

YFM6RT系列塑料外壳式断路器（热磁式）

YFM6RT Series Plastic Shell Circuit Breaker (Thermomagnetic)



适用范围 Scope of Application

YFM6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1000V, 适用于交流50Hz或60Hz，额定工作电压至400V，额定电流至1250A的配电网络的电路中，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。

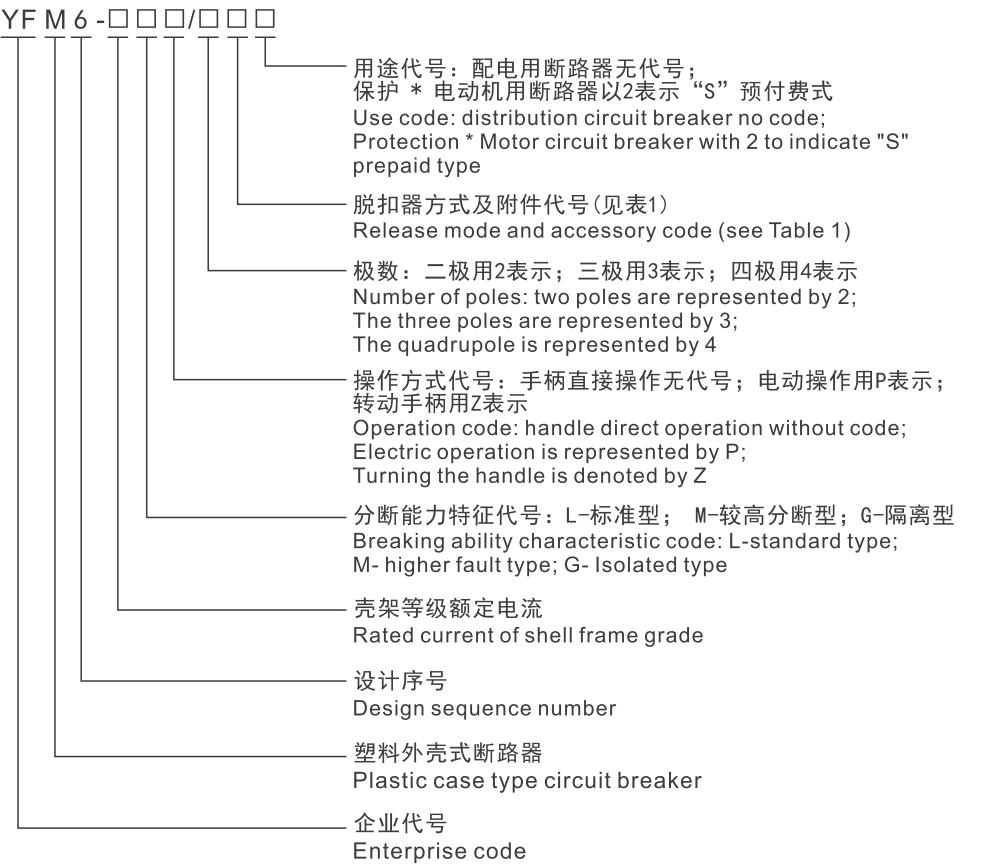
YFM6 series plastic shell type circuit breaker (hereinafter referred to as circuit breaker) is one of the new circuit breakers designed and developed by the company comprehensively using international advanced technology. Its rated insulation voltage is 1000V, suitable for AC 50Hz or 60Hz, rated working voltage to 400V, rated current to 1250A 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



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- 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。

适用工作环境及安装条件 Ambient and installation conditions

- 海拔高度2000m 以下
- 周围介质温度不高于+40℃（对船用产品为+45℃）和不低于-5℃
- 能耐受潮湿空气的影响
- 能耐受霉菌的影响
- 能耐受核辐射的影响
- 最大倾斜度为22. 5°
- 在受到船舶正常振动时能可靠工作
- 在受到地震情况下（4g）能可靠工作
- 在无爆炸危险的介质中，且介质无足以腐蚀金属和破坏绝缘的气体与导电尘埃的地方
- 在没有雨雪侵袭的地方

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- Altitude up to 2000m;
- Ambient medium temperature should be within -5 °C to +40 °C (+45 *°C for marine products);
- It can withstand the effect of damp air;
- It can withstand the effect of moulds;
- It can withstand the effect of nuclear radiation;
- The max inclination is 22.5° .
- It still can work reliably when the ship subjects to normal vibration;
- It can still work reliably if the product subjects to the earthquake (4g).
- Places where the surrounding medium is free from explosion danger, and far away from gas or conductive dust that would erode the metal or destroy the insulation;
- Keep away from rain or snow.

