

CIRCUIT BREAKER





WE are VEKON GLOBAL

About us

VEKON Global company is a leading provider of high-technology products and complex solutions in the fields of electrical engineering, automation, and engineering infrastructure.

We promote the VEKON brand and its values worldwide, ensuring easy access for our Customers to VEKON innovations through a wide product range, balanced commercial policies, and exceptional Customer service.

Our core manufacturing facility, Zhejiang VEKON Technology Co., Ltd., located in Yueging Bay Power Technology Town, Zhejiang Province, China, is a technological leader in modular electrical equipment. Established in 2002, it produces a diverse range of products including RCCB/RC-BOs, MCBs, AFDDs, relays, contactors, and signaling and control devices. Manufactured on automated production lines, the facility boasts a daily output of 500,000 units. Our products are exported globally to Europe, the Americas, Southeast Asia, and Africa. Advanced technology, reliable equipment, guaranteed quality, and dedicated technical support have secured a substantial base of loyal customers worldwide. VEKON holds patents on its own designs and its products are CE, SEMKO, KEMA, and other internationally recognized certifications

compliant. Our manufacturing facilities maintain ISO 9001 certification.

In addition to Zhejiang VEKON Technology Co., Ltd., the VEKON brand encompasses over 30 other manufacturing sites across Mainland China. We design, manufacture, and supply a comprehensive range of low – and medium–voltage electrical products (up to 35 kV), as well as a wide array of industrial automation and process control equipment.

VEKON's strategy is built on Partnerships. By collaborating with professional distributors, retailers, panel builders, installers, system integrators, and service centers, we strive to provide seamless customer proximity. At VEKON, responsibility and reputation are paramount. Our greatest reward is the establishment of long-term, mutually beneficial business and personal relationships with our Partners.

Customers and Partners who choose VEKON products can rely on our commitment to VEKON values throughout the entire product lifecycle — from ideation and innovation to manufacturing, reliable supply, comprehensive solution implementation, and comprehensive warranty and post-warranty services.





VM1

塑料外壳式断路器

VM1 Plastic enclosure circuit breaker

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用途及使用范围 Purpose and scope of use

VM1 系列塑料外壳式断路器(以下简称断路器)是本公司采用国际水平设计、制造技术研制开发的新型断路器。其额定绝缘电压为 800V,适用于交流 50Hz,额定工作电压 690V 及以下,额定工作电流自 10A~1250A 的电路中作不频繁转换及电动机不频繁起动之用(VM1-800 和 VM1-1250 无电动机保护)。断路器具有过载、短路和欠电压保护功能,能保护线路和电源设备不受损坏。本系列断路器具有结构紧凑、体积小、分断高、飞弧短、内外附件齐全特点。

符合标准: IEC60947-1 及 GB/T14048.1 低压开关设备和控制设备 总则

IEC60947-2 及 GB/T14048.2 低压开关设备和控制设备 低压断路器

IEC60947-4 及 GB/T14048.4 机电式断路器和电动机起动器

IEC60947-5-1 及 GB/T14048.5 机电式控制电路电器

VM1 series plastic shell circuit breaker (hereinafter referred to as circuit breaker) is a new type of circuit breaker developed by the company using international level design and manufacturing technology. Its rated insulation voltage is 800V, suitable for AC 50Hz, rated working voltage 690V and below, rated working current from 10A~1250A circuit for infrequent conversion and infrequent motor start (VM1-800 and VM1-1250 without motor protection). The circuit breaker has overload, short circuit and undervoltage protection functions to protect the line and power supply equipment from damage. This series of circuit breakers has the characteristics of compact structure, small size, high breakage, short arc, and complete internal and external accessories.

Standards: IEC60947-1 and GB/T14048.1 Low-voltage switchgear and control equipment General provisions

IEC60947-2 and GB/T14048.2 Low-voltage switchgear and control equipment Low-voltage circuit breakers

IEC60947-4 and GB/T14048.4 Electromechanical circuit breakers and motor starters
IEC60947-5-1 and GB/T14048.5 Electromechanical control circuit electrical appliances

