MIRCOE

选型目录 Product Catalog

MEM1E 系列

电子式塑料外壳式断路器

MEM1E Series Moulded Case Electron Circuit Breaker

MIRCOE

MEM1E系列
电子式塑壳断路器
MM1E Series Moulded Case Electron Circuit Breaker

产品概述 Outline

□MEM1E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(或60Hz),其额定绝缘电压为1000V,额定工作电压400V及以下,额定工作电流至1250A的电路中作不频繁转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各不受损坏,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,其中“Z、B”型控制带有通讯接口,可进行“四遥”,以满足控制中心和自动化系统的要求。
□断路器按照其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。该断路器具有体积小、分断能力高、飞弧短、抗振动等特点。
□断路器可垂直安装(即竖装),亦可水平安装(即横装)。
□断路器具有隔高功能,其相应符号为:“ —/⊢×— ”。
□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。

□ MEM1E series electronic plastic case circuit breaker (hereinafter referred to as circuit breaker), suitable for AC 50Hz (or 60Hz), its rated insulation voltage is 1000V, rated working voltage is 400V and below, and the rated working current is 1250A. Infrequent switching and infrequent starting of the motor. 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 under voltage protection functions, and residual current protection (optional), phase loss protection function (optional), can Protect the circuit and power supply from damage, the circuit breaker has complete and accurate protection features, which can improve the reliability of power supply and avoid unnecessary power outages. Among them, the "Z, B" type control has a communication interface, which can perform "four remote". To meet the requirements of the control center and white dynamic system.
□ Circuit breakers are classified into M type (higher 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 flashover, and anti-vibration.
□ The circuit breaker can be installed vertically (that is, vertical installation) or horizontally (that is, horizontal installation).
□ The circuit breaker has a function of blocking the height, and its corresponding symbol is: " —/⊢×— ".
□ The circuit breaker cannot be reversed into the line, that is, only 1, 3, and 5 can be connected to the power line, and 2, 4, and 6 can be connected to the load line.

适用工作环境及安装条件 Suitabhe working encironment and mstallation condition

□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
□能采收霉菌的影响
□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（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

□Altitude less than 2000m
□Ambient medium temperature is rfom-50℃to + 40 ℃ (+ 45 ℃for shipping product)
□Can withstand moist cuir
□Can with stand mold
□Can with stand nuclear radiaton
□Max inclination is 22.5 °
□It can still work reliably if the product subjects to the normal vibration from ships
□It can still work reliably if the product subjects to the earthquake(4g)
□Put in the place where is no explosion danger and conductive dust, cant corrode metel and destroy the insnlaton sleet.
□Put in the place where is no sleet.

断路器型号及含义 Circuit Breakers codes and Implications

ME M 1 E - □ □ □ / □ □ □

- 产品类型（注3）
  Product type (Note 3)
- 脱扣器方式及附件代号（表7）
  Release mode and accessory code (Table 7)
- 极数
  poles
- 操作方式（注2）
  Operation method (Note 2)
- 额定极限短路封端能力级别（注1）
  Rated extreme short-circuit termination capability level (Note 1)
- 壳架等级额定电流
  Shell frame rated current
- 电子式脱扣器
  Electronic release
- 设计代号
  Design code
- 塑料外壳式断路器
  Plastic case circuit breaker
- 企业代号
  Code for Andeli group

注:
1、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)。
2、手柄直接操作无代号：电动操作用P表示；转动手柄用Z表示。
3、基本型无代号，智能通讯型用Z表示，编程通讯型用B表示，消防型用X表示，液晶显示用L表示。

Note:
1. According to the rated limit short-circuit breaking capacity, it is divided into M type (higher breaking type) and H type (high breaking type).
2. There is no code for direct operation of the handle: electric operation is represented by P; turning handle is represented by Z.
3. The basic type has no code, the intelligent communication type is indicated by Z, the programming communication type is indicated by B, the fire protection type is indicated by X, and the liquid crystal display is indicated by L.

MEM1E Series Moulded Case Circuit Breaker

MIRCOE

主要功能及特点 Main functions and features

□智能控制器是塑壳断路器的核心部件，应用于电动机保或者配电保,实现测量、保护、控制和通信功能于一体,使线路和电源设备免受过载、短路、接地等故障危害。
□采用MCU微处理器控制,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: 当在断路器闭合时,或在运行时,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:输入直流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、过载指示: 当负载电流达到或超过过定值时相应导光柱导出光源;
□磁通变换器双气隙技术: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为 15%取决于动作电流;
□安装具有互换性:外形尺寸、安装尺寸与MEM1系列塑壳式断路器同规格尺寸相同(注:其中MEM1E-630与MEM1-800相同)。

□ Intelligent controller is the core component of the plastic case circuit breaker. It is used in motor protection or power distribution protection to realize measurement, protection, control and communication functions in one. .
□ Using MCU microprocessor control, stable and reliable performance: The intelligent controller can self-power, as long as one phase is powered, when the current is not less than 20% of its rated value, the protection function can be guaranteed to work normally;
□ Selective coordination has three stages of protection: Use a class B circuit breaker and other short-circuit protection devices connected in the same circuit to have selective coordination under short-circuit conditions; over-cutting long delay inverse time limit, short-circuit delay (Time limit, definite time limit), short-circuit instantaneous protection function setting;
□ It has three stages of protection parameter settings, which can be adjusted in 4-10 stages: the user can adjust the controller according to the negative current requirement, and can also choose to turn off the corresponding function (customized function) , Need to indicate when the user orders);High-current instantaneous trip function: When the circuit breaker is closed or during operation, if a short-circuit high current (≥20Inm) is encountered, the magnetic trip mechanism of the circuit breaker can be directly tripped, and the double protection is more reliable and safe;
□ With trip test (test) function: input DC 12V voltage test circuit breaker operating characteristics;
□ Fault self-diagnostic function: protect and detect the working state and operation of the intelligent controller itself;
□ With pre-alarm indication, overload indication: when the load current reaches or exceeds the over-set value, the corresponding light guide column leads the light source;
□ Double air-gap technology of magnetic flux converter: more reliable and stable operation, avoiding malfunction, reliable tripping and small power;High protection accuracy: accuracy of overload protection, short-time short-time protection action time ± 10%; 15% accuracy of short-circuit instantaneous protection action value depends on the operating current
□ The installation is interchangeable: the external dimensions and installation dimensions are the same as those of the MEM1 series molded case circuit breakers (Note: MEM1E-630 is the same as MEM1-800)

可选功能（基于MM1E智能通讯型或编程通讯型）
Optional function (based on MM1E intelligent communication type or programming communication type)

□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D0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;
□ Two-way passive signal output function: for signal (or alarm), capacity AC230V5A;
With overload thermal memory function: overload thermal memory function, short circuit (short delay) thermal memory function;
□ With fire shunt function: overload alarm does not trip (provide a pair of passive contacts) and provides shunt trip function;
With communication function: standard RS232, RS485, Modbus fieldbus protocol;
Can be connected to a handheld programmer: set various protection parameters of the circuit breaker and perform nearly 10 fault inquiries and various status displays;
Connectable intelligent control module: convert optically isolated contact signal output, including programmable D0 output function;
□ High-end type with LCD display module

功能详解 Detailed function

□通讯功能
通过通讯协议转换卡可方便接入PROFIBUS-DP协议网络、DEVICE-NET协议和其它配电自动化网络中,具备遥控、遥调、遥讯和遥测功能, 可实现对断路器远距高操作达到远距高电力调度。
遥测:电网的工作参数、负载电流、故障参数等;
遥讯:断路器的各种参数、脱扣特性、额定电流等;
遥调:计算机远程调节断路器的各种保护参数、脱扣特性、额定电流等;
遥控:计算机遥控开关的断开等

□ Communication function
It can be easily connected to the PROFIBUS-DP protocol network, DEVICE-NET protocol and other power distribution automation networks through the communication protocol conversion card.It has remote control, remote adjustment, remote signalling and telemetry functions, which can achieve long-distance high operation of circuit breakers Distance from high power dispatch.
Telemetry: working parameters, load current, fault parameters, etc. of the power grid;
Remote communication: various parameters of circuit breakers, trip characteristics, rated current, etc.
Remote adjustment: The computer remotely adjusts various protection parameters, trip characteristics, and rated current of the circuit breaker;
Remote control: disconnection of computer remote control switch, etc.

