

股票简称：百利电气

股票代码：600468



注：

样本中所涉及的标准，材料，技术要求，电气线路以及安装尺寸随着时间的推移和市场的变化在不断地改变，因此，这些数据及技术条件均要以百利电气有限公司最新确认为准。

厂址：天津西青经济开发区民和道12号

邮编：300385

<http://www.benefo.com>

E-mail: benefo@benefo.com

天津市百利电气有限公司营销中心

地址：天津西青经济开发区民和道12号

邮编：300385

电话：022-23975781 022-23975830

022-23976077 022-23976162

传真：022-23975951

天津市百利电气有限公司维修服务中心

地址：天津西青经济开发区民和道12号

邮编：300385

电话：022-83963707

传真：022-23979625

BENEFO® 百利®

产品介绍
2009年版

TM31 系列 微型断路器



高新技术企业



获天津名牌产品



获中国强制认证



获ISO9001质量体系认证



国家3A级标准化良好行为企业



天津市百利电气有限公司



中国平安保险公司承担产品质量信誉保险



企业简介

天津市百利电气有限公司是按现代企业制度组建的全新企业，是上市公司——天津百利特精电气股份有限公司的全资子公司（股票简称：百利电气，股票代码：600468）。公司有生产塑壳式断路器（MCCB）、万能式断路器（ACB）的悠久历史，其主导产品为：低压电器元件、电气传动及成套装置等。拥有15大系列、上万种规格。新建占地12万平方米的现代化工厂坐落于天津西青经济开发区。

企业高层管理者由博士、硕士等一批高级专业人员组成，并且拥有一支经验丰富、素质精良的员工队伍。由电气行业专家和具有大学本科以上学历的电气专业技术人员组成的公司技术中心被天津市政府授予“市级企业技术中心”称号。

公司以高科技为先导，引进国内外先进的计算机软件及加工设备，广泛采用CAD、CAM进行设计、生产并实行ERP管理。领先国内同行业研制的TM30系列塑壳式断路器，具有体积小、零飞弧、智能化、分断能力高等特点。近年，研发并投放市场的TM40系列产品，除具有TM30产品特点外，还具有隔离功能、模块化及所有附件均为插接式等特点，更便于用户使用及安装；TW30系列智能型万能式断路器最大壳架电流达到6300安培，是目前国内乃至世界最大的壳架电流等级；TQ30V（D）系列自动转换开关是我公司全国首创产品TQ30P系列自动转换开关的换代产品，额定电流从1A至6300A，是目前国内最大的自动转换开关系列；TQ40P系列自动转换开关、TJ40系列交流接触器和TM31系列微型断路器等其性能指标已达到国际先进水平；TW40系列万能式断路器的极限分断能力达到国际领先水平。上述新产品，分别荣获国家级新产品奖、天津市技术创新和科技进步项目奖，已拥有多项国家专利。

公司质量管理体系取得ISO9001认证。产品均已取得“3C”认证，塑壳式断路器、智能型万能式断路器被认定为天津名牌产品，产品商标被认定为天津著名商标，天津市优秀企业，国家级高新技术企业。

产品销售分布在全国31个省市自治区并销往伊朗、伊拉克、越南、泰国、孟加拉、加拿大、阿联酋等国家。公司为北京奥运和举世瞩目的“神五、神六、神七”载人航天飞行及国家抗“非典”等工程都做出了巨大的贡献。

天津市百利电气有限公司将以整合优势为客户提供技术先进、质量可靠的产品，并提供全方位、全过程、全天候的技术支持与服务。

目 录 Contents

1. TM31-32C	微型断路器（相线+中性线） Miniature circuit breaker(Phase+neutral line)	3
2. TM31L-32C	微型漏电断路器（相线+中性线） Miniature Leakage circuit breaker(Phase+neutral line)	4
3. TM31LG-32C	微型过压漏电断路器（相线+中性线） Miniature Overvoltage And Leakage circuit breaker(Phase+neutral line)	5
4. TM31-63	微型断路器 Miniature circuit breaker	6
5. TM31L-50	微型漏电断路器 Miniature circuit breaker	8
TM31LG-50	微型过压漏电断路器 Miniature Overvoltage And Leakage Circuit breaker	8
6. TM31-100	塑料外壳式断路器 Moulded case Circuit-breaker	10
7.	附件 Accessory	13
8.	脱扣特性 Tripping characteristics	14

Introduction

Tianjin Benefo Electric Co., Ltd (hereinafter refer as Benefo Electric) is a company with full of youthful spirits, which was reconstructed complying with the modern management system. It is wholly-owned by Tianjin Benefo Tejing Electric Co., Ltd, which is a public company. (Stock Name: Benefo, Stock Code: 600468).

“Benefo Electric” has a long history in the production of MCCB and ACB, its main products are low-voltage electrical components, electrical driving and affiliated devices, etc. Benefo Electric holds 15 series, totally thousands of types of products. New modern factory building that takes an area of 120 thousand square meters is located in Tianjin Xiqing Economic and Development Area.

The senior management of “Benefo Electric” is composed of a number of specialists with Doctor and Master Degree. Moreover, the company has an experienced and qualified team of staff. Technical Center of the company, which is constituted by a number of electrical experts and senior engineers, has been awarded the title “Municipal Technical Center” by Tianjin government.

In the aim of producing high-tech products with high quality, “Benefo Electric” has introduced many advanced processing equipments and software from abroad and domestic. In terms of management, the company has widely taken CAD、CAM for designation and ERP system for operation. The originated TM30 series MCCB takes an advantage of small-size, non-arc, intelligence and high breaking capacities. In recent years, the TM40 series of products have been launched with the functions of disconnection and modularization besides all the functions of TM30 products, all accessories are socket joint types, which are more convenient for the installation. TW30 series intellectual ACB, whose maximum frame current has reached 6300A, plays a leading role in domestic and even the world market; TQ30V(D) series of automatic transfer switch, whose rated current could be adjusted from 1A to 6300A, is the substitution product of the originated TQ30P series. Up to date, it has been the biggest automatic transfer switch series in domestic market. TQ40P series of automatic transfer switch, TJ40 series of alternating contactors and TM31 series of Miniature Circuit Breaker have reached the international advanced level; the maximum breaking capability of the TW40 series ACB has also reached the international advanced level. All these products have been awarded the title of “National New Brand” and “Excellent Project in Tianjin Technique Innovation” as well as many national patents.

The quality management system of “Benefo Electric” has been certified by ISO9001. All the products have acquired 3C Certificate. The MCCB and ACB were awarded as “Famous Brand of Tianjin” and “Tianjin Well-known Brand”. And the company was awarded as “Nation High-tech Enterprise” and “Excellent Enterprise in Tianjin”.

The products of the company are being distributed to 31 provinces and cities nationwide and overseas markets, such as Iran, Iraq, Vietnam, Thailand, Bangladesh and Canada etc. Whilst, the company made a great contribution to the campaign of struggling against the SARS disease, Beijing Olympic games and "Shen zhou V, Shen zhou VI, Shen zhou VII" astronavigation with astronauts.

Tianjin Benefo Electric Co., Ltd will be continuing to provide our customers with advanced technological and reliable products along with 24 hours technical supports, all round services and commitments.

TM31-32C 微型断路器 (相线+中性线)

Miniature Circuit Breaker(Phase+Neutral Line)



极数 Poles	宽度 Width mm	额定电流 Rated Current A	产品型号 Product Type
	18	6	TM31-32C 6
		10	TM31-32C 10
		16	TM31-32C 16
		20	TM31-32C 20
		25	TM31-32C 25
		32	TM31-32C 32

用途

- TT、TN-S的接地系统中
- 短路及过载保护

技术参数

- 符合标准: IEC60898-1、GB10963.1
- 额定工作电压: AC230V
- 电气寿命: 4000次
- 脱扣特性: C型5~10In瞬时脱扣
- 额定运行短路分断能力: 3kA
- 机械寿命: 10000次

使用环境

- 环境温度: -5℃ ~ +40℃
- 海拔: ≤2000m
- 空气相对湿度: ≤95%

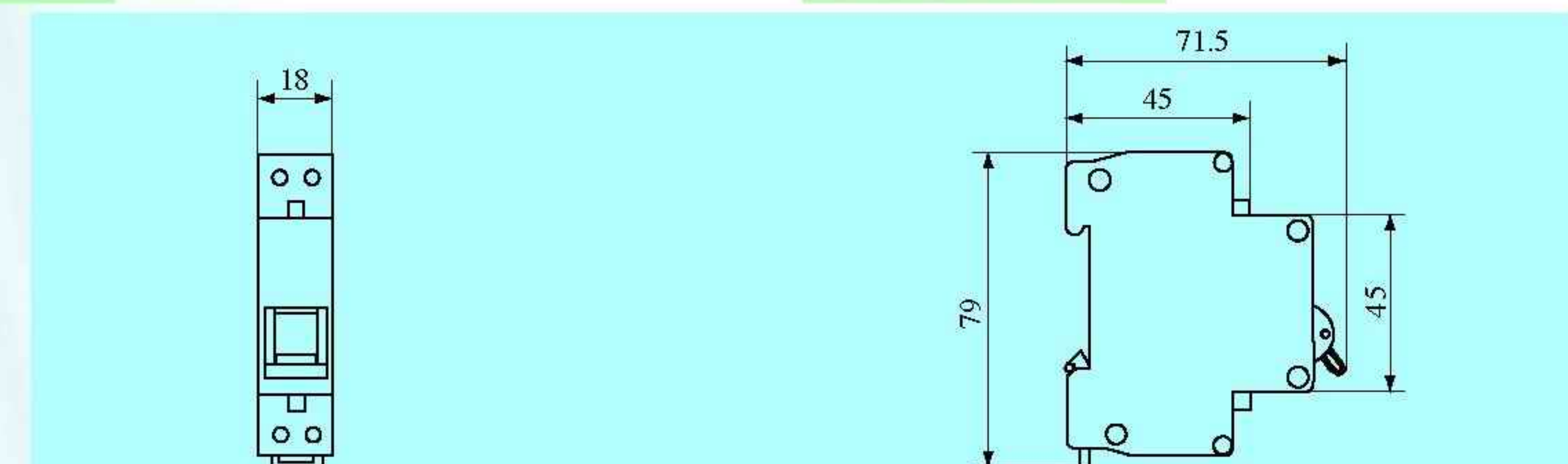
性能特点

- 断路器正常操作或故障保护使断路器处于分断位置时, 相线、中性线都处在断开状态, 避免中性线故障时带电
- 在进行接通和分断操作时, 中性线接通优先, 分断滞后
- 具有短路限流功能, 额定短路分断能力高
- 具有过载保护及短路保护装置——保护功能齐全
- 接线方便可靠
- TH35mm标准安装轨安装

接线能力

- 10mm²及以下导线

外形尺寸



Application

- In TT、TN-S ground system
- Short circuit and overload protection

Technical Specification

- Standard: IEC60898-1、GB10963.1
- Rated voltage: AC230V
- Number of electrical operation cycles: 4000 times
- Tripping characteristics: C curve instantaneous trip between 5 and 10 In
- Breaking capacity of rated operation short circuit 3kA
- Number of mechanical Operating cycles: 10000 times