正常工作条件 Normal working conditions

- ◆ 安装地点的海拔高度不超过 2000m;
- ◆ 周围空气温度为 -5°C ~+40°C, 且 24 小时的平均值不超过 +35°C;
- ◆ 安装地点的相对空气湿度在最高温度为 +40℃时不超过 50%;在较低温度下可以有较高的相对湿度, 最湿月的月平均最低温度不超过 +25℃;该月的平均最大相对湿度不超过 90%,并考虑因温度变化发生在产品表面上的凝露;
- ◆ 污染等级为3级;
- ◆ 断路器主电路及欠电压脱扣器安类别为 III, 其余辅助电路、控制电路安装类别为 II;
- ◆ 能耐受潮湿空气、盐雾、油污、霉菌、核工业环境的影响;
- ◆ 安装在无爆炸危险和无导电尘埃、无足以腐蚀金属和破坏绝缘的地方;
- ◆ 安装地点无雨雪侵袭;
- ◆ 断路器具有隔离功能,符号为 __/ +×。
- ◆ The altitude of the installation site shall not exceed 2000m;
- ◆ The ambient air temperature is -5°C~+40°C, and the average value of 24 hours does not exceed +35°C;
- ◆ The relative air humidity of the installation site shall not exceed 50% at the maximum temperature of +40°C, and the average minimum temperature of the wettest month shall not exceed +25°C, and the average maximum relative humidity of the month shall not exceed 90%, and the condensation on the surface of the product due to temperature changes shall be considered;
- ◆ The pollution level is level 3;
- ◆ The safety category of the main circuit breaker and the undervoltage tripper is III, and the installation category of the other auxiliary circuits and control circuits is II;
- ◆ Able to withstand the influence of humid air, salt spray, oil pollution, mold and nuclear industrial environment;
- ◆ Installed in a place where there is no explosion hazard and no conductive dust, no enough to corrode metal and damage insulation;
- ◆ There is no rain and snow at the installation site;

VM1 塑料外壳式断路器

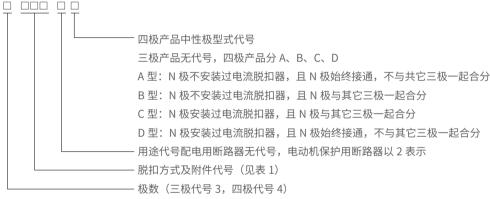
VM1 Plastic enclosure circuit breaker



型号含义 Model meaning



- 注1: 接线方式分为: 板前接线、板后接线、插入式板后接线、插入式板前接线
- 注 2: 规格代号由六位数组成,如下所示:
- Note 1: The wiring method is divided into: board front wiring, board back wiring, plug-in board back wiring, plug-in board front wiring
- Note 2: The specification code consists of six digits as follows:



Quadrupole product neutral pole type code

There is no code for three-pole products, and four-pole products are divided into A, B, C, and D

- Type A: The N pole is not equipped with an overcurrent tripper, and the N pole is always turned on, and it is not divided together with the three poles
- Type B: The N pole is not equipped with an overcurrent tripper, and the N pole is divided together with the other three poles
- Type C: An overcurrent tripper is installed at the N pole, and the N pole is separated with the other three poles
- Type D: An overcurrent tripper is installed on the N pole, and the N pole is always on, and does not merge with the other three poles

Purpose code There is no code for circuit breakers for power distribution, and circuit breakers for motor protection are represented by 2

Tripping method and attachment code (see Table 1)

Number of poles (3 pole code, 4 pole code 4)

- 注 3: 操作方式: 手柄直接操作无代号,转动手柄操作用 Z,电动操作用 P
- 注 4: 额定极限短路分断能力级别分为 L 型、M 型、H 型
- 注 5: 壳架等级额定电流分为 63、125、250、400、630、800、1250
- Note 3: Operation mode: no code for direct operation of the handle, Z for rotating the handle operation, and P for electric operation
- Note 4: The rated limit short-circuit breaking capacity levels are divided into L type, M type, and H type
- Note 5: The rated current of the shell frame level is divided into 63, 125, 250, 400, 630, 800 and 1250



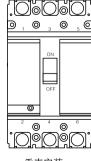
脱扣方式及附件代号 Tripping method and attachment code

脱扣方式 Tripping method	附件代号 Attachment code									
	分励脱扣器 Shunt tripper	辅助触头 Auxiliary contacts	欠电压脱扣器 Undervoltage trippers	分励脱扣器 辅助触头 Shunt tripper Auxiliary contacts	分励脱扣器 欠电压脱扣器 Shunt tripper Undervoltage trippers	二组辅助触头 Two sets of auxiliary contacts	辅助触头 欠电压脱扣器 Auxiliary contacts Undervoltage trippers			
电磁脱扣 Electromagnetic tripping	210	220	230	240	250	260	270			
复式脱扣 Duplex trip	310	320	330	340	350	360	370			
脱扣方式 Tripping method	附件类别 Attachment category									
	报警触头 Alarm contacts	分励脱扣器 报警触头 Shunt tripper Alarm contacts	辅助触头 报警触头 Auxiliary contacts Alarm contacts	欠电压脱扣器 报警触头 Undervoltage trippers Alarm contacts	分励脱扣器报警 触头辅助触头 Shunt trip alarm Contact Auxiliary Contacts	二组辅助触头 报警触头 Two sets of auxiliary contacts Alarm contacts	辅助触头欠电压 脱扣器报警触头 Auxiliary contacts, undervoltage trippers, alarm contacts			
电磁脱扣 Electromagnetic tripping	208	218	228	238	348	268	278			
复式脱扣 Duplex trip	308	318	320	338	348	368	378			