□手持式编程器：液晶显示、操作简单、界面简洁,可对断路器各种保护参数进行设定、上次故障查询、功能编辑、D0功能输出编程等、 可根据用户自定方案进行功能设置或期货功能升级

□过负荷热记忆功能：控制器过裁热记忆功能可由用户选择, 出厂时默认为关闭控制器过裁热记忆能量在15分钟内完全释放。

□短路热记忆功能：控制器(短延时)短路电流保护热记忆功能可由用户选择, 出厂时默认为关闭控制器(短延时)短路电流保护热记忆能量在1 5分钟内完全释放

□故障记录功能：控制器可将最近10次发生的故障类型,故障跳闻时间,故障相及最大故障电流记录,掉电不丢失

□消防分励功能：供消防系统使用,在设定的参数下达到脱扣条件时,断路器不脱扣并输出常开常闭触点,并提供分励功能可由用户自行选择是否断开断路器。

□可编程D0输出功能：控制器有四个光电信号输出, D01和D02光电信号都可编程为以下功能输出, D03为分闸信号, D04为合闸信号

□ Handheld programmer
LCD display, simple operation and simple interface. It can set various protection parameters of the circuit breaker, last fault inquiry, function editing, d0 function output programming, etc. it can be set according to the user-defined scheme: language or futures function upgrade

□ overload thermal memory function
The over cutting thermal memory function of the controller can be selected by the user. It is turned off by default when leaving the factory. The over cutting thermal memory energy of the controller is fully released within 30 minutes.

□ short circuit thermal memory function
The thermal memory function of controller (short time delay) short-circuit current protection can be selected by the user. When leaving the factory, the controller (short time delay) short-circuit current protection is turned off by default, and the thermal memory energy is fully released within 15 minutes

□ fault recording function
The controller can record the fault type, fault tripping time, fault phase and maximum fault current of the last 10 times, and the fire protection shunt excitation function is used by the fire protection system. When the tripping conditions are met under the set parameters, the circuit breaker will not trip and output normally open and normally closed contacts, and provide shunt excitation function. The user can choose whether to disconnect the circuit breaker,, The port programmable d0 output function controller has four photoelectric signal outputs. D01 and D02 photoelectric signals can be programmed as the following function outputs, D03 is the opening signal and D04 is the closing signal

长延时故障 Long delay fault	短延时故障 Short delay fault	接地故障 Ground Fault
漏电故障 Leakage fault	瞬时故障 Transient failure	过压故障 Overvoltage fault
温度超温故障 Over temperature fault	故障跳闸 Fault trip	欠压故障 Undervoltage fault
长延时故障报警 Long delay fault alarm	短延时故障报警 Short delay fault alarm	接地故障报警 Ground fault alarm
漏电故障报警 Leakage fault alarm	瞬时故障报警 Instantaneous fault alarm	过压故障报警 Overvoltage fault alarm
温度超温故障报警 Temperature over temperature fault alarm	故障跳闸报警 Fault trip alarm	欠压故障报警 Undervoltage fault alarm

□ 断路器分合闸状态检测功能（可选功能）
控制器可检测断路器当前的分合闸状态，并实时地上传给上位机至计算机网络

□ Circuit breaker opening and closing state detection function (optional function)
The controller can detect the current opening and closing status of the circuit breaker and upload it to the upper computer to the computer network in real time

产品功能配置 Product function configuration

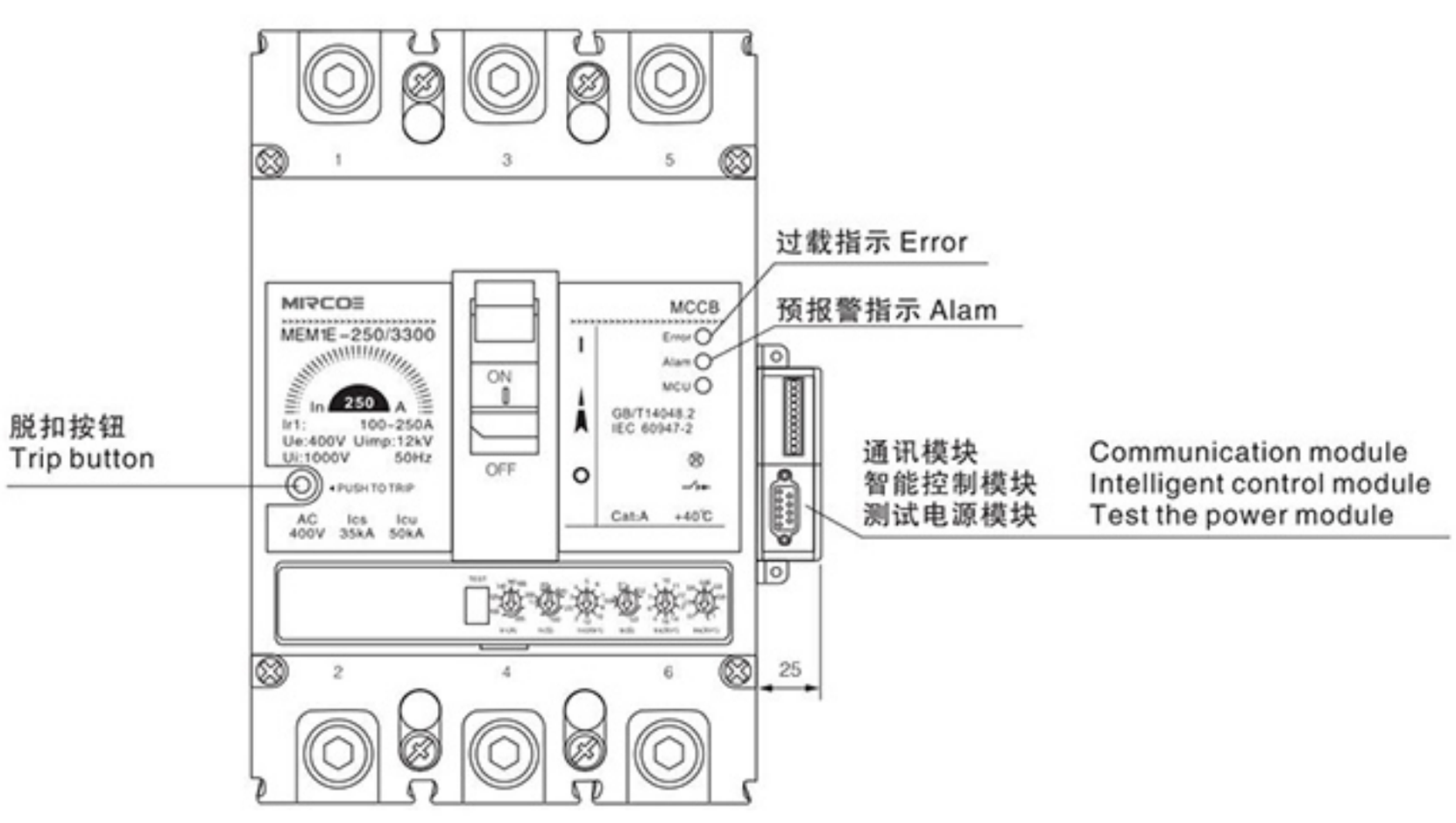
□ 表1 产品功能配置表 Table 1 Product function configuration table

功能 Features \ 产品类型 product type	MEM1E 基本型 Basic type	MEM1E(Z) 智能型 Smart	MEM1E(B) 编程型 Programmatic	MEM1E(X) 消防型 Fire type	MEM1E(L) 液晶型 LCD type
过载长延时整定 Overload long delay setting	●	●	●	●	●
短路短延时整定 Short-circuit short delay setting	●	●	●	●	●
短路瞬时整定 Instantaneous short circuit setting	●	●	●	●	●
过载、预报警指示 Overload, pre-alarm indication	●	●	●	●	●
脱扣测试功能 Trip test function	●	●	●	●	○
故障自诊断功能 Fault self-diagnosis function	●	●	●	●	●
编码开关整定 Coding switch setting	●	●	——	●	——
双路无源信号输出 Dual passive signal output	——	●	●	○	○
通讯功能模块 Communication module	——	●	●	○	○
手持式编程器 Handheld programmer	——	○	●	○	○
编码整定 Coding tuning	——	○	●	○	○
分励功能 Shunt function	——	○	○	○	○
温度监控保护功能 Temperature monitoring protection	——	○	○	○	○
记忆功能 memory function	——	○	○	○	○
智能控制模块 Intelligent control module	——	○	○	○	○
消防功能 Fire protection function	——	——	——	○	——
液晶显示 LCD	——	——	——	——	●