技术参数 Technical Parameter

- 配电用断路器的瞬时动作特性整定为10In，电动机保护用断路器的瞬时动作特性整定为12In。
The instantaneous action characteristic of the circuit breaker for distribution is set at 10In, and the instantaneous action characteristic of the circuit breaker for motor protection is set at 12In.
- 断路器的额定值
Rating of circuit breaker

Thermalmagnetic double adjustable circuit breaker YFM6RT热磁式双可调断路器		125				160				250				400				630				800				1250			
Frame rating current In 壳架等级电流		15A-25A				25A-160A				100A-250A				250A-400A				400A-630A				500A-800A				1000A-1250A			
Rated insulation voltage UI(V) 额定绝缘电压		1000V																											
Rated impulse withstand voltage Uimp(kv) 额定冲击耐受电压		8kv																											
Rated working voltage UE(V) ,AC额定工作电压		400V																											
Number of poles 极数		3P、4P																											
Short-circuitsegmentation capability code 短路分断能力代号		C	S	M	H	C	S	M	H	C	S	M	H	M	H	M	H	M	H	M	H	C	S	M	H	C	S	M	H
Rated operating short-circuit sectioning capacity ICS(kA) AC400V 额定运行短路分断能力		5	10	18	50	5	10	10	50	5	8	10	50	50	50	50	50	65	50	65	5	10	18	50	5	10	10	50	
Rated ultimate short circuit breaking capacity ICU(kA) AC400V 额定极限短路分断能力I		10	20	36	50	8	20	20	50	8	15	20	50	50	50	50	50	65	85	65	85	10	20	36	50	8	20	20	50
Mechanical life times 机械寿命(次)		8500				8500				7000				4000				4000				2500				2500			
Electrical life times 电寿命(次)		1500				1500				1000				1000				1000				500				500			
verall dimensions(mm)a-b- c-ca 外形尺寸	3P	130*75*68*94.5				155*90*68(82)*94(108)				165*105*68(88)*96(116)				257*140*103*152				257*140*103*152				275.5*210*103*152				275.5*210*103*152			
	4P	130*100*68*94.5				155*120*68(82)*94(108)				165*140*68(88)*96(116)				257*184*103*152				257*184*103*152				275.5*280*103*152				275.5*280*103*152			

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- 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/In	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(In>63A) 1h(In≤63A)	冷态 Cold state
2	约定脱扣电流 Default trip current	1.30	2h(In>63A) 1h(In≤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

正常工作安装地点的海拔不超过 2000m如需要安装在海拔超过 2000m 的情况下，必须考虑到介电强度的改变和空气温度下降的因素, 可参考海拔高度降容系数表使用
The equipment is designed for normal operation at altitudes not exceeding 2000m . When installed at altitudes above 2000m , factors such as changes in dielectric strength and reduced air temperature must be considered; refer to the altitude derating factor table for proper usage

-5°C至 40°C正常环境和运行温度条件下长期工作·工作环境温度超过 40°C(电动机保护超过 60°C),应参考温度降容系数表使用

The equipment can operate continuously under normal ambient and operating temperature conditions ranging from -5°C to 40°C . When the ambient temperature exceeds 40°C (motor protection exceeds 60°C), refer to the temperature derating factor table for usage.

Ampere	Temperature-correlated derating coefficient for products																												
	Temperat ure(℃)	-40	-35	-30	-25	-20	-15	-10	-5	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70	75				
125	Derating factor (In)	1.36	1.35	1.33	1.31	1.3	1.2	1.18	1.15	1.15	1.1	1.08	1.06	1.04	1.03	1.02	1.01	1	0.977	0.957	0.936	0.915	0.894	0.873	0.851				
160		1.36	1.35	1.34	1.32	1.3	1.25	1.22	1.2	1.15	1.14	1.12	1.09	1.07	1.05	1.03	1.01	1	0.977	0.957	0.936	0.915	0.894	0.873	0.851				
250		1.48	1.45	1.4	1.35	1.3	1.25	1.2	1.18	1.15	1.13	1.11	1.09	1.08	1.07	1.05	1.02	1	0.985	0.968	0.952	0.935	0.919	0.887	0.855				
400		1.68	1.65	1.6	1.55	1.44	1.42	1.4	1.35	1.3	1.22	1.18	1.13	1.09	1.06	1.04	1.02	1	0.985	0.968	0.952	0.935	0.919	0.887	0.855				
630		1.42	1.4	1.35	1.31	1.3	1.25	1.2	1.18	1.13	1.11	1.09	1.08	1.07	1.05	1.03	1.01	1	0.985	0.968	0.952	0.935	0.919	0.887	0.855				
800		1.4	1.35	1.34	1.32	1.31	1.3	1.25	1.23	1.18	1.15	1.13	1.1	1.07	1.05	1.03	1.02	1	0.978	0.957	0.936	0.915	0.894	0.873	0.851				
1250		1.42	1.36	1.35	1.34	1.3	1.28	1.25	1.21	1.2	1.15	1.13	1.1	1.08	1.06	1.04	1.02	1	0.978	0.957	0.936	0.915	0.894	0.873	0.851				
1600		1.4	1.35	1.3	1.25	1.2	1.19	1.18	1.15	1.12	1.15	1.13	1.1	1.08	1.06	1.04	1.02	1	0.978	0.957	0.936	0.915	0.894	0.873	0.851				