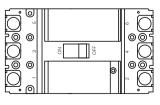
- 注: 1、脱扣器方式及内部附件代号首位数字2表示电磁(瞬时)脱扣器,3表示热动一电磁(复式)脱扣器;后两位数字表示内部附件代号,如无附件用00表示。
 - 2、对 GNM1-400、630、800 中 248、348、278、378 规格中辅助触头—对触头(即一常开、一常闭),268、368 规格中的辅助触头。
- Note: 1. The first digit 2 of the tripper mode and the internal accessory code represents the electromagnetic (instantaneous) tripper, and 3 represents the thermal-electromagnetic (duplex) tripper; the last two digits represent the internal accessory code, if there is no accessory, it is represented by 00.
 - 2. A pair of auxiliary contacts (i.e., one normally open, one normally closed) in GNM1-400, 630, 800 in 248, 348, 278 and 378 specifications, and one auxiliary contact in 268 and 368 specifications.

安装方式 Installation method

本系列断路器一般为垂直安装 (见下图) This series of circuit breakers is generally installed vertically (see figure below)



垂直安装 Vertical installation



水平安装 Horizontal installation





VM1E

电子式塑料外壳式断路器

VM1E Electronic plastic case circuit breaker







用途及使用范围 Purpose and scope of use

VM1E 系列电子式塑料外壳式断路器(以下简称断路器),适用于交流 50Hz/60Hz,其额定绝缘电压为 800V,额定工作电压 690V 及以下,额定工作电流自 16~800A 的电路中作不频繁转换及电动机不频繁起动之用。断路器具有过载长延时反时限、短路短延时反时限、短路短延时定时限、短路瞬时和欠压保护功能以及剩余电流保护(可选),缺相保护功能(可选),能保护线路和电源设备不受损坏,断路器保护特性齐全、精确,能提高供电可靠性,避免不必要的停电。

断路器按照其额定极限短路分断能力,分为 M 型(较高分断型)、H 型(高分断型)二种。该断路器具有体积小、分断能力高、飞弧短、抗振动等特点。断路器应垂直安装(即竖装)。

断路器具有隔离功能,其相应符号: " 一∕ ١ "。

断路器不可倒进线,即只允许1、3、5接电源线,2、4、6接负载线。

VM1E series electronic plastic shell circuit breaker (hereinafter referred to as circuit breaker) is suitable for AC 50Hz/60Hz, its rated insulation voltage is 800V, rated working voltage 690V and below, and the rated working current is used for infrequent conversion and infrequent motor start in the circuit of 16~800A. The circuit breaker has overload long delay reverse time limit, short circuit short delay reverse time limit, short circuit short delay time limit, short circuit instantaneous and undervoltage protection function, residual current protection (optional), phase loss protection function (optional), can protect the line and power supply equipment from damage, circuit breaker protection characteristics are complete and accurate, can improve the reliability of power supply, avoid unnecessary power outages.

Circuit breakers are divided into two types: M type (high breaking type) and H type (high breaking type) according to their rated limit short-circuit breaking capacity. The circuit breaker has the characteristics of small size, high breaking capacity, short arc and vibration resistance. The circuit breaker should be installed vertically (i.e., vertically).

The circuit breaker has an isolation function, and its corresponding symbol: " — ".

The circuit breaker cannot be reversed, that is, only 1, 3, and 5 are allowed to be connected to the power line, and 2, 4, and 6 are allowed to be connected to the load line.