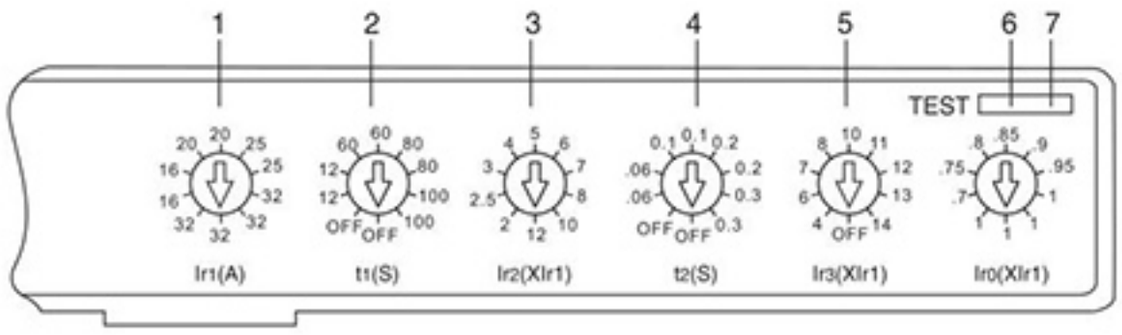
● 基本功能 basic skills ○ 可选功能 Optional features

结构与标识简介 Structure and Logo Introduction

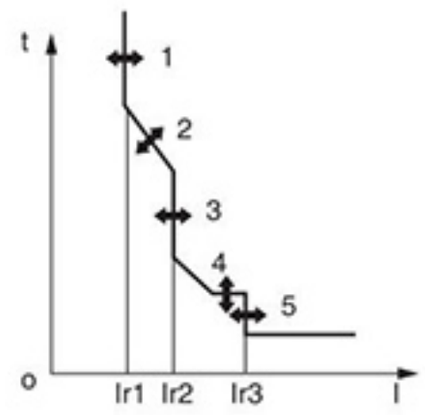
□ 断路器正面指示 Circuit breaker front indication



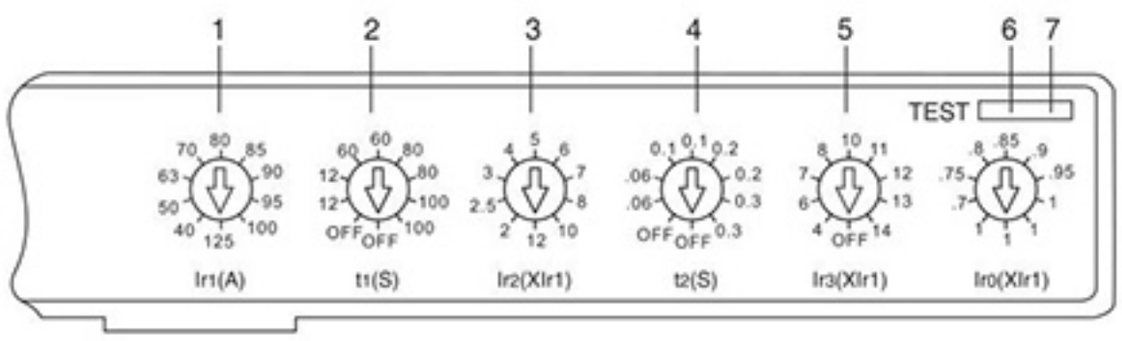
□ MEM1E-125,In=32A 电子式脱扣器 Electronic release



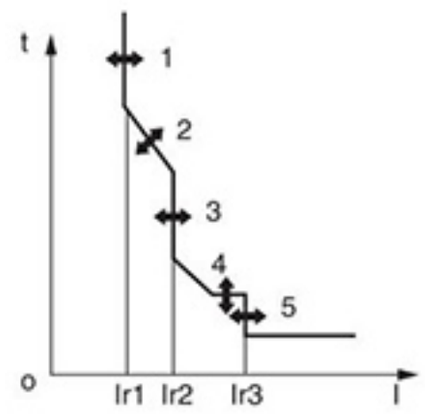
电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



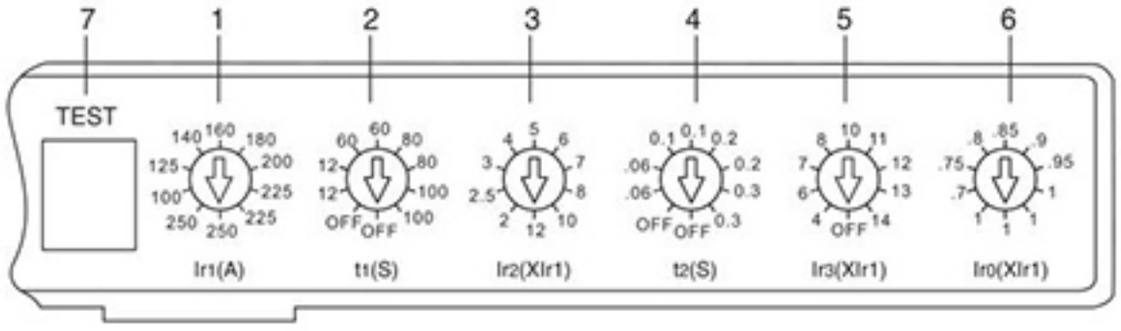
□ MEM1E-125,In=125A 电子式脱扣器 Electronic release



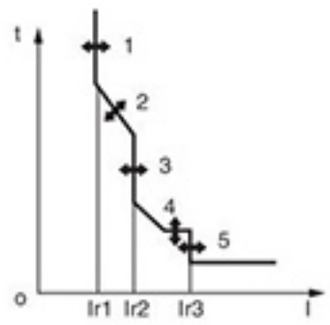
电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



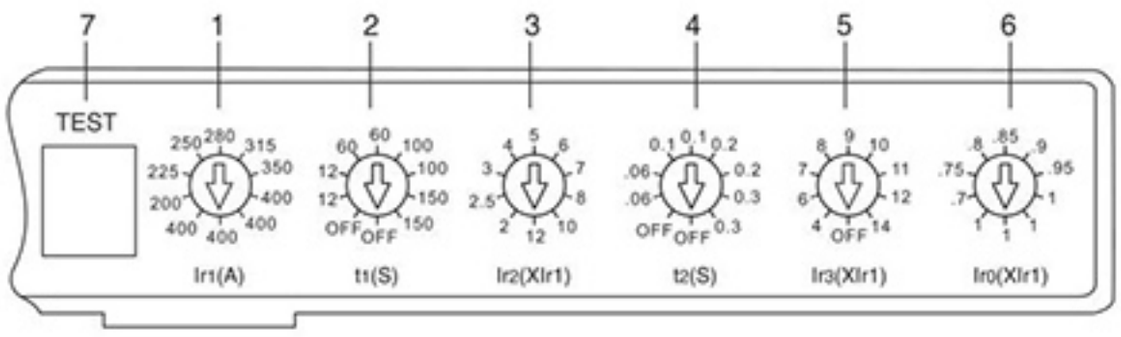
☐ MEM1E-250,In=250A 电子式脱扣器 Electronic release



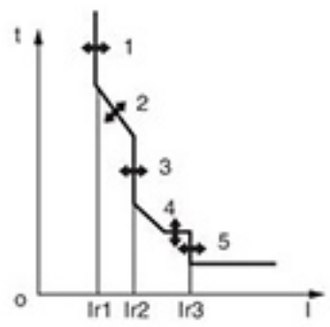
电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