Operating Environment

- Ambient Temperature: -5℃ ~ +40℃
- Altitude: ≤2000m
- Relative Air Humidity: ≤95%

Structural Feature

- When the breaker operates normally or the breaker is in the position OFF for failure protection, phase conductors and neutral wires are in the state OFF avoiding the neutral wires charged when in failure
- During the operation of connecting and disjunction, the connection of neutral wires is in first and disjunction lagging behind
- With short circuit current limiting structure-high analysis capability of rated short circuit
- With overload and short circuit protection device-perfect protection function
- Easy and safe connection
- Installation with TH35mm standard installation track-easy and simple installation

Connection Capability

- Conducting Wire of 10mm² and below

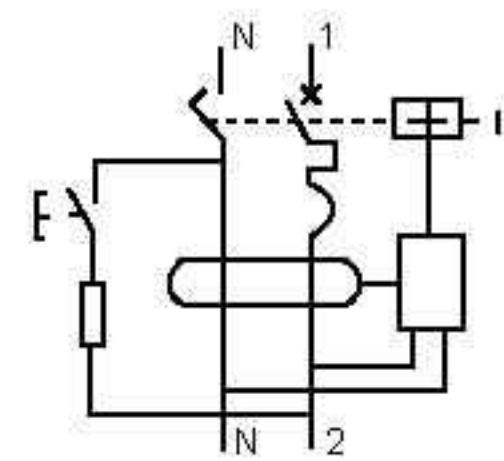
Overall Dimension

TM31L-32C 微型漏电断路器 (相线+中性线)

Miniature Leakage Circuit Breaker(Phase+Neutral Line)



极数 Poles	宽度 Width mm	额定电流 Rated Current A	产品型号 Product Type
1P+N+L	36	6	TM31L-32C 6
		10	TM31L-32C 10
		16	TM31L-32C 16
		20	TM31L-32C 20
		25	TM31L-32C 25
		32	TM31L-32C 32



用途

- TT.TN-S的接地系统中
- 短路及过载保护

技术参数

- 符合标准: IEC61009-1、GB16917.1
- 额定工作电压: AC230V
- 电气寿命: 4000次
- 脱扣特性: C型5~10In瞬时脱扣
- 额定运行短路分断能力: 3kA
- 机械寿命: 10000次
- 漏电动作电流: 30mA

使用环境

- 环境温度: -5℃ ~ +40℃
- 海拔: ≤2000m
- 空气相对湿度: ≤95%

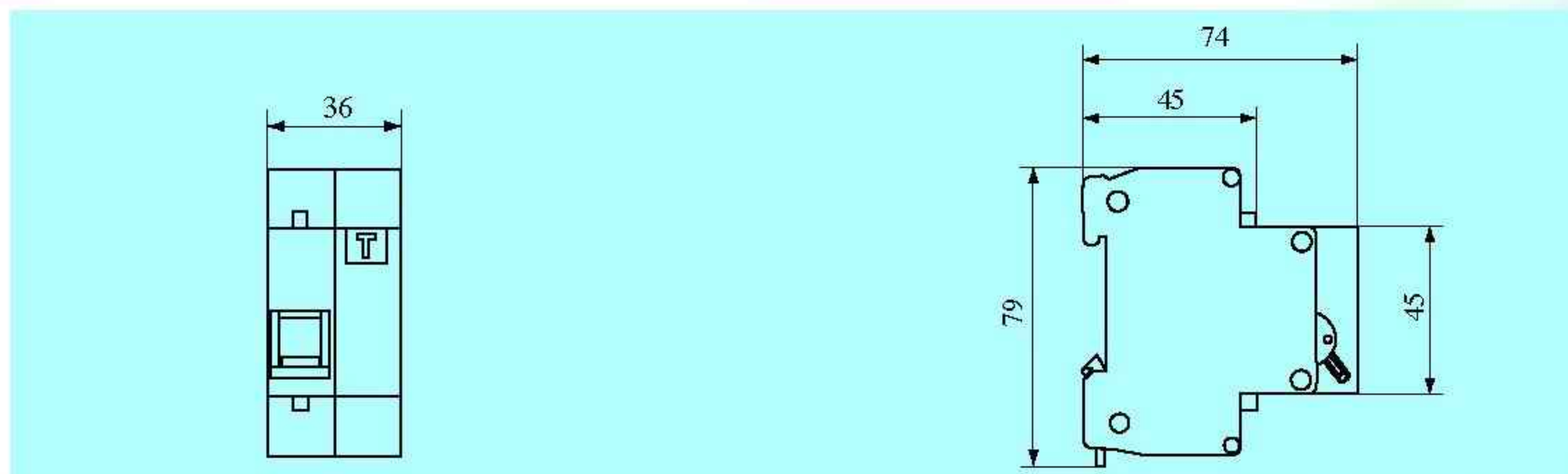
性能特点

- 断路器正常操作或故障保护使断路器处于分断位置时,相线、中性线都处在断开状态、避免中性线故障时带电
- 在进行接通和分断操作时,中性线接通优先,分断滞后
- 具有短路限流功能,额定短路分断能力高
- 具有过载保护,短路及漏电保护装置——保护功能齐全
- 接线方便可靠
- TH35mm标准安装轨安装

接线能力

- 10mm²及以下导线

外形尺寸



Application

- In TT.TN-S ground system
- Short circuit and overload protection

Technical Specification

- Standard: IEC61009-1、GB16917.1
- Rated voltage: AC230V
- Number of electrical operation cycles: 4000times
- Tripping characteristics: C curve instantaneous trip between 5 and 10 In
- Breaking capacity of rated operation short circuit 3kA
- Number of mechanical Operating cycles: 10000 times
- Soaking out current: 30mA

Operating Environment

- Ambient Temperature: -5℃ ~ +40℃
- Altitude: ≤2000m
- Relative Air Humidity: ≤95%

Structural Feature

- When the breaker operates normally or the breaker is in the position OFF for failure protection, phase conductors and neutral wires are in the state OFF avoiding the neutral wires charged when in failure
- During the operation of connecting and disjunction, the connection of neutral wires is in first and disjunction lagging behind
- With short circuit current limiting structure-high analysis capability of rated short circuit
- With overload, short circuit and leakage protection device-perfect protection function
- Easy and safe connection
- Installation with TH35mm standard installation track-easy and simple installation

Connection Capability

- Conducting Wire of 10mm² and below

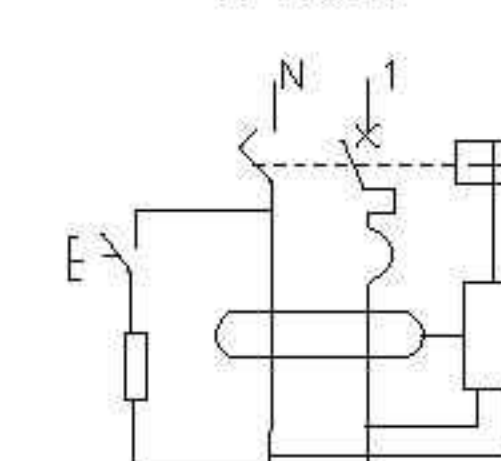
Overall Dimension

TM31LG-32C 微型过压漏电断路器 (相线+中性线)

Miniature Overvoltage And Leakage Circuit Breaker(Phase+Neutral Line)



极数 Poles	宽度 Width mm	额定电流 Rated Current A	产品型号 Product Type
1P+N+L	36	6	TM31LG-32C 6
		10	TM31LG-32C 10
		16	TM31LG-32C 16
		20	TM31LG-32C 20
		25	TM31LG-32C 25
		32	TM31LG-32C 32



用途

- TT.TN-S的接地系统中
- 短路及过载保护

技术参数

- 符合标准: IEC61009-1、GB16917.1
- 额定工作电压: AC230V
- 电气寿命: 4000次
- 漏电动作电流: 30mA
- 过电压保护动作值: AC280×(1±5%) V
- 脱扣特性: C型5~10In瞬时脱扣
- 额定运行短路分断能力: 3kA
- 机械寿命: 10000次

使用环境

- 环境温度: -5℃ ~ +40℃
- 海拔: ≤2000m
- 空气相对湿度: ≤95%

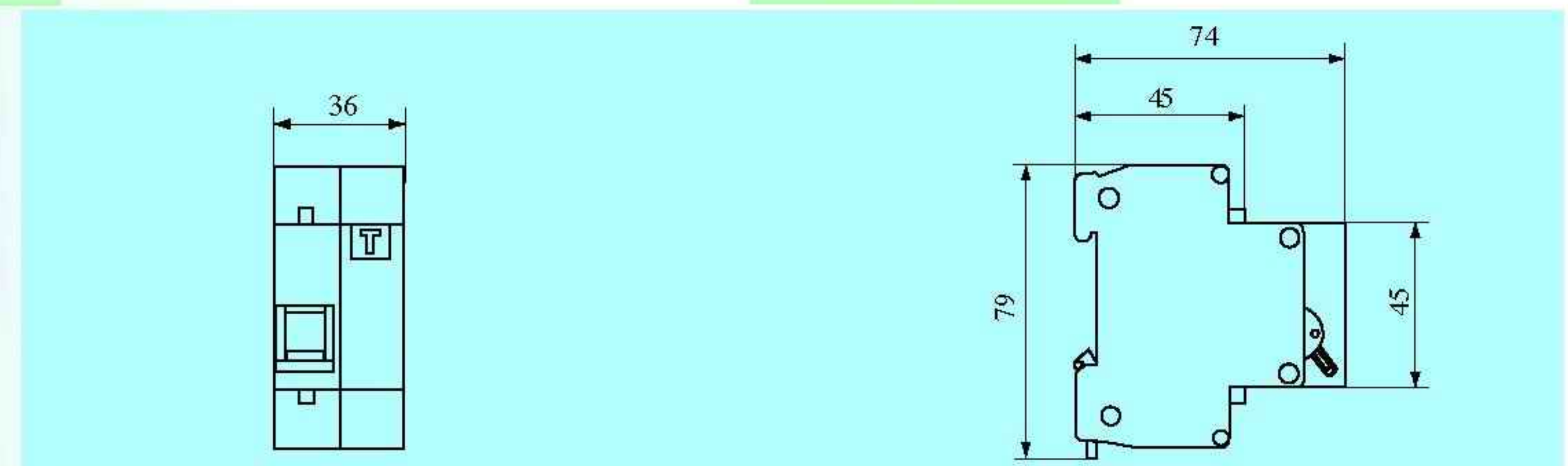
性能特点

- 断路器正常操作或故障保护使断路器处于分断位置时,相线、中性线都处在断开状态、避免中性线故障时带电
- 在进行接通和分断操作时,中性线接通优先,分断滞后
- 具有短路限流功能,额定短路分断能力高
- 具有过载保护,短路、漏电及过电压保护装置——保护功能齐全
- 接线方便可靠
- TH35mm标准安装轨安装

接线能力

- 10mm²及以下导线

外形尺寸



Application

- In TT.TN-S ground system
- Short circuit and overload protection

Technical Specification

- Standard: IEC61009-1、GB16917.1
- Rated voltage: AC230V
- Number of electrical operation cycles: 4000times
- Soaking out current: 30mA
- Overvoltage protection value: AC280×(1±5%) V
- Tripping characteristics: C curve instantaneous trip between 5 and 10 In
- Breaking capacity of rated operation short circuit 3kA
- Number of mechanical Operating cycles: 10000 times