型号含义 Model meaning



- 注 1: Z表示转动手柄操作,P表示电动机构操作
- 注 2: 规格代号由六位数组成,注 2
- 注 3: 操作方式: 手柄直接操作无代号,转动手柄操作用 Z,电动操作用 P
- 注 4: 壳架等级额定电流分为 1 25、250、400、630、800
- Note 1: Z indicates the operation of the rotating handle, and P indicates the operation of the electric mechanism
- Note 2: The specification code consists of six digits, Note 2
- Note 3: Operation mode: no code for direct operation of the handle, Z for rotating the handle operation, and P for electric operation
- Note 4: The rated current of the shell level is divided into 1 25, 250, 400, 630 and 800

VM1E 电子式塑料外壳式断路器

VM1E Electronic plastic case circuit breaker



正常工作条件 Normal working conditions

- ◆海拔: ≤ 2000m;
- ◆ 环境温度: -5°C ~+40°C, 且 24 小时的平均值不超过 +35°C;
- ◆ 能耐受潮湿空气的影响;
- ◆ 能耐受盐雾、油雾的影响;
- ◆ 断路器主电路的安装类别为Ⅲ,其余辅助电路、控制电路安装类别为Ⅱ;
- ◆ 最高温度 +40℃时,空气的相对湿度不超过 50%,在较低的湿度下可以允许有较高的相对湿度,对由于温度变化偶尔产生的凝露应 采取特殊措施;
- ◆ 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。
- Altitude: ≤2000m;
- ◆ Ambient temperature: -5°C~+40°C, and the average value of 24 hours does not exceed +35°C;
- Able to withstand the influence of humid air;
- ◆ Able to withstand the influence of salt spray and oil mist;
- ◆ The installation category of the main circuit breaker is III., and the installation category of the rest of the auxiliary circuits and control circuits is II.
- ♦ When the maximum temperature is +40°C, the relative humidity of the air does not exceed 50%, and a higher relative humidity can be allowed at a lower humidity.
- ♠ In a medium without explosion hazard, and the medium is not enough to corrode the metal and destroy the insulation of the gas and conductive dust;
- ◆ In a place where there is no rain or snow.

结构特点 Structural features

- ◆ 具有体积小、分断能力高、飞弧短、抗振动等特点;
- ◆ 断路器具有隔离功能,其额定绝缘电压为 800V;
- ◆ 按额定极限短路分断能力的高低分为 M 型(较高分断型)、H 型(高分断型)二种;
- ◆ 具有过载长延时反时限、短路短延时定时限、短路瞬时和欠压保护功能以及剩余电流保护(可选),缺相保护功能(可选), 能保护线路的电源设备不受损坏;
- ◆ 保护特性齐全、精确、能提高供电可靠性。
- ♦ It has the characteristics of small size, high breaking capacity, short arc and anti-vibration;
- ◆ The circuit breaker has an isolation function, and its rated insulation voltage is 800V;
- According to the rated limit short-circuit breaking capacity, it is divided into two types: M type (higher breaking type) and H type (high breaking type):
- ◆ It has the functions of overload long delay reverse time limit, short circuit short delay time limit, short circuit instantaneous and undervoltage protection, residual current protection (optional) and phase loss protection function (optional), which can protect the power supply equipment of the line from damage;
- ◆ The protection characteristics are complete, accurate, and can improve the reliability of power supply.

断路器符合标准 The circuit breaker is in accordance with the standard

IEC 60947-1 及 GB/T14048.1 低压开关设备和控制设备 总则

IEC 60947-2 及 GB/T14048.2 低压开关设备和控制设备 低压断路器

附录 F 带电子过电流保护断路器的附加要求

IEC 60947-5.1 及 GB/T14048.5 低压开关设备和控制设备控制电路电器和开关元件

IEC 60947-1 and GB/T14048.1 General provisions for low-voltage switchgear and control equipment

IEC 60947-2 and GB/T14048.2 Low-voltage switchgear and control equipment Low-voltage circuit breakers

Appendix F Additional Requirements for Circuit Breakers with Electronic Overcurrent Protection

IEC 60947-5.1 and GB/T14048.5 Low-voltage switchgear and control equipment, control circuits, electrical appliances and switching components

VM1E 电子式塑料外壳式断路器

VM1E Electronic plastic case circuit breaker



可选功能 Optional features

具有温度监控保护功能: 当环境温度超过设定值时(默认设置85℃),控制器会输出报警光电信号或使断路器分闸;

双路无源信号输出功能:供发信号(或报警)用,容量 AC230V5A; 具有过载热记忆功能:过负荷热记忆功能、短路(短延时)热记忆功能;

具有消防分励功能:过载报警不脱扣(提供一对无源触点)并提供分励脱扣功能;

具有通讯功能:标准的 RS232、RS485、Modbus 现场总线协议;

可连接手持式编程器:对断路器各种保护参数进行设定和进行近10次故障查询及各种状态显示等; 可连接智能控制模块:转换光隔离触点信号输出,包括可编程器DO输出功能;高档型带液晶显示模块。

With temperature monitoring and protection function: when the ambient temperature exceeds the set value (the default setting is 85°C), the controller will output an alarm photoelectric signal or open the circuit breaker;

Dual-channel passive signal output function: for signal (or alarm), AC230V5A capacity;

It has overload thermal memory function: overload thermal memory function, short-circuit (short-delay) thermal memory function;

With fire splitting function: overload alarm does not trip (provide a pair of passive contacts) and provides shunt tripping function;

Communication function: standard RS232, RS485, Modbus fieldbus protocol;

It can be connected to a hand-held programmer: set various protection parameters of the circuit breaker and perform nearly 10 fault inquiries and various status displays;

It can be connected to the intelligent control module: converts the signal output of the optically isolated contact, including the programmer DO output function, and the high-end model has a liquid crystal display module.

