷态 Cold state	$t \leq 1h$ $I_n \leq 63A$	不脱扣 non-trip	30°C-35°C	
			$t \leq 2h$ $I_n > 63A$			
2	1.45 I_n	紧接着前项实验后进行 Immediately after the previous experiment	$t \leq 1h$ $I_n \leq 63A$	脱扣 trip	30°C-35°C	电流在5s内稳定 Current stability within 5 s
			$t \leq 2h$ $I_n > 63A$			
3	2.55 I_n	冷态 Cold state	$1s < t < 60s$ $I_n \leq 32A$	脱扣 trip	30°C-35°C	
			$1s < t < 120s$ $I_n > 32A$			
4	5 I_n	冷态 Cold state	$t \leq 0.1s$	不脱扣 non-trip	30°C-35°C	通过闭合辅助开关接通电源 Turn on the power by closing the auxiliary switch
	10 I_n		$t < 0.1s$	脱扣 trip		

外形及安装尺寸 Outline and mounting dimensions



80A及以下断路器外形尺寸
80A and below circuit breaker dimensions

80A及以上断路器外形尺寸
80A and above circuit breaker dimensions

YFB1SO-63系列电能表外置断路器

YFB1SO-63 Series Electric Energy Meter External Circuit Breaker



适用范围 Scope of Application

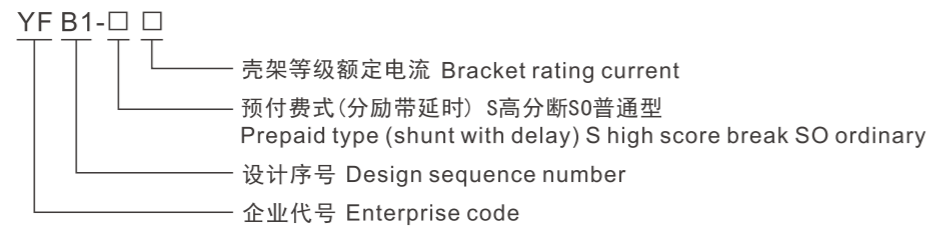
预付费式断路器、具有智能分励脱扣功能，适用于交流50Hz额定工作电压为230/400V，额定电流80A的线路中，对线路进行远距离控制分断或自动信号控制分断，同时对线路起过载和短路保护作用，也可以作为线路的不频繁操作转换之用。目前，广泛应用于IC卡预付费电度表配套使用来控制线路的通断，防止用户拖欠电费。

本产品符合标准 GB10963.1 IEC60898-1。

Pre-paid circuit breaker, with intelligent shingling trip function, suitable for AC 50Hz rated working voltage of 230/400V, rated current of 80A line, the line for remote control break or automatic signal control break, while the line plays overload and short circuit protection, can also be used as the line infrequent operation conversion. At present, it is widely used in IC card prepaid kilowatt-hour meters to control the on-off of lines and prevent users from defaulting on electricity bills.

This product conforms to the standard GB10963.1 IEC60898-1.

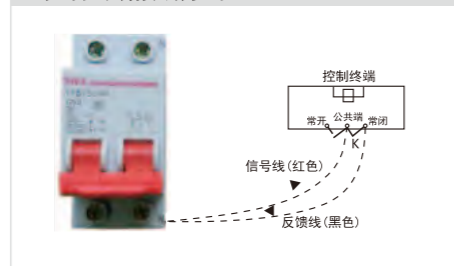
型号及含义 Model And Meaning



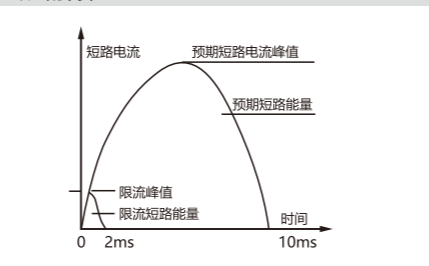
技术参数 Technical Parameter

额定电流(A) Rated current (A)	类型(极) Type (pole)	电压(V) Voltage (V)	分断能力(A) Breaking capacity (A)
YFB1SO	1P+N	230	6000
	3P+N	400	6000
YFB1S	1P+N	230	10000
	3P+N	400	10000
脱扣电流延时 Trip current delay	试验电流 Test current	时间 time	预期结果 Expected result
	1.13I _n (冷态/cold)	t ≥ 1h	不脱扣 non-trip
	1.45I _n (热态/hot)	t < 1h	脱扣 trip
	2.55I _n ≤ 32A	I _s < t < 60s	脱扣 trip
脱扣电流(B,C,D)瞬时 Trip current (B,C,D) instantaneous	3I _n , 5I _n , 10I _n	≤ 0.1s	不脱扣 non-trip
	5I _n , 10I _n , 15I _n	< 0.1s	脱扣 trip

控制终端接线方式



限流特性



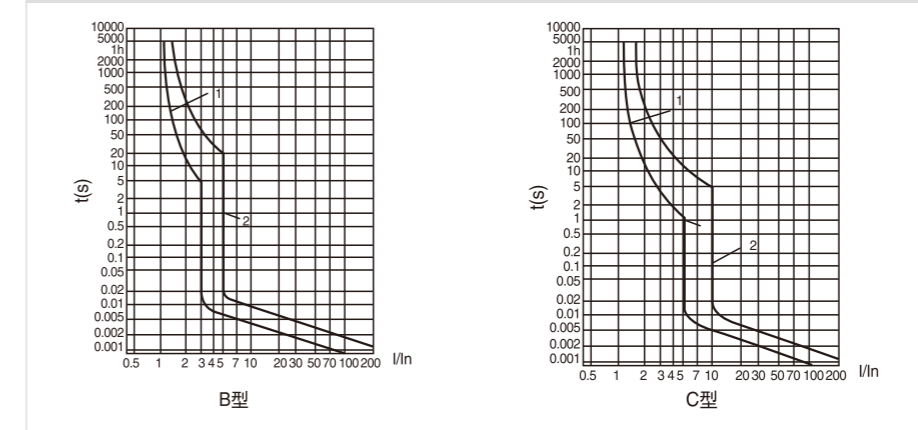
YFB1SO-63系列电能表外置断路器

YFB1SO-63 Series Electric Energy Meter External Circuit Breaker

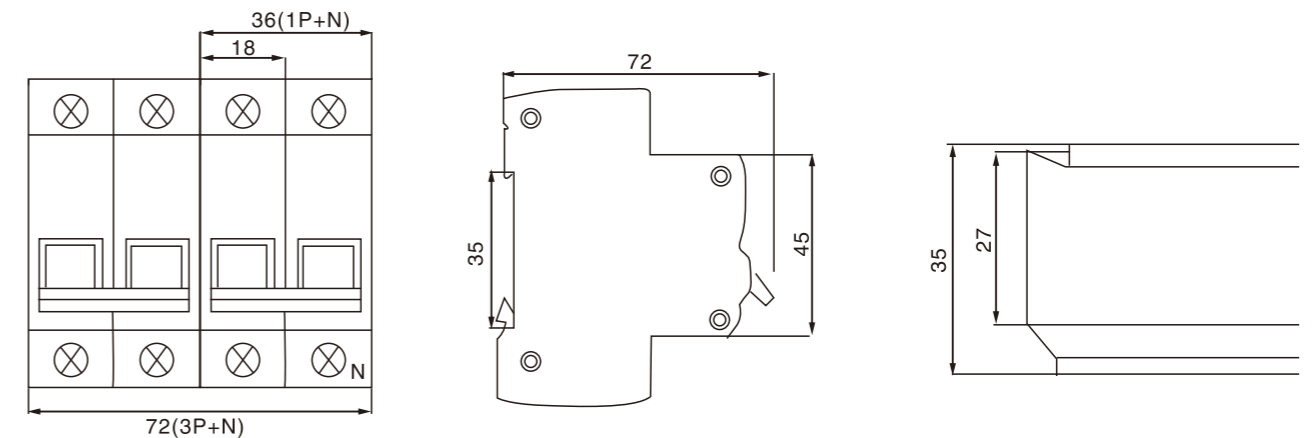
• 分励带延时断路器的工作电压为额定电压的70%-110%范围任何值；脱扣器极上施加控制电压，即信号电(可由远程控制线路或IC卡电度表提供)然后将断路器手柄推向闭合位置合闸。当需要远程控制(或IC卡电度表欠费时)可以通过控制系统断开。断路器能在0.5s ≤ t ≤ 2s可靠分断，同时断路器还具备短路和过载功能。接线时一定要注意电源线上进下出，火线、零线极性正确。

• The operating voltage of the shunt circuit breaker with delay is any value in the range of 70%-110% of the rated voltage; A control voltage, i.e. signal electricity (which can be supplied by a remote control line or IC card meter) is applied to the release pole and the breaker handle is pushed to the closed position to close. When the need for remote control (or IC card meter arrears) can be disconnected through the control system. The circuit breaker can be reliably broken at 0.5s ≤ t ≤ 2s, and the circuit breaker also has short circuit and overload functions. When wiring, be sure to pay attention to the power line up and down, live wire, neutral wire polarity is correct.

热/电磁脱扣特性



外形及安装尺寸 Outline and mounting dimensions



YFB1-80DC系列直流小型断路器

YFB1-80DC Series DC Miniature Circuit Breaker



适用范围 Scope of Application

YFB1-80DC系列小型断路器适用于直流电路系统, 额定工作电压为DC220V, 额定电流至80A的线路中, 对线路起过载和短路保护之用, 也可以作为线路的不频繁操作转换之用。

该断路器适用于商业办公楼、民用住宅及其类似建筑物等场所。

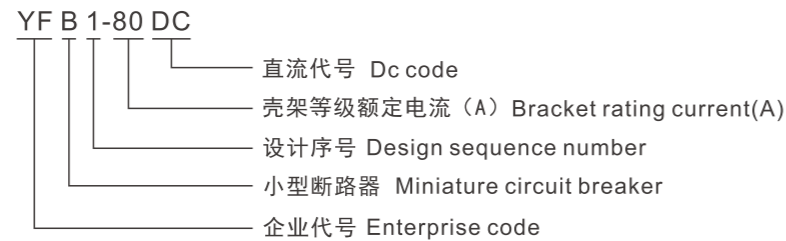
本产品符合GB/T14048.2、IEC60947-2标准, 具有国际先进水平。

YFB1-80DC series mini circuit breaker is suitable for DC circuit system, rated working voltage is DC220V, rated current to 80A line, for overload and short circuit protection of the line, can also be used as the line of infrequent operation conversion.

The circuit breaker is suitable for commercial office buildings, residential buildings and similar buildings.

This product conforms to GB/T14048.2, IEC60947-2 standards, with the international advanced level.

型号及含义 Model And Meaning



技术参数 Technical Parameter

- 断路器额定电流: 1A、2A、3A、4A6A、10A、16A、20A、25A、32A、40A、50A、63A、80A;
- 技术参数
 - 1) 断路器瞬时脱扣器的供货形式为C型, 其它型式用户可特殊订货;
 - 2) 断路器额定短路分断能力: YFB1-80DC, $I_{cs}=I_{cu}6kA$
 - 3) 断路器过电流保护特性 (见表一)
- 机械电气寿命

电气寿命: 4000次; 机械寿命: 20000次。
- Circuit breaker rated current: 1A, 2A, 3A, 4A6A, 10A, 16A, 20A, 25A, 32A, 40A, 50A, 63A, 80A;
- Technical parameter
 - 1) The supply form of the circuit breaker instantaneous release device is type C, and other types of users can place special orders;
 - 2) Circuit breaker rated short circuit breaking capacity: YFB1-80DC, $I_{cs}=I_{cu}6kA$ 3) Circuit breaker overcurrent protection characteristics (see Table 1)
- Mechanical electrical life Electrical life: 4000 times; Mechanical life: 20000 times.

Table 1

No.	额定电流 (A) Rated current (A)	起始状态 Starting state	试验电流 Test current	规定时间 Fixed time	预期结果 Expected result
1	$I_n \leq 80$	冷态 cold	$1.13I_n$	$t \geq 1h$	不脱扣 non-trip
2	$I_n \leq 80$	紧接着前项实验后进行 Immediately after the previous experiment	$1.45I_n$	$t < 1h$	脱扣 trip
3	$I_n \leq 32$	冷态 cold	$2.55I_n$	$1s < t < 60s$	脱扣 trip
	$1s < t < 120s$				
4	C型 Type C	冷态 cold	$5I_n$	$t \geq 0.1s$	不脱扣 non-trip
			$10I_n$	$t < 0.1s$	脱扣 trip

YFB1-80DC系列直流小型断路器

YFB1-80DC Series DC Miniature Circuit Breaker

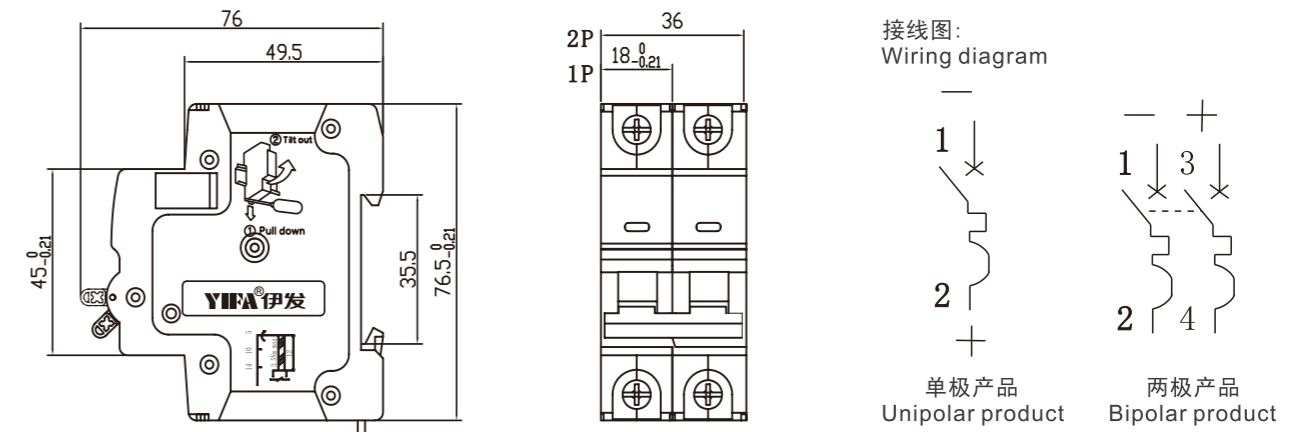
YIFA 伊发
股票代码: 870154

产品特点 Product Characteristics

- 1) 额定分断能力高, 最高可达7.5kA;
- 2) 断路器操作机构为带储能式自由脱扣机构, 触点快速闭合, 克服了因人力操作手柄速度快慢带来的不利影响, 大大提高了产品使用寿命; 在正常工作时, 触头只能停留在闭合或断开位置;
- 3) 带指触防护组合型接线端子, 安装性能高。

- 1) High rated breaking capacity, up to 7.5kA;
- 2) The circuit breaker operating mechanism is a free tripping mechanism with energy storage, and the contact is quickly closed, which overcomes the adverse effects caused by the speed of the manual operation handle and greatly improves the service life of the product; In normal operation, the contact can only stay in the closed or disconnected position;
- 3) Combined terminal with finger contact protection, high installation performance.

外形及安装尺寸 Outline and mounting dimensions



YFY1系列浪涌保护器

YFY1 Series Surge Protector



适用范围 Scope of Application

YFY1电涌保护器(以下简称“保护器”)适用于交流50/60 Hz、420V及以下的TT、IT、TN-S、TN-C、TN-C-S等供电系统,对电网因雷击或浪涌过电压进行保护。

YFY1 surge protector (hereinafter referred to as "protector ") is suitable for AC 50/60 Hz, 420V and below TT, IT, TN-S, TN-C, TN-C-S and other power supply systems, to protect the power grid due to lightning or surge overvoltage.

型号及含义 Model And Meaning



YFY1-□□□□

- Fs表示带有遥信触点 Fs indicates a remote contact
- 最大放电电流 (KA) Maximum discharge current (KA)
- 保护器类别 (B, C, D) Protectors Category (B,C,D)
- 电涌保护器 Surge protector

技术参数 Technical Parameter



规格型号 Specification and model	额定工作 电压(Uo) Rated operating voltage	最大持续 工作电压 Uc (V) Maximum continuous operating voltage	电压保护 水平Up (kV) Voltage protection level	最大放电 电流 Imax (kA) Maximum discharge current	标称放电 电流 In (kA) Nominal discharge current	响应时间ns Response time	工作环境°C Working environment
YFY1-D10	220V/385V 420V/440V	420/480	1.5	10	5	< 25	-40~+85°C
YFY1-D20			20	10			
YFY1-C40			2	40	20		
YFY1-B60			60	30			
YFY1-B80			80	40			
YFY1-100			100	60			
YFY1-150			2.5	150	100		
N-PE		420/480		/	20/40	< 100	

规格型号 Specification and model	额定工作 电压(Uo) Rated operating voltage	最大持续 工作电压 Uc (V) Maximum continuous operating voltage	电压保护 水平Up (kV) Voltage protection level	冲击电流 (10/350μs) Iimp (kA) Impulse current	标称放电 电流 In (kA) Nominal discharge current	响应时间ns Response time	工作环境°C Working environment
YFY1-I-15	230V/400V	480	2.5	15	15/40	< 25	-40~+85°C
YFY1-I-25	230V/400V	480	2.5	25	25/50	< 100	-40~+85°C

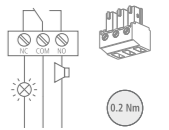
- 失效脱离装置
保护器的模块上设有失效脱离装置,当保护器因过热、击穿失效时,失效脱离装置能自动的将其从电网上脱离,同时给出指示信号。保护器正常时指示窗口显示绿色、失效脱离后指示窗口显示红色。
- 遥信触点(选配)
保护器可以选择加装遥信触点的款式,遥信接触点分为C, No, Nc。C为共线, No为常开端, Nc为常闭端。可根据现场需要进行接线。
- 如果保护器的一个模块或者多个模块失效,触点将闭合,送出故障信息。可连接声光报警,以及智能雷电系统。遥信触点额定值: DC36V, 1A。

YFY1系列浪涌保护器

YFY1 Series Surge Protector

- Failure and disengagement device

When the protector fails due to overheating or breakdown, the failure disconnecting device can automatically disconnect it from the power grid and give an indication signal. When the protector is normal, the indicator window shows green, and when it fails, the indicator window shows red.



- Remote Contact (Optional)

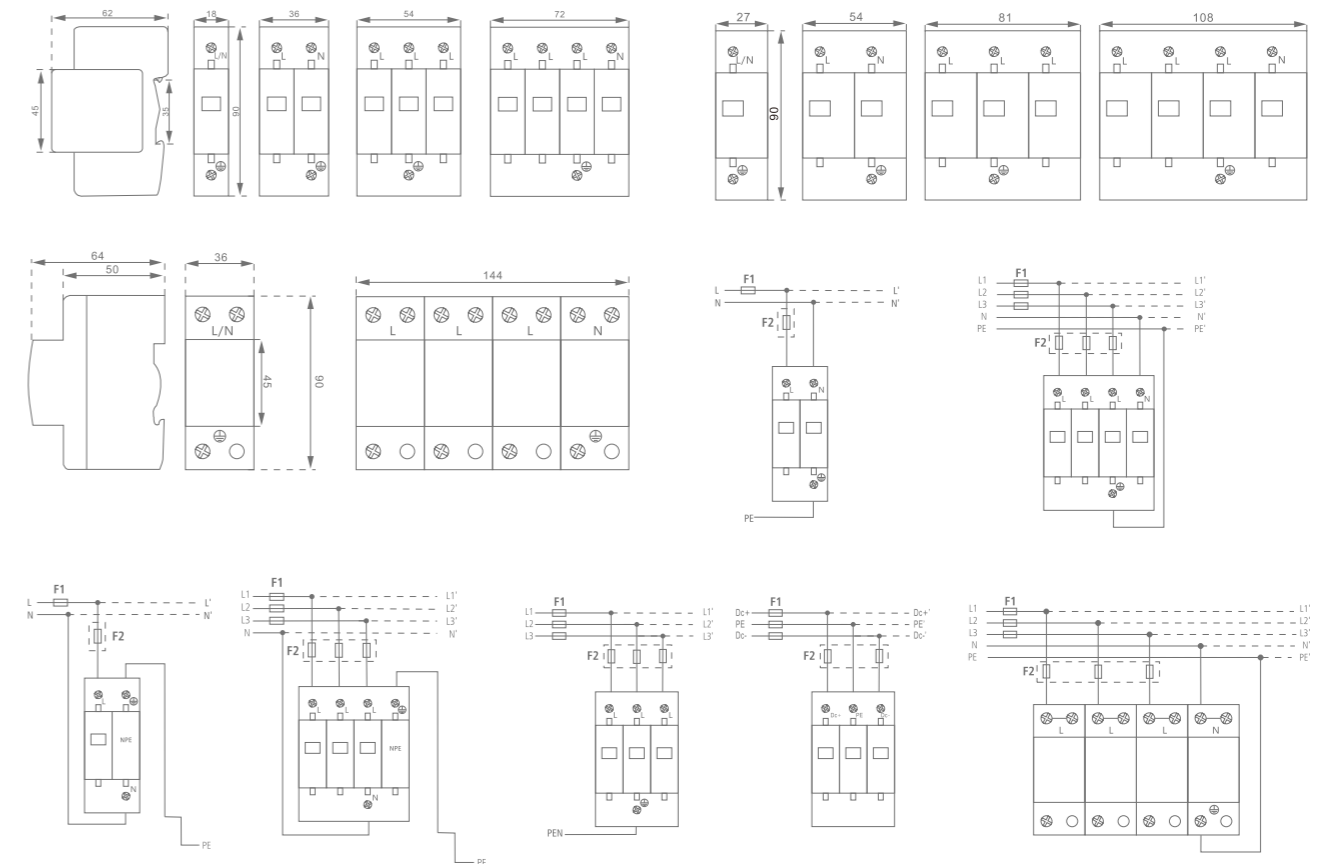
The protector can choose to install the remote contact style, remote contact point is divided into C, No, Nc. C is collinear, No is a normal beginning, and Nc is a normally closed end. Cables can be connected according to site requirements.