Operating Environment

- Ambient Temperature: -5℃ ~ +40℃
- Altitude: ≤2000m
- Relative Air Humidity: ≤95%

Structural Feature

- When the breaker operates normally or the breaker is in the position OFF for failure protection, phase conductors and neutral wires are in the state OFF avoiding the neutral wires charged when in failure
- During the operation of connecting and disjunction, the connection of neutral wires is in first and disjunction lagging behind
- With short circuit current limiting structure-high analysis capability of rated short circuit
- With overload, short circuit and leakage protection device-perfect protection function
- Easy and safe connection
- Installation with TH35mm standard installation track-easy and simple installation


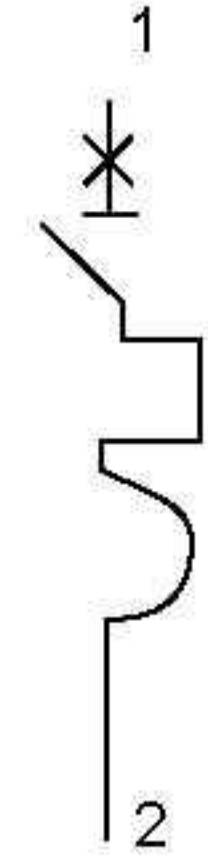

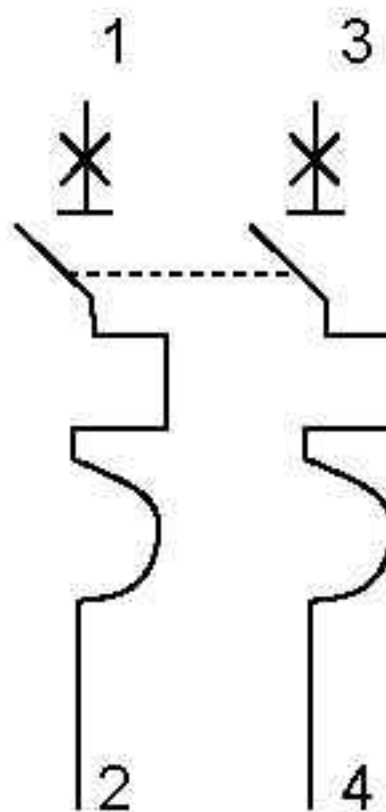

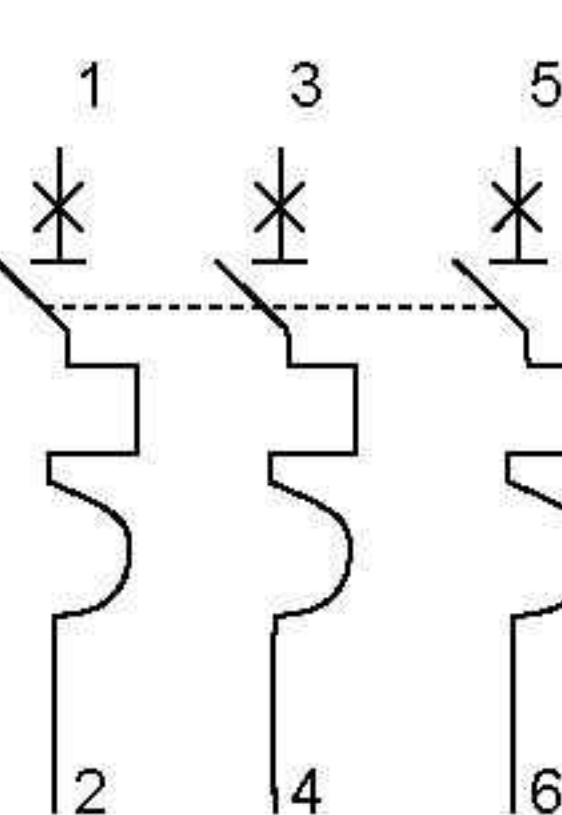

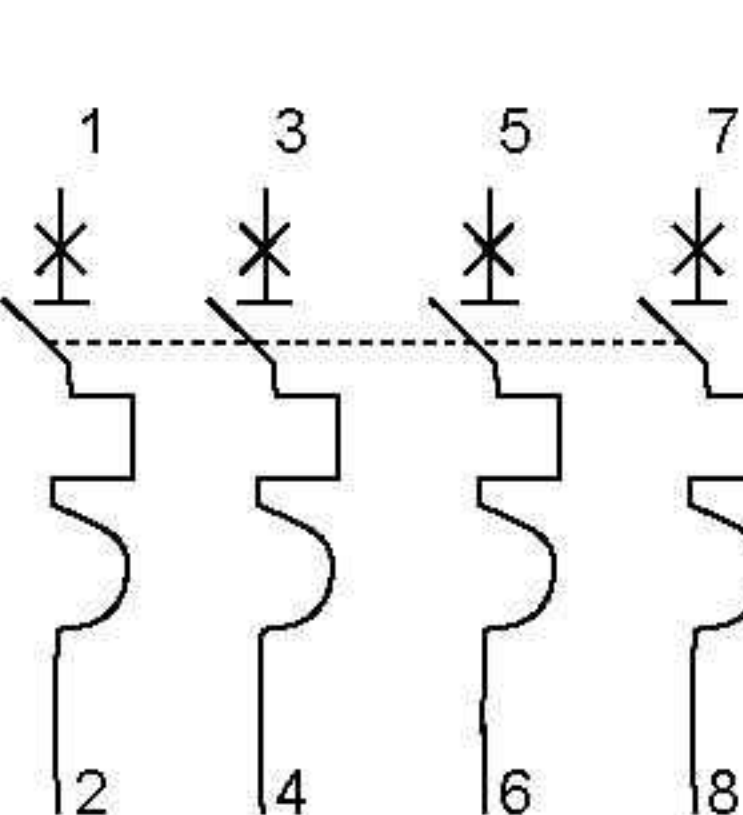
Connection Capability

- Conducting Wire of 10mm² and below

Overall Dimension

TM31-63 微型断路器

Miniature Circuit Breaker

	极数 Poles p	宽度 Width mm	额定电流 Rated Current A	产品型号 Product Type
	1P 	18		
	2P 	36		
	3P 	54	1, 3, 6, 10, 16, 20, 25, 32, 40, 50, 63	TM31-63/CA/P TM31-63/DA/P
	4P 	72		

TM31-63

用途

- | | |
|--|--|
| <ul style="list-style-type: none"> ● C型脱扣器 ● 照明配电电路 ● 短路及过载保护 ● 可做隔离开关使用 | <ul style="list-style-type: none"> ● D型脱扣器 ● 工业配电系统 ● 短路及过载保护 ● 可做隔离开关使用 |
|--|--|

技术参数

- 符合标准: IEC60898-1、GB10963.1
- 额定工作电压: AC230V/400V
- 电气寿命: 4000次
- 脱扣特性: C型5~10In瞬时脱扣
D型10~14In瞬时脱扣
- 额定运行短路分断能力:

额定电流 (A)	电压 (V)	分断能力 (kA)
1~40	230/400	6
50, 63	230/400	4.5
- 机械寿命: 10000次

使用环境

- 环境温度: -5°C ~ +40°C
- 海拔: ≤2000m
- 空气相对湿度: ≤95%

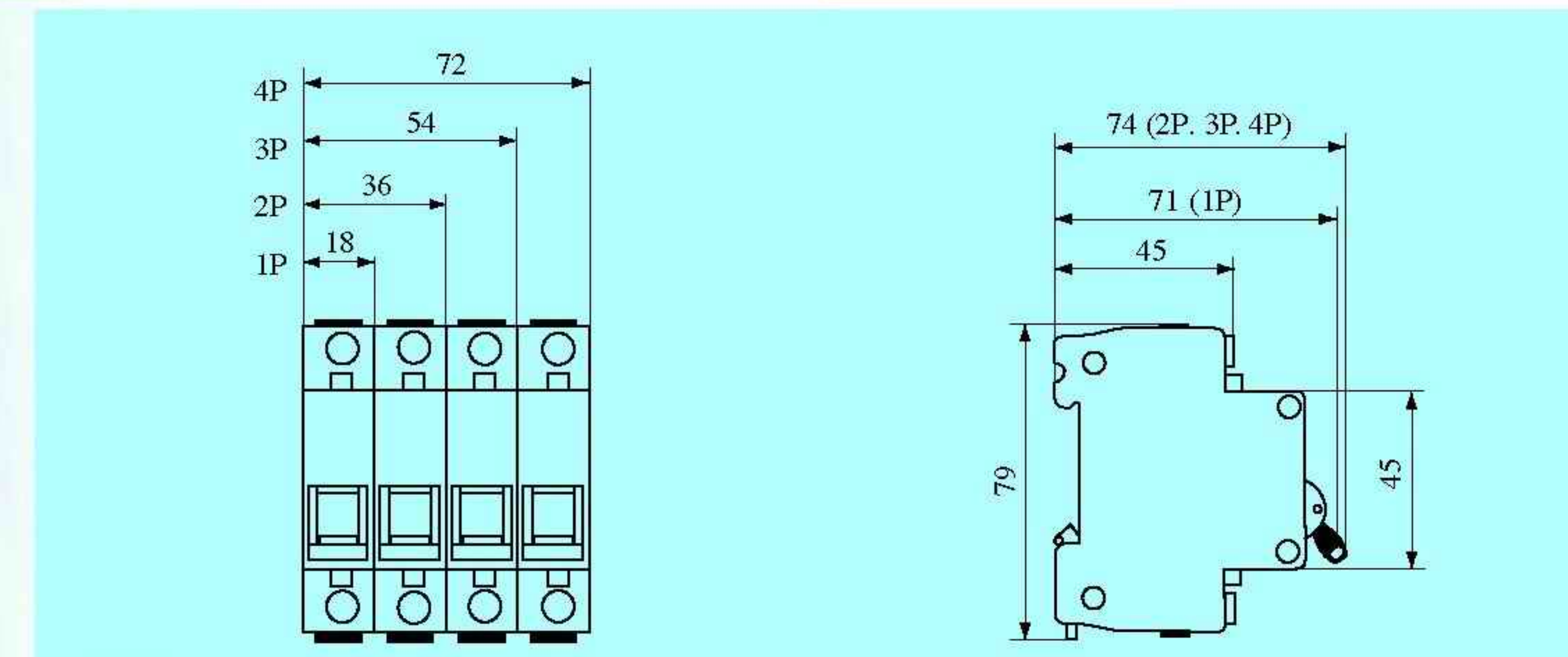
结构特点

- 具有短路限流结构——额定短路分断能力高
- 具有过载及短路保护装置——保护功能齐全
- 采用“框式”接线结构——接线安全可靠
- 可配多种附件: 辅助触头、报警触头、分励脱扣器、欠压脱扣器、汇流排——功能扩展简便
- 模块化、模数化——任意组合、系列配套
- TH35mm标准安装轨安装——安装简便方便