主要功能及特点 Main functions and features

智能型控制器是塑壳断路器的核心部件,应用于电动机保护或者配电保护,实现测量、保护、控制和通信功能于—体,使线路和电源设备免受过载、短路、接地等故障危害

采用 MCU 微处理控制器,性能稳定可靠:该智能控制器能自供电源,只要一相通电,当电流不低于其额定值的 20% 时,都能确保保护功能正常工作;选择性配合具有三段保护:使用类别为 B 类的断路器与连接在同一电路中的其他短路保护装置在短路条件下具有选择性配合:过载长延时反时限、短路延时(反时限、定时限)、短路瞬时等保护功能参数的整定;

具有动作电流、动作时间三段保护参数设置,可进行 4-10 档调整:用户可根据负载电流要求对控制器进行设置调整,也可根据用户要求选择关断相应功能(定制功能,需用户定货时注明);

大电流瞬时脱扣功能: 当在断路器闭合运行时,如遇到短路大电流(≥ 20Inm),断路器磁脱扣机构可直接脱扣,双重保护更加可靠安全;

具有脱扣测试(试验)功能: 输人直流 DC12V 电压试验断路器动作特性;

故障自诊断功能:对智能控制器自身的工作状态和运行情况进行保护和检测;

具有预报警指示: 当负载电流达到或超出整定值时断路器面盖上的发光二极管显示为黄色;

具有过载指示: 当负载电流达到或超出整定值时断路器面盖上的发光二极管显示为红色;

磁通交换器双气隙技术:工作更可靠稳定,杜绝误动作、脱扣可靠、功率微小;

保护精度高:过载保护、短路短延时保护动作时间精度 ±10%; 短路瞬时保护动作值精度 ±15% 取决于动作电流。

The intelligent controller is the core component of the molded case circuit breaker, which is used for motor protection or power distribution protection, to realize the measurement, protection, control and communication functions in the body, so that the line and power supply equipment are protected from overload, short circuit, grounding and other fault hazards

Using MCU microprocessor controller, the performance is stable and reliable: the intelligent controller can self-supply power supply, as long as the phase is energized, when the current is not less than 20% of its rated value, it can ensure the normal operation of the protection function;

Selective fit has three-stage protection: the circuit breaker classified as class B and other short-circuit protection devices connected in the same circuit have selective fit under short-circuit conditions: the setting of protection function parameters such as overload long delay anti-time limit, short-circuit delay (anti-time limit, fixed time limit), short-circuit instantaneous;

It has three protection parameter settings of action current and action time, and can be adjusted in 4-10 steps: the user can set and adjust the controller according to the load current requirements, and can also choose to turn off the corresponding function according to the user's requirements (customized function, which needs to be indicated by the user when ordering):

High-current instantaneous tripping function: When the circuit breaker is closed, if it encounters a short-circuit and a large current (≥20lnm), the magnetic tripping mechanism of the circuit breaker can directly trip, and the double protection is more reliable and safe;

It has the function of tripping test (test): the action characteristics of the circuit breaker are tested by the DC DC12V voltage;

Fault self-diagnosis function: protect and detect the working status and operation of the intelligent controller itself;

With pre-alarm indication: when the load current reaches or exceeds the setting value, the LED on the face cover of the circuit breaker is shown yellow;

With overload indication: when the load current reaches or exceeds the setting value, the LED on the face cover of the circuit breaker is shown in red;

Flux exchanger double air gap technology: more reliable and stable work, eliminate malfunction, reliable tripping, and small power;

High protection accuracy: overload protection, short-circuit short-delay protection action time accuracy ± 10%, short-circuit instantaneous protection action value accuracy ±15% depends on the action current.