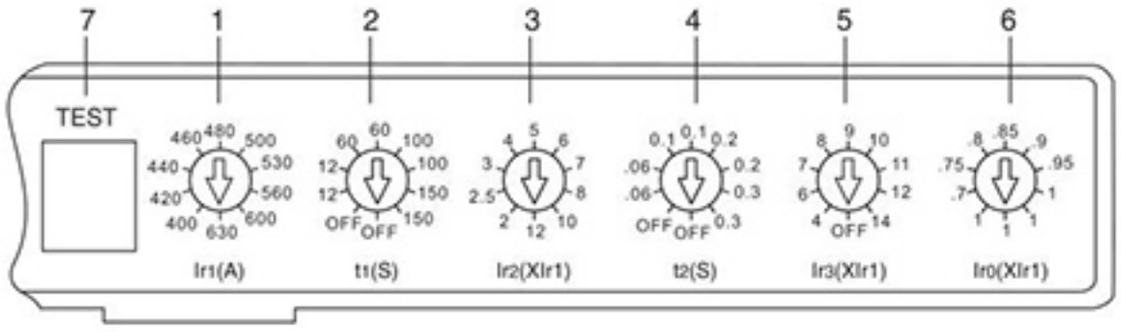
☐ MEM1E-400,In=400A 电子式脱扣器 Electronic release



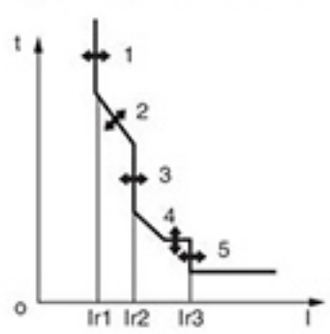
电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



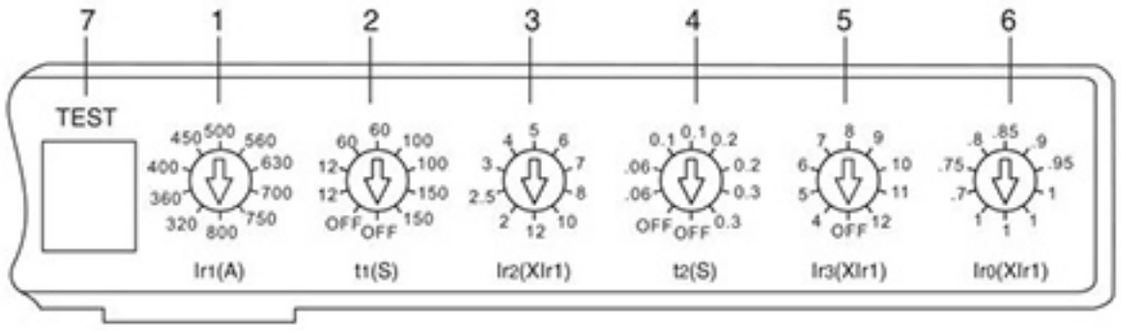
☐ MEM1E-630,In=630A 电子式脱扣器 Electronic release



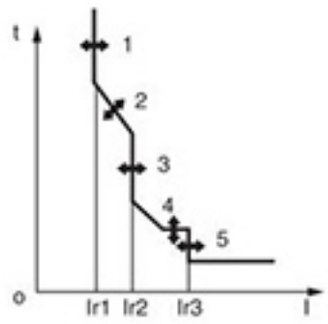
电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



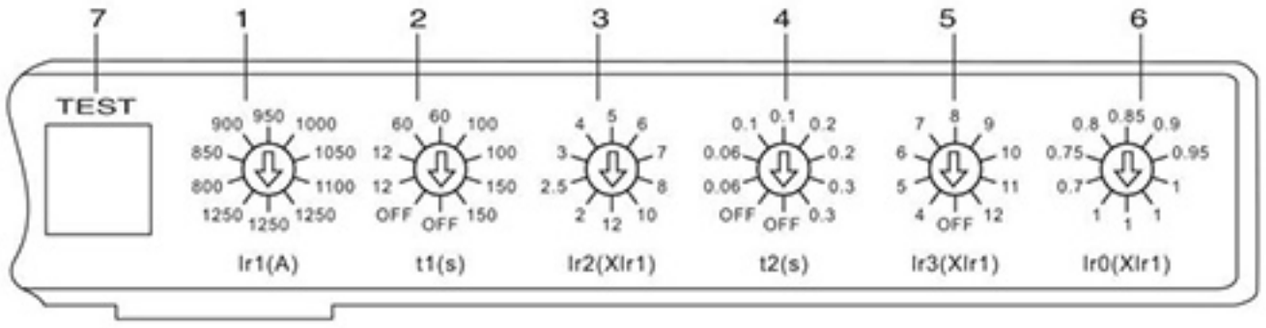
☐ MEM1E-800,In=800A 电子式脱扣器 Electronic release



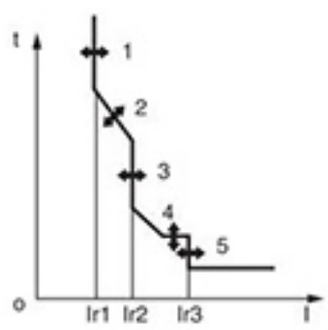
电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



☐ MEM1E-1250,In=1250A 电子式脱扣器 Electronic release



电子式脱扣器保护特性曲线
Electronic trip unit protection characteristic curve



注：

☐ 过载长延时动作电流Ir1调整,根据断路器不同的额定电流,可从4档到10档进行调整；
☐ 长延时动作时间t1调整,可进行4档调整;
☐ 短路短延时动作电流Ir2调整,可进行10档调整;
☐ 短延时动作时间t2调整,可进行4档调整;
☐ 短路瞬时动作电流Ir3调整,可进行8档、9档或10档调整;
☐ 预报警动作电流Ir0调整,可进行7档调整。
☐ 测试端,用于脱扣测试(试验)。

Note:

☐ Overload long delay action current Ir1 adjustment, according to different rated current of the circuit breaker, it can be adjusted from 4th gear to 10th gear;
☐ Long delay action time t1 adjustment, 4 gears can be adjusted;
☐ Short-circuit short-delay action current Ir2 adjustment, 10-level adjustment can be performed;
☐ Adjustment of short delay action time t2, 4 gears can be adjusted;
☐ Adjustment of short-circuit instantaneous action current Ir3, which can be adjusted in 8 gears, 9 gears or 10 gears;
☐ Adjustment of pre-alarm operation current Ir0, 7 gears can be adjusted.
☐ Test terminal for trip test (test).

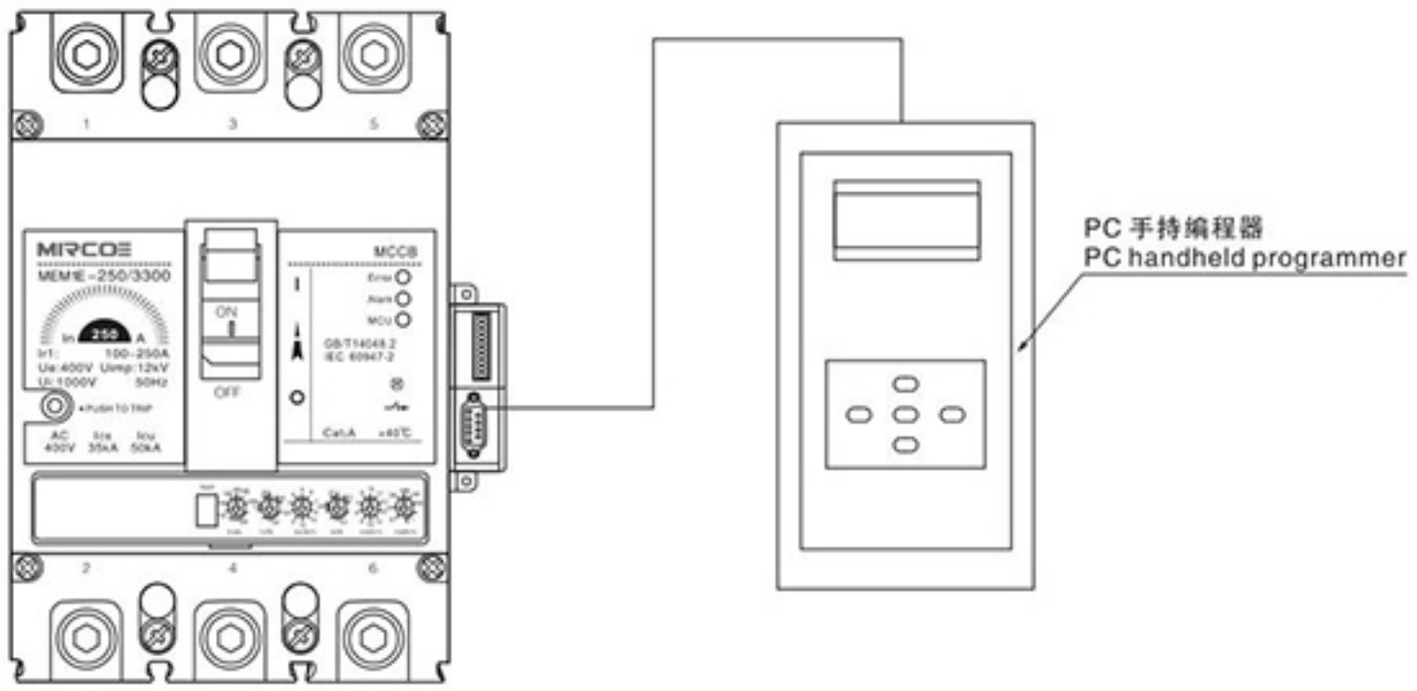
智能断路器的通讯接口及外部模块应用与组网
Communication interface of intelligent circuit breaker and external module application and networking