接线能力

- 25mm²及以下导线

外形尺寸



Application

- | | |
|---|---|
| <ul style="list-style-type: none"> ● C curve release ● Illumination distribution system ● Short circuit and overload protection ● Used as switch-disconnector | <ul style="list-style-type: none"> ● D curve release ● Industrial distribution system ● Short circuit and overload protection ● Used as switch-disconnector |
|---|---|

Technical Specification

- Standard: IEC60898-1, GB10963.1
- Rated voltage: AC230V/400V
- Number of electrical operation cycles: 4000 times
- Tripping characteristics:
 - C curve instantaneous trip between 5 and 10 In
 - D curve instantaneous trip between 10 and 14 In
- Breaking capacity of rated operation short circuit

Rated Current(A)	Voltage(V)	Breaking Capacity(kA)
1~40	230/400	6
50, 63	230/400	4.5
- Number of mechanical Operating cycles: 10000 times

Operating Environment

- Ambient Temperature: -5°C ~ +40°C
- Altitude: ≤2000m
- Relative Air Humidity: ≤95%

Structural Feature

- With short circuit current limiting structure-high breaking capacity of rated short circuit
- With overload and short circuit protection device-perfect protection function
- Adopt "Frame" connection structure-connection with safety
- Compatible with several kinds of accessories: auxiliary contact, alarm contact, shunt release under-voltage release, collecting bar-easy function expansion
- Modularization-random combination, series mating
- Installation with TH35mm standard installation track-easy and simple installation

Connection Capability

- Conducting Wire of 25mm² and below


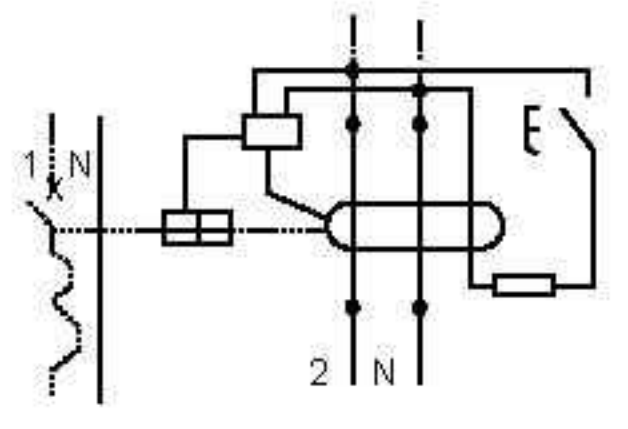

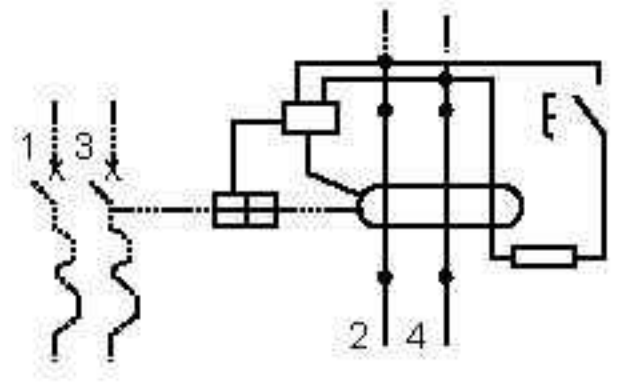

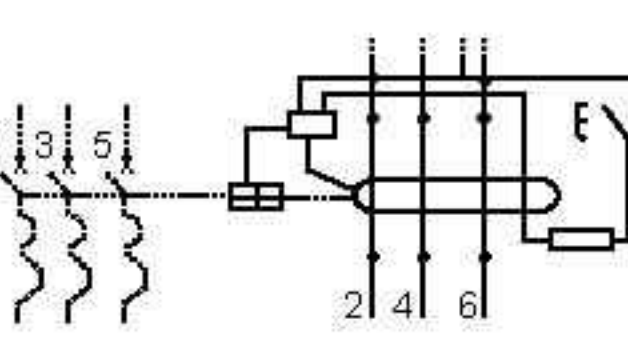

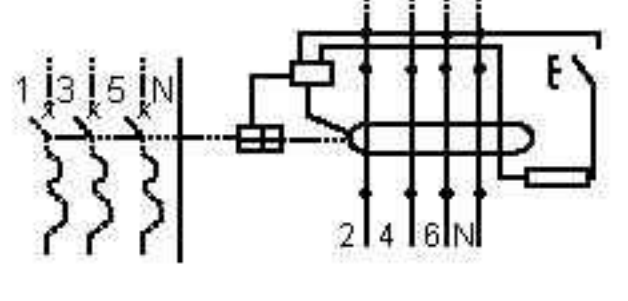

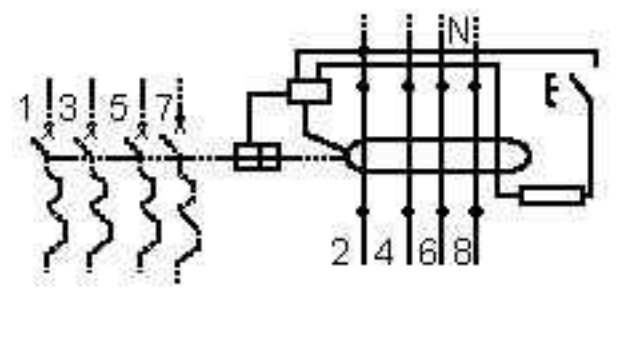
Overall Dimension

TM31L-50 微型漏电断路器

Miniature Leakage Circuit Breaker

TM31LG-50 微型过压漏电断路器

Miniature Overvoltage And Leakage Circuit Breaker

	极数 Poles P	宽度 Width mm	漏电动作电流 leakge operatong mA	额定电流 Rated Current A	产品型号 Product Type
	1P+N 	54	30	1, 3, 6, 10, 16, 20, 25, 32, 40, 50	TM31L-50/CA/P
	2P 	72			
	3P 	103			
	3P+N 	117			
	4P 	134			

用途

- 对对地漏电、人体直接或间接触电等故障进行保护。
- TT、TN-S 的接地系统中
- 短路及过载保护。

技术参数

- 符合标准: IEC61009-1、GB10917.1
- 额定工作电压: AC230V/400V
- 电气寿命: 4000次
- 漏电动作电流: 30mA
- 过电压保护动作值: AC280× (1±5%) V
- 脱扣特征: C型5~10In瞬时脱扣
D型10~14In瞬时脱扣
- 额定运行短路分断能力:

额定电流 (A)	电压 (V)	分断能力 (kA)
C型 1~40	230/400	6
50	230/400	4.5
D型 1~50	230/400	4.5

- 机械寿命: 10000次

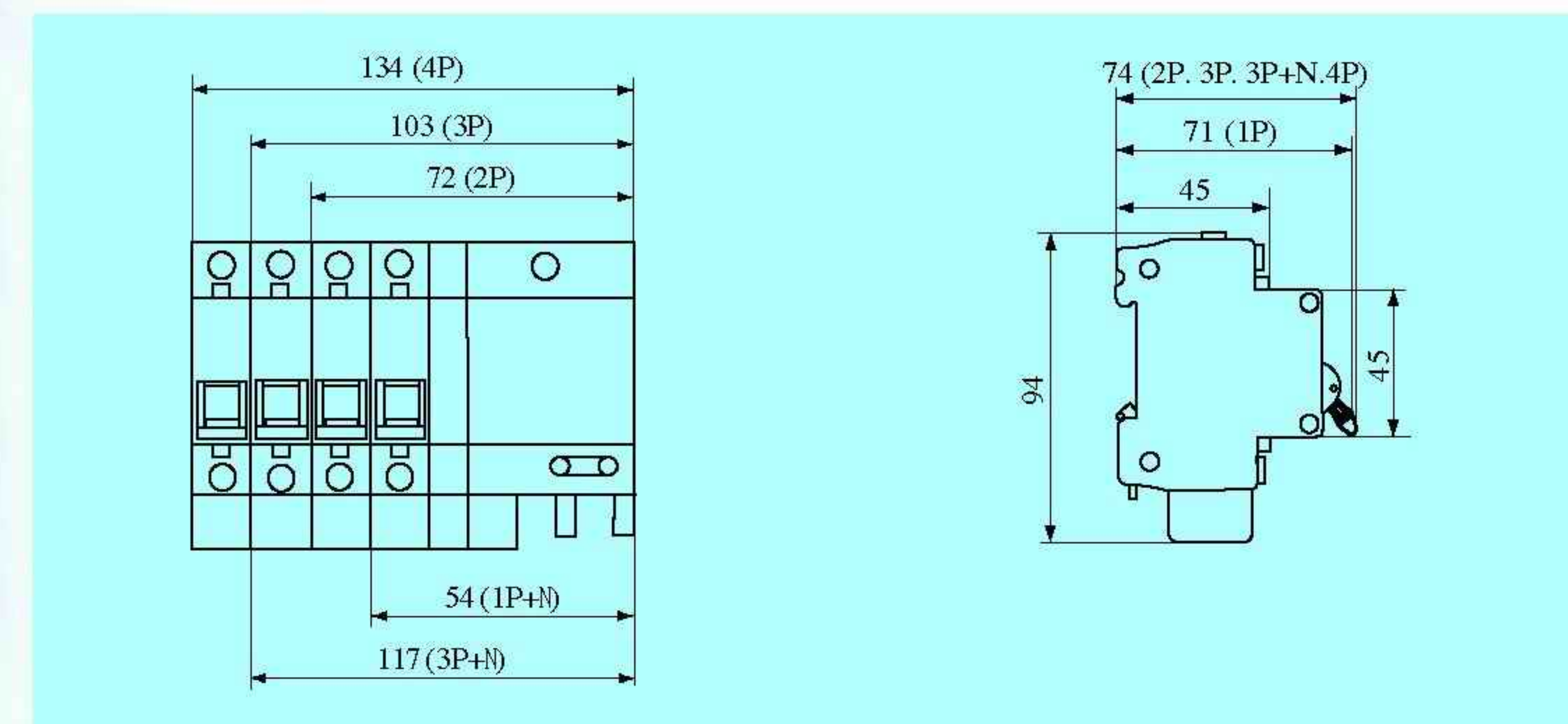
使用环境

- 环境温度: -5℃ ~ +40℃
- 海拔: ≤2000m
- 空气相对湿度: ≤95%

接线能力

25mm²及以下导线

外形尺寸



Application

- Protecting against current leakage, direct or indirect electric shocks.
- In TT、TN-S ground system.
- Short circuit and overload protection.