- If one or more modules of the protector fail, the contact is closed and the fault information is sent. Audible and visual alarm can be connected, as well as intelligent lightning system. Remote contact rating: DC36V, 1A.

- N-PE模块系列参数 N-PE module series parameters

指标 Metrics	代号 Code name	N-PE/20	N-PE/40
最大持续工作电压 (V) Maximum continuous operating voltage (V)		420	420
电压保护水平 (kV) Voltage protection level (kV)		≤2	≤2
标称放电电流In (8/20μs) kA Nominal discharge current In (8/20μs) kA		20	40
Uc条件下最大容许续流 (A) Maximum allowable continuous flow under Uc conditions (A)		20	30
响应时间 (ns) Response time (ns)		<100	<100
宽度 width		18	18
颜色 Color		白色 white	白色 white

外形及安装尺寸 Outline and mounting dimensions



YFM2E-250智能型量测开关

YFM2E-250 Intelligent Measuring Switch



适用范围 Scope of Application

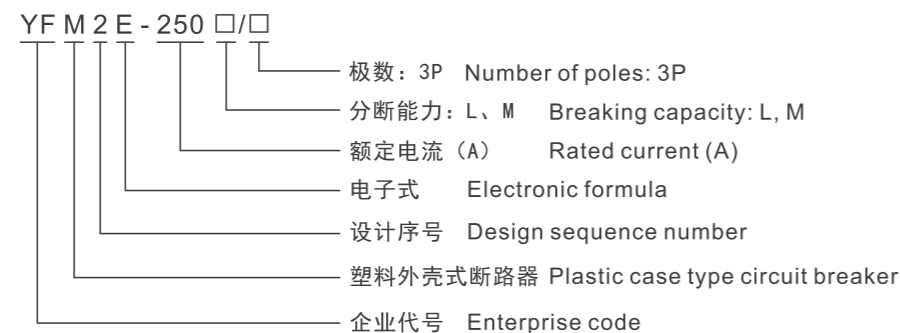
YFM2E-250智能型量测开关是我公司自主研发生产的智能型量测开关(特征电流)系列,适用于交流50Hz、额定电流250A(100A/250A可调)、额定绝缘电压1000V、额定工作电压400V的三相四线、中性点直接接地的配电网中。

此智能型量测开关(特征电流)具有HPLC通信、高精度交流采样、供电关系拓扑识别、计量箱管理、窃电预警、停电事件上报、线损分析研判、端子温度检测、故障自动诊断等多项物联感知功能,具有过载长延时、短路短延时、短路瞬时、过欠压及断相保护功能,多种保护功能对线路和电源设备起到保护作用,对负载端的检测和监控可降低电网的运维成本,可为将来的能效系统提供必要的数据。

YFM2E-250 Intelligent measuring switch is an intelligent measuring switch (characteristic current) series independently developed and produced by our company. It is suitable for three-phase four-wire distribution network with AC 50Hz, rated current 250A(100A/250A adjustable), rated insulation voltage 1000V, rated working voltage 400V, and neutral point directly grounded.

This intelligent measuring switch (characteristic current) has many IoT sensing functions such as HPLC communication, high-precision AC sampling, power supply relationship topology identification, metering box management, power theft warning, power outage event reporting, line loss analysis and judgment, terminal temperature detection, automatic fault diagnosis, etc. It has overload long delay, short short delay, short short instantaneous, over and under voltage and phase break protection functions. Multiple protection functions protect lines and power equipment, and detection and monitoring at the load end can reduce grid operation and maintenance costs and provide the necessary data for future energy efficient systems.

型号及含义 Model And Meaning



技术参数 Technical Parameter

型号 Model number	YFM2E-250
极数 Number of poles	3
接线方式 Connection mode	三相四线 Three-phase four-wire
额定工作电压Ue(V) Rated operating voltage Ue(V)	AC 400V
额定电流In(A) Rated current In(A)	125,160,200,250
额定绝缘电压Ui(V) Rated insulation voltage Ui(V)	800
额定冲击耐受电压Uimp(kV) Rated impulse withstand voltage Uimp(kV)	8
额定运行短路分断能力Ics(kA) Rated operating short-circuit breaking capacity Ics(kA)	L型:25kA; M型:36kA
额定极限短路分断能力Icu(kA) Rated limit short-circuit breaking capacity Icu(kA)	L型:36kA; M型:50kA
Icw(kA)	3kA/1s
使用类别 Category of use	B
机械寿命 Mechanical life	8000
电气寿命 Electrical life	5000
外形尺寸(mm) (长×宽×高) Overall dimensions (mm) (L×W×H)	180×107×100
安装尺寸 Mounting dimension	141*35 (4×Φ4.5孔)

YFM2E-250智能型量测开关

YFM2E-250 Intelligent Measuring Switch

智能型量测开关连接导线的截面选择 Intelligent measurement switch connecting wire sectional area selection

额定电流(A) Rated current (A)	125	160	200	250
电缆线截面(mm²) Cable section (mm²)	50	70	95	120

智能型量测开关(特征电流)接线端子与安装螺钉拧紧扭力矩 Intelligent measuring switch (characteristic current) terminal and mounting screw tightening torque

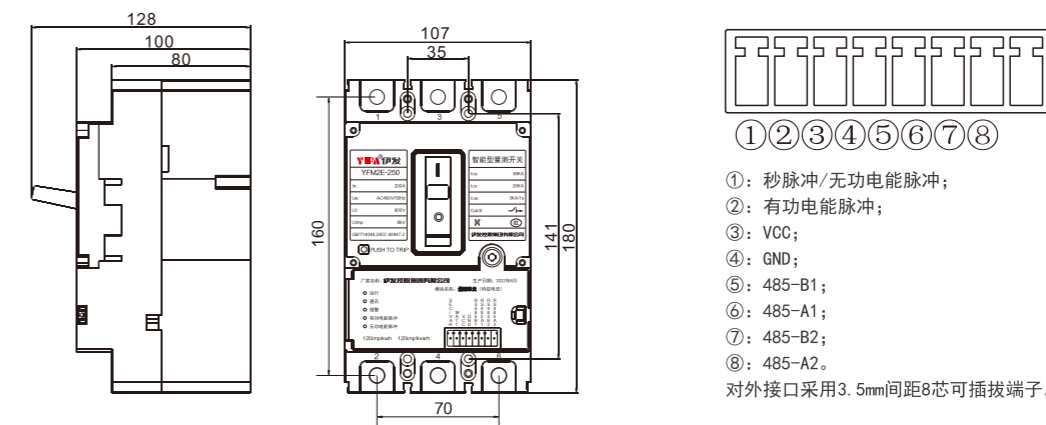
型号 Model number	螺纹直径(mm) Thread diameter (mm)	扭力矩(N·m) Torque (N·m)
YFM2E-250	接线螺钉 M8 Wiring screw M8	12
	安装螺钉 M4 Mounting screw M4	4

工作环境 Working Environment

- 1) 安装地点的海拔高度≤2000m;
- 2) 环境温度-35℃~+70℃; 24h的平均值不超过+35℃;
- 3) 相对湿度: +23℃不应高于83%; +40℃不应高于93%;
- 4) 产品能耐受潮湿空气、盐雾、油雾、霉菌的影响;
- 5) 智能量测开关(特征电流)接至主回路的安装类别为: III类(配电及控制水平级), 智能型量测开关(特征电流)不接至主回路的安装类别为: II类(负载水平级);
- 6) 污染等级: 3级;
- 7) 防护等级: IP20;
- 8) 产品安装在无爆炸危险的介质中, 且介质不足以腐蚀金属和破坏绝缘的气体与导电尘埃的地方, 避免在雨雪侵袭的地方使用;
- 9) 当用户使用条件较上述严酷时, 应与制造商协商。

- 1) The elevation of the installation site is less than 2000m;
- 2) Ambient temperature -35℃ ~ +70℃; The average value of 24h does not exceed +35℃;
- 3) Relative humidity: +23℃ should not be higher than 83%; +40℃ should not be higher than 93%;
- 4) The product can withstand the effects of humid air, salt spray, oil spray and mold;
- 5) The installation category of intelligent measuring switch (characteristic current) connected to the main loop is: Class III (distribution and control level), and the installation category of intelligent measuring switch (characteristic current) not connected to the main loop is: Class II (load level);
- 6) Pollution level: Level 3;
- 7) Protection level: Ip20;
- 8) The product is installed in a medium without explosion risk, and the medium is not enough to corrode metal and destroy insulation gas and conductive dust, avoid use in places where rain and snow attack;
- 9) When the user's use conditions are more severe than the above, it should negotiate with the manufacturer.

外形及安装尺寸 Outline and mounting dimensions



YFM2LE物联网智能断路器(微波/载波/计量型)

YFM2LE iot Intelligent Circuit Breaker (Microwave/carrier/metering type)



适用范围 Scope of Application

适于三相四线中性点直接接地(TT)的低压电网系统,用来对线路或用电设备的接地故障、过电流、短路、过电压、欠电压、断电自动跳闸及缺相等进行保护,也可对人身触电危险提供间接接触保护。产品符合标准: GB14048.2,DL/T 20... 剩余电流保护器通信规约。

通过中国电力科学研究院低压电器研究所关于通信标准的测试。

通过国家电网江苏省公司通信测试。

Low voltage power grid system suitable for three-phase four-wire neutral point direct grounding (TT), used to protect the grounding fault, over current, short circuit, over voltage, under voltage, power off automatic tripping and lack of equality of the line or electrical equipment, but also to provide indirect contact protection against the danger of personal shock. Products meet the standard: GB14048.2,DL/T 20... Residual current protector communication protocol.

Passed the communication standard test of low-voltage Electrical apparatus Research Institute of China Electric Power Research Institute.

Passed the communication test of Jiangsu Province Company of State Grid.

产品特点 Product Features

1) 高精度的显示界面、分别显示三相电压、三相电流、三相有功功率、三相总功率、三相功率因数、三相总功率因数。电流精度可以达到1%,电压精度可以达到1%。此外,本产品还具有 HPLC通信模组蓝牙和载波的远程控制,可读取电压电流漏电等参数,可远程控制分合闸。

2) 保护功能:

具有剩余电流告警、自动定档和突变、特波、自动合闸、上电试合闸功能;过压、欠压、断相保护、全失压功能,并检测电压恢复正常后自动重合闸;还具有过载、短路短延时及瞬时保护;缺零保护,电流不平衡保护等功能。

3) 显示功能:

合闸状态下,自动轮显当前额定剩余电流动作值、额定电流值、当前时间、及最大漏电值及相位相,当前三相电压参数,当前三相电流,当前三项功率,总功率,功率因素参数等。

4) 设置、查询功能:

可通过按键设置剩余电流告警、自动跟踪、突变、特波、自动重合闸、过压、欠压、缺相、过载、缺零保护等功能的开启和关闭。也可通过通信设置上述功能。可通过按键设置额定剩余电流,额定极限不驱动时间,额定电流,短路短延时倍数,短路短延时时间,短路瞬时倍数,实时时钟以及用户密码等主要参数。

可通过按键查询,跳闸记录,试验记录,总跳闸次数,闭锁跳闸次数,等诸多参数。

5) 控制功能:

可通过试验按键实现现场试验跳闸控制。

可通过远程预约分闸,合闸,及试跳,以及预约取消控制功能。

可通过外部分断、复位接口实现保护器的同步分闸和合闸功能。

6) 自检功能:

具有远程试跳,定时试跳,及按键试跳等三种自检功能。

7) 监控记录功能:

记录30日内的剩余电流,三相电压,三相电流的日最大值和时标、最小值和时标,共14项记录。

记录近10次跳闸的剩余电流,三相电压,三相电流参数及时标。

记录近10次剩余电流告警(强送)事件,保护器自检的事件,剩余电流超限事件,共3项记录。

累计保护器跳闸总次数,闭锁性跳闸次数,剩余电流跳闸次数等6项累计参数。

8) 辅助功能:

Rs485 通信功能,完全支持国家能源局即将发布的《DL/Txxx-xxxx剩余电流保护器通信规约》,目前为报批稿。符合江苏省发布的《剩余电流动作保护器技术规范》的要求。及可拔插式电能表载波通信模块,具有多种通讯协议可供选择,能与智能配变终端、上位机等建立通信功能,实现远程参

YFM2LE物联网智能断路器(微波/载波/计量型)

YFM2LE iot Intelligent Circuit Breaker (Microwave/carrier/metering type)

YIFA® 伊发
股票代码:870154

数的调整、信息查询及下载故障参数等功能。同时,能与表下智能漏电监测微型断路器实现自组网功能。

高亮液晶屏,及9个按键实现参数设置、参数校准、数据查询、按键试验、分闸等现场操作。

9) 性能及工艺

电路板选用高集成工业级材料,采用先进的防雷设计,完全符合GB4048.2-2008标准中对电磁兼容的要求。

电路板采用紧凑的结构设计,适合用户对断路器中紧凑空间的要求。电路板工艺整洁,美观,接线方便,只需必要的信号输入接线。

可直接组装,无需二次调试。组装完成只需通过按键做简单的电压电流和剩余电流的校准。

产品基本上包含了目前市场上高端产品的功能。可根据客户需求按照客户样机的结构(或原电路板)进行设计,开发。

1) High-precision display interface, respectively display three-phase voltage, three-phase current, three-phase active power, three-phase total power, three-phase power factor, three-phase total power factor. Current accuracy can reach 1%, voltage accuracy can reach 1%. In addition, this product also has HPLC communication module Bluetooth and carrier remote control, can read the voltage and current leakage and other parameters, can remotely control the opening and closing.

2) Protection function:

It has the functions of residual current alarm, automatic setting and mutation, special wave, automatic closing and power-on test closing. Overvoltage, undervoltage, phase break protection, full voltage loss function, and automatic reclosing after the detection voltage returns to normal; It also has overload, short circuit delay and instantaneous protection; Lack of zero protection, current imbalance protection and other functions.

3) Display function:

In the closing state, the automatic wheel displays the current rated residual current action value, rated current value, current time, and maximum leakage value and phase phase, the current three-phase voltage parameter, the current three-phase current, the current three power, the total power, the power factor parameter, etc.

4) Setting and query function:

The remaining current alarm, automatic tracking, sudden change, special wave, automatic reclosing, over voltage, under voltage, phase loss, overload, zero loss protection and other functions can be set by pressing the button. The above functions can also be set by communication. The rated residual current, rated limit no drive time, rated current, short circuit delay multiple, short circuit delay time, short circuit instantaneous multiple, real-time clock and user password can be set by pressing the button. It can be queried by key, trip record, test record, total trip times, lock trip times, and many other parameters.

5) Control function:

Field test trip control can be realized by test button. The function of opening, closing, and trial jump can be booked remotely, as well as reservation cancellation control. The function of synchronous switching and closing of the protector can be realized through the external partial breaking and resetting interface.

6) Self-test function:

It has three kinds of self-test functions, such as remote test jump, timed test jump, and key test jump.

7) Monitoring record function:

Record the remaining current, the daily maximum and time scale, the minimum and time scale of the three-phase voltage and the three-phase current within 30 days, a total of 14 records. Record the residual current, three-phase voltage, and three-phase current parameters of nearly 10 trips. Nearly 10 residual current alarms (strong sending), protector self-check events, and residual current overlimit events were recorded. The total number of trips of the protector, the number of lockout trips, the number of remaining current trips and other 6 cumulative parameters.

8) Auxiliary functions:

The Rs485 communication function fully supports the "DL/Txxx-xxxx Residual current Protector Communication Protocol" to be released by the National Energy Administration, which is currently for approval. It meets the requirements of Technical Specification for residual Current action Protector issued by Jiangsu Province. And pluggable energy meter carrier communication module, with a variety of communication protocols to choose from, can establish communication functions with intelligent distribution terminals, host computers, etc., to achieve remote parameter adjustment, information query and download fault parameters and other functions. At the same time, it can realize the AD hoc networking function with the intelligent leakage monitoring micro-circuit breaker under the table.

High brightness LCD screen, and 9 keys to achieve parameter setting, parameter calibration, data query, key test, switching and other field operations.

9) Performance and process:

The circuit board is made of highly integrated industrial materials and adopts advanced lightning protection design, which fully meets the requirements of electromagnetic compatibility in GB4048.2-2008 standard.

YFM2LE物联网智能断路器 (微波/载波/计量型)

YFM2LE iot Intelligent Circuit Breaker (Microwave/carrier/metering type)

The circuit board adopts compact structure design, which is suitable for the user's requirement of compact space in the circuit breaker. Circuit board process clean, beautiful, easy wiring, only the necessary signal input wiring.

It can be assembled directly without secondary debugging. The assembly is completed by simple calibration of voltage and current and residual current by pressing a button.

The product basically contains the functions of high-end products on the market at present. It can be designed and developed according to customer needs according to the structure of customer prototype (or original circuit board).

工作环境 Working Environment

- 1) 环境温度-5℃~+55℃;
- 2) 相对空气湿度最湿月的平均最低温度不超过25℃时, 该月的月平均最大相对湿度不超过90%, 并考虑到因温度变化发生在产品表面上的凝露;
- 3) 海拔不超过2000米;
- 4) 污染等级3级;
- 5) 安装类别 III;
- 6) 安装场所的外磁场在任何方向不超过地磁场的5倍。

- 1) Ambient temperature -5 °C ~ +55 °C;
- 2) Relative air humidity When the average minimum temperature of the wettest month does not exceed 25 °C, the monthly average maximum relative humidity of the month does not exceed 90%, taking into account condensation on the surface of the product due to temperature changes;
- 3) The altitude does not exceed 2000 meters;
- 4) Pollution level 3; 5) Installation Category III;
- 6) The external magnetic field of the installation site shall not exceed 5 times the geomagnetic field in any direction.

技术参数 Technical Parameter

型号 Model number	参数说明 Parameter description
壳架等级额定电流 I _{nm} (A) Bracket rating Current I _{nm} (A)	根据用户要求定制 Customized according to user requirements
额定电流 I _n (A) Rated current I _n (A)	0.4-1.01 I _{nm} (A) 连续可调 0.4-1.01 I _{nm} (A) Continuously adjustable
辅助电源电压 U _e (AC V) Auxiliary Power Supply Voltage U _e (AC V)	400
适用极数 Number of applicable poles	4P或3P+N
额定剩余动作电流 (mA) I _{Δn} Rated residual operating current (mA) I _{Δn}	档位数值可选, 可根据客户要求定制8组参数数值 Gear values are optional, 8 sets of parameter values can be customized according to customer requirements
额定剩余不动作电流 (mA) Rated residual inactive current (mA)	I _{Δno} = 50% I _{Δn}
额定极限不驱动时间 (s) Rated limit no drive time (s)	档位数值可选, 可根据客户要求定制3组参数数值 Gear values are optional, 3 sets of parameter values can be customized according to customer requirements
额定剩余短路接通(分断)能力 Rated remaining short-circuit making (breaking) capacity	I _{Δno} = I _{cu} (kA)
延时重合闸时间 (s) Delay reclosing time (s)	20-60
过压动作值 (V) Overvoltage action value (V)	默认285±5% (用户可整定) Default 285±5% (user can adjust)
欠压动作值 (V) Undervoltage action value (V)	默认165±5% (用户可整定) Default 165±5% (user can adjust)
缺相动作值 (V) Out-of-phase action value (V)	默认120±5% (用户可整定) Default 120±5% (user can adjust)
动作特性分类 Action feature classification	AB型
产品使用类别 Product usage category	A类

YFM2LE物联网智能断路器 (微波/载波/计量型)

YFM2LE iot Intelligent Circuit Breaker (Microwave/carrier/metering type)

- 过载保护特性(反时限动作)
Overload protection feature (inverse time action)

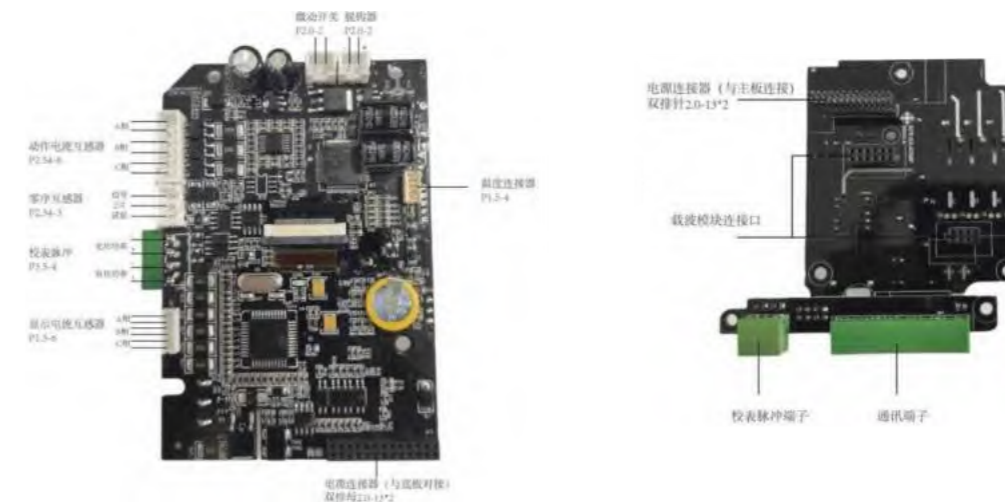
脱扣器整定工作电流 (A) Trip set operating current (A)	脱扣器 (环境温度40°C) Release device (ambient temperature 40°C)			
	1.05 I _n (冷态) 1.05 I _n (cold)		1.30 I _n (热态) 1.30 I _n (hot)	
I _n ≤ 63A	≥ 1h 不动作	≥ 1h No action	< 1h 动作	< 1h action
I _n > 63A	≥ 2h 不动作	≥ 1h No action	< 2h 动作	< 1h action

过载长延时时间的计算: $T1 = (6I_r/I)^2 \times Tr1$ (I_r: 额定电流, I: 为实际施加电流, Tr1: 为时间系数)
Calculation of overload long delay time: $T1 = (6I_r/I)^2 \times Tr1$ (I_r: rated current, I: actual applied current, Tr1: time coefficient)

- 瞬间过电流脱扣器电流整定值
Transient overcurrent trip current setting

壳架等级额定电流 I _{nm} (A) Bracket rating Current I _{nm} (A)	整定电流倍数 Set the current multiple	约定时间 Appointed time
100	10 I _n ± 20	< 0.2s
250	10 I _n ± 20	< 0.2s
400	10 I _n ± 20	< 0.2s
630	10 I _n ± 20	< 0.2s
800	10 I _n ± 20	< 0.2s

外形及安装尺寸 Outline and mounting dimensions



YFM2LE 剩余电流动作保护断路器 (智能型)

YFM2LE Residual Current Action Protection Circuit Breaker (Intelligent type)



适用范围 Scope of Application

YFM2LE 系列剩余电流保护断路器 (一下称“断路器”) 是本公司研发的具有过载、短路、过压、欠压、电源侧断零、电源侧断电跳闸、漏电、缺相、突变 (特波)、重合闸等跳闸功能集一体的漏电断路器, 适用于三相四线中性线直接接地的低压电网, 用来对设备及人身触电危险提供接触保护, 也可对线路或用电设备的接地故障。

本技术说明书的编写参照:

GB14048.2-2008 低压开关设备和控制设备

GB/T22710-2008 低压断路器用电子式控制器

GB/T22387-2008 剩余电流动作继电器

GB/Z 6829-2008 剩余电流动作保护器一般要求

YFM2LE series residual current protection circuit breaker (hereinafter referred to as "circuit breaker") is a leakage circuit breaker developed by our company with overload, short circuit, overvoltage, undervoltage, power side zero break, power side tripping, leakage, phase loss, mutation (special wave), reclosing and other tripping functions. It is suitable for low-voltage power grid with three-phase four-wire neutral line directly grounded. It is used to provide contact protection against the danger of electric shock to equipment and people, and can also be used for grounding faults of lines or electrical equipment.