☐ MEM1E系列可通讯智能化塑壳断路器备有通讯接口，按MODBUS通讯接口规约。当MEM1E系列可通讯智能化塑壳断路器不用于组网通讯，而是单独使用时，手持编程器可通过通讯接口对断路器进行保护特性整定等操作；也可以在通讯接口接上PC-CD液晶显示模块，用以监视断路器的运行电流和故障信息。当MEM1E系列可通讯智能化塑壳断路器用于组网通讯时,可直接挂接到相应的现场总线针对不同协议的现场总线,可选用PC-DP协议转换模块,将MODBUS协议转换后在挂接到相应的现场总线。

☐ MEM1E系列可通讯智能化塑壳断路器单独使用断路器的保护参数设定时，需专业人员采用 PC手持编程器按下图所示方式连接，朝安手持编程器的操作说明进行操作 。

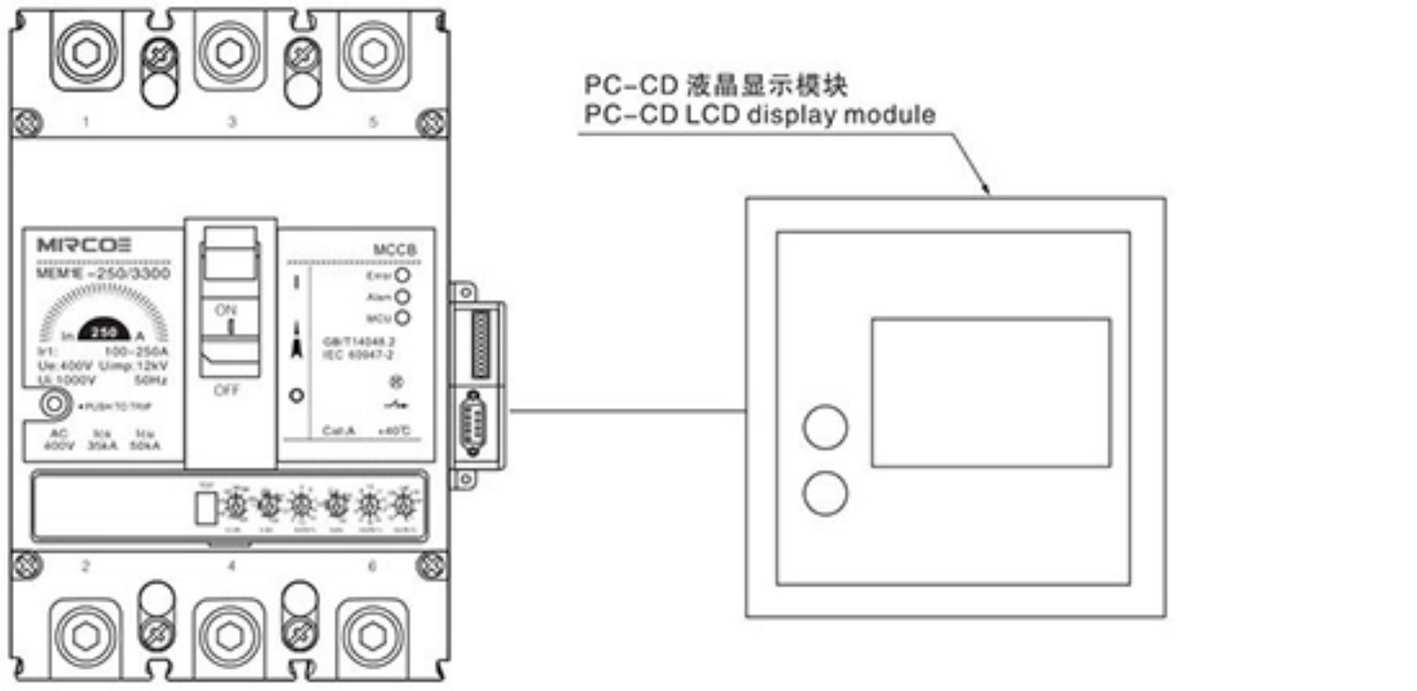
☐ MEM1E series communicable intelligent plastic case circuit breaker is equipped with communication interface, according to MODBUS communication interface protocol. When the MEM1E series communicable intelligent plastic case circuit breaker is not used for network communication, but is used alone, the handheld programmer can set the protection characteristics of the circuit breaker through the communication interface and other operations; it can also be connected to the PC-CD through the communication interface Liquid crystal display module, used to monitor the operating current and fault information of the circuit breaker. When the MEM1E series communicable intelligent plastic case circuit breaker is used for network communication, it can be directly connected to the corresponding fieldbus. For fieldbuses of different protocols, the PC-DP protocol conversion module can be selected, and the MODBUS protocol is converted and connected. To the corresponding fieldbus.

☐ The MEM1E series can communicate with the intelligent plastic case circuit breaker. When the protection parameter setting of the circuit breaker is used alone, a professional must use a PC handheld programmer to connect as shown in the figure below, and operate the operating instructions of Chaoan handheld programmer.



☐ MEM1E系列可通讯智能化塑壳断路器和PC-CD液晶显示模块配合使用
正常运行时,显示模块可监视断路器的运行电流和故障信息等。断路器保护参数设定时,需专业人员采用PC手持编程器连接,再按手持编程器的操作说明进行操作。

☐ MEM1E series can communicate with intelligent plastic case circuit breaker and PC-CD LCD display module
During normal operation, the display module can monitor the operating current and fault information of the circuit breaker. When setting circuit breaker protection parameters, professionals need to use a PC handheld programmer to connect, and then press the operation of the handheld programmer. Follow the instructions.



☐ MEM1E系列可通讯智能化塑壳断路器的通讯组网
通讯组网可参考下图方案进行连接。针对不同协议可选不同的协议模块,将MODBUS转为PROFIBUS-DP等协议

☐ Communication network of MEM1E series intelligent plastic case circuit breaker
Communication network can be connected by referring to the scheme below. Choose different protocol modules for different protocols, convert MODBUS to PROFIBUS-DP and other protocols

MEM1E Series Moulded Case Circuit Breaker

MIRCOE

主要性能指标 Technical Data

型号 Type	MEM1E-125	MEM1E-250	MEM1E-400
壳架等级额定电流Inm（A） Shell frame rated current Inm (A)	125	250	400
额定电流(可调)In（A） Rated current(Adjustable)In（A）	16、20、25、32、40、50、 63、70、80、85、90、95、 100、125	100、125、140、160、 180、200、225、250	200、225、250、280、315、 350、400
额定工作电压Ue（V） Rated voltage Ue(V)	AC400V		
额定绝缘电压Ui（V） Rated insulation voltage Ui(V)	AC 1000V		
额定冲击耐受电压 Uimp Rated impulse withstand voltage Uimp	AC 12kV		
极数 poles	3,4	3,4	3,4
额定极限短路分断能力级别 Rated limit short-circuit breaking capacity level			
额定极限短路分断能力 Icu（kA） Rated limit short circuit breaking capacity	50	50	65
额定运行短路分断能力 Ics（kA） Rated short-circuit breaking capacity	35	35	50
额定短时耐受电流Icw（kA）/1s Rated short-time withstand current Icw (kA) / 1s			5kA/1s
使用类别 Cat	A	A	B
操作循环次数 Operation life(cycle) 通电 NO	3000	3000	2000
操作循环次数 Operation life(cycle) 不通电 OFF	7000	7000	4000
外形尺寸（mm） Dimensions L	150	165	257
外形尺寸（mm） Dimensions W	3P= 92 4P= 122	3P= 107 4P= 142	3P= 150 4P= 198
外形尺寸（mm） Dimensions H	92	90	106.5
飞弧距离（mm）Arcing distance (mm)	≤ 50	≤ 50	≤ 100