Technical Specification

- Standard: IEC61009-1、GB16917.1
- Rated voltage: AC230V/400V
- Number of electrical operation cycles: 4000 times
- Soaking out current: 30mA
- Oevrvoltaga protection value: AC280× (1±5%) V
- Tripping characteristics:
 - C curve instantaneous trip between 5 and 10 In
 - D curve instantaneous trip between 10 and 14 In
- Breaking capacity of rated operation short circuit

Rated Current(A)	Voltage(V)	Breaking Capacity(kA)
C curve 1~40	230/400	6
50	230/400	4.5
D curve 1~50	230/400	4.5
- Number of mechanical Operating cycles: 10000 times

Operating Environment


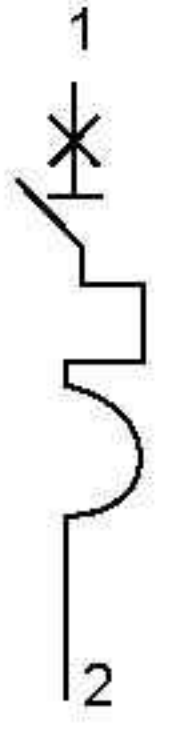

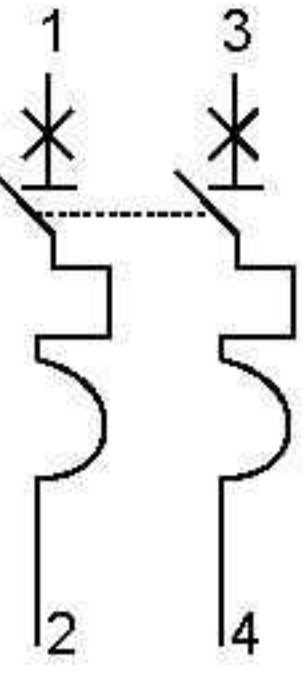

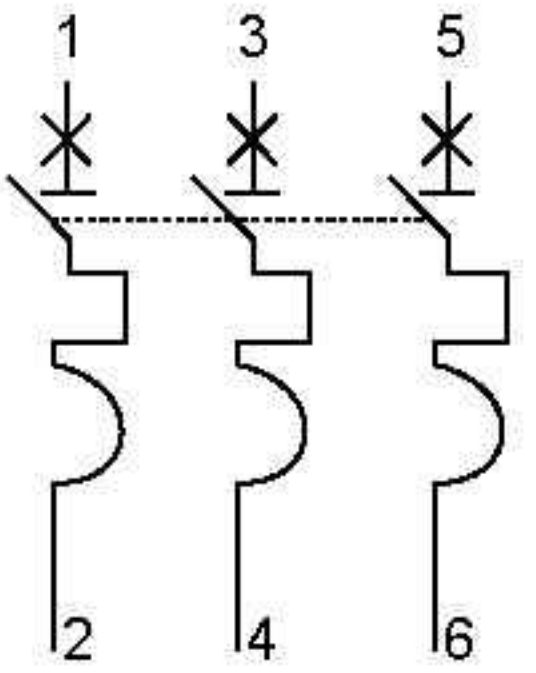

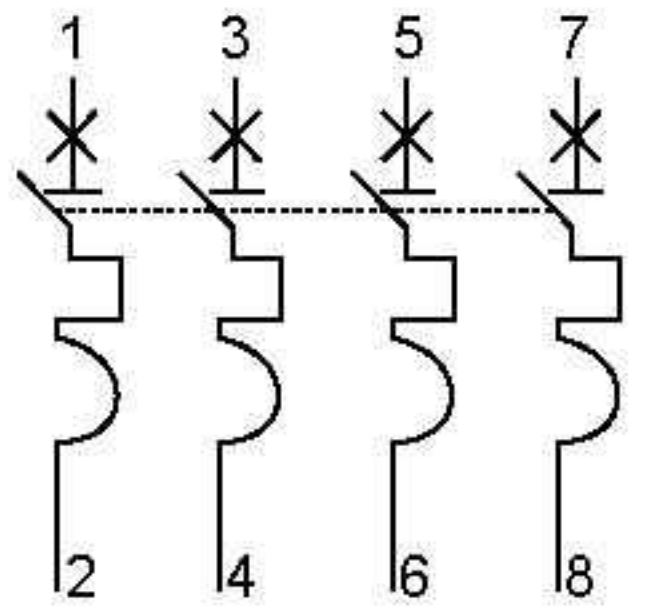
- Ambient Temperature: -5℃ ~ +40℃
- Altitude: ≤2000m
- Relative Air Humidity: ≤95%

Connection Capability

- Conducting Wire of 25mm² and below

Overall Dimension

TM31-100 塑料外壳式断路器
Moulded case Circuit-Breaker

	极数 Poles	宽度 width mm	额定电流 Rated Current A
	1P 	27	50, 63, 80, 100
	2P 	54	
	3P 	81	
	4P 	108	

用途

- 照明配电电路
- 工业配电系统
- 短路及过载保护
- 可做隔离开关使用

技术参数

- 符合标准: IEC60947-2、GB14048.2
- 额定工作电压: AC230V/400V
- 脱扣特性:
配电保护: $10I_n \pm 20\%$
电动机保护: $12I_n \pm 20\%$
- 额定极限短路分断能力: 10kA

使用环境

- 环境温度: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$
- 海拔: $\leq 2000\text{m}$
- 空气相对湿度: $\leq 90\%$

结构特点

- 具有短路限流结构--额定极限短路分断能力高
- 具有过载及短路保护装置--保护功能齐全
- 采用“框式”接线结构--接线安全可靠
- 模块化、模数化--任意组合、系列配套
- TH35mm标注安装--安装简捷方便

接线能力

- 50mm²及以下导线

Application

- Illumination distribution system
- Industrial distribution system
- Short circuit and overload protection
- Used as switch-disconnector

Technical Specification

- Standard: IEC60947-2 GB14048.2
- Rated voltage: AC230V/400V
- Tripping characteristics:
distribution protection: $10I_n \pm 20\%$
Motor protection: $12I_n \pm 20\%$
- Breaking capacity of rated limiting short circuit: 10kA

Operating Environment

- Ambient Temperature: $-5^{\circ}\text{C} \sim 40^{\circ}\text{C}$
- Altitude: $\leq 2000\text{m}$
- Relative: $\leq 90\%$

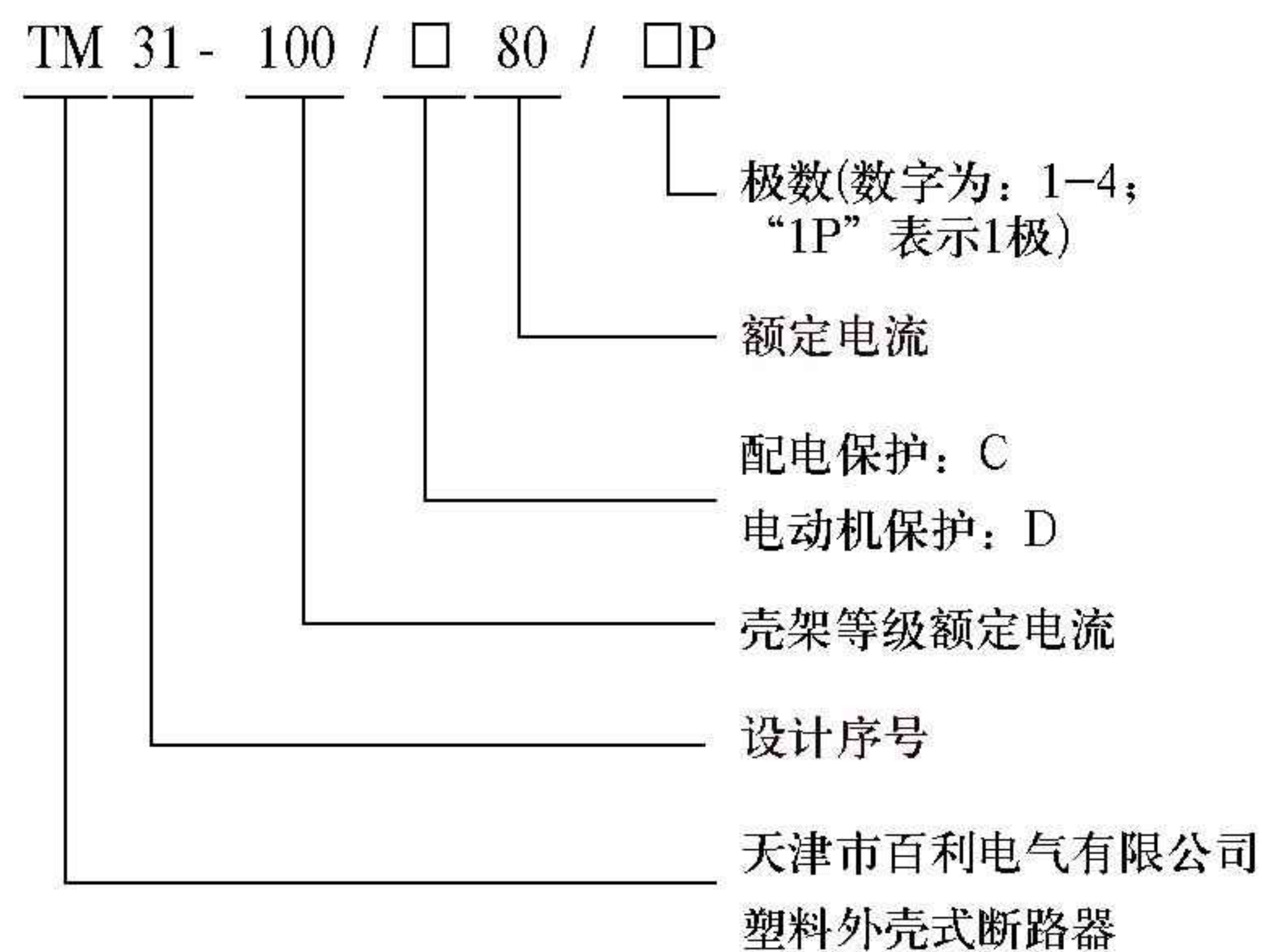
Structural Feature

- With short circuit current limiting structure-high breaking capacity of rated short circuit
- With overload and short circuit protection device-perfect protection function
- Adopt "Frame" connection structure-connection With safety
- Modularization-random combination, series mating
- Installation With TH35mm standard installation track-easy and simple installation