Reference for the preparation of this technical specification:

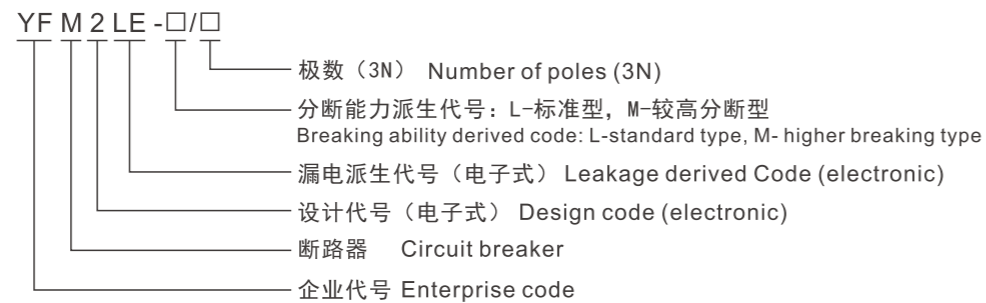
GB14048.2-2008 Low voltage switchgear and control equipment

GB/T22710-2008 Electronic controller for low voltage circuit breakers

GB/T22387-2008 Residual current operating relay

GB/Z 6829-2008 Residual current action protector General requirements

型号及含义 Model And Meaning



漏电断路器根据壳架分为 125A/250A/630A 壳架。
Leakage circuit breaker is divided into 125A/250A/630A shell frame according to the shell frame.

技术参数 Technical Parameter

- 剩余电流保护功能 Residual current protection function
- 定档工作方式 Set the working mode
- 漏电电流动作值: 大于 $0.75I_{\Delta n}$ Leakage current action value: greater than $0.75I_{\Delta n}$
- 漏电电流不动作值: 小于 $0.5I_{\Delta n}$ Leakage current inactive value: less than $0.5I_{\Delta n}$
- 漏电电流报警值: 大于等于 $0.6I_{\Delta n}$ Leakage current alarm value: greater than or equal to $0.6I_{\Delta n}$
- 动作时间: 0.5s (最大断开时间) Operation time: 0.5s (Max disconnect time)

极限不驱动时间 Limits do not drive time	剩余电流 Residual current	$I_{\Delta n}$	$2I_{\Delta n}$	$5-10I_{\Delta n}$
0.06s	最大断开时间 Maximum break time	0.5s	0.2s	0.15s
	极限不驱动时间 Limits do not drive time	-	0.06s	-

YFM2LE 剩余电流动作保护断路器 (智能型)

YFM2LE Residual Current Action Protection Circuit Breaker (Intelligent type)



- 自动跟踪方式
自动跟踪换挡条件:
下调档位: 小于 $0.5I_{\Delta n-1}$, 且持续2分钟
上调档位: 大于 $0.5I_{\Delta n}$, 且持续1分钟
在自动跟踪方式下, 上电初始工作在最高档位。当满足档位下调条件时, 即实际剩余电流小于下一档位值的0.5倍且持续2分钟, 则档位自动调整到下一档; 当满足档位上调条件时, 即实际剩余电流大于本档位值的0.5倍且小于0.75倍且持续1分钟, 则档位会上调到上一档。
在某一档位 (最大档除外) 下当剩余电流大于 $0.75I_{\Delta n}$, 开关延时动作分闸, 动作时间参照定档工作方式动作时间, 重合闸后档位上调到上一档位。

- Automatic tracking mode
Automatic tracking shift conditions:
Downshift: less than $0.5I_{\Delta n-1}$ for 2 minutes
Up-shift: greater than $0.5I_{\Delta n}$ and for 1 minute
In automatic tracking mode, power on initially works in the highest gear. When the gear down condition is met, that is, the actual remaining current is less than 0.5 times of the value of the next gear and lasts for 2 minutes, the gear will be automatically adjusted to the next gear. When the condition of gear adjustment is met, that is, the actual remaining current is greater than 0.5 times of the value of the gear and less than 0.75 times for 1 minute, the gear will be adjusted to the upper gear.
In a certain gear (except the maximum gear) when the remaining current is greater than $0.75I_{\Delta n}$, the switch delay action is opened, the action time is referred to the fixed working mode action time, and the gear is raised to the upper gear after re-closing.

- 性能指标
剩余电流测量精度: 误差小于 $\pm 5\%$
剩余电流保护精度: 误差小于 $\pm 10\%$
动作时间精度: $\pm 10\%$

- Performance index
Residual current measurement accuracy: error less than $\pm 5\%$
Residual current protection accuracy: error less than $\pm 10\%$
Operation time accuracy: $\pm 10\%$

- 过载长延时保护功能
过载长延时保护功能一般用来对电缆过负荷进行保护, 此保护基于电流的真有效值 (RMS)。
过载长延时相关设定参数和特性
过载长延时脱扣整定电流 I_R
250A 壳架: (100A, 125A, 140A, 160A, 180A, 200A, 225A, 250A) +OFF
630A 壳架: (200A, 225A, 250A, 315A, 350A, 400A, 630A) +OFF
过载长延时整定时间 t_R : 3~18s
过载动作范围:
 $I \leq 1.05 I_R$, 2 小时内不动作
 $I > 1.3 I_R$, 1 小时内动作
动作电流精度: $\pm 10\%$
动作时间精度: $\pm 10\%$
过载长延时动作时间计算公式: $T = (\frac{6I_R}{I})^2 \times t_R$

- Overload long delay protection function
The overload long delay protection function is generally used to protect the cable from overload, which is based on the true effective value (RMS) of the current.
Overload long delay related setting parameters and characteristics
Overload long delay trip setting current I_R
250A frame: (100A, 125A, 140A, 160A, 180A, 200A, 225A, 250A) +OFF
630A frame: (200A, 225A, 250A, 315A, 350A, 400A, 630A) +OFF
Overload long delay setting time t_R : 3 ~ 18s
Overload operating range:
 $I \leq 1.05I_R$, no action within 2 hours $I > 1.3I_R$, action within 1 hour
Operation current accuracy: $\pm 10\%$ Operation time accuracy: $\pm 10\%$
Overload long delay operation time calculation formula: $T = (\frac{6I_R}{I})^2 \times t_R$

YFM2LE剩余电流动作保护断路器(智能型)

YFM2LE Residual Current Action Protection Circuit Breaker (Intelligent type)

- 额定电流 250A 长延时动作时间表
Rated current 250A long delay operation schedule

I _R (A)	t _R (S)	I _n (A)	测试(一) Test (1)		测试(二) Test (2)	
			测试电流 Test current	动作时间 Action time	测试电流 Test current	动作时间 Action time
			I=1.3 I _R (A)	T(S)	I=2 I _R (A)	T(S)
100	3S	250	130	63.9±10%	200	27±10%
250	3S	250	325		500	
100	18S	250	130	383.4±10%	200	162±10%
250	18S	250	325		500	

- 额定电流 630A 长延时动作时间表
Rated current 630A long delay operation schedule

I _R (A)	t _R (S)	I _n (A)	测试(一) Test (1)		测试(二) Test (2)	
			测试电流 Test current	动作时间 Action time	测试电流 Test current	动作时间 Action time
			I=1.3 I _R (A)	T(S)	I=2 I _R (A)	T(S)
160	3S	400	208	63.9±10%	320	27±10%
400	3S	400	520		800	
630	3S	630	520		1260	
160	18S	400	208	383.4±10%	320	162±10%
400	18S	400	520		800	
630	18S	630	520		1260	

- 额定极限短路分断能力
Rated limit short-circuit breaking capacity

壳架等级 Frame grade	L型 Type L		M型 Type M	
	I _{cs}	I _{cu}	I _{cs}	I _{cu}
125	25kA	35kA	35kA	50kA
250	25kA	35kA	35kA	50kA
630	35kA	50kA	50kA	75kA
800	35kA	50kA	50kA	75kA

- 短路瞬时保护功能
瞬时保护功能防止配电系统的固体短路，此类故障一般为相间故障，短路电流比较大，需要快速断开。此保护是基于电流真有效值(RMS)进行的保护。

- 短路瞬时相关设定参数和特性
短路瞬时脱扣整定电流 $I_i = 4 \sim 14 I_n + OFF$
◇短路瞬时动作特性: $I \leq 0.8 I_i$, 不动作; $I > 1.2 I_i$, 动作。
◇动作电流精度±10%
◇动作时间 $T \leq 200ms$

- Short circuit instantaneous protection function
The instantaneous protection function prevents the solid short circuit of the distribution system, which is generally an interphase fault, and the short circuit current is relatively large and needs to be quickly disconnected. This protection is based on current true effective value (RMS) protection.
- Short circuit instantaneous related setting parameters and characteristics
Short circuit instantaneous trip setting current $I_i = 4 \sim 14 I_n + OFF$
□ Short-circuit instantaneous action characteristics: $I \leq 0.8 I_i$, no action; $I > 1.2 I_i$, action.
□ Operating current accuracy ±10%
□ Operation time $T \leq 200ms$

YFM2LE剩余电流动作保护断路器(智能型)

YFM2LE Residual Current Action Protection Circuit Breaker (Intelligent type)

- 过压保护
Overvoltage protection

整定范围 Setting range	电压值/整定值 Voltage value/setting value	动作特性 Action characteristic	动作时间误差 Operating time error
动作阈值 Operating threshold	1.15U _e -1.3U _e	≤0.9	±10%
		≥1.1	
动作时间 Action time	1s	≥1.1	
		≤0.9	
返回阈值* Return threshold *	1.15U _e -动作阈值 1.15U _e - Action threshold	≥1.1	
		≤0.9	
返回时间* Return time *	5s	≤0.9	

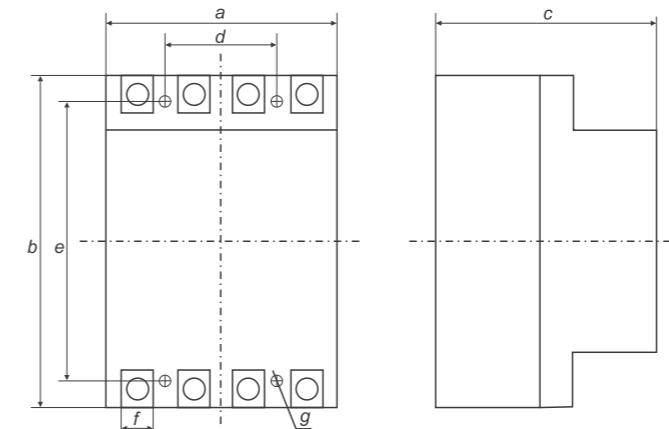
- *仅当报警方式有此设置
* Only if alarm mode has this setting

- 欠压保护
Undervoltage protection

整定范围 Setting range	电压值/整定值 Voltage value/setting value	动作特性 Action characteristic	动作时间误差 Operating time error
动作阈值 Operating threshold	0.35U _e -0.7U _e	<0.9	±10%
		>1.1	
动作时间 Action time	5s	≤0.9	
		≥1.1	
返回阈值* Return threshold *	动作阈值-0.85U _e Action threshold-0.85U _e	<0.9	
		>1.1	
返回时间* Return time *	5s	≥1.1	

- *仅当报警方式有此设置
* Only if alarm mode has this setting

外形及安装尺寸 Outline and mounting dimensions



自动重合闸 Automatic reclosing	a	b	c	d	e	f	g
YFM2LE-125A	122	220	135	60	199	20	M4
YFM2LE-250A	142	240	135	69	202	20	M4
YFM2LE-400A	198	336	185	96	272	30	M6
YFM2LE-400A(增容630)	198	336	185	96	272	30	M6
YFM2LE-630A	240	355	186	116	284	40	M6
YFM2LE-800A	280	371	186	140	330	40	M6

YFM2LED电子式漏电保护断路器

YFM2LED Electronic Leakage Protection Circuit Breaker



适用范围 Scope of Application

本系列断路器适用于低压配电系统中。其额定绝缘电压为 800V，适用于交流50Hz，额定工作电压至690V，额定电流至800A的电路中作不频繁转换及电动机不频繁启动之用。断路器具有过电压保护，欠电压保护，缺相保护，过载长延时反时限、短路短延时反时限、短路短延时定时限、短路瞬时和欠电压保护功能、漏电跳闸保护、通讯功能，能保护线路和电源设备不受损坏。

产品符合标准：GB 14048.2

DL/T 2018塑壳断路器通信规约

This series of circuit breakers is suitable for low voltage distribution system. Its rated insulation voltage is 800V, suitable for AC 50Hz, rated working voltage to 690V, rated current to 800A circuit for infrequent conversion and motor infrequent start. The circuit breaker has over voltage protection, under voltage protection, lack of phase protection, overload long delay inverse time, short circuit short delay inverse time, short circuit short delay fixed time, short circuit instantaneous and under voltage protection, leakage trip protection, communication function, can protect the line and power equipment from damage.

The product meets the standard: GB 14048.2

DL/T 2018 Communication protocol for moulded case circuit breakers

技术参数 Technical Parameter

型号 Model number	参数说明 Parameter description
壳架等级额定电流 I_{nm} (A) Bracket rating Current I_{nm} (A)	125,250,400,630,800 可选
额定电流 I_n (A) Rated current I_n (A)	0.4-1.0 I_{nm} (A) 连续可调 0.4-1.0 I_{nm} (A) Continuously adjustable
额定电压 U_e Rated voltage U_e	AC400V
额定绝缘电压 U_{imp} Rated insulation voltage U_{imp}	12000V
额定绝缘电压 U_i Rated insulation voltage U_i	800V
额定运行短路分断能力 I_{cs} Rated operating short-circuit breaking capacity I_{cs}	L 型: I_{cs} : 25kA; M 型: I_{cs} : 35kA
额定极限短路分断能力 I_{cs} Rated limit short-circuit breaking capacity I_{cs}	L 型: I_{cs} : 35kA; M 型: I_{cs} : 50kA
过载延时时间 (s) Overload delay time (s)	3-18s 可调
短路短延时倍数 ($\times I_n$) Short circuit delay multiple ($\times I_n$)	2-12 可调
短路短延时时间 (ms) Short circuit Delay time (ms)	30-600 连续可调
短路瞬时倍数 ($\times I_n$) Short circuit instantaneous multiple ($\times I_n$)	4-14 可调
极数 Number of poles	3,3P+N,4P
过压动作值 (V) Overvoltage action value (V)	默认 $285 \pm 5\%$ (用户可整定) Default $285 \pm 5\%$ (user can adjust)
欠压动作值 (V) Undervoltage action value (V)	默认 $165 \pm 5\%$ (用户可整定) Default $165 \pm 5\%$ (user can adjust)
缺相动作值 (V) Out-of-phase action value (V)	默认 $120 \pm 5\%$ (用户可整定) Default $120 \pm 5\%$ (user can adjust)
产品使用类别 Product usage category	A类
额定剩余动作电流 (mA) $I_{\Delta n}$ Rated residual operating current (mA) $I_{\Delta n}$	档位数值可选, 可根据客户要求定制 8 组参数数值 The gear value is optional, and 8 groups of parameter values can be customized according to customer requirements
额定剩余不动作电流 (mA) Rated residual inactive current (mA)	$I_{\Delta no} = 50\% I_{\Delta n}$
额定极限不驱动时间 (s) Rated limit no drive time (s)	档位数值可选, 可根据客户要求定制 3 组参数数值 The gear value is optional, and 3 groups of parameter values can be customized according to customer requirements
额定剩余短路接通(分断)能力 Rated short circuit on remaining (points)	$I_{\Delta m} = 25\% I_{cs}$

YFM2LED电子式漏电保护断路器

YFM2LED Electronic Leakage Protection Circuit Breaker

脱扣器动作性能 Trip performance

- 过载保护特性 (反时限动作)
Overload protection feature (inverse time action)

脱扣器额定工作电流 (A) Release rated operating current (A)	脱扣器 (环境温度40°C) Release device (ambient temperature 40 °c)			
	1.05 I_n (冷态) 1.05 I_n (cold)		1.30 I_n (热态) 1.30 I_n (hot)	
$I_n \leq 63A$	$\geq 1h$ 不动作 $\geq 1h$ No action	$< 1h$ 动作 $< 1h$ action		
$I_n > 63A$	$\geq 2h$ 不动作 $\geq 2h$ No action	$< 2h$ 动作 $< 2h$ action		

- 过载长延时时间的计算: $T_1 = (6I_r/I) 2 \times Tr_1$
(I_r : 测试产品的额定电流; I : 为实际施加电流; Tr_1 : 为延时过载系数)
Calculation of overload long delay time: $T_1 = (6I_r/I) 2 \times Tr_1$
(I_r : The rated current of the test product; I : for the actual application of current; Tr_1 : is the delay overload factor)

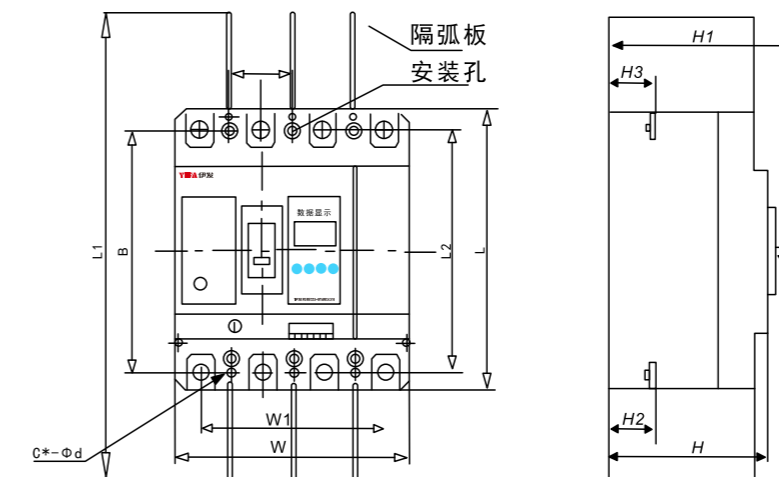
- 瞬间过电流脱扣器电流整定值
Transient overcurrent trip current setting

壳架等级额定电流 I_{nm} (A) Rated current I_{nm} (A)	整定电流倍数 Set the current multiple	约定时间 Appointed time
125	$10 I_n \pm 20\%$	$< 0.2s$
250	$10 I_n \pm 20\%$	$< 0.2s$
400	$10 I_n \pm 20\%$	$< 0.2s$
630	$10 I_n \pm 20\%$	$< 0.2s$
800	$10 I_n \pm 20\%$	$< 0.2s$

- 短路延时时间的计算: $T_2 = (8I_r/I) 2 \times Tr_2$
(I_r : 测试产品的额定电流; I : 为实际施加电流; Tr_2 : 为延时过载系数)
Calculation of short circuit delay time: $T_2 = (8I_r/I) 2 \times Tr_2$
(I_r : The rated current of the test product; I : for the actual application of current; Tr_2 : is the delay overload factor)

外形及安装尺寸 Outline and mounting dimensions

型号 Model number	外形尺寸 Overall dimension										安装尺寸 Mounting dimension			
	板前接线 Front wiring		L	H	W1	L1	H1	H2	H3	L2	A			
	3P	4P									3P	4P	B	Φd
YFM2LED-125	92	122	150	87	60	255	110	24	24	134	30	60	129	4
YFM2LED-250	105	142	165	95	70	365	110	24	24	144	35	70	126	5
YFM2LED-400	150	198	257	112	87	457	150	44	44	225	47	94	194	7
YFM2LED-630-800	210	280	280	121	140	480	155	44	44	243	70	140	243	7



YFM2E系列塑料外壳式断路器 (电子式)

YFM2E Series Plastic Shell Circuit Breaker (Electronic)



适用范围 Scope of Application

YFM2E系列塑料外壳式断路器, 可使线路和电源设备免受过载、短路、接地等故障危害。本系列控制器具有性能稳定、精确可靠、体积小、结构紧凑、设计合理、经济适用等特点。还具有通讯接口, 具备了现场总线的通讯功能, 可与计算机联网通讯, 实现遥控、遥测、遥调、遥信功能。

参照执行标准:

IEC 60947-1及GB/T 14048.1总则

IEC 60947-2及GB14048.2-2008低压断路器及附录F带电子过电流保护断路器的附加要求

IEC60947附录F的电磁兼容要求

IEC60947-4及GB14048.4接触器和电动机起动器

YFM2E series plastic case circuit breakers protect lines and power equipment from overload, short circuit, ground and other faults. This series controller has the characteristics of stable performance, accurate and reliable, compact size, compact structure, reasonable design and economical application. Also has a communication interface, with the field bus communication function, can communicate with the computer network, remote control, telemetry, remote adjustment, remote communication functions.