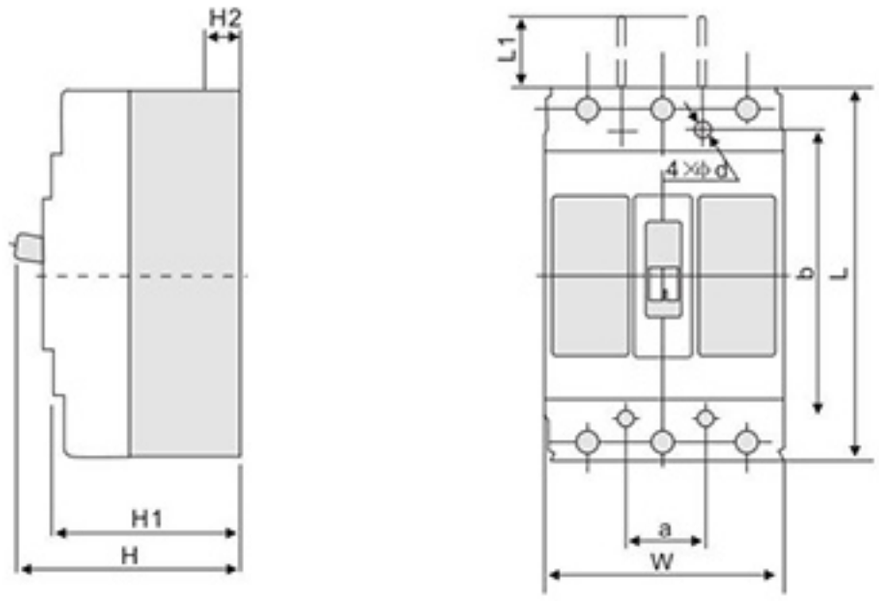
MEM1E Series Moulded Case Circuit Breaker

MIRCOE

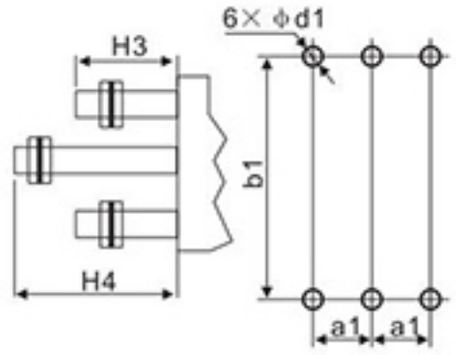
		
MEM1E-630	MEM1E-800	MEM1E-1250
630	800	1250
400、420、440、460、480、 500、530、560、600、630	630、640、660、680、700、 720、740、760、780、800	630、700、800、1000、 1250、1600
AC400V		
AC1000V		
AC 12kV		
3,4	3,4	3,4
65	65	65
50	50	50
10kA/0.5s	10kA/0.5s	
B	B	B
1500	1500	500
3000	3000	2500
270	280	466
3P= 182 4P= 240	3P= 210 4P= 280	4P=280 3P=210
111	115.5	139
< 100	< 100	< 120

MEM1E外形及安装尺寸 Shape and installation dimensions

□ 固定式板前、板后接线的外形及安装尺寸
Outline and installation dimensions of fixed board front and rear board wiring



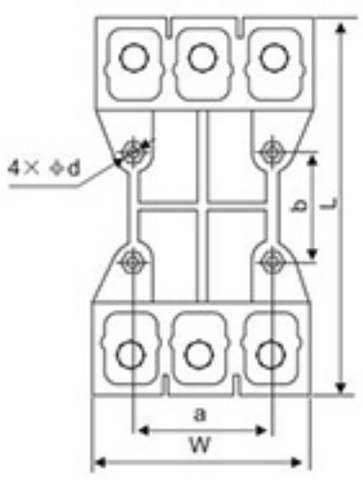
3 pole

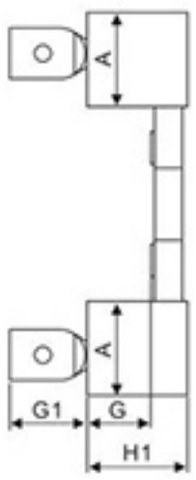


三极的板后接线尺寸
3-pole backplane wiring size

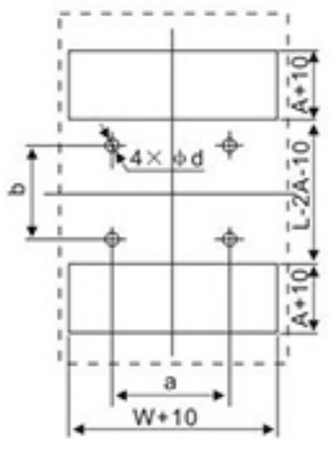
型号 Type	极数 pole	外形尺寸（mm）Dimensions						安装尺寸(mm)Installation size			板后接线尺寸（mm） Backplane wiring size(mm)				
		L	L1	W	H	H1	H2	a	b	φd	a1	b1	d1	H3	H4
MEM1E-125	3	150	51	92	110	92	28.5	30	129	4.5	30	132	22	53	93
MEM1E-250	3	165	64	107	110	90	25	35	126	5.5	35	144	24	55	100
MEM1E-400	3	257	105	150	146.5	106	38	44	194	7	48	224	32	48.5	108.5
MEM1E-630	3	280	100	210	155	115.5	41	70	243	7	70	243	48	62	84
MEM1E-800	3	280	100	210	155	115.5	41	70	243	10	70	243	48	62	84
MEM1E-125	4	150	51	122	110	92	28.5	30	129	4.5	30	132	22	53	93
MEM1E-250	4	165	64	142	110	90	25	35	126	5.5	35	144	24	55	100
MEM1E-400	4	257	105	197	146.5	106	38	94	194	7	48	224	32	48.5	108.5
MEM1E-630	4	280	100	240	155	115.5	41	70	243	7	70	243	48	62	84
MEM1E-800	4	280	100	280	155	115.5	41	70	243	10	70	243	48	62	84

□ 插入式板后接线的外形及安装尺寸
Outline and installation dimensions of the wiring after the plug-in board





3 pole



安装板的开孔尺寸
Hole size of mounting plate

单位 unit(mm)

型号 Type	W	L	A	H1	G	G1	a	b	d
MEM1E-125	94	168	41	50	32.5	26	60	56	6.5
MEM1E-250	110	183	51	50	32.5	36.5	70	54	6.5
MEM1E-400	152	279	58	60	39	46.5	60	129	8.5
MEM1E-630	213	296	58	61	45	87	140	143	10
MEM1E-800	213	296	58	61	45	87	140	143	10