VM1L

漏电式断路器

VM1L leakage circuit breaker







VM1L leakage circuit breaker



用途及使用范围 Purpose and scope of use

VM1L 系列带剩余电流保护塑料外壳式断路器(简称漏电断路器)是本公司综合采用国际技术设计开发的新型漏电断路器之一。用于交流 50Hz,额定电压至 690V,额定电流 16A 至 800A 的电路中。其主要功能是对有致命危险的人身触电提供间接接触保护。额定剩余动作电流不超过 0.03A 的漏电断路器在其他保护措施失效时,也可作为直接接触的补充保护,但不能作为唯一的直接接触保护。同时,还可用来防止由于接地故障电流而引起的电气火灾。并可用来保护线路和电源设备的过载、短路,亦可作为线路的不频繁转换之用。

该漏电断路器具有体积小(和相对应的塑壳断路器体积相等)、分断高、飞弧短及剩余动作电流、剩余电流动作时间可调节等特点,同时带报警触头、分励脱扣器、欠电压脱扣器、辅助触头、旋转手柄操作机构、电动操作机构等附件,并可采用板前、板后和插入式等多种接线方式,是用户使用的理想产品。

漏电断路器垂直安装(即竖装)。

符合标准: IEC60947-1 及 GB/T14048.1 低压开关设备和控制设备总则

IEC60947-2 及 GB/T14048.2 低压开关设备和控制设备断路器及附录 B

IEC60947-4-1 及 GB/T14048.4 机电式接触器和电动机起动器获得

VM1L series plastic shell circuit breaker with residual current protection (referred to as leakage circuit breaker) is one of the new leakage circuit breakers designed and developed by the company using international technology. It is used in circuits with AC 50Hz, rated voltage up to 690V, rated current from 16A to 800A. Its main function is to provide indirect contact protection against fatal personal electrocution. The leakage circuit breaker with a rated residual operating current of no more than 0.03A can also be used as a supplementary protection for direct contact when other protection measures fail, but cannot be used as the only direct contact protection. At the same time, it can also be used to prevent electrical fires caused by ground fault currents. It can also be used to protect the overload and short circuit of the line and power supply equipment, and can also be used for infrequent conversion of the line.

The leakage circuit breaker has the characteristics of small size (equal to the volume of the corresponding molded case circuit breaker), high breakage, short arc and adjustable residual action current and residual current action time, and at the same time with alarm contact, shunt tripper, undervoltage tripper, auxiliary contact, rotary handle operating mechanism, electric operating mechanism and other accessories, and can use a variety of wiring methods such as front of the board, behind the board and plug-in, etc., which is an ideal product for users.

The leakage circuit breaker is installed vertically (i.e. vertically).

Comply with the standard: IEC60947-1 and GB/T14048.1 General rules for low-voltage switchgear and control equipment IEC60947-2 and GB/T14048.2 Circuit breakers for low-voltage switchgear and control equipment and Appendix B IEC60947-4-1 and GB/T14048.4 electromechanical contactors and motor starters obtained

产品特点 Product features

- ◆ 断路器具有过载、短路和欠电压保护功能,能保护线路和电源设备不受损坏,同时,可对人提供间接接触保护,还可以对过电流保护不能检测出的长期存在的接地故障可能引起火灾危险提供保护;
- ◆ 断路器具有体积小、分断高、飞弧短、抗振动等特点;
- ◆ 断路器不可倒进线,即只允许1、3、5 为电源接线端,2、4、6 为负载接线端;
- ◆ 断路路具有隔离功能,符号为 __/ +× ;
- ♦断路器可以分板前接线,板后接线、插入式接线。
- ◆ The circuit breaker has the function of overload, short circuit and undervoltage protection, which can protect the line and power supply equipment from damage, and at the same time, it can provide indirect contact protection for people, and can also provide protection for the fire danger caused by long-term grounding faults that cannot be detected by overcurrent protection;
- ◆ The circuit breaker has the characteristics of small size, high breaking, short arc and anti-vibration;
- ◆ The circuit breaker cannot be reversed, that is, only 1, 3 and 5 are allowed to be the power terminals, and 2, 4 and 6 are the load terminals;
- ♦ The circuit breaker can be divided into front wiring, back wiring, and plug-in wiring.