Refer to the implementation standard:

IEC 60947-1 and GB/T 14048.1 General

IEC 60947-2 and GB14048.2-2008 low-voltage circuit breakers and Appendix F Additional requirements for breakers with electronic overcurrent protection

IEC60947 Annex F electromagnetic compatibility requirements

IEC60947-4 and GB14048.4 contactors and motor starters



技术参数 Technical Parameter

• 额定参数

- 1、额定电压: 380V/220V 三相四线
- 2、额定频率: 50Hz
- 3、壳架等级电流: 125A, 250A, 400A, 630A, 800A

• 工作环境

- 1、正常工作环境温度: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, 24小时平均值不超过 35°C
- 2、空气的相对湿度不超过50%
- 3、污染等级: 3级
- 4、安装类别: III

• Rated parameter

- 1, Rated voltage: 380V/220V three-phase four-wire.
- 2, rated frequency: 50Hz
- 3, shell and frame grade current: 125A, 250A, 400A, 630A, 800A.

Working environment

- 1, the normal working environment temperature is $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$, the 24-hour average does not exceed 35°C .
- 2, the relative humidity of the air does not exceed 50%.
3. Pollution level: Level 3.
- 4, installation category: III

• 产品配置信息

Product configuration information

壳架电流 Frame current	额定电流 Rated current	互感器 Mutual inductor	执行机构 Executive mechanism
125A	32A	32A	125A
	63A	63A	
	125A	125A	
250A	250A	250A	250A
400A	400A	400A	400A
630A, 800A	630A	630A	630A, 800A
	800A	800A	

YFM2E系列塑料外壳式断路器 (电子式)

YFM2E Series Plastic Shell Circuit Breaker (Electronic)

YIFA 伊发
股票代码: 870154

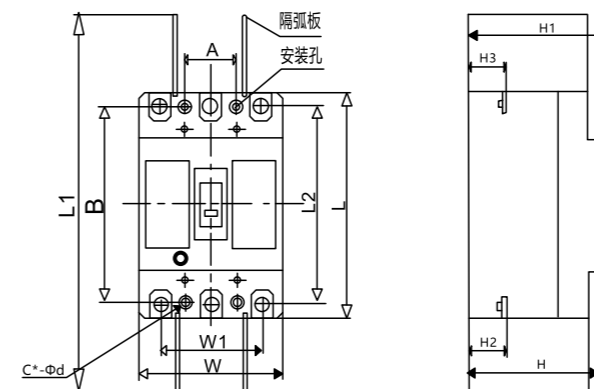
• 功能型号分类

Functional model classification

项目 Item	功能描述 Function description	型号分类 Type classification			
		普通型 Common type			通讯型 Communication type
		M (普通)	ML (漏电)	MG (接地)	E
面板 Panel	旋钮 knob	√	√	√	√
	无旋钮 No knob				√
功能 Feature	过载长延时保护 Overload long delay protection	√	√	√	√
	短路短延时保护 Short circuit delay protection	√	√	√	√
	短路瞬时保护 Short circuit instantaneous protection	√	√	√	√
	接地保护 Ground protection			√	√
	过载预报警 Overload pre-alarm	√	√	√	√
	过负载热记忆 Overloading heat memory	√	√	√	√
	短路短延时热记忆 Short circuit short delay thermal memory	√	√	√	√
	剩余电流保护 Residual current protection		√		√
	电流LED指示功能 Current LED indicator function	√	√	√	√
	分励功能 Shunt excitation function	√	√	√	√
	通讯功能 Communication function				√

外形及安装尺寸 Outline and mounting dimensions

型号 Model number	外形尺寸 Overall dimension										安装尺寸 Mounting dimension				
	W		L	H	板前接线 Front wiring						A			B	Φd
	3P	4P			W1	L1	H1	H2	H3	L2	3P	4P			
YFM2E-125	92	122	150	87	60	255	110	24	24	134	30	60	129	4	
YFM2E-250	105	142	165	95	70	365	110	24	24	144	35	70	126	5	
YFM2E-400	150	198	257	112	87	457	150	44	44	225	47	94	194	7	
YFM2E-630	180		270	112	116	370	150	44	44	234	58	116	200	7	
YFM2E-630-800	210	280	280	121	140	480	155	44	44	243	70	140	243	7.5	



YFM1系列塑料外壳式断路器 (热磁式)

YFM1 Series Plastic Shell Circuit Breaker (Thermomagnetic)



适用范围 Scope of Application

YFM1系列塑料外壳式断路器(以下简称断路器), 是本公司综合采用国际先进技术, 设计开发的新型断路器之一。其额定绝缘电压800V, 适用于交流50Hz或60Hz, 额定工作电压至690V, 额定电流至800A的配电网的电路中, 用来分配电能和保护线路及电源设备免受过载、短路、欠电压等故障的损坏。同时也能作为电动机的不频繁启动及过载、短路、欠电压保护。

断路器按其额定极限短路分断能力的高低, 分为L型(标准型), M型(较高分断型), H型(高分断型)三类。

该断路器具有体积小、分断高、飞弧短等特点。

断路器产品标准: 符合IEC60947-2、GB14048.2-2008。

YFM1 series plastic shell type circuit breaker (hereinafter referred to as circuit breaker) is one of the new circuit breakers designed and developed by the company comprehensively using international advanced technology. Its rated insulation voltage is 800V, suitable for AC 50Hz or 60Hz, rated working voltage to 690V, rated current to 800A distribution network circuit, used to distribute power and protect lines and power equipment from overload, short circuit, undervoltage and other faults damage. At the same time, it can also be used as the motor's infrequent starting and overload, short circuit, undervoltage protection.

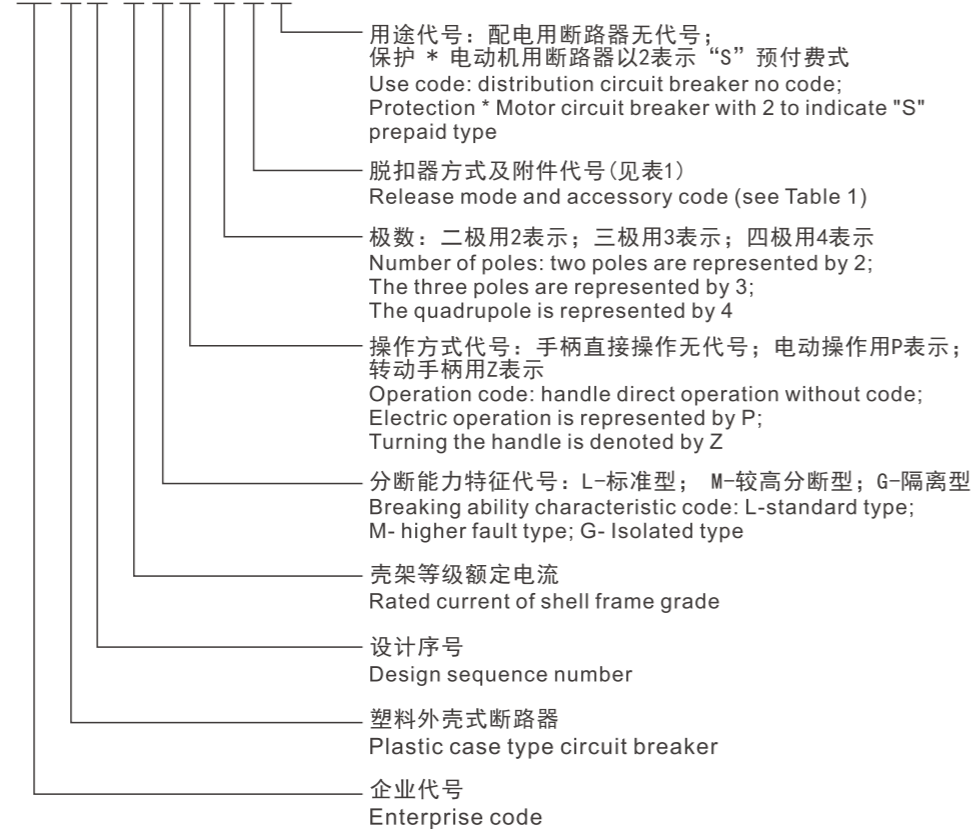
According to its rated limit short-circuit breaking capacity, the circuit breaker is divided into L type (standard type), M type (higher score type), H type (high score type) three categories.

The circuit breaker has the characteristics of small volume, high breaking and short flying arc.

Circuit breaker product standard: in line with IEC60947-2, GB14048.2-2008.

型号及含义 Model And Meaning

YFM1-□□□/□□□



YFM1系列塑料外壳式断路器 (热磁式)

YFM1 Series Plastic Shell Circuit Breaker (Thermomagnetic)

YIFA 伊发
股票代码: 870154

脱扣器方式及附件代号 Release mode and accessory code

附件代号 Attachment code	脱扣器方式 Trip mode	瞬时脱扣器 Instantaneous release	复式脱扣器 Multiple trip device
附件名称 Attachment name			
无附件 No attachment		200	300
报警触头 Alarm contact		208	308
分励脱扣器 Shunt tripping device		210	310
辅助触头 Auxiliary contact		220	320
欠电压脱扣器 Undervoltage release		230	330
分励脱扣器辅助触头 Shunt release auxiliary contact		240	340
分励脱扣器欠电压脱扣器 Shunt release Undervoltage release		250	350
二组辅助触头 Two sets of auxiliary contacts		260	360
辅助触头欠电压脱扣器 Auxiliary contact undervoltage release		270	370
分励脱扣器报警触头 Shunt release alarm contact		218	318
辅助触头报警触头 Auxiliary contact alarm contact		228	328
欠电压脱扣器报警触头 Undervoltage release alarm contact		238	338
分励脱扣器·辅助触头·报警触头 Shunt trip device, auxiliary contact, alarm contact		248	348
分励脱扣器·欠电压脱扣器·报警触头 Shunt release device, undervoltage release device, alarm contact		258	358
二组辅助触头·报警触头 Two sets of auxiliary contacts · alarm contacts		268	368
辅助触头·欠电压脱扣器·报警触头 Auxiliary contact, undervoltage release device, alarm contact		278	378
辅助触头·欠电压脱扣器·分励脱扣器 Auxiliary contact · undervoltage tripper · Split-schoen tripper		290	390

注: 断路器暂无258、358的规格。

适用环境 Applicable Environment

- 周围空气温度
周围空气温度上限为+40°C;
周围空气温度24h的平均值不超过+35°C;
周围空气温度下限为-5°C。
- 海拔
安装地点的海拔不超过2000m。
- 大气条件
大气相对湿度在周围空气温度为+40°C时不超过50%; 在较低温度下可以有较高的相对湿度;
最湿月的月平均最大相对湿度为90%, 同时该月的月平均最低温度为+25°C, 并考虑到因温度变化发生在产品表面上的凝露。
- 污染等级
污染等级为3级。

YFM1系列塑料外壳式断路器 (热磁式)

YFM1 Series Plastic Shell Circuit Breaker (Thermomagnetic)

- Ambient air temperature

The upper limit of ambient air temperature is +40°C;

The average value of ambient air temperature for 24h does not exceed +35°C;

The lower limit of ambient air temperature is -5°C.

- Altitude

The elevation of the installation site does not exceed 2000m.

- Atmospheric condition

The relative humidity of the atmosphere does not exceed 50% when the ambient air temperature is +40°C; It can have higher relative humidity at lower temperature;

The monthly average maximum relative humidity of the wettest month is 90%, while the monthly average minimum temperature of the month is +25 ° C, taking into account condensation that occurs on the surface of the product due to temperature changes.

- Pollution level

The pollution level is level 3.

技术参数 Technical Parameter

- 配电用断路器的瞬时动作特性整定为10I_n, 电动机保护用断路器的瞬时动作特性整定为12I_n。

The instantaneous action characteristic of the circuit breaker for distribution is set at 10I_n, and the instantaneous action characteristic of the circuit breaker for motor protection is set at 12I_n.

- 断路器的额定值

Rating of circuit breaker

型号 Model number	壳架等级 额定电流A Housing grade Rated current A	额定电流A Rated current A	额定工作电压V Rated operating voltage V	额定绝缘电压V Rated insulation voltage V	额定极限短路 分断能力kA 400V/690 Rated limit short-circuit breaking capacity kA 400V/690	额定运行短路 分断能力kA 400V/690 Rated operating short-circuit breaking capacity kA 400V/690	重量 Weight
YFM1-100L	100(63)	10 16 20 32 40 50 63	400	500	35*	17.5*	
YFM1-100M					50/10	25/5	
YFM1-125L	125	50 63 80 100 125	400	500	35/8	25/5	1.4
YFM1-125M					75/10	50/10	1.7
YFM1-250L	250	100 125 160 180 200 225 250	400	500	35/8	25/5	2.3
YFM1-250M					75/10	50/10	2.8
YFM1-400L	400	225 250 315 350 400	400	500	50/10	25/5	6.6
YFM1-400M					70/10	50/5	
YFM1-400H					100/10	50/10	
YFM1-630L	630	400 500 630	400	500	50/10	25/5	
YFM1-630M					70/10	50/10	
YFM1-630H					100/10	70/10	10
YFM1-800L	800	630 700	400	500	70/10	50/10	
YFM1-800H					100/10	70/10	

注: *分断能力均为400V 时的分断能力。

Note: * Breaking capacity is 400V breaking capacity.

YFM1系列塑料外壳式断路器 (热磁式)

YFM1 Series Plastic Shell Circuit Breaker (Thermomagnetic)

YIFA® 伊发
股票代码: 870154

- 配电用断路器过电流脱扣器动作特性

Operating characteristics of overcurrent trip device for distribution circuit breaker

序号 No.	试验电流名称 Test current name	I/I _n	约定时间 Appointed time	起始状态 Starting state
1	约定不脱扣电流 Default no trip current	1.05	2h(I _n >63A) 1h(I _n ≤63A)	冷态 Cold state
2	约定脱扣电流 Default trip current	1.30	2h(I _n >63A) 1h(I _n ≤63A)	紧接着序1实验后开始 This is followed by the first experiment

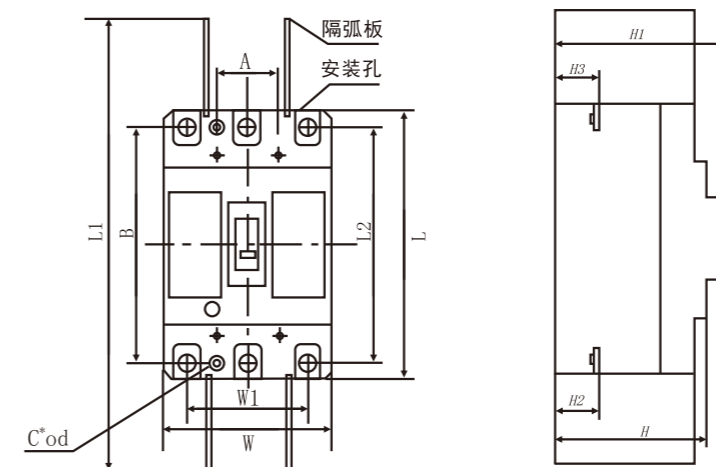
- 电动机保护用断路器过电流脱扣器动作特性

Operating characteristics of overcurrent trip of circuit breaker for motor protection

序号 No.	试验电流名称 Test current name	整定电流 Setting current	约定时间 Appointed time	起始状态 Starting state
1	约定不脱扣电流 Default no trip current	1.05	2h	冷态 Cold state
2	约定脱扣电流 Default trip current	1.2	2h	紧接着序1实验后开始 This is followed by the first experiment

外形及安装尺寸 Outline and mounting dimensions

型号 Model number	外形尺寸 Overall dimension											安装尺寸 Mounting dimension			
	W			板前接线 Front wiring								A		B	Φd
	2P	3P	4P	L	H	W1	L1	H1	H2	H3	L2	3P	4P		
YFM1-63L	51	76	100	135	74	50	170	90	20	20	117	25	50	117	3.5
YFM1-63M	51	76	100	135	82	50	170	99	28	28	117	25	50	117	3.5
YFM1-125L	65	90	121	150	68	60	255	86	24	24	134	30	60	129	4.5.6
YFM1-125M	65	90	121	150	86	80	255	104	24	24	134	30	60	129	4.5.6
YFM1-125G	65	90	121	150	68	60	255	86	24	24	134	30	60	129	4.5.6
YFM1-250L	75	105	142	165	88	70	365	110	24	24	144	35	70	126	5
YFM1-250M	75	105	142	165	103	70	365	127	24	24	144	35	70	126	5
YFM1-250G	75	105	142	165	88	70	365	110	24	24	144	35	70	126	5
YFM1-400L	102	150	200	255	104	87	457	150	38	38	225	44	88	194	7
YFM1-400M	102	150	200	255	104	96	457	150	38	38	225	44	88	194	8
YFM1-400G	102	150	200	255	104	96	457	150	38	38	225	44	88	194	8
YFM1-630L	122	180	240	270	112	116	370	155	44	44	234	58	116	200	7
YFM1-630M	122	180	240	270	112	116	370	155	44	44	234	58	116	200	7
YEM1-800L	142	210	280	280	117	140	480	160	44	44	243	70	140	243	7.5
YFM1-800M	142	210	280	280	117	140	480	160	44	44	243	70	140	243	7.5
YFM1-800G	142	210	280	280	117	140	480	160	44	44	243	70	140	243	7.5



YFM1LE系列漏电断路器

YFM1LE Series Leakage Circuit Breaker



适用范围 Scope of Application

YFM1LE系列剩余电流断路器(以下简称断路器),主要适用于交流50Hz,额定电压为400V,额定电流至800A的配电网中,用来对人提供间接接触保护,也可用来防止因设备绝缘损坏,产生接地故障电流而引起的火灾危险,并可用来分配电能和保护线路及电源设备的过载和短路,还可作为线路的不频繁转换和电动机不频繁启动之用。

本断路器在三相电源任缺一相的情况下都能正常工作。

产品符合标准: GB14048.2 IEC60947-2

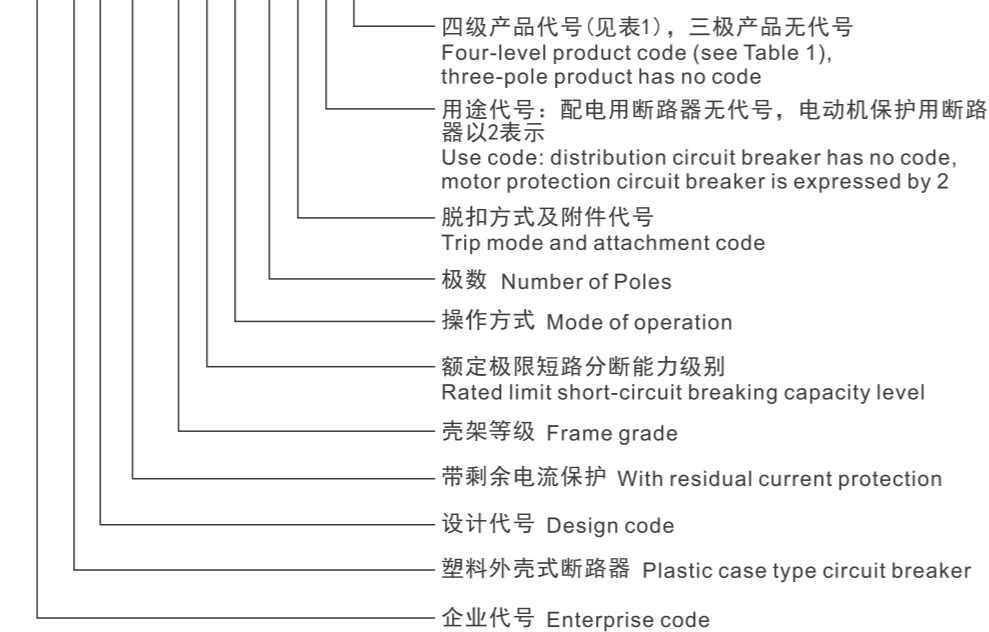
YFM1LE series residual current circuit breaker (hereinafter referred to as circuit breaker), mainly suitable for AC 50Hz, rated voltage of 400V, rated current to 800A distribution network, used to provide indirect contact protection for people, also can be used to prevent the equipment insulation damage, ground fault current caused by the fire hazard. It can be used to distribute electrical energy and protect the overload and short circuit of the line and power supply equipment, and can also be used as the infrequent conversion of the line and the infrequent start of the motor.

The circuit breaker can work normally when either phase of the three-phase power supply is missing.