连接母线和电缆的截面积选择 Selection of cross-section area for connecting bus bars and cables

☐ 母线的选择 Selection of bus

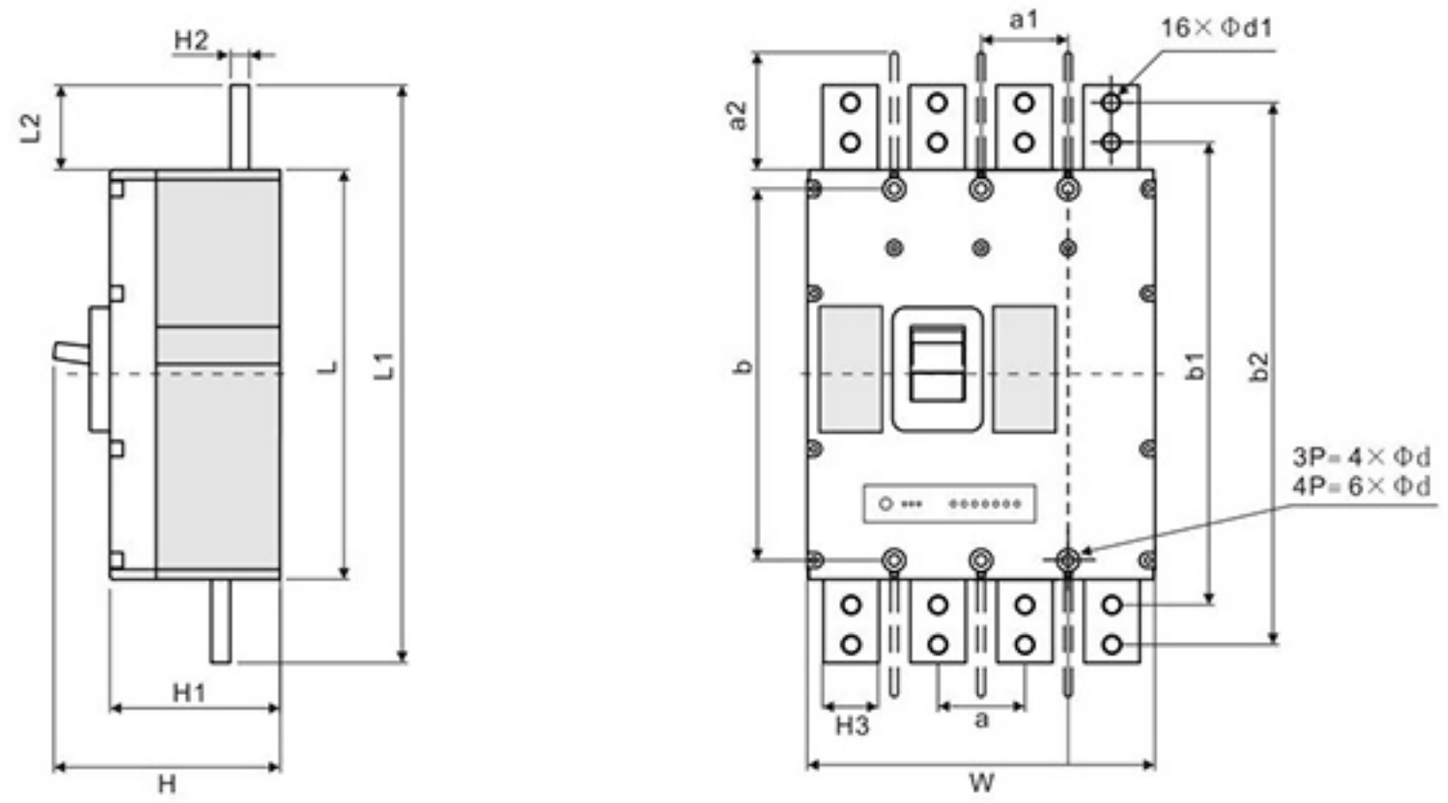
额定电流 A Rated current A	10 16 20	25 32	40 50	63	80	100	125	140 160	180 200 225	250	315 350	400
导线截面积mm² Conductor cross-section area mm²	2.5	6	10	16	25	35	50	70	95	120	185	240

☐ 电缆线的选择 Choice of cable

额定电流 A Rated current A	电缆截面积 Cable cross-section		铜排尺寸 Copper bar size	
	数量 Quantity	导线截面积mm² cross-section area mm²	数量 Quantity	尺寸(mm) size(mm)
500	2	150	2	30 × 5
630	2	185	2	40 × 5
700、800	2	240	2	50 × 5

MEM1E-1250外形及安装尺寸 Shape and installation dimensions

☐ 断路器板前接线的外形及安装尺寸
☐ Outline and installation dimension of front wiring of circuit breaker board



型号 Type	极数 pole	外形尺寸（mm）Dimensions								安装尺寸(mm)Installation size							
		L	L1	L2	W	H	H1	H2	H3	a	a1	a2	b	b1	b2	Φd	Φd1
MEM1E-1250	3	330	466	68	210	190	139	15	45	70	70	107	300	370	436	9.5	12.9
	4	330	466	68	280	190	139	15	45	70	70	107	300	370	436	9.5	12.9

功率损耗 Power loss

表2 Table 2

型号 Type	通电电流（A）Electric current (A)	三极总功率损耗（W）Three-pole total power loss (W)		
		板前接线 Wiring in front of the board	板后接线 Wiring behind the board	插入式接线 Plug-in wiring
MEM1E-100	100	35	35	40
MEM1E-225	225	62	62	70
MEM1E-400	400	115	115	125
MEM1E-630	630	190	190	210
MEM1E-800	800	262	262	294
MEM1E-1250	1250	386	/	/

高海拔降容 Derating at high altitude

□ 高海拔降容系数
海拔超过适用于工作环境的2000m，断路器电气性能可参照下表修正；
□ High Altitude Derating Factor
If the altitude exceeds 2000m applicable to the working environment, the electrical performance of the circuit breaker can be corrected according to the following table;

表3 Table 3

海拔（m）Altitude (m)	2000	3000	4000	5000
工频电压（V）Power frequency voltage（V）	3000	2500	2000	1800
工作电流修正系数 Working current correction factor	1	0.94	0.88	0.83
短路分断能力修正系数 Short-circuit breaking capacity correction factor	1	0.83	0.71	0.63

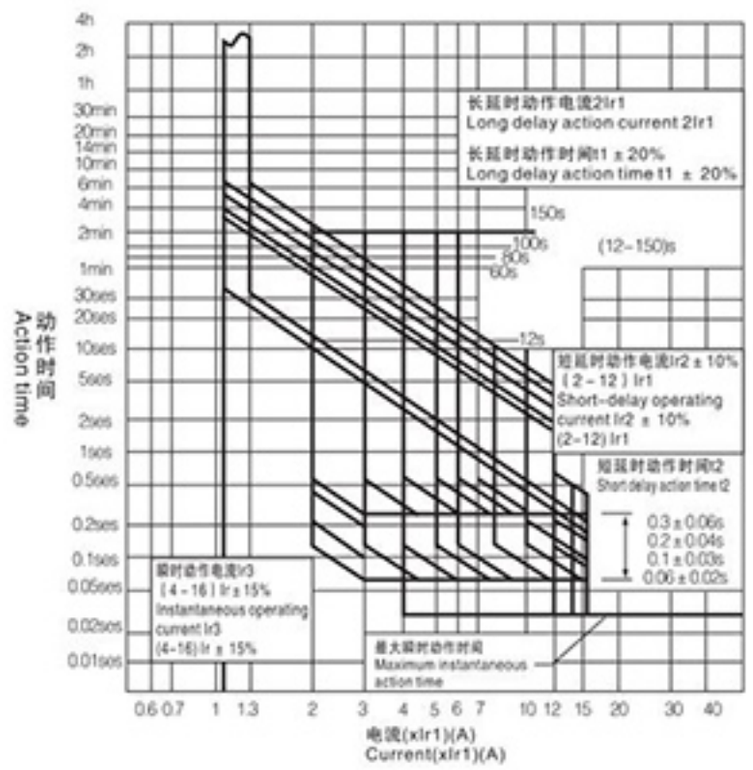
电子式脱扣器特性 Characteristics of electronic release

□ 脱扣器特性
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、短路瞬时动作等保护功能,可由用户自行设定组成所需的保护特性;中性线过电流保护电流、时间参数100%自动跟踪相线整定值。

脱扣器特性见右图。

□ Release characteristics
With overload long delay inverse time limit, short circuit short delay inverse time limit, short circuit short delay time limit, short circuit instantaneous action and other protection functions, users can set the protection characteristics required by the user; neutral line overcurrent protection current, time The parameter 100% automatically tracks the phase line setting value.

The characteristics of the release are shown in the figure to the right.