Connection Capability

- Conducting Wire of 50mm² and below

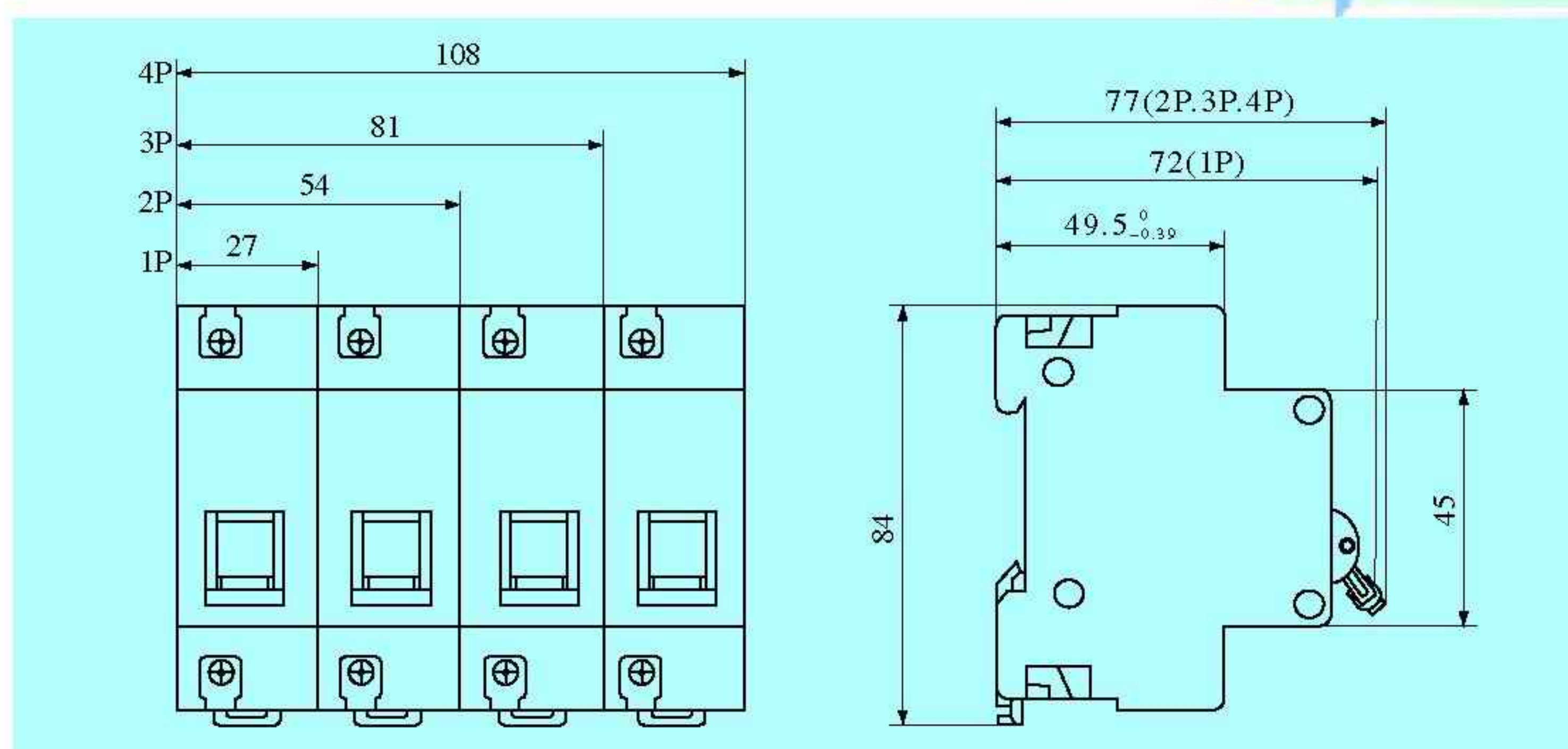
型号及含义



type and meanings

Poles number (1-4: one poles express as "1P")
 Rated Current
 distribution protection: C
 Motor protection: D
 Reted current of frame rating
 design sequence number
 Tianjin Benefo electric
 Moulded case Circuit-Breaker

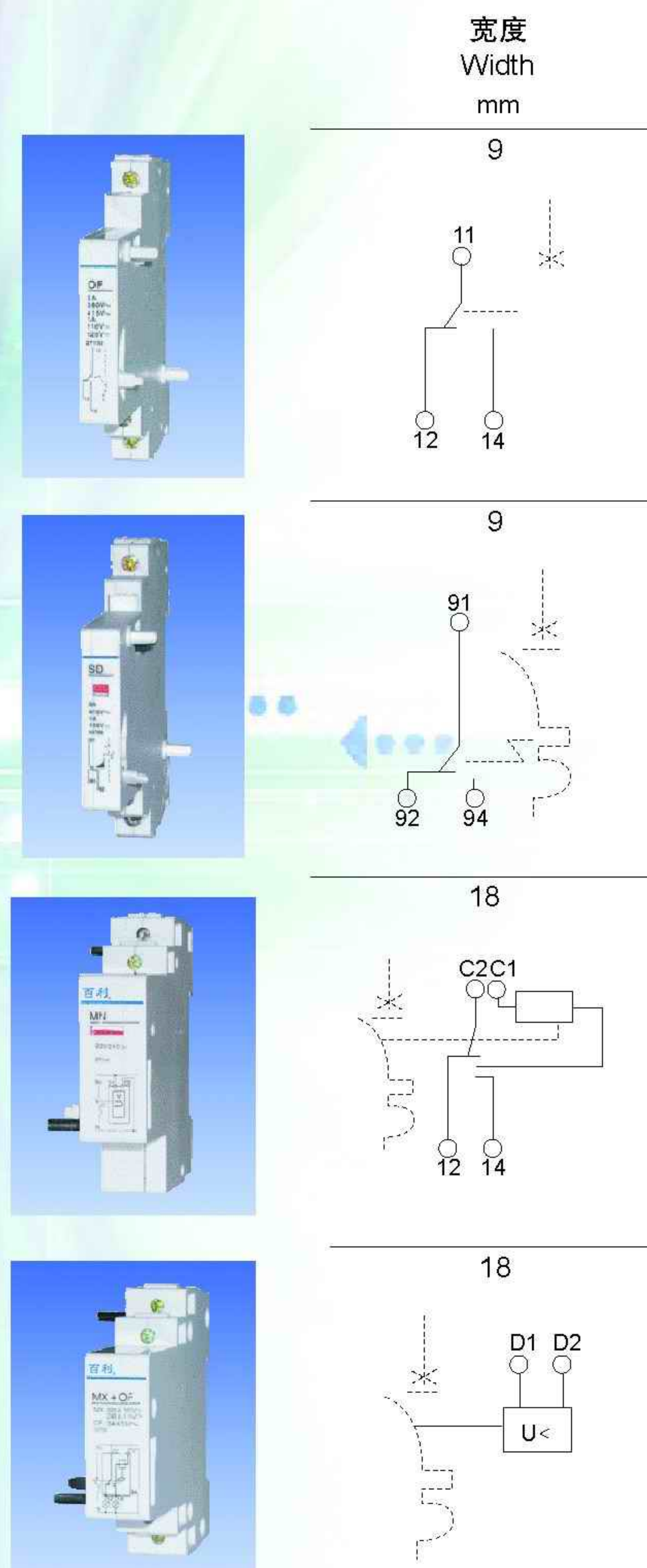
外形尺寸



Overall Dimension

附件

Accessories



OF 辅助触头 (OF auxiliary Contact)

用途 (Application)

- 加装于TM31微型断路器左侧
 Installed on the lefthand of the TM31miniature circuit breaker
- 指示断路器通断状态
 Indicating the ON/OFF state of the breaker

技术参数 (Technical Specification)

● 额定工作电流(Rated operating current):	AC 230V	6A
	AC 400V	3A
	DC 24V	6A
	DC 48V	2A
	DC 110V	1A
	DC 220V	0.1A

SD 报警触头 (SD Alarm Contact)

用途 (Application)

- 加装于TM31微型断路器左侧
 Installed on the lefthand of the TM31miniature circuit breaker
- 指示断路器因故障脱扣的状态
 Indicating the dropout state of the breaker because of defect

技术参数 (Technical Specification)

● 额定工作电流(Rated operating current):	AC 230V	6A
	AC 400V	3A
	DC 24V	6A
	DC 48V	2A
	DC 110V	1A
	DC 220V	0.1A

MN欠压脱扣器 (MN Under-voltage Release)

用途 (Application)

- 加装于TM31微型断路器右侧
 Installed on the right hand of the TM31miniature circuit breaker
- 线路电压降至35%~70%时, 触发断路器脱扣, 直至电压恢复至85%以上断路器才可以手动接触
 When the circuit voltage drops to 35%~70%, activate the break to drop out. Not until the voltage resume to 85% above, can the break be connected manually

技术参数 (Technical Specification)

● 控制电压(Control voltage):	AC 230V
	DC 24V

MX+OF 分励脱扣器 (MX+OF Shunt release)

用途 (Application)

- 加装于TM31微型断路器右侧
 Installed on the right hand of the TM31miniature circuit breaker
- 对断路器脱扣进行远程控制
 Remote control of the breaker's dropout
- 指示断路器通断状态
 Indicating the ON/OFF state of the breaker

技术参数 (Technical Specification)

● 控制电压(Control voltage):	AC 230V
	DC 24V

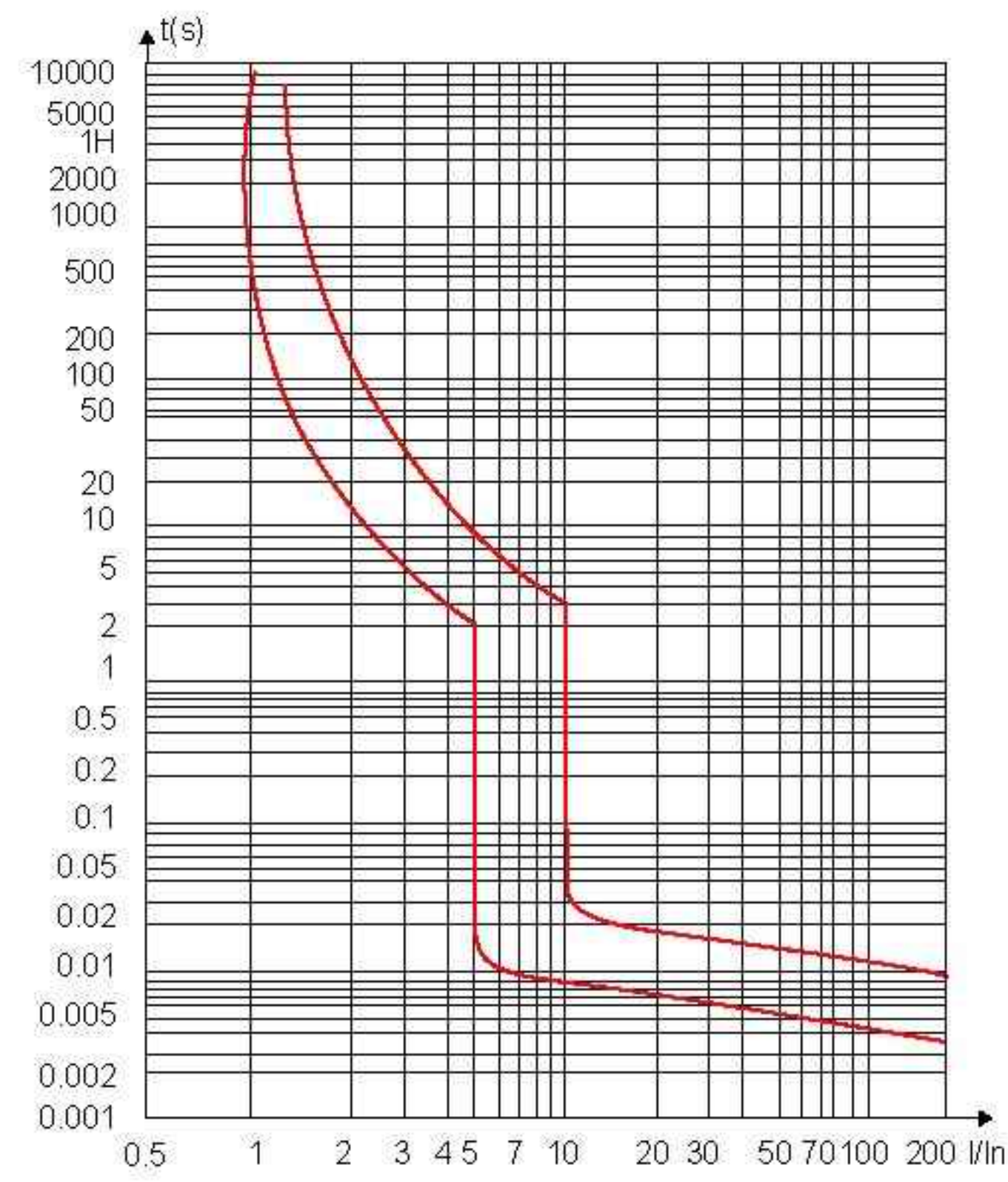
接线能力 (Connection Capability)