正常工作和安装环境 Normal working and installation environment

- ◆ 安装地点的海拔高度不超过 2000m;
- ◆ 周围空气温度为 -50°C ~+40°C,;
- ◆ 安装地点的相对空气湿度在最高温度为 +40℃时不超过 50%;在较低温度下可以有较高的相对湿度,例如 +20℃时可达 90%,对由于温度变化偶尔产生的凝露现象应采取特殊措施;
- ◆ 污染等级为 3 级;
- ◆ 断路器主电路安装类别为Ⅲ,不接至主电路的其余辅助电路和控制电路安装类别为 II;
- ◆ 断路器适用干电磁环境 A;
- ◆ 断路器应安装在无爆炸危险和无导电尘埃、无腐蚀金属和无破坏绝缘的地方,并防止雨雪侵袭。
- ◆漏电断路器安装处附近的外磁场,任何方向不超过地磁场的5倍。
- ◆ The altitude of the installation site shall not exceed 2000m;
- ◆ The ambient air temperature is -50°C~+40°C;
- ◆ The relative air humidity of the installation site shall not exceed 50% at the maximum temperature of +40°C, and the relative humidity can be higher at lower temperatures, such as 90% at +20°C.
- ◆ The pollution level is level 3;
- ◆ The installation category of the main circuit breaker is III., and the installation category of the remaining auxiliary circuits and control circuits that are not connected to the main circuit is II;
- ◆ The circuit breaker is suitable for electromagnetic environment A;
- ♦ The circuit breaker should be installed in a place where there is no explosion hazard and no conductive dust, no corrosive metal and no damage to insulation, and prevent rain and snow from attacking.
- ◆ The external magnetic field near the installation place of the leakage circuit breaker shall not exceed 5 times of the geomagnetic field in any direction.

型号含义 Model meaning



- 注 1: 不带漏电报警单元模块无代号,既报警又跳闸用Ⅰ表示,报警不跳闸用Ⅱ表示
- 注 2: 规格代号由六位数组成,如下所示
- 注 3:操作方式:手柄直接操作无代号,转动手柄操作用 Z表示,电动操作用 P表示
- 注 4: 壳架等级额定电流分为 1 25、250、400、630 (800)
- Note 1: There is no code for the module without leakage alarm unit, both alarm and trip are represented by I, and alarm does not trip with II
- Note 2: The specification code consists of six digits, as shown below
- Note 3: Operation mode: There is no code for direct operation of the handle, the operation of the rotating handle is represented by Z, and the electric operation is represented by P
- Note 4: The rated current of the shell frame grade is divided into 1 25, 250, 400, 630 (800)



脱扣方式及附件代号 Tripping method and attachment code

脱扣方式 Tripping method	附件代号 Attachment code								
	分励脱扣器 Shunt tripper	辅助触头 Auxiliary contacts	欠电压脱扣器 Undervoltage trippers	分励脱扣器 辅助触头 Shunt tripper Auxiliary contacts	分励脱扣器 欠电压脱扣器 Shunt tripper Undervoltage trippers	二组辅助触头 Two sets of auxiliary contacts	辅助触头 欠电压脱扣器 Auxiliary contacts Undervoltage trippers		
电磁脱扣 Electromagnetic tripping	210 🛦	220 🛦	230	240	250	260	270		
复式脱扣 Duplex trip	310 ▲	320 ▲	330	340	380	360	370		
脱扣方式 Tripping method	附件类别 Attachment category								
	报警触头 Alarm contacts	分励脱扣器 报警触头 Shunt tripper Alarm contacts	辅助触头 报警触头 Auxiliary contacts Alarm contacts	欠电压脱扣器 报警触头 Undervoltage trippers Alarm contacts	分励脱扣器报警 触头辅助触头 Shunt trip alarm Contact Auxiliary Contacts	二组辅助触头 报警触头 Two sets of auxiliary contacts Alarm contacts			
电磁脱扣 Electromagnetic tripping	208 🛦	218	228 ▲	238	248	268			
复式脱扣 Duplex trip	308 ▲	318	320 ▲	338	348	368			

- 注: 1. 200 表示电磁(瞬时)脱扣器,300表示热动一电磁(复式)脱扣器;后两位数字表示内部附件代号,如无附件用00表示。
- 2. GNM1L-400、GNM1L-630、GNM1L-800 中 248、348、348、800 规格中辅助锄头一对触头(即一常开、一常闭),268、368 规格中的辅助触头为三对触头(即三常开、三常闭)
 - 3. GNM1L 系列如带漏电报警单元模块,则附件只提供带▲规格

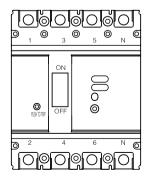
Note: 1.200 represents the electromagnetic (instantaneous) tripper, 300 represents the thermal electromagnetic (duplex) tripper, and the last two digits indicate the internal attachment code, if there is no attachment, 00 is used.