□长延时过电流保护反时限动作特性
□ Long-delay overcurrent protection inverse time action

表4 Table 4

控制器类型 Controller type	基本型 Basic type		智能通讯型、编程通讯型、液晶型 Intelligent communication type, programming communication type, LCD type
电流 Electric current	动作时间 The action time		
1.05Ir1	>2h不动作 > 2h action		
1.3Ir1	≤1h动作 ≤1h or less		
2Ir1	Inm=100A、225A 整定时间t1（s）Setting time t1（s）	t1=(12、60、80、100)s	12s-100s（最大步进1s Maximum step 1s）
2Ir1	Inm=400A、630A、800A 整定时间t1（s）Setting time t1（s）	t1=(12、60、100、150)s	12s-100s（最大步进1s Maximum step 1s）
热记忆 Thermal memory	30min，断电可清除（该功能为智能通讯型和编程通讯型可选功能） 30min, can be cleared after power failure (this function is optional for intelligent communication type and programming communication type)		
	1、动作时间符合 The action time matches $I^2T=(2Ir1)^2t1$ (1.2Ir1 < I < Ir2) 2、动作时间允许差为 ±20% The allowable difference of action time is ± 20% 3、可返回时间不小于动作时间的70% Returnable time is not less than 70% of action time		

□短延时过电流保护特性 Short delay overcurrent protection characteristics

表5 Table 5

电流 Electric current	动作时间 Action time					
Ir2 < I < 1.5Ir2	反时限 Inverse time		$I^2T=(1.5Ir2)^2t2$			
		整定时间t2(s) Setting time t2 (s)	0.06	0.01	0.2	0.3
1.5Ir2 < I < Ir3	定时限 Time limit	允差(s) Tolerance(s)	± 0.02	± 0.03	± 0.04	± 0.06
		可返回时间(s) Returnable time (s)			0.14	0.21

注：反时限动作时间允差 ±20%
Note: Tolerance of inverse time action time ± 20%

□短路瞬时保护动作特性 Short circuit protection

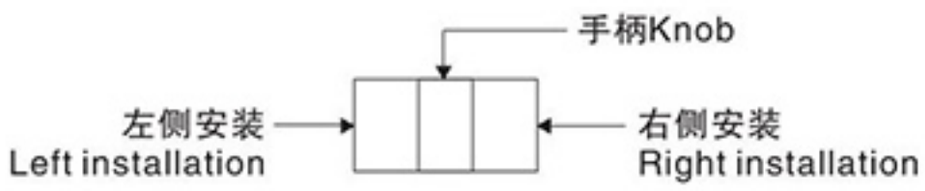
表6 Table 6

额定电流 Rated current	100、225	400、630	800	1250
整定电流 Setting current	Ir3=(4、6、7、8、10、11、12、13、14、16) × Ir1	Ir3=(4、6、7、8、9、10、11、12、13、14、) × Ir1	Ir3=(4、5、6、7、8、9、10、11、12、) × Ir1	Ir3=(4、5、6、7、8、9、10、11、12、) x Ir1
动作特性 Action characteristics		I < 0.85Ir3 不动作 No action I > 1.15Ir3 动作 action		

MIRCOE

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

☐ 脱扣器方式及内部附件（表7）
Tripping mode and inner accessary(Table 7)



☐ 报警触头 Alarm contact
■ 辅助触头 Aux contact
● 分励脱扣器 Shunt release
○ 欠电压脱扣器 Under voltage release(UVT)
→ 引线方向 Lead the direction of

表7 Table 7

代号 Code / 附件名称 Accessary name / 型号 Type / 极数No.of poles	MM1E-100、MM1E-225	MM1E-400		MM1E-630、MM1E-800	MM1-1250
	3P、4P	3P	4P	3P、4P	3P、4P
308 报警触头 Alarm contact					
310 分励脱扣器 Shunt release					
320 辅助触头 Auxiliary contact					
330 欠电压脱扣器 Under-voltage release					
340 分励脱扣器 、辅助触头 Shunt auxiliary contact	——	——			
350 分励脱扣器、欠电压脱扣器 Shunt release UVT	——	——	——		——
360 二组辅助开关 Two groups auxiliary contacts	——	——			——
370 辅助触头、欠电压脱扣器 Auxiliary contact UVT	——	——			——
318 分励脱扣器、报警触头 Shunt alarm contact	——	——	——		
328 辅助触头、报警触头 Auxiliary alarm contact					——
338 欠电压脱扣器、报警触头 UVT alarm contact	——	——	——		——
348 分励脱扣器、辅助触头、报警触头 Shunt auxiliary alarm contact	——	——	——		——
368 二组辅助触头、报警触头 Two groups aux alarm contact	——	——			——
378 辅助触头、欠电压脱扣器、报警触头 Aux contact UVT alarm contact	——	——	——		——

注:
☐ 脱扣器方式及内部附件代号首位数字3表示具有三段保护的电子式脱扣器;后两位数字表示内部附件代号,无附件则用00表示;
☐ MEM1E-400中328规格MEM1E-630、800中348规格, MEM1E-400、630、800中360规格辅助触头为三对触头(即三常开、三常闭);其余规格辅助触头数量为400及以上二组, 225及以下为一组;
☐ MEM1E-100、225中320规格辅助触头可提供二对触头(即二常开、二常闭),但须订货时注明。
☐ 在内部附件不能提供或满足客户的使用需要时,也可通过智能控制器提供更多辅助功能,该系列智能控制器能提供如下功能:合分闸辅助信号,分励脱扣功能,各种保护功能故障信号(见功能详解7) 。

Note:
☐ release mode and internal accessory code, the first digit 3 indicates the electronic release with three-stage protection; The last two digits represent the internal accessory code, and 00 is used if there is no accessory;
In the MEM1E-400 328 specifications MEM1E-630, 800 in 348 specifications, MEM1E-400, 630, 800 360 specifications auxiliary contacts are three pairs of contacts (that is, three normally opened, three normally closed). The number of auxiliary contacts of other specifications is
Two groups of 400 and above, and one group of 225 and below;
☐ two pairs of contacts (i.e. two normally open and two normally closed) can be provided for 320 specification auxiliary contacts in MEM1E-100 and 225, but they must be indicated when ordering.
☐ when the internal accessories cannot be provided or meet the use needs of customers, more auxiliary functions can also be provided through the intelligent controller. This series of intelligent controllers can provide the following functions: closing and opening auxiliary signal, shunt tripping function, each
Fault signal of protection function (see function explanation 7).

使用与维护 Use and maintenance

□断路器各种特性及附件由制造厂整定，在使用中不要随意调节，对于漏电式断路器和电子式断路器用户务必对本产品技术资料详细了解后再对断路器的相关参数进行调整。

□断路器手柄可以处在三个位置，分别表示闭合、断开、自由脱扣三种状态，当手柄处于自由脱扣位置时，应向断开方向板动手柄，此时断路器再扣，然后才能合闸。

□请用户遵守存储和使用条件，从制造厂发货之日起不超过12个月，产品如因制造质量问题发生损坏或不能正常使用时，制造厂负责维修或更换。

☐ The various characteristics and accessories of the circuit breaker are set by the manufacturer. Do not adjust them arbitrarily during use. For users of leakage circuit breakers and electronic circuit breakers, they must thoroughly understand the technical data of this product before adjusting the relevant parameters of the circuit breaker.

☐ The circuit breaker handle can be in three positions, which indicate three states: closed, open, and free trip.When the handle is in the free trip position, the handle should be moved to the direction of disconnection. Then it can be closed.

☐ The user is required to comply with the storage and use conditions. It should not exceed 12 months from the date of shipment by the manufacturer. If the product is damaged due to manufacturing quality problems or cannot be used normally, the manufacturer is responsible for repair or replacement.

订货须知 download Google

☐ 请写明断路器的型号规格以及订货数量，采用欠电压脱扣器、分励脱扣器或电动操作机构时，请注明工作电压或控制电源电压的电压值。
例如：MEM1-100L/3300板后接线(板前接线可以不写)额定工作电流80A 10台。
MEM1L-225/4300额定工作电流 180A漏电电流100、300、500mA延时型20合。
MEM1E-400H/3300Z 400A智能通讯型，CD2电动操作机构10台。

☐ 周围气温属下列情况请申明：上限超过+40℃或下限低于-5℃

☐ Please indicate the model and specifications of the circuit breaker and the order quantity. When using an undervoltage release, shunt release or electric operating mechanism, please indicate the voltage value of the working voltage or control power supply voltage.
For example: MEM1-100L / 3300 wiring at the rear of the board (the wiring at the front of the board can be left unwritten).
MEM1L-225 / 4300 rated working current 180A leakage current 100, 300, 500mA delay type 20-in.
MEM1E-400H / 3300Z 400A intelligent communication type, CD2 electric operating mechanism 10 sets.

☐ Please declare if the ambient temperature is below: The upper limit exceeds + 40 ℃ or the lower limit falls below -5 ℃