- 单线(Single Wire) 2.5mm²
- 双线(Double Wire) 1.5mm²

脱扣特性

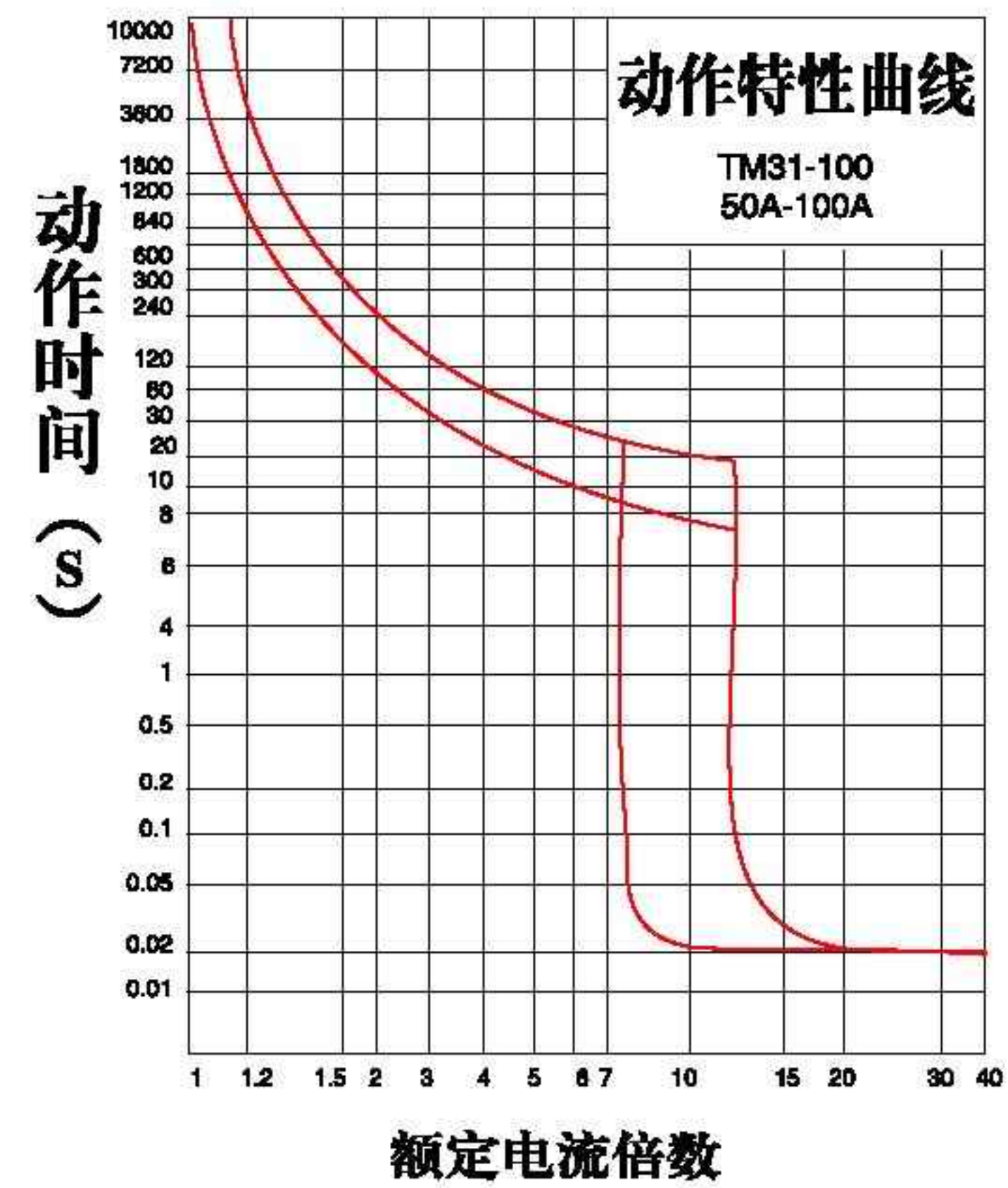
Tripping Characteristics

脱扣特性
Tripping characteristics

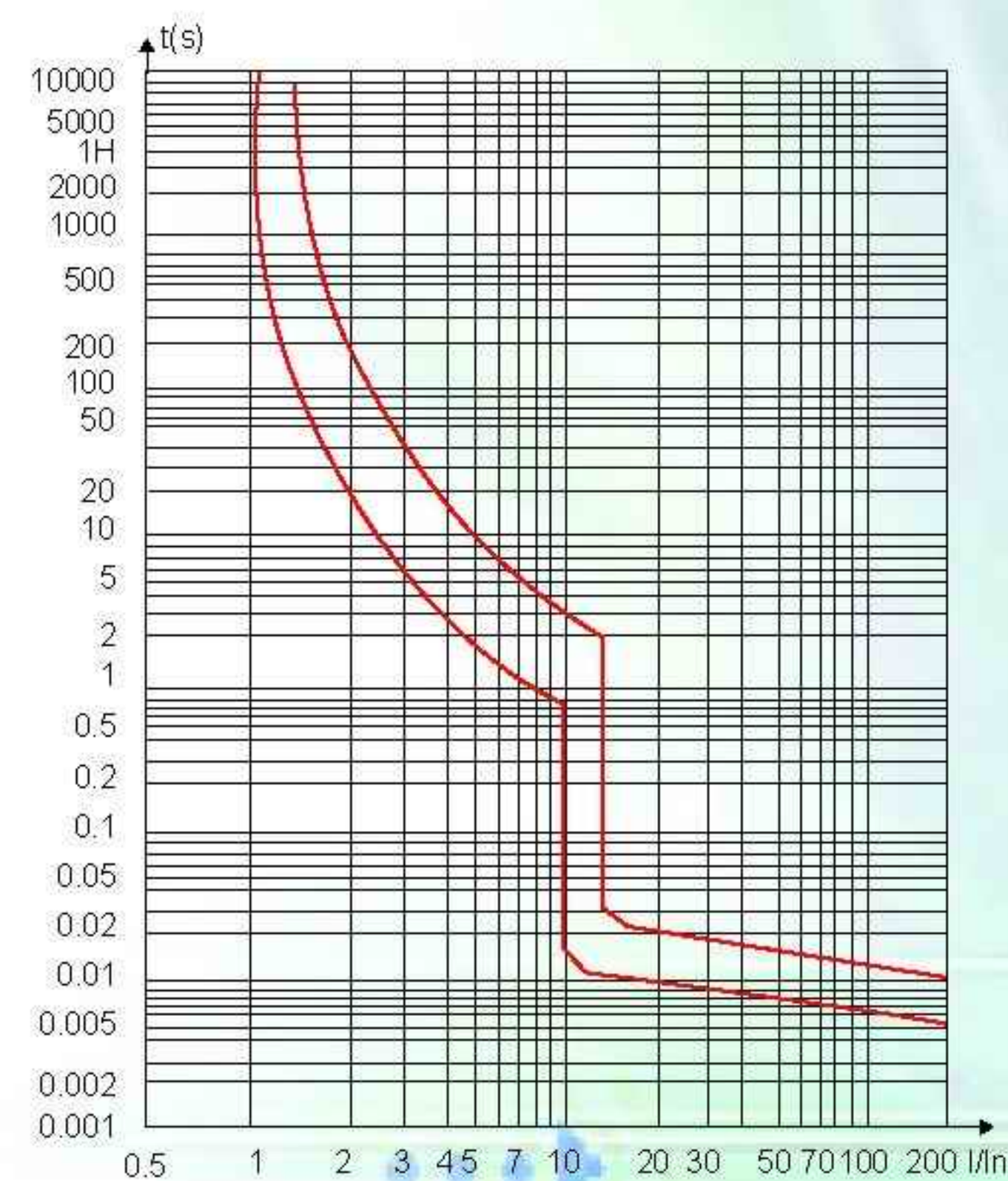


TM31-32 TM31-63 C型(5~10In)
TM31-32 TM31-63 curve C (5~10In)

配电保护
Distribution protection

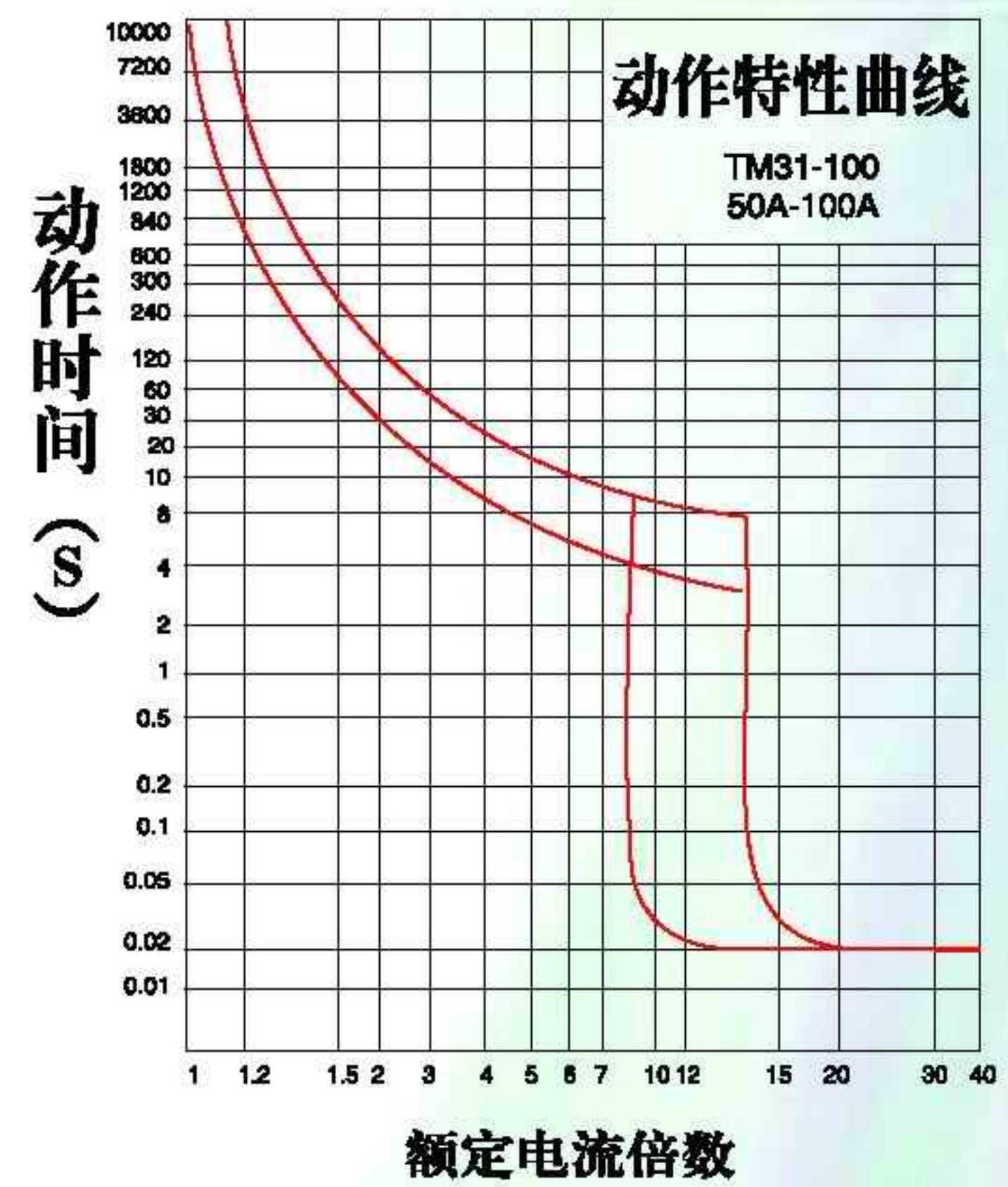


额定电流倍数



TM31-63 D型 (10~14In)
TM31-63 curve D (10~14In)