The product conforms to the standard: GB14048.2 IEC60947-2

型号及含义 Model And Meaning

Y F M 1 L E - □ □ □ □ □ □ □ □



• 四极产品代号 Quadrupole product code

Table 1

代号 Code name	说明 Instructions
Type A	N极不安装过电流脱扣元件, 且N极始终接通, 不与其他三极一起合分 N No overcurrent trip element is installed, and the N pole is always connected, and is not combined with the other three poles
Type B	N极不安装过电流脱扣元件, 且N极与其他三极一起合分(N极先合后分) N No overcurrent trip element is installed, and the N pole is divided first and then
Type C	N极安装过电流脱扣元件, 且N极与其他三极一起合分(N极先合后分) N installing overcurrent tripping device, together with other three pole and N pole points (N pole after first)
Type D	N极安装过电流脱扣元件, 且N极始终接通, 不与其他三极一起合分 N installing overcurrent tripping device, and the N pole connected all the time, not with the other three pole points together

YFM1LE系列漏电断路器

YFM1LE Series Leakage Circuit Breaker

技术参数 Technical Parameter

产品型号 Product model	额定电流A Rated current A	额定短路分断能力 (kA) Rated short circuit breaking capacity (kA)		额定剩余动作电流 Rated residual action current	额定不动作电流 Rated inactive current
		Icu	Ics		
YFM1LE-125L	16,20,25,32,40	26.5/0.25	35/0.25	100/300/500	I _{Δn} 70%
YFM1LE-125M	50,63,80,100,	38/0.25	50/0.25		
YFM1LE-125H	125	50/0.25	70/0.25		
YFM1LE-250L	100,125,160,	26.5/0.25	35/0.25	100/300/500	
YFM1LE-250M	180,200,225,	38/0.25	50/0.25		
YFM1LE-250H	250	50/0.25	70/0.25		
YFM1LE-400L	225,300,315,	38/0.25	50/0.25	100/300/500	
YFM1LE-400M	350,400	50/0.25	70/0.25		
YFM1LE-630L	400,500,630	38/0.25	50/0.25		
YFM1LE-630M		50/0.25	70/0.25		
YFM1LE-800L	630,700,800	38/0.25	50/0.25		
YFM1LE-800M		50/0.25	70/0.25		

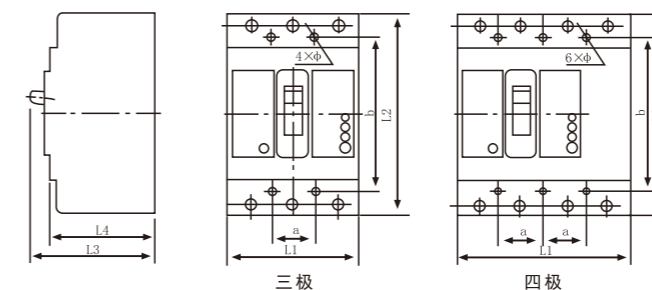
• 剩余电流保护动作时间 Remaining current protection operation time

剩余电流 Residual current		I _{Δn}	2I _{Δn}	5I _{Δn}	10I _{Δn}
非延时型 Non-delay type	最大断开时间(s) Max disconnect time (s)	0.2	0.1	0.04	0.04
	极限不驱动时间Δt(s) Limiting non-drive time Δt(s)	-	0.1/0.5/1	-	-
延时型 Delayed type	最大断开时间(s) Max disconnect time (s)	0.5/1.15/2.15	0.35/1/2	0.25/0.9/1.9	0.25/0.9/1.9
	极限不驱动时间Δt(s) Limiting non-drive time Δt(s)	-	0.1/0.5/1	-	-

- 额定工作电压: 400V Rated operating voltage: 400V
- 额定绝缘电压: 800V Rated insulation voltage: 800V
- 额定冲击耐受电压: 8kV Rated impulse withstand voltage: 8kV
- 额定频率: 50Hz Rated frequency: 50Hz
- 极数: 3P、4P Number of poles: 3P, 4P

外形及安装尺寸 Outline and mounting dimensions

型号 Model number	极数 Number of poles	外形尺寸 Overall dimension				安装尺寸 Mounting dimension		
		L1	L2	L3	L4	a		安装孔Φ
YFM1LE-125	2	61	150	95	73	—	129	Φ4.5
YFM1LE-250	2	71	165	95	73	—	126	Φ4.5
YFM1LE-125	3	92	150	95	73	30	129	4-Φ4.5
	4	122	150	95	73	60	129	6-Φ4.5
YFM1LE-250	3	107	165	95	73	35	126	4-Φ4.5
	4	142	165	95	73	70	126	6-Φ4.5
YFM1LE-400	3	149	258	150	108	47	192	4-Φ6
	4	198	258	150	108	94	192	6-Φ6
YFM1LE-630/800	3	210	281	158	115	70	243	6-Φ6
	4	280	281	158	115	140	243	6-6



YFM9DC系列光伏直流断路器

YFM9DC Series PV DC Circuit Breaker



适用范围 Scope of Application

YFM9DC系列光伏直流断路器适用于额定电压至DC1000V，额定电流至630A的直流电网电路中，直流断路器具有过载长延时保护、短路瞬时保护功能，用来分配电能和保护线路及电源设备免受过载、短路等故障的危害。

直流断路器的操作机构具有快速闭合和快速分断功能，结构紧凑，体积小，使用方便。

YFM9DC series photovoltaic DC circuit breaker is suitable for rated voltage to DC1000V, rated current to 630A DC power grid circuit, DC circuit breaker with overload long delay protection, short circuit instantaneous protection function, used to distribute power and protect lines and power equipment from overload, short circuit and other faults.

The operating mechanism of DC circuit breaker has the function of quick closing and quick breaking, compact structure, small size and easy to use.

型号及含义 Model And Meaning

YFM9DC-630/□□□□



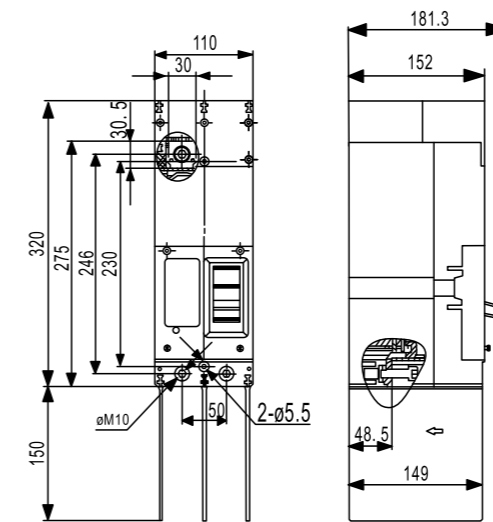
技术参数 Technical Parameter

型号 Model number	单位 Units	YFM9DC-630		
壳架等级额定电流 Bracket rating Current	A	630,500,400,350,315, 250,225		
极数 Number of poles		2		
额定工作电压 U_e AC 50-60Hz Rated working voltage U_e AC 50-60Hz	V	1000	1200	1500
额定绝缘电压 U_i Rated insulation voltage U_i	V	1600		
额定冲击耐受电压 U_{imp} Rated impulse withstand voltage U_{imp}	kV	12		
工频耐受电压 (1min) Power frequency withstand voltage (1min)	kV	3		
额定极限短路分断能力 I_{cu} Rated limit short-circuit breaking capacity I_{cu}	kA	50	40	20
额定运行短路分断能力 I_{cs} Rated operating short-circuit breaking capacity I_{cs}	kA	50	40	20
机械寿命 Mechanical life	次	10000		
电气寿命 Electrical life	次	2000	1500	1000
飞弧距离 Flight arc distance	mm	0 (安装端子罩)		
基本尺寸W×L×H Basic dimensions W×L×H	mm	110×275×152		
瞬时脱扣器 Instantaneous release		5I _n or 10I _n		
基准环境温度 Reference ambient temperature	°C	50 °C		

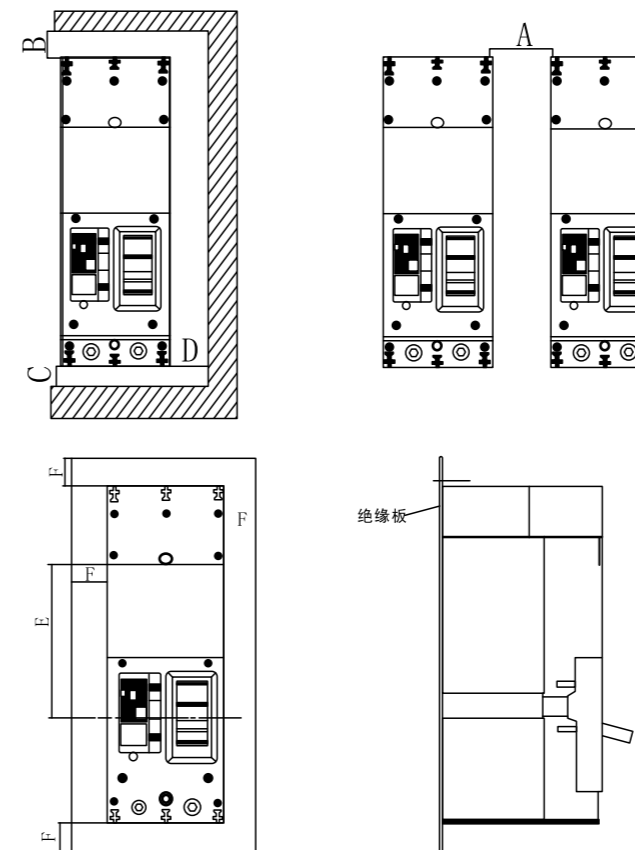
YFM9DC系列光伏直流断路器

YFM9DC Series PV DC Circuit Breaker

外形及安装尺寸 Outline and mounting dimensions



• 安装示意图 Installation diagram



YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker



适用范围 Scope of Application

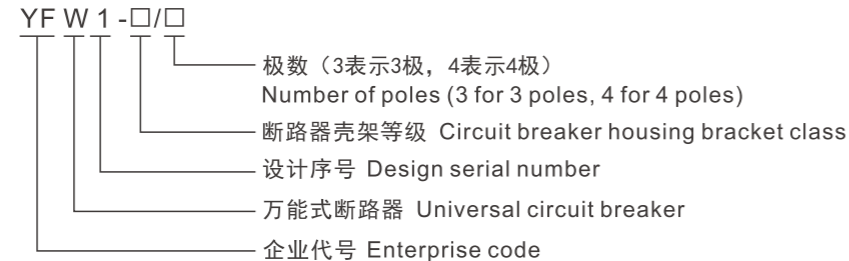
YFW1系列智能型万能式断路器（以下简称断路器），适用于交流50Hz，额定电压至AC690V及以下，额定电流从200A~6300A的配电网中，用来分配电能和保护线路及电源设备免受过、欠压、短路、单相接地等故障的危害。断路器具有智能化保护功能，选择型保护精确，能提高供电可靠性，避免不必要的停电。同时带有开放式通讯接口，可进行“四遥”，以满足控制中心和自动化系统的要求。断路器在海拔2000米时脉冲耐压8000V，（不同海拔按标准修正，最高不超过12000V）。该断路器不带智能控制器及传感器可作隔离用，标识为 —/— 。

断路器符合标准 GB/T14048.2及IEC60947-2《低压开关设备和控制设备 第2部分断路器》。

YFW1 series intelligent universal circuit breaker (hereinafter referred to as circuit breaker), suitable for AC 50Hz, rated voltage to AC690V and below, rated current from 200A to 6300A distribution network, used to distribute power and protect lines and power equipment from over, under voltage, short circuit, single-phase grounding and other faults. Circuit breaker has intelligent protection function, select type protection is accurate, can improve the reliability of power supply, avoid unnecessary power outage. At the same time with open communication interface, can be carried out "four remote" to meet the requirements of control center and automation system. The pulse voltage of the circuit breaker is 8000V when the altitude is 2000 meters, (different altitudes are corrected according to the standard, the maximum is not more than 12000V). The circuit breaker without intelligent controller and sensor can be used for isolation, identified as —/— .

The circuit breaker complies with the standard GB/T14048.2 and IEC60947-2 "Low-voltage switchgear and control equipment Part 2 Circuit breakers".

型号及含义 Model And Meaning



- 分类
按安装方式分
a. 抽屉式 b. 固定式
按极数分：三极、四极
按操作方式分
a. 电动操作 b. 手动操作（检修、维护用）
- 脱扣器种类
智能控制器、欠压瞬时（延时）脱扣器、分励脱扣器
- 智能控制器性能
a. 智能控制器分为：M型（普通智能型）、2H型（通讯型）、3M（液晶型）、3H（液晶通讯型）
b. 具有过载长延时反时限、短延时反时限、定时限、瞬时功能。可由用户自行设定组成所需要的保护特性；
c. 单相接地保护功能；
d. 显示功能：电流显示、电压显示（在订货时备注说明）；
e. 报警功能：过载报警；
f. 自检功能：过热自检、微机自诊断；
g. 试验功能：试验控制器的动作特性。
- 周围空气温度
上限值不超过 +40C，下限值不低于-5C，24h平均值不超过 +35C。
注：上限值超过+40C或下限值低于-10C或-25C的工作条件，用户应向本公司声明并协商安装地点的海拔不超过2000米。

YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker

YIFA® 伊发
股票代码:870154

- 大气条件
大气相对湿度在周围空气为 +40C时不超过50%，在较低温度下可以有较高的相对湿度，最湿月的平均最大相对湿度为90%，同时该月的平均最低温度为 +25C，并考虑到因温度变化发生在产品表面上的凝露，超过规定要求时应与本公司协商。
- 防护等级：IP30
- 污染等级：III
- 使用类别：B类
- 安装类别：额定工作电压690V及以下的断路器以及欠压脱扣器，电源变压器初级线圈用于安装类别IV；辅助电路及控制电路安装类别为III。
- Classification
According to the installation method a. Drawer type b. Fixed type
According to the number of poles: three poles, four poles
According to the mode of operation a. Electric operation b. Manual operation (for overhaul and maintenance)
- Type of trip device
Intelligent controller, under voltage instantaneous (delay) release device, shunt release device
- Intelligent Controller performance
a. Intelligent controller is divided into :M type (ordinary intelligent type, 2H type (communication type), 3M(liquid crystal type), 3H(liquid crystal communication type)
b. With overload long delay inverse time, short delay inverse time, fixed time, instantaneous function. The required protection features can be set by the user;
c. Single-phase grounding protection function;
d. Display function: current display, voltage display (when ordering remarks);
e. Alarm function: overload alarm;
f. Self-test function: overheating self-test, microcomputer self-diagnosis;
g. Test function: test the operating characteristics of the controller.
- Ambient air temperature
The upper limit shall not exceed +40C, the lower limit shall not be lower than -5C, and the average 24h value shall not exceed +35C.
Note: If the upper limit exceeds +40C or the lower limit is lower than -10C or -25C, the user shall declare to the Company and negotiate that the elevation of the installation site shall not exceed 2000 meters.
- Atmospheric condition
The relative humidity of the atmosphere does not exceed 50% when the surrounding air is +40C, and can have a higher relative humidity at lower temperatures. The average maximum relative humidity of the wettest month is 90%, while the average minimum temperature of the month is +25C, and taking into account the condensation that occurs on the surface of the product due to temperature changes, if the specified requirements are exceeded, the company should be consulted.
- Protection class :Ip30
- Pollution level :III
- Usage category: Class B
- Installation category: Circuit breakers with rated operating voltage of 690V and below and undervoltage trip breakers, primary coils of power transformers for installation category IV; Auxiliary circuits and control circuits are installed in Class III.

技术参数 Technical Parameter

- 断路器额定电流
Rated current of circuit breaker

壳架等级 Frame grade	额定电流In(A) Rated current In(A)
1600	200,400,630,800,1000,1250,1600
2500	630,800,1000,1250,1600,2000,2500
3200	2000,2500,3200
4000	3200,3600,4000
6300	4000,5000,6300

YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker

• 断路器的额定短路分断能力及短时耐受电流

Circuit breaker rated short circuit breaking capacity and short-term tolerance current

壳架等级额定电流 I _{nm} (A) Rated current I _{nm} (A)		1600	2500	3200	4000	6300
额定极限短路分断能力 I _{cu} (kA) Rated limit short-circuit breaking capacity I _{cu} (kA)	400V	85	85	100	100	120
	690V	75	75			
额定运行短路分断能力 I _{cs} (kA) Rated operating short-circuit breaking capacity I _{cs} (kA)	400V	85	85	80	80	80
	690V	75	75			
额定短时耐受电流 I _{cw} (kA/1s) Rated short-time withstand current I _{cw} (kA/1s)	400V	85	85	80	80	85
	690V	75	75			

注：表中分断能力上下进线相同

Note: The breaking capacity in the table is the same as that in the upper and lower lines

• 断路器在不同环境温度下的额定持续电流变动

Changes in the rated continuous current of the circuit breaker at different ambient temperatures

额定电流 Rated current 环境温度 Ambient temperature	200A	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
40	200A	400A	630A	800A	1000A	1250A	1600A	2000A	2500A	3200A	4000A	5000A	6300A
45	200A	400A	630A	800A	1000A	1250A	1550A	1900A	2400A	3000A	3800A	5000A	6000A
50	200A	400A	630A	800A	1000A	1250A	1500A	1850A	2300A	3000A	3600A	5000A	5600A
55	200A	400A	630A	800A	1000A	1200A	1400A	1800A	2200A	2800A	3200A	4800A	5400A
60	200A	400A	550A	700A	1000A	1150A	1300A	1700A	2000A	2800A	3200A	4800A	5200A
65	200A	400A	550A	700A	1000A	1150A	1300A	1650A	1850A	2600A	3000A	4600A	5000A

• 断路器在不同海拔下的阵容要求

Circuit breaker lineup requirements at different altitudes

海拔高度 (m) Altitude (m)	2000	2500	3000	3500	4000	4500	5000
工频耐压 (V) Power frequency withstand voltage (V)	2200	2077	1955	1857	1760	1680	1600
绝缘电压 U _i (V) Insulation voltage U _i (V)	1000	900	800	750	700	650	600
额定工作电压 U _e (V) Rated operating voltage U _e (V)	690	635	580	540	500	450	400
额定工作电流 (I _e) Rated operating current (I _e)	I _e	0.93I _e	0.88I _e	0.83I _e	0.78I _e	0.73I _e	与工厂联系 Contact the factory

注：如果环境温度低于40°C，则 I_e=I_n，如果环境温度高于40°C，必须严格按照使用说明书要求进行降容使用，此时 I_e≠I_n，I_e按照电流和温度对应查出。

Note: If the ambient temperature is lower than 40°C, I_e=I_n; if the ambient temperature is higher than 40°C, it must be used in strict accordance with the requirements of the instruction manual for capacity reduction, at this time I_e≠I_n, I_e is found according to the corresponding current and temperature.

• 智能型控制器保护特性和功能

Intelligent controller protection features and functions

a. 控制器的整定值 I_r (I/I_n) 及误差

a. Setting value I_r (I/I_n) and error of the controller

长延时 Long delay time	短延时 Short time delay	瞬时 Instantaneous moment	接地故障 Ground fault
I _{r1}	I _{r2}	误差 Error	I _{r3}
(0.4-1)I _n	(1.5-15)I _n	±10%	I _{r4}
			误差 Error
			I _{r3}
			误差 Error
			I _{r4}
			误差 Error

注：当同时具有三段保护时，整定值不能交叉。

Note: Setting values cannot be crossed when there are three sections of protection at the same time.

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YFW1 Series Universal Type Circuit Breaker

• b. 长延时保护反时限特性 I²TL=(1.5I_{r1})²tL，其中 (1.05-2.0)I_{r1} 的动作时间，误差为 ±15%。

b. Long delay protection inverse time characteristic I²TL=(1.5I_{r1})²tL, where (1.05-2.0)I_{r1} action time, error is ±15%.

1.05I _{r1}	1.3I _{r1}	1.5I _{r1} 整定时间 s 1.5I _{r1} Setting time s	15	30	60	120	240	480
>2h 不动作 >2h No action	<1h 动作 <1h action	2.0I _{r1} 动作时间 s 2.0I _{r1} Action time s	8.4	16.9	33.7	67.5	135	480

注：tL 为长延时 1.5I_{r1} 的整定时间，TL 为长延时的动作时间。

Note: tL is the setting time for a long delay of 1.5I_{r1}, and TL is the action time for a long delay.