- 2. GNM1L-400, GNM1L-630, GNM1L-800 in 248, 348, 348, 800 specifications of auxiliary hoe one pair of contacts (i.e., one normally open, one normally closed), 268, 368 specifications of auxiliary contacts for three pairs of contacts (i.e., three normally open, three normally closed)
- 3. If the GNM1L series is equipped with a leakage alarm unit module, the accessories are only provided with ▲ specifications

安装方式 Installation method

漏电断路器应垂直安装,见下图

The leakage circuit breaker should be installed vertically, as shown in the figure below



垂直安装 Vertical installation





VM3

系列交直流高压塑壳断路器

VM3 Series AC/DC High Voltage Molded Case Circuit Breaker





VM3 系列交直流高压塑壳断路器

VM3 Series AC/DC High Voltage Molded Case Circuit Breaker



功能介绍 Function Introduction

通过多年对国内外新能源实际系统运行情况和客户需求的专门研究,开发出 V M3 系列新能源交直流模压断路器。

产品特点

- -VM3 系列塑壳断路器,最大额定电压为 AC 1140V,最大电流为 800A。
- -VM3 系列塑壳断路器,在交流 800V 电压下,最大分断能力为 50kA,可保证系统可靠的短路保护。
- -VM3 系列塑壳断路器,最大额定电压为交流 1500V,最大电流为 800A。
- -VM3 系列塑壳断路器,在直流 1500V 的电压下,最大分断容量为 20kA,可确保系统的可靠短路保护。

Through many years of dedicated research on the actual system operation situation and customer needs of new energy at home and abroad, has developed the M3HU/DC series of AC and DC Molded Circuit Breaker for New Energy.

Product Characteristic

- -VM3 series Molded Circuit Breaker, The maximum rated voltage is AC 1140V, and the maximum current is 800A.
- -VM3 series Molded Circuit Breaker, in the voltage of AC 800V, the maximum breaking capacity is 50kA, which can ensure reliable short-circuit protection of the system.
 - -VM3 series Molded Circuit Breaker, The maximum rated voltage is AC 1500V, and the maximum current is 800A.
- -VM3 series Molded Circuit Breaker, in the voltage of DC 1500V, the maximum breaking capacity is 20kA, which can ensure reliable short-circuit protection of the system.

标准 Standard

VM3 系列交直流塑壳断路器符合以下标准

VM3 series AC/DC molded case circuit breakers meet the following standards

IEC 60947-1 GB/T14048.1 总则

IEC 60947-1 GB/T14048.1 General Provisions

IEC 60947-2 GB/T14048.2 断路器

IEC 60947-2 GB/T14048.2 Circuit Breaker

应用环境 Applied Environment

- 1. 海拔高度不超过 5500 米;
- 2. 耐潮湿空气(三防型)
- 3. 耐盐雾、油雾影响(三防型)
- 4. 耐霉菌影响(三防型)
- 5. 在没有爆炸风险的介质中,且该介质不足以腐蚀金属并破坏气体和导电粉尘的绝缘。
- 注:三防产品需特别定制,请注明TH。
- 1. The altitude is not higher than 5500m;
- 2.It is resistant to damp air (three-proof type)
- 3.It is resistant to the influence of salt fog and oil fog (three-proof type);
- 4.lt is resistant to the influence of mold (three-proof type);
- 5.In a medium without explosion risk, and the medium is not enough to corrode the metal and destroy the insulation of the gas and conductive dust.

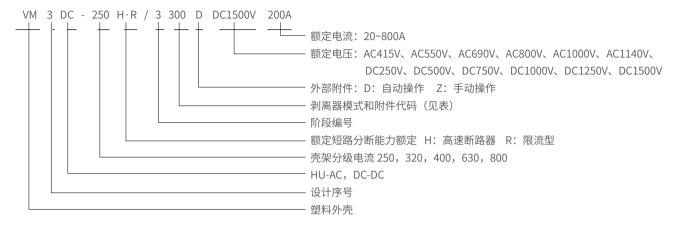
Note: The three-prevention products should be specially customized, please indicate TH.

VM3 系列交直流高压塑壳断路器

VM3 Series AC/DC High Voltage Molded Case Circuit Breaker



型号含义 Model meaning



Rated current: 20~800A

Rated voltage: AC415V, AC550V, AC690V, AC800V, AC1000V, AC1140V,

DC250V, DC500V, DC750V, DC1000V, DC1250V, DC1500V

External accessories: D: Auto operation Z: Manual operating

Stripper mode and attachment code (see Table)

Phase No.

Rated short-circuit breaking capacity rating H: high speed breaker

R: current limiting type

Shell frame gradecurrent 250, 320, 400, 630, 800

HU-AC, DC-DC Design No. Molded case

种类 Class

根据操作模式: According to operation mode:

1. 直接操作 1.Direct operation

2. 电动操作机构操作 2. Electric operator mechanism operation

3. 旋转手柄操作 3. Rotary handle operation

根据保护形式: According to the protection form:

线路保护
 线路隔离
 Line protection
 Line isolation

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