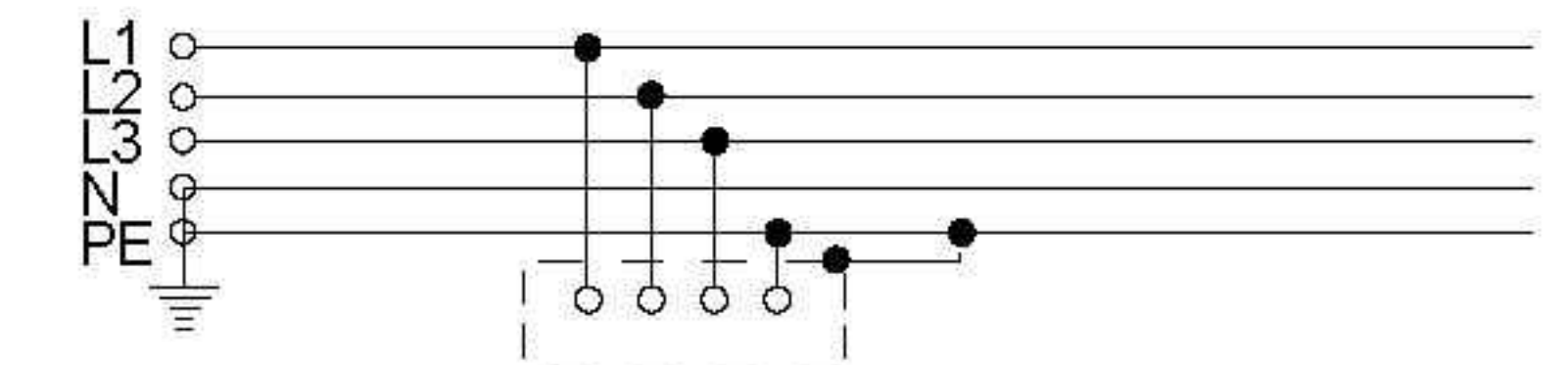
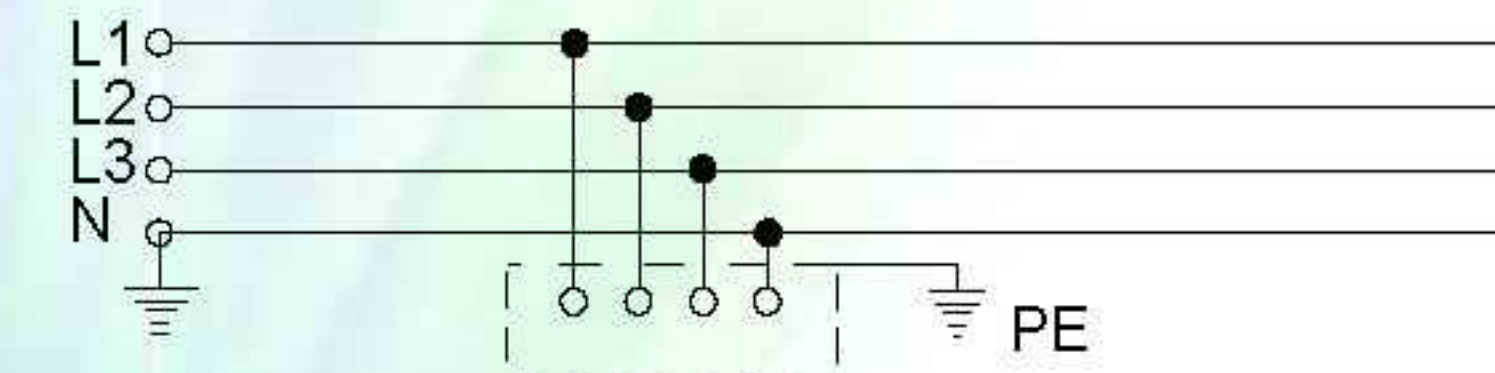
电动机保护
Motor protection



额定电流倍数

相线+中性线系列产品在TT、TN-S系统中的使用
Phase conductor+Neutral wire The Application of series product in TT TN-S system

- 在TT(三相四线制)、TN-S(三相五线制)系统中,要求相线与中性线同时断开
Phase and neutral wires are required to break at the same time in TT(three-phase four-wire) TN-S(three-phase five-wire) system

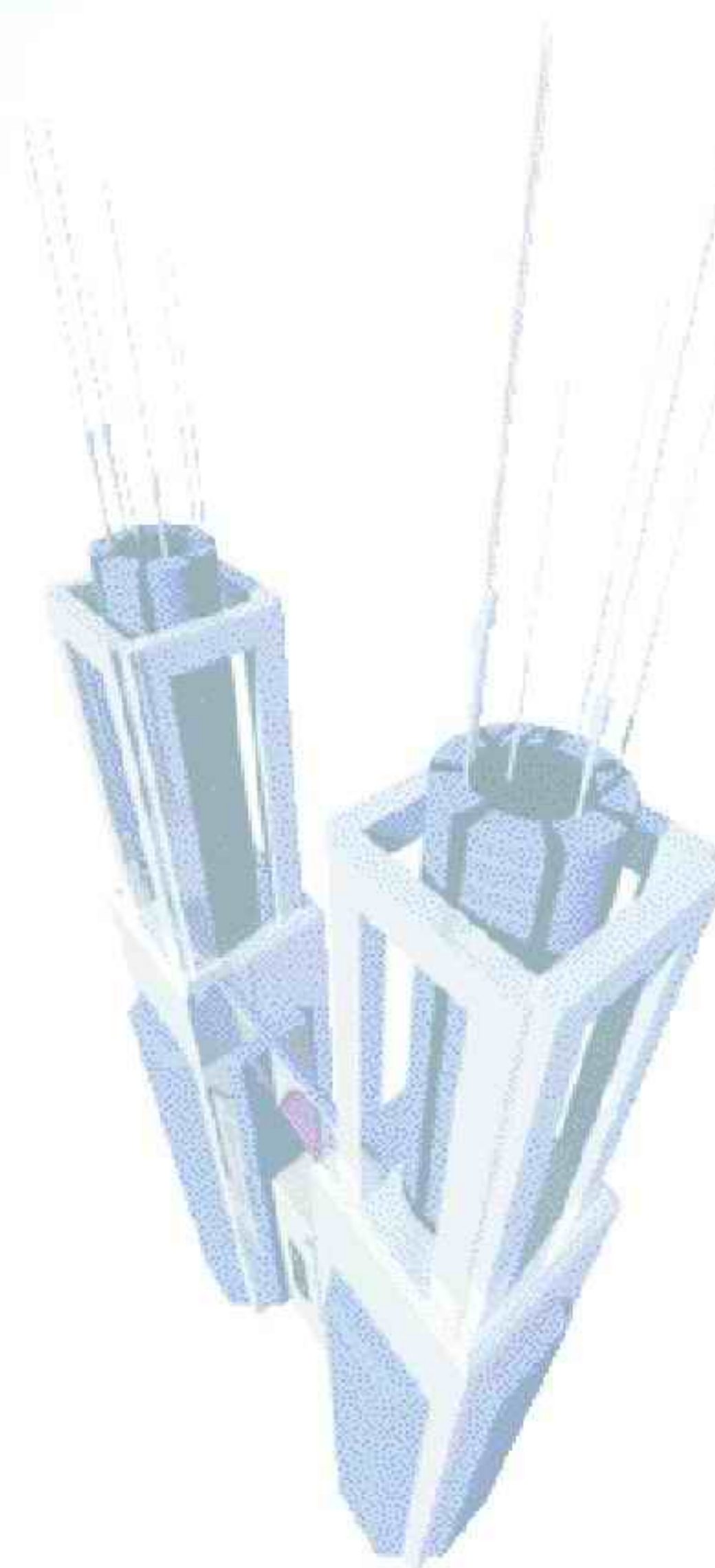


订货示例

- 用户订微型断路器TM31-63, 230V, 额定电流6A, 2极, C型脱扣, 带辅助触头、报警触头, 50台。
- 简写: TM31-63 /C6 /2P, OF+SD, 230V, 50

Ordering Instruction

- Order: Minature circuit breaker TM31-63, rated voltage 230V, rated current 6A, 2 poles, C type release, with OF Auxiliary contact, SD Alarm contact; total quantity 50 units.
- Abbreviation: TM31-63 /C6 /2P, OF+SD, 230V, 50



保修期及售后服务

本产品是在完善的品质管理下制造的，当万一发生故障时，对保修期及售后服务特作以下说明：

保修期

在用户遵守保管和使用的条件下，从本公司发货之日起，不超过12个月，断路器封印完好，产品如因制造质量问题而发生损坏或不能正常使用时，我公司负责无偿修理或更换。

但是，如由于下述原因引起的故障，即使在保修期内亦作有偿修理或更换。

- 1) 由于安装使用错误，自行改装及不适当的维修等原因。
- 2) 超过标准范围的要求使用。
- 3) 购买后由于摔落及安装过程中发生损坏等原因。
- 4) 地震、火灾、雷击、异常电压，其它灾害等原因。

售后服务

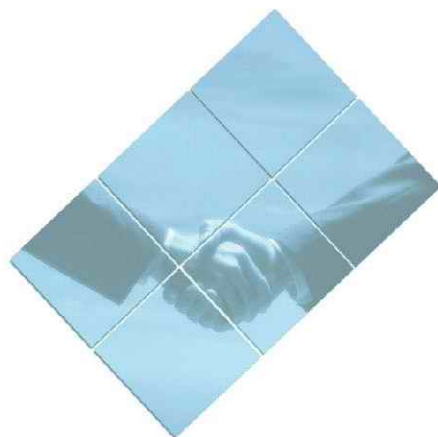
- 1) 出现故障时，请与本公司售后服务部门联系。

联系电话：022-83963707

传真电话：022-23979625

- 2) 在保修期内的修理或更换：产品如因制造上的问题所造成的故障，作无偿修理，以至更换。
- 3) 过保修期后的修理或更换：在修理后能维持功能的场合下作有偿修理；修理后不能正常工作，作有偿更换。

感谢您使用我公司的产品



用我们的智慧和勤奋

共同铸造百利的辉煌