• c. 短路短延时保护特性技术参数

c. Technical parameters of short-circuit short-delay protection

反时限和定时限整定电流值 Reverse time limit and fixed time limit set current values	I _{sd} =I _R ×...	1.5~15 + OFF (退出位置) 1.5 ~ 15 + OFF (Exit position)
	动作特性 Action characteristic	≤ 0.9I _{sd} : 不动作 ≤ 0.9I _{sd} : No action is taken > 1.1 I _{sd} : 延时动作 > 1.1 I _{sd} : Delay action
定时限延时整定值 Fixed time delay setting value	t _{sd} (s)	0.1~1 (级差 0.1) 0.1 ~ 1 (level difference 0.1)
	精度 Accuracy	±10%
反时限保护特性 Anti-time limit protection feature		曲线1~5同为过载长延时，但曲线速度快10倍 Curves 1 to 5 are both overload long delay, but the curve speed is 10 times faster 曲线6特性表达式：T _{sd} = 64 t _{sd} / I ² 也就是：T _{sd} = t _{sd} * (8 I _R / I) ² Curve 6 characteristic expression: T _{sd} = 64 t _{sd} / I ² That is, T _{sd} = t _{sd} * (8 I _R / I) ²
		标准 + OFF (关闭) Standard + OFF
反时限热记忆 (15min, 断电可清除) Inverse time thermal memory (15min, power off can be cleared)		标准 + OFF (关闭) Standard + OFF

• d. 短路瞬时保护特性

d. Short circuit instantaneous protection feature

整定电流值 Set the current value	I _i =	1.0 I _i ~ 50kA/75kA/100kA+OFF (退出位置) 1.0 I _i ~ 50kA/75kA/100kA+OFF (exit position)
	动作特性 Action characteristic	≤ 0.85I _i : 不动作 ≤ 0.85I _i : No action > 1.15I _i : 动作 > 1.15I _i : Action
动作时间 Action time		< 100ms (含断路器固有分断时间) < 100ms (including natural breaking time of circuit breaker)

• e. 接地故障或剩余电流保护特性

e. Ground fault or residual current protection characteristics

不对地 接地保护 Wrong grounding protection	整定电流值 Set the current value	I _g =I _n ×...	0.2~1 + OFF (最小100A, OFF 表示退出位置) 0.2 ~ 1 + OFF (minimum 100A, OFF indicates exit position)
		动作特性 Action characteristic	< 0.8I _g : 不动作 < 0.8I _g : No action ≥ 1.0I _g : 延时动作 ≥ 1.0I _g : Delay action
	延时整定值 Delay setting value	定时限 t _g (s) Fixed time delay t _g (s)	0.1~1 + OFF (级差 0.1, OFF 表示只报警不跳闸) 0.1 ~ 1 + OFF (differential of 0.1, OFF alarm not only trip)
		反时限系数 KG Inverse time coefficient KG	1.5~6 + OFF (级差 0.5, OFF 表示接地为定时限) 1.5 ~ 6 + OFF (level difference 0.5, OFF indicates a fixed time limit for grounding)
		精度 Accuracy	±10%

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YFW1 Series Universal Type Circuit Breaker

- f. 剩余电流保护特性
- f. Residual current protection characteristics

剩余电流保护 Residual current protection	整定电流值 Set the current value	额定剩余电流 $I_{\Delta n}$ (A) Rated residual current $I_{\Delta n}$ (A)	0.3~30.0 + OFF (级差0.1, OFF表示退出位置) 0.3 ~ 30.0 + OFF (0.1, OFF indicates exit position)
		动作特性 Action characteristic	< 0.8 $I_{\Delta n}$: 不动作 < 0.8 $I_{\Delta n}$: No action ≥ 1.0 $I_{\Delta n}$: 延时动作 ≥ 1.0 $I_{\Delta n}$: Delay action
	延时整定值 Delay setting value	动作延时 $t_{\Delta n}$ (s) Action delay $t_{\Delta n}$ (s)	ON, 0.06, 0.08, 0.10~0.96, 0.98, 1.00, OFF (ON表示瞬时动作, OFF表示只报警不跳闸, 级差为0.02s) ON, 0.06, 0.08, 0.10~0.96, 0.98, 1.00, OFF (ON indicates instantaneous action, OFF indicates only alarm without tripping, level difference is 0.02s)
		反时限系数 KG Inverse time coefficient KG	5 (5 $I_{\Delta n}$ 以下为反时限特性, ≥ 5 $I_{\Delta n}$ 为定时限) 5 (below 5 $I_{\Delta n}$ is the inverse time limit characteristic, ≥ 5 $I_{\Delta n}$ is the fixed time limit)
	精度 Accuracy	±10% (或 ±40ms)	

断路器的操作性能 Operating performance of circuit breakers

- 断路器的操作性能用循环次数表示
The operation of the circuit breaker can be expressed by the number of cycles

壳架等级 (A) Frame Grade (A)	操作循环总次数 Total number of operation cycles
1600	15000
2500	10000
3200, 4000	5000
6300	2000

- 断路器的欠压脱扣器性能
Undervoltage trip performance of circuit breakers

类别 Categories	欠压延时脱扣器 Undercalender trip device	欠压瞬时脱扣器 Undervoltage instantaneous tripper
脱扣器动作时间 Tripper action time	延时 1.3~5s The delay is 1.3~5s	瞬时 Instantaneous
脱扣器动作电压值 Tripper action voltage value	35%-70% U_e	断路器可靠断开 Reliable break of circuit breaker
	≤ 35% U_e	断路器不能闭合 Circuit breaker fails to close
	85%-110% U_e	断路器可靠闭合 Reliable closure of circuit breaker
在 1/2 延时时间内, 如果电源电压恢复到 85% 时 In 1/2 delay time, if the supply voltage up to 85%		断路器不断开 Breaker on and off

注: 延时时间精度为 ±10%。
Note: The delay time accuracy is ±10%.

- 辅助触头的性能
1、辅助触头的约定发热电流 I_{th} : 10A; 使用类别: AC-15; 相应使用类别下额定工作电压和工作电流; U_e/I_e AC230V/400V/5A。
2、辅助触头形式: (常规) 四组转换, 如需其他接线方式请于我公司联系确认。
- Performance of auxiliary contacts
1, the agreed heating current of the auxiliary contact I_{th} : 10A; Use category: AC-15; Rated operating voltage and operating current under the corresponding use category; U_e/I_e AC230V/400V/5A.
2, auxiliary contact form: (conventional) four group conversion, if you need other wiring methods, please contact our company to confirm.

57 安全为先 | 服务为本

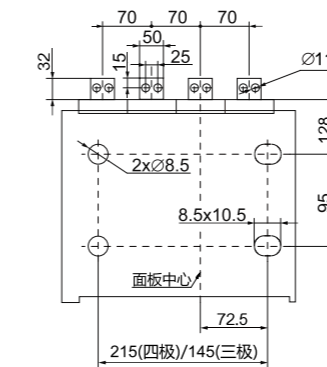
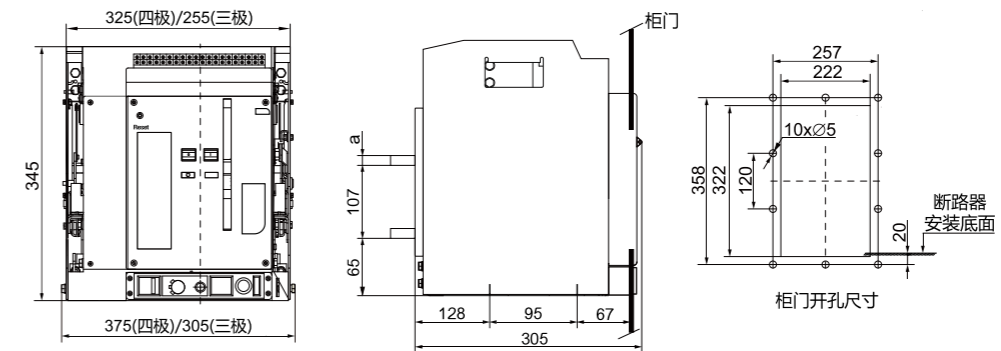
YFW1系列万能式断路器

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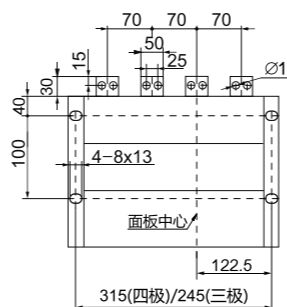
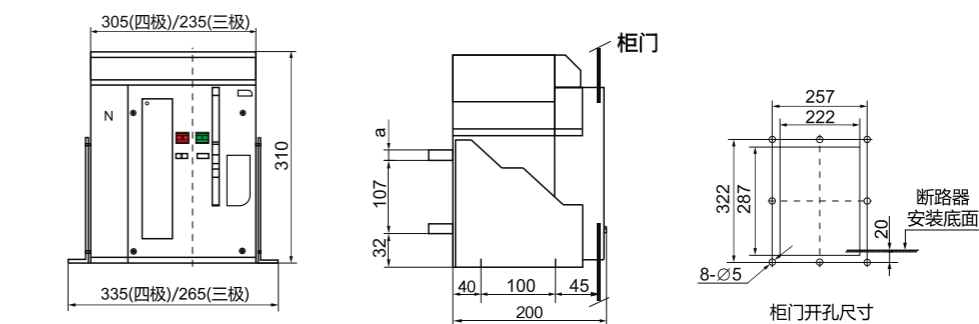
外形及安装尺寸 Outline and mounting dimensions

- YFW1-1600 抽屉式外形及安装尺寸
YFW1-1600 Drawer shape and mounting size



I_n	a(mm)
200A~800A	6
1000A	10
1250A~1600A	18

- YFW1-1600 固定式外形及安装尺寸
YFW1-1600 Fixed shape and mounting size



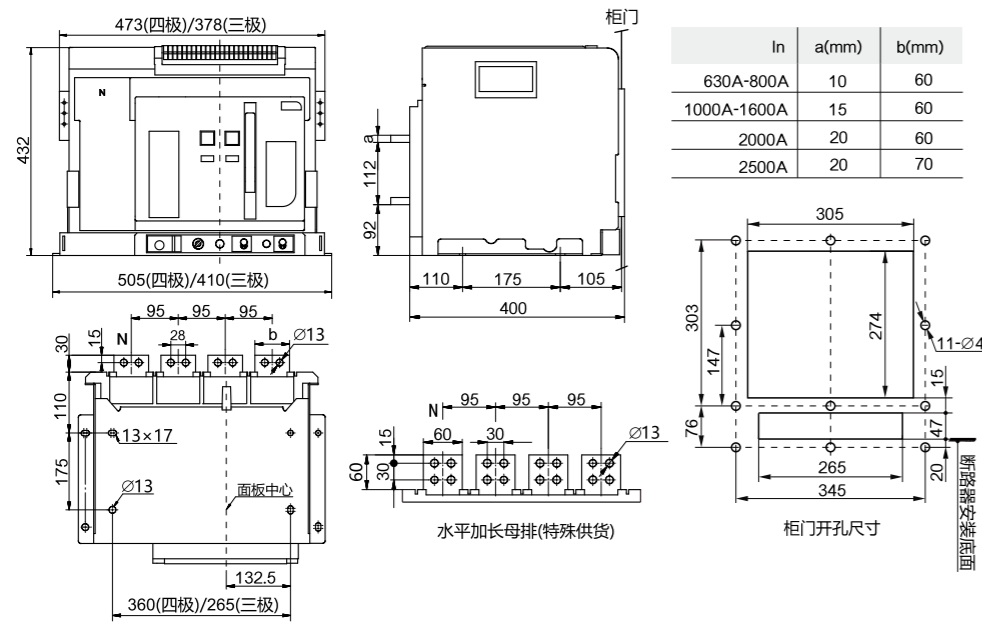
I_n	a(mm)
200A~800A	6
1000A	10
1250A~1600A	18

YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker

YFW1-2500抽屉式外形及安装尺寸

YFW1-2500 Drawer shape and mounting size

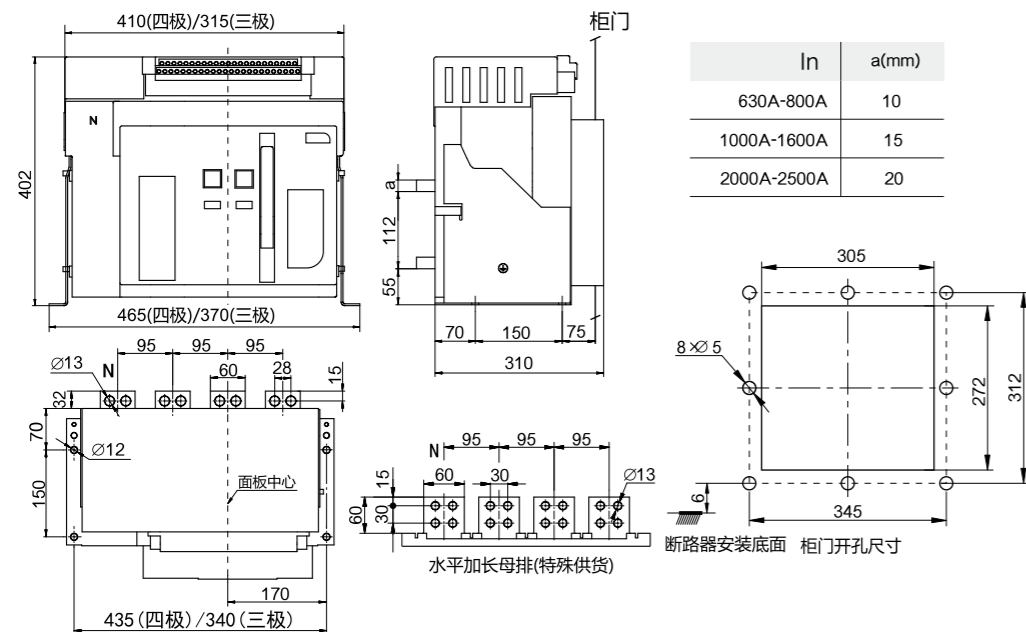


注: YFW1-2500壳架的2500A常规订货默认为长排, 2000A及以下常规订货默认为短排。

Note: YFW1-2500 regular orders of 2500A are long by default, and regular orders of 2000A and below are short by default.

YFW1-2500固定式外形及安装尺寸

YFW1-2500 Fixed shape and mounting size



注: YFW1-2500壳架的2500A常规订货默认为长排, 2000A及以下常规订货默认为短排。

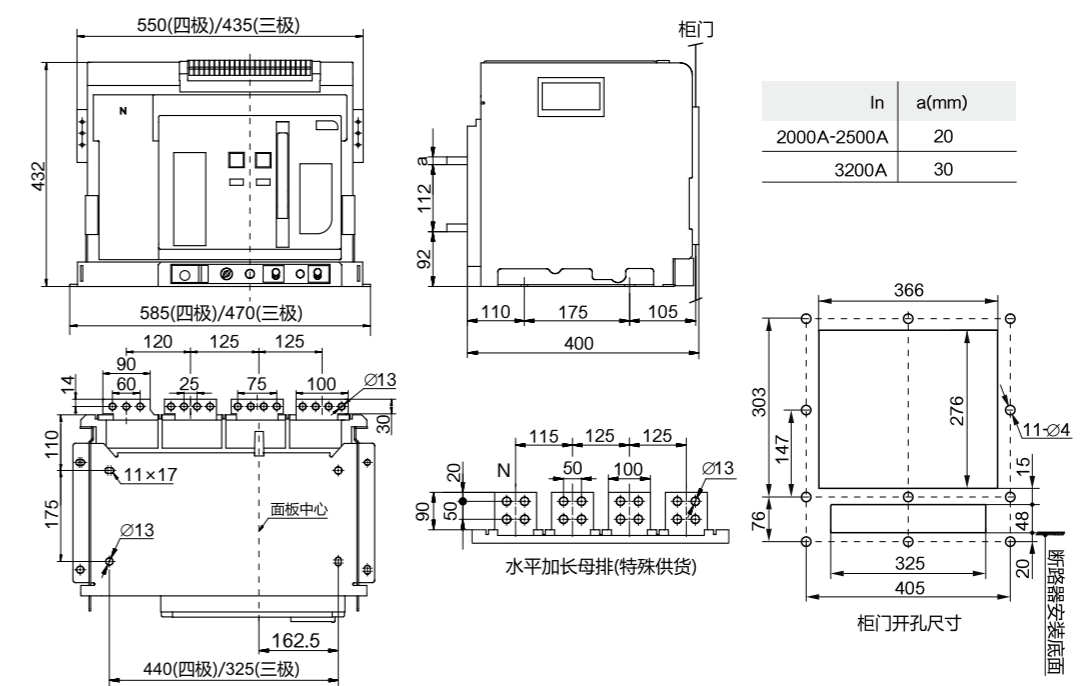
Note: YFW1-2500 regular orders of 2500A are long by default, and regular orders of 2000A and below are short by default.

YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker

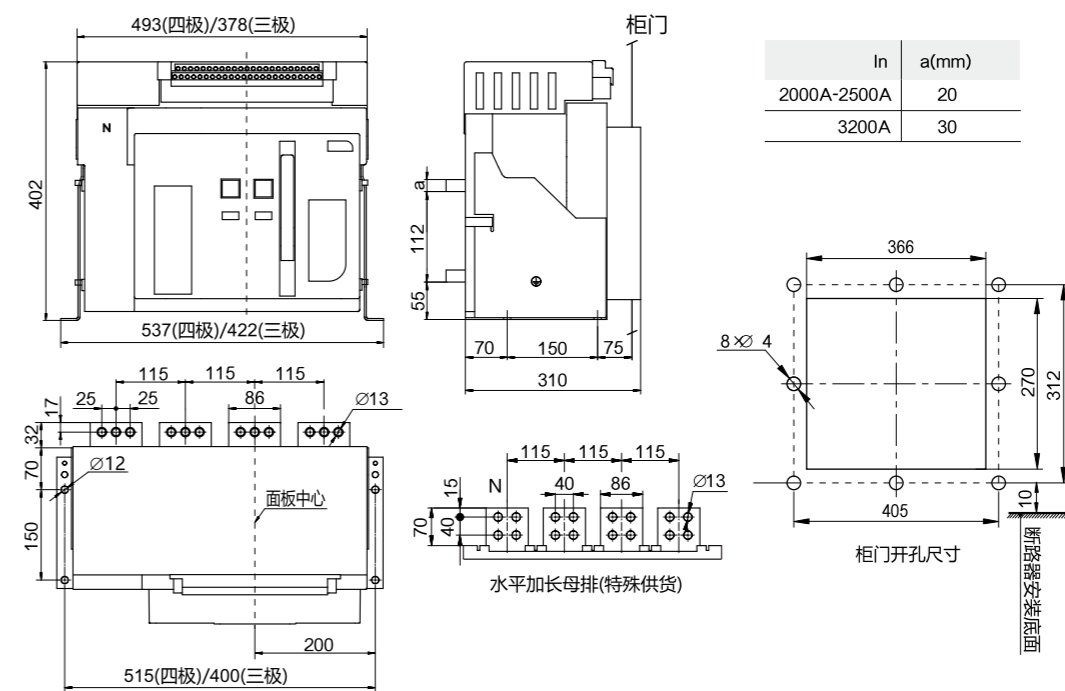
YFW1-3200抽屉式外形及安装尺寸

YFW1-3200 Drawer shape and mounting size



YFW1-3200固定式外形及安装尺寸

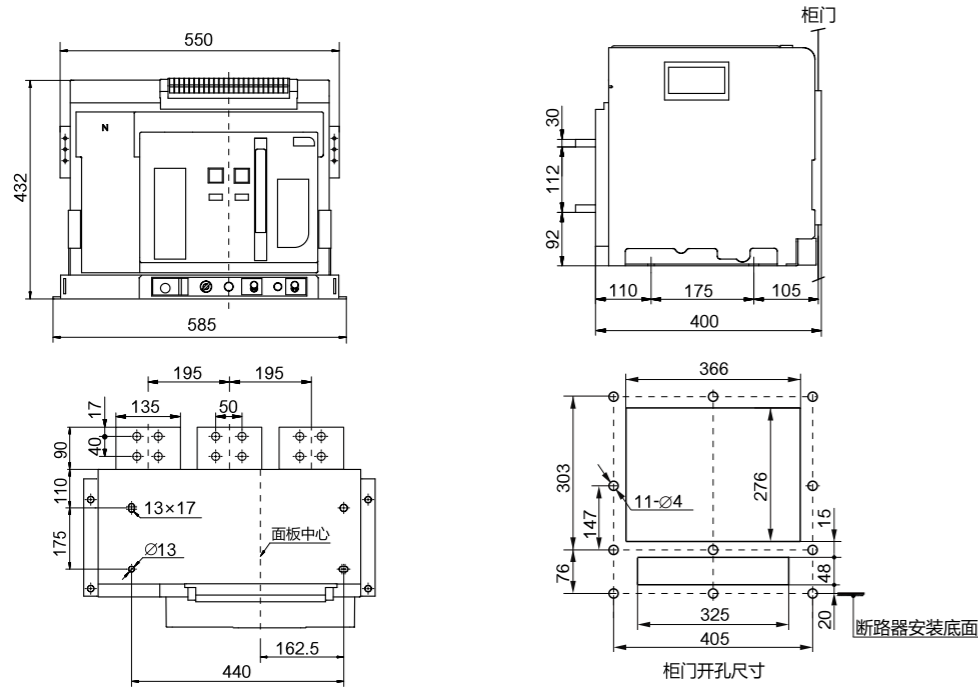
YFW1-3200 Fixed shape and mounting size



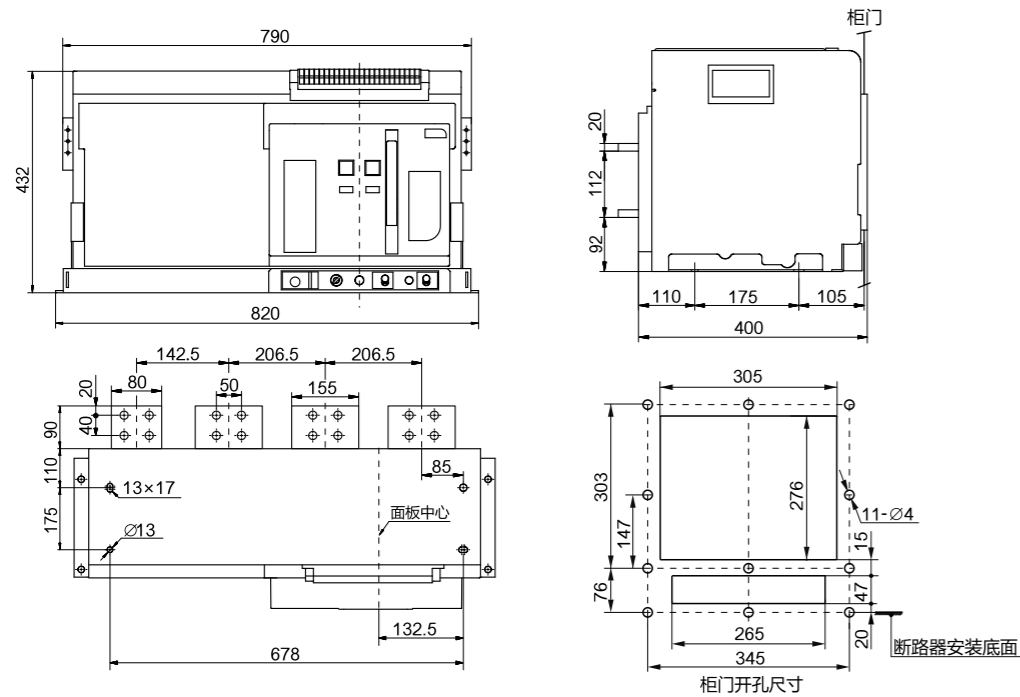
YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker

- YFW1-4000/3P抽屉式外形及安装尺寸
YFW1-4000/3P drawer shape and mounting size



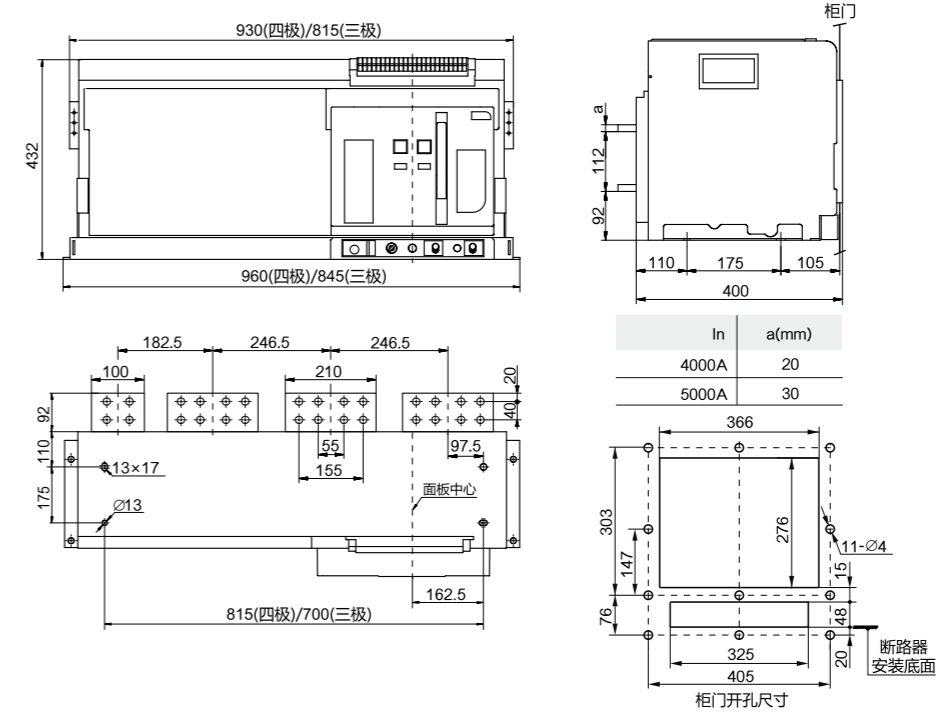
- YFW1-4000/4P抽屉式外形及安装尺寸
YFW1-4000/4P Drawer shape and mounting size



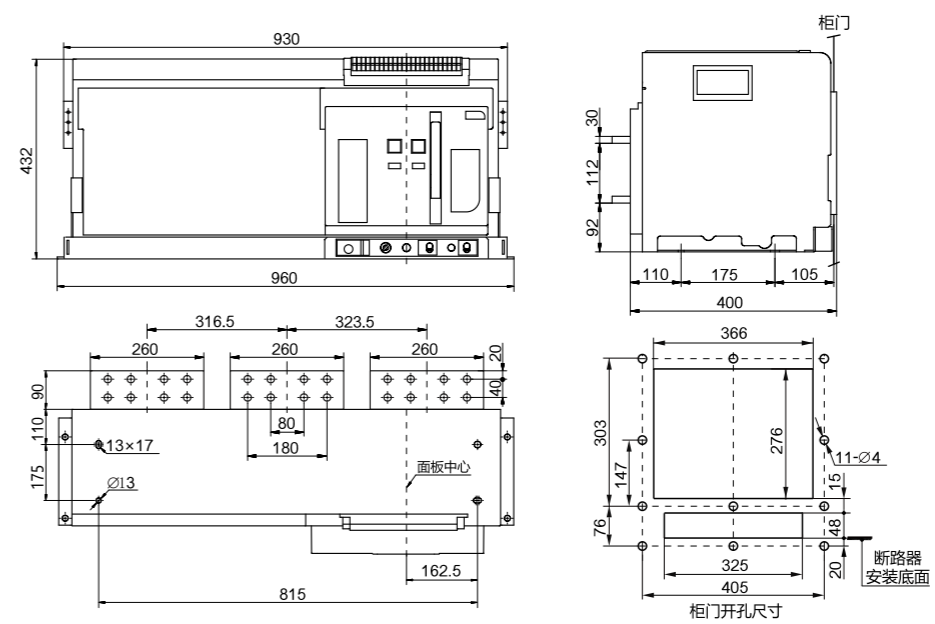
YFW1系列万能式断路器

YFW1 Series Universal Type Circuit Breaker

- YFW1-6300 (4000A、5000A) 抽屉式外形及安装尺寸
YFW1-6300(4000A, 5000A) Drawer shape and mounting size



- YFW1-6300 (6300A) 抽屉式外形及安装尺寸
YFW1-6300(6300A) Drawer shape and mounting size



CJX2系列交流接触器

CJX2 Series AC Contactor



适用范围 Scope of Application

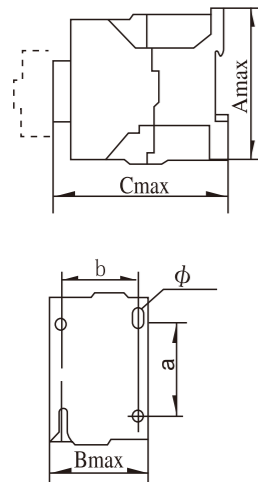
CJX2系列交流接触器(以下简称接触器),主要用于交流50Hz或60Hz额定工作电压到660V,在AC-3使用类别下额定工作电压变380V时额定工作电流从9至95A的电路中,供远距离接通和分断电路之用,且适宜频繁启动及控制交流电动机。

该接触器和热继电器对接可组成电磁起动器,若加空气延时头可组成延时接触器,另外,可增加辅助触头数量,可另加辅助触头组。还可以用两台同型号接触器之间加机械联锁机构组成可逆接触器或组装成星三角起动器。

CJX2 series AC contactor (hereinafter referred to as contactor), mainly used for AC 50Hz or 60Hz rated working voltage to 660V, rated working current from 9 to 95A in the AC-3 category of rated working voltage to 380V, for long-distance connecting and breaking the circuit, and suitable for frequent start and control of AC motor.

The contactor and the thermal relay can be connected to form an electromagnetic starter, if the air delay head can be added to form a delay contactor, in addition, the number of auxiliary contacts can be increased, and an auxiliary contact group can be added. A reversible contactor or a star triangle starter can also be assembled by adding a mechanical interlocking mechanism between two contactors of the same model.

型号及含义 Model And Meaning



CJ X □-□/□□ Z

- 有Z表示直接操作 There's Z for direct operation
- 派生代号: 如有N表示联锁接触器
Derived code: If N indicates interlock contactor
- 辅助触头数量及组合形成
Number and combination of auxiliary contacts
- 在AC-3使用类别下额定工作电压为380V时的额定工作电流(A)
Rated operating current at rated operating voltage 380V under AC-3 service class (A)
- 设计代号 Design code
- 小型 Small size
- 交流接触器 AC contactor

使用条件 Conditions of use

- 1. 环境温度: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$;
- 2. 海拔高度: 不超过2000m;
- 3. 空气相对湿度: 在最高温度为 $+40^{\circ}\text{C}$ 时不超过 50%, 在较低温度下可以有较高的相对湿度, 在最湿月的月平均最低温度不超过 $+25^{\circ}\text{C}$ 该月的月平均最大相对湿度不超过90%, 由于温度变化发生在产品上的凝露情况必须采取措施。
- 4. 周围局部微观环境污染等级为“3级”。
- 5. 安装位置: 安装面对垂直面的倾斜度不超过 $\pm 5^{\circ}$ 。
- 6. 冲击和振动: 接触器应安装在无显著摇动、冲击和振动的地方。
- 7. 吸合电压: 接触器在额定电压的85%-110%Us下应正常吸合。
- 8. 释放电压: 接触器在额定电压的 20%-75%Us 范围内应正常释放。

- 1. Ambient temperature: $-5^{\circ}\text{C} \sim +40^{\circ}\text{C}$;
- 2. Altitude: no more than 2000m;
- 3. Air relative humidity: at the highest temperature of $+40^{\circ}\text{C}$ does not exceed 50%, at lower temperatures can have a higher relative humidity, in the wettest month of the monthly average minimum temperature does not exceed $+25^{\circ}\text{C}$ of the month of the monthly average maximum relative humidity does not exceed 90%, due to temperature changes in the condensation of the product must be taken measures.

CJX2系列交流接触器

CJX2 Series AC Contactor

- 4. The local micro-environmental pollution level is "Level 3".
- 5. Installation position: the inclination of the vertical face of the installation does not exceed $\pm 5^{\circ}$.
- 6. Shock and vibration: The contactor should be installed in a place without significant shaking, shock and vibration.
- 7. Suction voltage: the contactor should normally suction at 85%-110% of the rated voltage.
- 8. Release voltage: the contactor should release normally within the range of 20%-75% of the rated voltage.

技术参数 Technical Parameter

型号 Model	CJX2-	09	12	18	25	32	40	50	65	80	95	
额定绝缘电压Ui Uh insulation voltage Ui	V	690										
约发热电Ith About heating electricity Ith	A	20	25	32	40	50	60	80	80	95	95	
额定工作电流(A) Rated operating current (A)	380V	AC-3	9	12	18	25	32	40	50	65	80	95
		AC-4	3.3	5	7.7	8.5	12	18.5	24	28	37	44
	660V	AC-3	6.6	8.9	10.6	18	21	34	39	42	49	49
		AC-4	1.5	2	3.8	4.4	7.5	9	12	14	17.3	21.3
在AC-3使用类别下控制电动机 最大功率(kW) Maximum motor power under AC-3 usage category (kW)	220V	2.2	3	4	5.5	7.5	11	15	18.5	22	25	
	380V	4	5.5	7.5	11	15	18.5	22	30	37	45	
	660V	5.5	7.5	10	15	18.5	30	33	37	45	45	
在AC-4使用类别下控制电动机 最大功率(kW) Maximum motor power under AC-4 usage category (kW)	220V	0.8	1.1	1.6	2	2.6	4	5.2	6	8.2	10	
	380V	1.2	2.3	3.5	4	5.5	8.5	11	13	17	20	
	660V	0.8	1.6	2.8	3.5	6	7.2	9.6	12	14	17	
配用SCPD型号及电流(A) SCPD model and current (A)	NT00	20		32	50		60	80		125		
额定冲击耐受电压Uimp Rated impact withstand voltage Uimp	kV	8										
额定限制短路电流Iq Rated limited short circuit current Iq	kA	50 (对应电压660V)					50 (corresponding voltage 660V)					
线圈 Coil	吸合功率 Suction power	VA	50-70			90-100		190-250				
	保持功率 Holding power	VA	7-9.5			13-25		17-30				
机械寿命(万次) Machine Life (10,000 times)		1000				800			500			
电寿命(万次) Electrical Life (10,000 times)	AC-3使用类别 AC-3 Usage category	100			80		60		50			
	AC-4使用类别 AC-4 Usage category	20				15			10			
协调配合类型 Coordination type		“2”型 Type "2"										
能效等级 Energy efficiency class		3级 Level 3										
接线端子连接最大导线面积mm² The maximum cable area connected to the terminal is mm²	主回路 Main loop	1.5	2.5	4	6	10	16	35				
	辅助电路 Auxiliary circuit	1.5										
线圈控制电压Us Coil control voltage Us	AC(V)	24,36,48,110,127,220,380,415										

CJ19系列切换电容器接触器

CJ19 Series Switching Capacitor Contactor



适用范围 Scope of Application

CJ19系列交流接触器(以下简称接触器),在交流频率为50Hz,电压至380V电力系统中,专用于投切低压并联电容器,能有效地减少合闸涌流对电容器的冲击和降低开断瞬间的操作过电压,以改善电力系统的功率因数。

Cj19 series AC contactor (hereinafter referred to as contactor), in the AC frequency of 50Hz, voltage to 380V power system, dedicated to switching low-voltage shunt capacitor, can effectively reduce the impact of the closing inrush current on the capacitor and reduce the operating overvoltage of the breaking moment, in order to improve the power factor of the power system.

型号及含义 Model And Meaning



技术参数 Technical Parameter

型号 Model number	CJ19-25	CJ19-32	CJ19-43	CJ19-63	CJ19-95
可控容量Qn Controllable capacity Qn	220V 6	9	10	15	25
	380V 12	18	20	30	40
约定发热电流 I _{th} (A) Conventional heating current I _{th} (A)	25	32	43	63	95
额定绝缘电压 U _i (V) Rated insulation voltage U _i (V)	500				
操作频率 次/n Operating frequency times /n	120				
抑制涌流能力 Ability to suppress surge current	≤20I _e				
线圈 Coil	电压U _s (V) Voltage U _s (V)	220,380			
	动作范围 Range of action	0.85-1.1U _s			
	消耗功率 VA Power consumption VA	115		200	
		11		20	
电寿命 万次 Electrical life ten thousand times	10				
机械寿命 万次 Mechanical life thousands of times	100				
辅助触头约定发热电流 I _{th} (A) Auxiliary contact conventional heating current I _{th} (A)	10				
辅助触头控制容量 Auxiliary contacts control capacity	AC-15 360VA;DC-13 33W				

CJ19系列切换电容器接触器

CJ19 Series Switching Capacitor Contactor

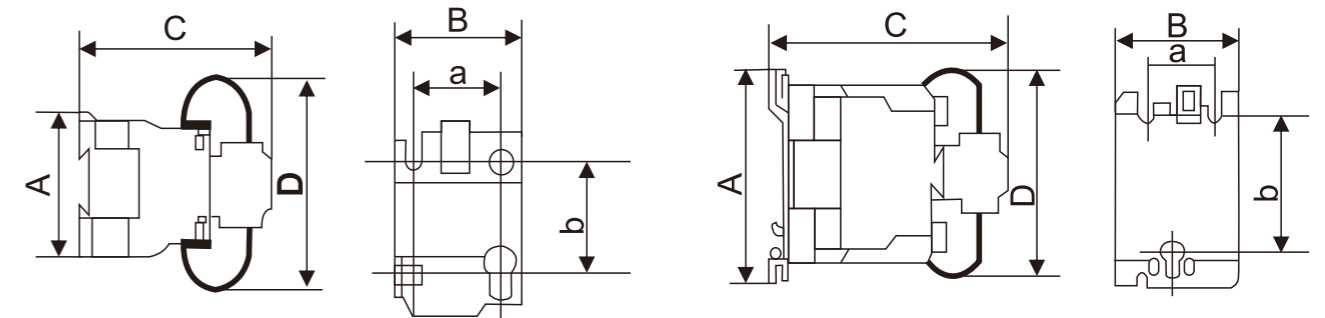
YIFA® 伊发
股票代码:870154

使用条件 Conditions of use

- 周围空气温度: -5°C~+40°C;
- 相对湿度: +25时不超过90%;
- 海拔: 不超过2000m;
- 污染等级: 3级。
- Ambient air temperature: -5°C ~ +40°C;
- Relative temperature: not more than 90% at +25;
- Altitude: no more than 2000m;
- Pollution level: Level 3.

外形及安装尺寸 Outline and mounting dimensions

尺寸 size 型号 Model number	外形尺寸 (mm) Overall dimension(mm)				安装尺寸 (mm) Mounting size (mm)			
	Amax	Bmax	Cmax	Dmax	a	b	Φ	卡轨 Card track
CJ19-25	76	47	125	140	34/35	50/60	4.5	35
CJ19-32	85	57	132	140	40	48		
CJ19-43	85	57	136	140	40	48		
CJ19-63	127	77	150	180	40	100/110	6.5	75
CJ19-95	129	79	158	180	40	100/110		



CJ19-25、32、43外形及安装尺寸
CJ19-25, 32, 43 Outline and mounting dimensions

CJ19-63、95外形及安装尺寸
CJ19-63、95 Outline and mounting dimensions

CJ20系列交流接触器

CJ20 Series AC Contactor



适用范围 Scope of Application

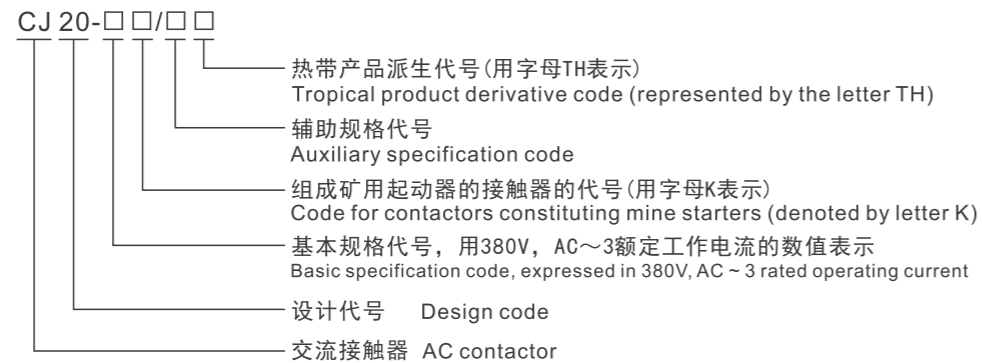
CJ20系列交流接触器主要用于交流50Hz、电压至660V(个别等级为1140V)、电流至630A的电务系统中接通和断开电路，并与适当的热继电器或电子式保护装置组成电磁起动器，以保护可能发生过负荷的电器。

* "03" 代表380V，一般可不写出，"06" 代表660V，如产品结构与380V时完全相同，亦不写出；"11" 代表1140V。

Cj20 series AC contactors are mainly used to connect and disconnect circuits in electrical service systems with AC 50Hz, voltage to 660V(individual grade 1140V) and current to 630A, and to form electromagnetic starters with appropriate thermal relays or electronic protection devices to protect electrical appliances that may be overloaded.

* "03" represents 380V, generally do not write, "06" represents 660V, if the product structure is exactly the same as 380V, also do not write; 11 stands for 1140V.

型号及含义 Model And Meaning



- 按380VAC~3额定工作电流分为10、16、25、40、63、100、160、250、400、630A十种。
- 按控制回路额定控制电源电压性质分：
 - 交流(50Hz)36、127、220、380V四种；
 - 直流：48、110、220V三种；
- According to 380VAC ~ 3 rated working current is divided into 10, 16, 25, 40, 63, 100, 160, 250, 400, 630A ten.
- According to the rated power supply voltage properties of the control loop:
 - AC (50Hz)36, 127, 220, 380V four kinds;
 - DC: 48, 110, 220V three kinds;

使用条件 Conditions of use

- 周围空气温度
 - 周围空气温度上限不超过+40℃；
 - 周围空气温度的下限值不低于-5℃(也可为-10℃或-25℃，但在订货时需向厂方申明)
- 海拔高度
安装地点的海拔不超过2000m。
- 大气条件
大气的相对湿度，在最高温度+40℃时不超过50%；
在较低温度下可以有较高的相对湿度，在最湿月的月平均最低温度为+25℃时的月平均最大相对湿度可为9%，并应考虑因温度变化发生的产品表面的凝露。
- 安装条件
接触器的应按图1所示工作位置安装。
安装面与垂直面的倾斜度不大于±5°，供煤矿井下用产品按±15°考核。
外形，安装尺寸及其有关数据见图1及表1

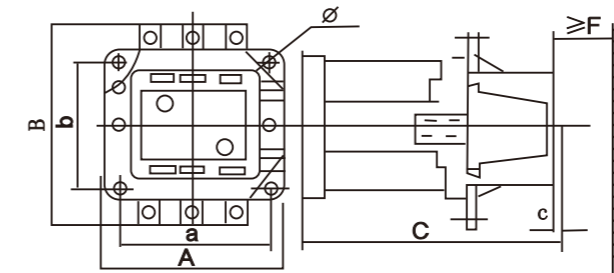
CJ20系列交流接触器

CJ20 Series AC Contactor

- Ambient air temperature
 - The upper limit of ambient air temperature does not exceed +40℃;
 - The lower limit of the ambient air temperature is not less than -5℃ (it can also be -10℃ or -25℃, but it should be stated to the manufacturer when ordering)
- altitude
The elevation of the installation site does not exceed 2000m.
- Atmospheric condition
The relative humidity of the atmosphere does not exceed 50% at the maximum temperature of +40℃;
The relative humidity can be higher at lower temperatures, and the monthly average maximum relative humidity can be 9% when the monthly average minimum temperature is +25℃ in the wettest month, and the condensation on the surface of the product due to temperature changes should be considered.
- Installation condition
The contactor shall be installed at the working position as shown in Figure 1.
The inclination of the installation surface and the vertical plane is not more than ±5°, and the products used in the coal mine are assessed by ±15°.
Figure 1 and Table 1 show the outline, installation size and related data.

外形及安装尺寸 Outline and mounting dimensions

型号 Model number	A	B	C	a	b	F	Φ	c
CJ20-10	44.5	67.5	107	35±0.31	55±0.37	10	5	5
CJ20-16	44.5	73	116.5	35±0.31	60±0.37	10	5	5
CJ20-25	53	91	122	40±0.195	80±0.37	15	5	5
CJ20-40	87	112.5	118	70±0.37	80±0.37	30	5	6
CJ20-63	116	142	146	100±0.4	90±0.4	60	5.8	
CJ20-100	122	147	154	108±0.435	92±0.435	70	7	
CJ20-160	146	187	178	130±0.5	130±0.5	80	9	
CJ20-160/11	146	197	190	130±0.5	130±0.5	80	9	
CJ20-250	190	235	230	130±0.5	150±0.5	100	9	
CJ20-250/06	190	235	230	160±0.5	150±0.5	100	9	
CJ20-400	190	235	230	160±0.5	150±0.5	100	9	
CJ20-630	245	294	272	210±0.575	180±0.5	120	11	
CJ20-630/06	245	294	287	210±0.575	180±0.5	120	11	
CJ20-630/11								

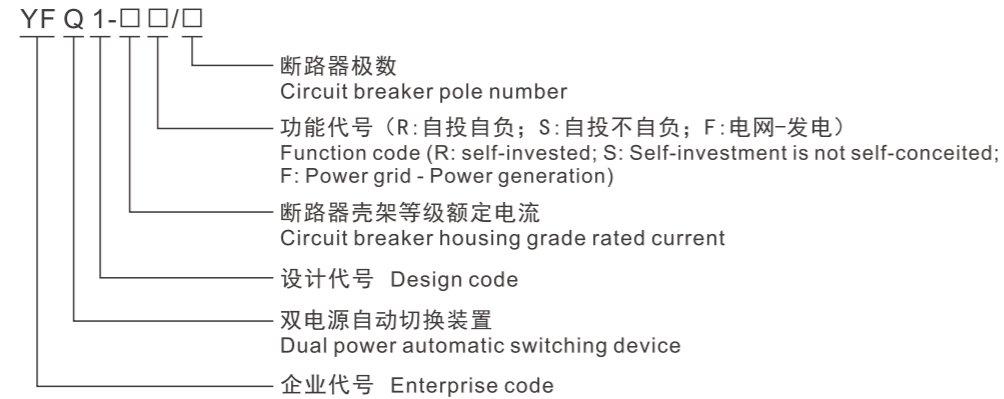


YFQ1双电源自动切换装置

YFQ1 Dual Power Automatic Switching Device



型号及含义 Model And Meaning



控制器特性及功能 Controller features and functions

- 双电源自动转换开关根据工作电源的电压状态，以及用户所设置的工作方式，决定是否从一个电源转向另一个电源。它的功能取决于其所配置的控制器，控制器包括Y、Y+W2、Y+W3三种型号的控制器，其具备的主要功能和特性如下表所示：
- According to the voltage state of the working power supply and the working mode set by the user, the dual power switch decides whether to switch from one power supply to another power supply. Its function depends on the controller it is configured with, the controller includes Y, Y+W2, Y+W3 three types of controller, its main functions and characteristics are shown in the following table:

控制器 Controller	Y型控制器 Y type controller	Y+W2型控制器 Y+W2 controller	Y+W3型控制器 Y+W3 controller
工作电源 Working power supply	AC160-250V 50/60Hz	DC12V (由Y型控制器内部提供) DC12V (provided internally by Y controller)	
安装方式 Installation mode	一体式 All in one	分体嵌入式控制面板 Split embedded control panel	
工作位置 Working position	三个工作位置 Three working positions		
操作方式 Mode of operation	自动、手动和电手动操作 Automatic, manual and electric manual operation		
电压监测功能 Voltage monitoring function	三相过压、欠压、缺相检测 Three-phase overvoltage, undervoltage and phase deficiency detection		
频率监测功能 Frequency monitoring function	频率测量 Frequency measurement		
发电机控制 Generator control	一组3A继电器干接点 A set of 3A relay dry contacts		
消防联动控制 Fire control linkage	无源触点输入，带一组常开无源信号反馈触点 Passive contact input with a set of normally open passive signal feedback contacts		
转换方式 Conversion mode	可设置自投自复、自投不自复、和电网—发电机模式 You can set self-restoring, self-restoring, and grid-generator modes		
显示功能 Display function	数码管和指示灯显示电源参数及开关状态 Nixie tube and indicator light show power parameters and switch status	中文液晶显示 Chinese liquid crystal display	
转换延时功能 Conversion delay function	0.5-60秒连续可调节 0.5-60 seconds continuous adjustable		
返回延时功能 Back delay function	0.5-60秒连续可调节 0.5-60 seconds continuous adjustable		

YFQ1双电源自动切换装置

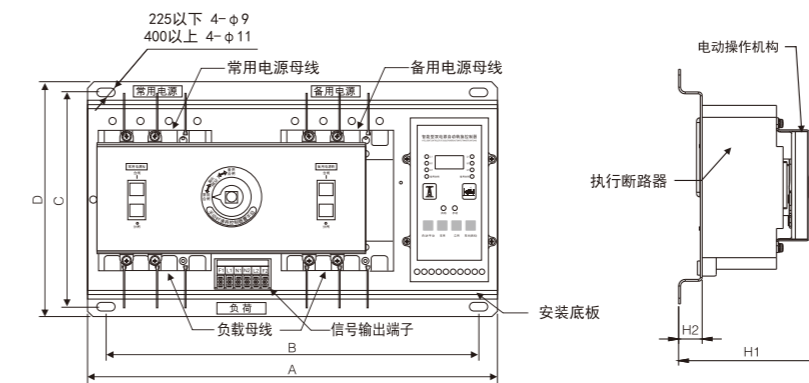
YFQ1 Dual Power Automatic Switching Device

YIFA® 伊发
股票代码: 870154

技术参数 Technical Parameter

型号 Model number	100/225	400	630/800
机械寿命 Mechanical life	5000	3000	2500
电寿命 Electrical life	1000	1000	500
额定工作制 Rated working system	不间断工作制 Non-stop working		
过电压切换整定值 Overvoltage switching setting	200~300VAC (可调节) 200~300VAC (adjustable)		
欠电压切换整定调节范围 Undervoltage switching sets the regulation range	200~300VAC (可调节) 200~300VAC (adjustable)		
触头转换时间 Contact transition time	<4s		
分闸延时 t1 Switching delay t1	0.5~30s连续可调 0.5~30s continuous adjustable		
合闸延时 t2 Closing delay t2	0.5~30s连续可调 0.5~30s continuous adjustable		

外形及安装尺寸 Outline and mounting dimensions



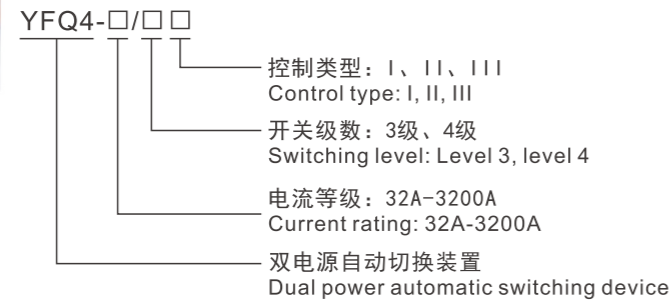
规格 Specifications	尺寸 size	A		D	B		C	H1	H2
		3P	4P		3P	4P			
63		380	405	250	340	365	230	< 160	25
100		405	435	250	365	395	230	< 170	25
225		450	480	250	410	440	230	< 190	25
400		570	620	330	510	560	300	< 200	25
630		680	740	330	620	680	300	< 250	25
800		750	820	330	690	760	300	< 250	25

YFQ4双电源自动切换装置

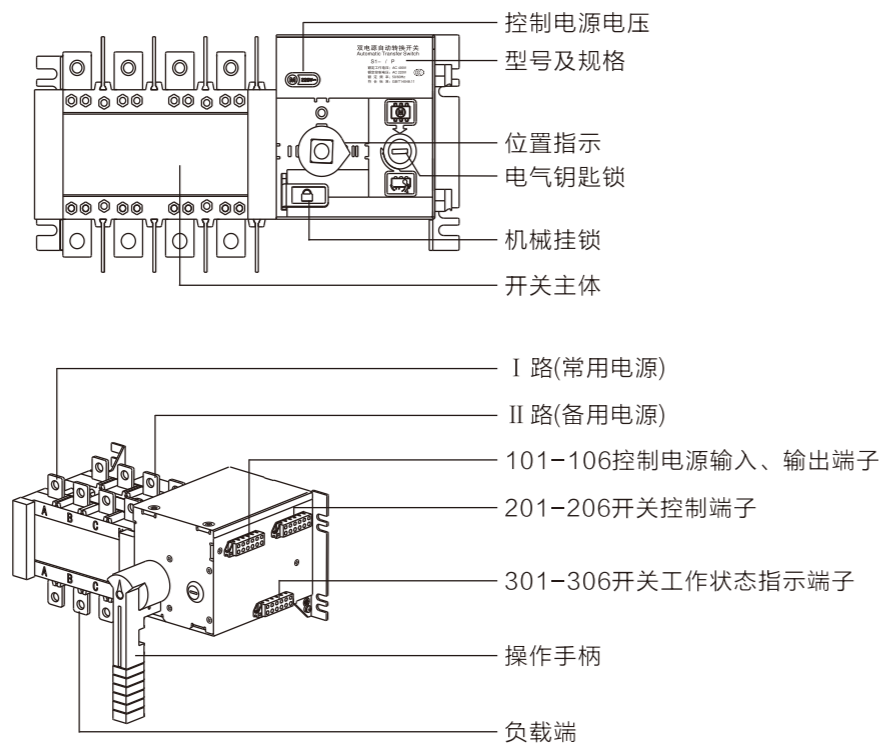
YFQ4 Dual Power Automatic Switching Device



型号及含义 Model And Meaning



开关结构说明 Switch structure Description



- ① 电气钥匙锁: 控制开关内部控制线路电源, 电气锁开启时, 开关实现自动、远端操作, 电气锁关闭时, 开关只可手动操作。
 - ② 操作手柄: 使用操作手柄操作开关时, 必须关闭电气锁。
 - ③ 机械挂锁: 检修时, 先用操作手柄使开关处于0档位置, 拉起挂锁机构并上挂锁, 方可进行检修; (拉起机械挂锁则切断开关内部控制电源, 开关无法电动并且无法实现手动)。
 - ④ 位置指示: 表示开关工作状态位置(I, 0, II)。
 - ⑤ 控制电源电压: AC 220V。
- ① Electric key lock: control switch internal control line power supply, when the electric lock is opened, the switch to achieve automatic and remote control operation, when the electric lock is closed, the switch can only be manually operated.
 - ② Operating handle: When using the operating handle to operate the switch, the electrical lock must be closed.

YFQ4双电源自动切换装置

YFQ4 Dual Power Automatic Switching Device

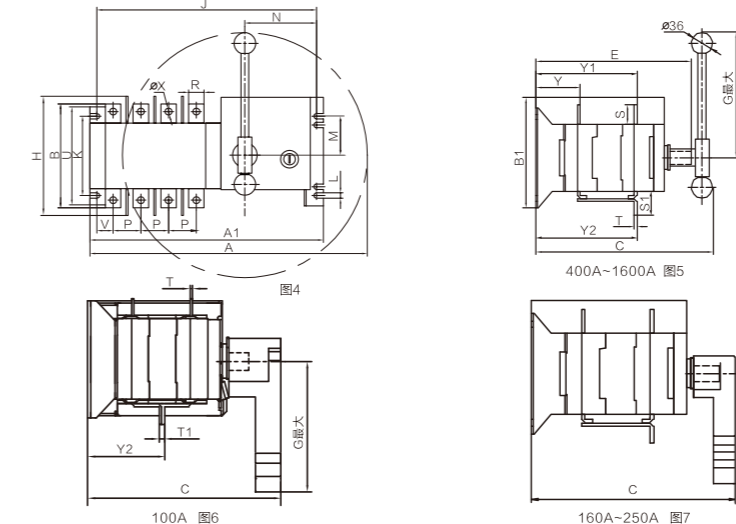
- ③ Mechanical padlock: maintenance, first use the operating handle to make the switch in the 0 gear position, pull up the padlock mechanism and padlock, can be repaired; (Pulling up the mechanical padlock will cut off the internal control power supply of the switch, and the switch cannot be electric and cannot be manually implemented).
- ④ Position indicator: indicates the switch working state position (I, 0, II).
- ⑤ Control power supply voltage: AC 220V.

技术参数 Technical Parameter

壳架等级 Frame grade	100	250	630	1600	3200							
额定工作电流 I _e (A) Rated operating current I _e (A)	32 40 50 63 80 100 125 160 200 225 250 315 350 400 500 630 800 1000 1250 1600 2000 2500 3200											
额定绝缘电压 U _i Rated insulation voltage U _i	690V			800V								
额定冲击耐受电压 U _{imp} Rated impulse withstand voltage U _{imp}	8kV											
额定工作电压 U _e Rated operating voltage U _e	AC 400V											
使用类别 Category of use	AC-33B			AC-33iB								
额定短路接通能力 I _{cm} Rated short-circuit closing capacity I _{cm}	8kA	17kA	26kA	67.5kA								
额定短时耐受电流 I _{cw} Rated short-time withstand current I _{cw}	5kA/30ms	10kA/60ms	12.6kA/60ms	32kA/60ms								
转换时间 I-II 或 II-I Conversion time I-II or II-I	2.5s	0.6s		1.2s	1.8s 2.4s							
控制电压 Control voltage	DC24V, 48V, 110 AC 220V											
电机额定功率 Rated power of motor	启动 Startup	20W	325W	355W	400W	440W	600W					
	正常 Normal		62W	74W	90W	98W	120W					
重量 (kg) 4极 Weight (kg) 4 poles	3.4	6.0	7.6	15.8	16.8	36	36	37	38.6	55	61	67

外形及安装尺寸 Outline and mounting dimensions

- 16A~1600A 安装图(两进一出)
16A~1600A installation diagram (two in and one out)



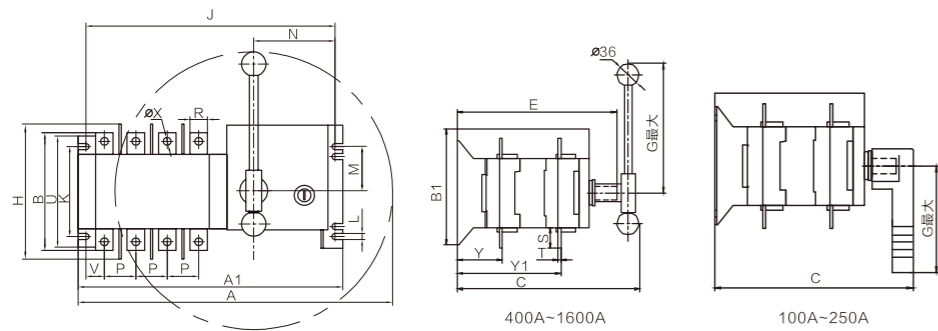
YFQ4双电源自动切换装置

YFQ4 Dual Power Automatic Switching Device

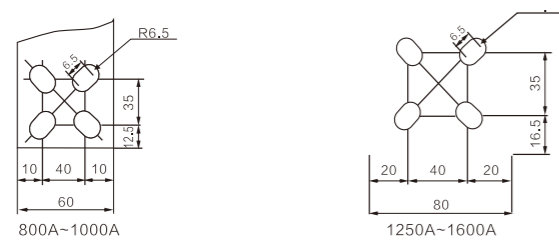
• 32A~1600A安装尺寸(两进一出)
32A~1600A Installation size (two in one out)

规格 Specifications	总尺寸 Overall dimension																		开关安装 Switch installation										接线端子 Wiring terminal				
	A	A1	B	B1	C	E	G	H	J	K	L	M	N	P	R	S	S1	T	T1	U	V	ΦX	Y	Y1	Y2								
32-100A	270	245	110	103	170	142	115	146	226	84	7	44	81	30	14	18	23	2.5	5	103	12	6	40.5	92	67.5								
125-160A	348	305	147	142	224	190	144	185	284	102	7	49	91	36	20	25	37	3.5	/	127.5	19	9	56	127.5	127.5								
250A	411	368	170	142	224	190	144	200	352	102	7	49	91	50	25	29	40	3.5	/	141.5	28	11	56	130	130								
400A/3P	525	374	249	222	305	268	250	290	354	179	9	96	91	65	32	37	52	5	/	222	38	11	83	193	193								
400A/4P	585	435	249	222	305	268	250	290	415	179	9	96	91	65	32	37	52	5	/	222	38	11	83	193	193								
630A/3P	525	374	265	222	305	268	250	290	354	179	9	96	91	65	40	45	61	6	/	222	38	12	83.5	193.5	196								
630A/4P	585	435	265	222	305	268	250	290	415	179	9	96	91	65	40	45	61	6	/	222	38	12	83.5	193.5	196								
800-1000A/3P	785	520	352	250	390	326	360	/	496	220	11	115	84	120	60	64	88	8	/	250	56.5	13	109	254	254								
800-1000A/4P	1080	635	352	250	390	326	540	/	610	220	11	115	84	120	60	64	88	8	/	250	60.5	13	109	254	254								
1250A/3P	785	520	368	250	390	326	360	/	496	220	11	115	84	120	80	68	100	8	/	250	56.5	13	109	254	254								
1250A/4P	1080	635	352	250	390	326	540	/	610	220	11	115	84	120	80	64	100	8	/	250	60.5	13	109	254	254								
1600A/3P	785	520	376	250	390	326	360	/	496	220	11	115	84	120	80	68	108	10	/	250	56.5	13	110	255	255								
1600A/4P	1080	635	376	250	390	326	540	/	610	220	11	115	84	120	80	68	108	10	/	250	60.5	13	110	255	255								

• 16A~1600A安装图(两进两出)
16A~1600A installation diagram (two in and two out)



• 1000A~1600A安装图
1000A~1600A installation diagram



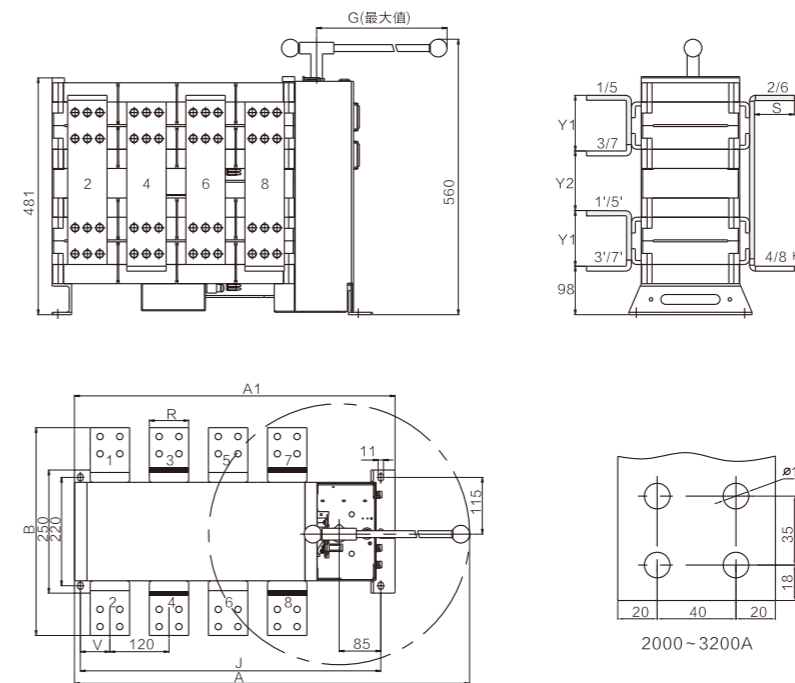
YFQ4双电源自动切换装置

YFQ4 Dual Power Automatic Switching Device

• 32A~1600A安装尺寸(两进两出)
32A~1600A Installation size (two in two out)

规格 Specifications	总尺寸 Overall dimension																		开关安装 Switch installation										接线端子 Wiring terminal				
	A	A1	B	B1	C	E	G	H	J	K	L	M	N	P	R	S	T	U	V	ΦX	Y	Y1	Y2										
32-100A	270	245	106	103	170	142	115	146	226	84	7	44	81	30	14	18	2.5	5	103	12	6	40.5	92	67.5									
125-160A	348	305	135	142	224	190	144	185	284	102	7	49	91	36	20	25	3.5	127.5	19	9	56	127.5	127.5	127.5									
250A	411	368	159	142	224	190	144	200	352	102	7	49	91	50	25	29	3.5	141.5	28	11	56	130	130	130									
400A/3P	525	374	234	222	305	268	250	290	354	179	9	96	91	65	32	37	52	5	/	222	38	11	83	193	193								
400A/4P	585	434	234	222	305	268	250	290	414	179	9	96	91	65	32	37	52	5	/	222	38	11	83	193	193								
630A/3P	525	374	250	222	305	268	250	290	354	179	9	96	91	65	40	45	61	6	/	222	38	12	83.5	193.5	196								
630A/4P	585	435	250	222	305	268	250	290	415	179	9	96	91	65	40	45	61	6	/	222	38	12	83.5	193.5	196								
800-1000A/3P	785	520	328	250	390	326	360	/	496	220	11	115	84	120	60	64	88	8	/	250	56.5	13	109	254	254								
800-1000A/4P	1080	635	328	250	390	326	540	/	610	220	11	115	84	120	60	64	88	8	/	250	60.5	13	109	254	254								
1250A/3P	785	520	336	250	390	326	360	/	496	220	11	115	84	120	80	68	8	250	56.5	13	109	254	254	254									
1250A/4P	1080	635	336	250	390	326	540	/	610	220	11	115	84	120	80	64	8	250	60.5	13	109	254	254	254									
1600A/3P	785	520	336	250	390	326	360	/	496	220	11	115	84	120	80	68	10	250	56.5	13	110	255	255	255									
1600A/4P	1080	635	336	250	390	326	540	/	610	220	11	115	84	120	80	68	10	250	60.5	13	110	255	255	255									

• 2000A~3200A安装图(两进一出)
2000A~3200A installation diagram (two in and one out)



质量保证及服务承诺

COMMITMENT TO QUALITY AND SERVICE

“以客为尊，快速反应”是伊发人的服务宗旨。集团本着对用户高度的责任感，为用户所想，为用户所急，质量第一，服务第一，切切实实做好服务工作。我集团所有产品全部通过CCC国家强制性产品认证，12KV、35KV箱式变电站及高压柜、环网柜均顺利取得国家高压检测中心型式试验报告。而且我集团在确保产品质量方面有着一套完整的质量保证体系，其中包括对产品售前、售中、售后服务和对客户的技术咨询及技术培训，我们完全同意和满足贵方设备招标的服务要求，为此本集团向顾客做出如下承诺：

售前服务承诺

为了让贵方进一步了解我集团产品性能，我们愿意向贵方义务提供产品性能及使用知识介绍，解答贵方对产品疑问等售前服务工作。

售中服务承诺

在合同签订以后，我们有义务免费向贵方提供一套系统的设计方案或配合贵方共同设计。在生产过程中我们积极配合贵方对设备监造工作。

售后服务承诺

设备运达交货地点后，我集团将按时派员到现场，与贵方共同进行验收接货工作，对设备的数量、规格型号和外观质量进行验收。验收标准为有关国家、部颁标准及双方签署的《技术协议书》。验收完毕后双方共同签署开箱记录。我集团对出厂的产品，定期进行质量跟踪服务，随时了解设备的运行情况，随时提供设备所需的备品、备件。根据需要派员跟进和技术支持。如贵方对我集团提供的产品因质量问题提出疑问，在接到贵方的通知后，我集团将在24小时内派技术人员到达设备使用现场进行处理。我集团产品质保期为12个月，在质保期内，保证兑现“三包”（包退、包换、包修理）。

若因设备缺陷达不到《技术协议书》所要求的条件，我方免费为贵方提供所需更换的部件和采取必要的改进措施，直至达到技术协议书所要求的条件。

伊发控股集团有限公司
YIFA HOLDING GROUP CO.,LTD.