

天铂致力于在最关键的时刻提供绝对可靠、有效、安全的电力产品。天铂专家拥有顶级的跨行业电力管理知识，能够提供定制化的整合解决方案，以解决客户面临的最重大挑战。

我们立足于根据具体应用提供相应的解决方案。但决策者们要求的不仅仅是创新型的产品，他们需要天铂提供稳固的贴心支持承诺，以“客户成功”为第一要务。更多内容，请访问网站www.tbdlc.com.

Temper is committed to providing absolutely reliable, effective and safe electric energy at the most crucial moment. With top-class cross-industry electric management knowledge, Temper experts can provide customized integrated solutions to resolve the greatest challenges faced by customers.

We provide appropriate solution based on specific application. However, decision makers not only require innovative products, but also need Temper to provide secure and considerate support commitments and to regard "Customer Success" as top priority. Please visit our website www.tbdlc.com. for more information.



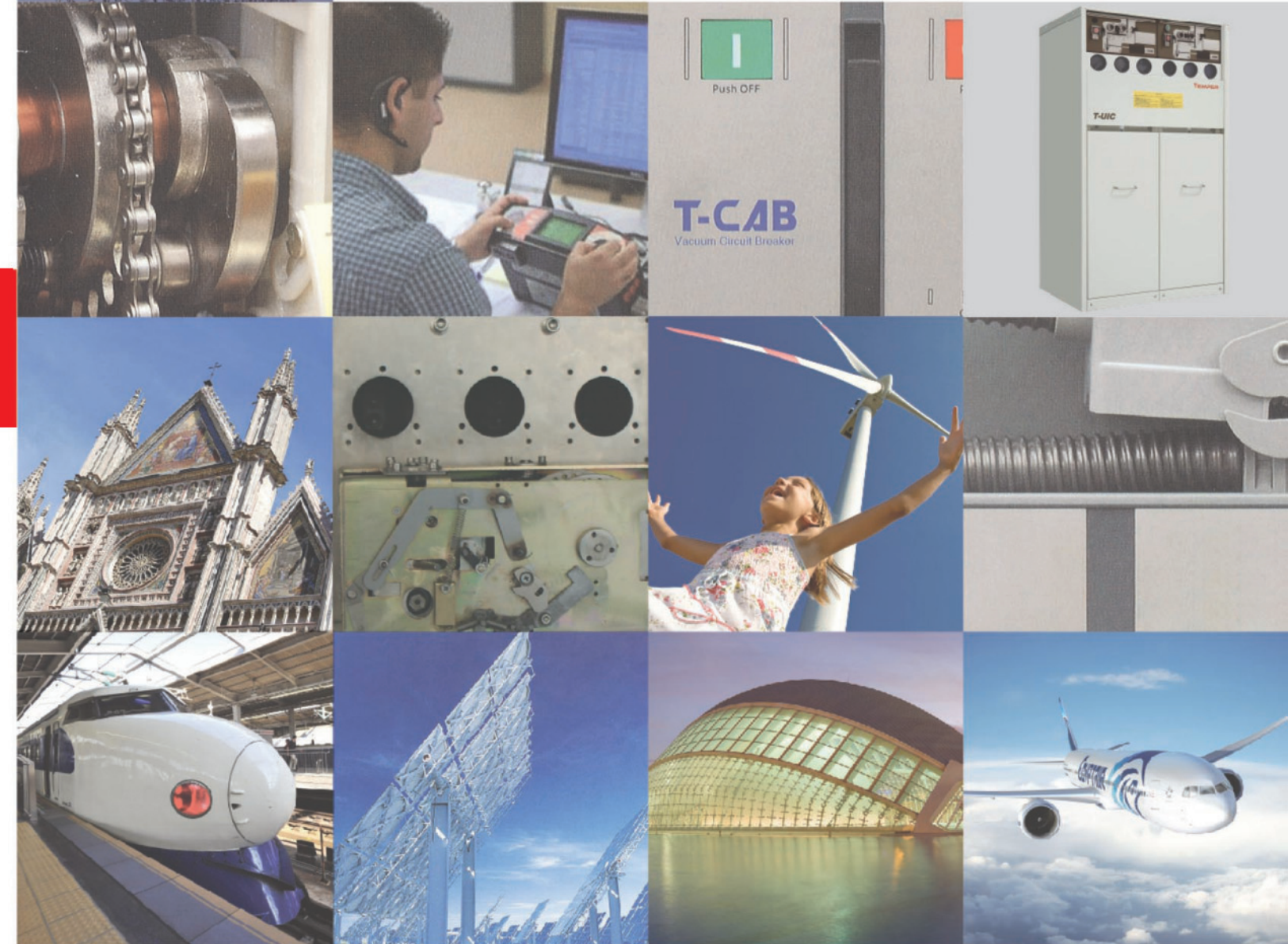
TEMPER

天铂电力（常州）有限公司
地址：江苏省常州市武进高新区凤栖路24号(天铂工厂)
Temper Power (changzhou) Co.,Ltd.
No. 24 Fengqi Road, Wujin High-tech District, Changzhou City,
Jiangsu Province
Phone: +86-519-89620090/0092/0093
Fax: +86-519-81161300/1301
http: www.tbdlc.com
E-mail: sales@tbdlc.com



TEMPER

Solid-insulated Vacuum Ring Main Unit
固体绝缘真空环网柜



T-UIC



Contents 目 录

	Page页 码
Company profile 公司简介	03 - 04
Product Overview 产品概述	05 - 06
Position Indicators 位置指示	07
Cable Accessory 插拔式电缆头	08
Technical Specifications 技术参数	09
Examples of Units 典型方案图	10-13
Foundation Drawing 基础图	13
Memorandum 备忘录	14

关于我们

我们有自己的研发、生产及销售团队，为客户提供电气设备和电气材料方面的分析、测量、保护、控制解决方案。

我们的服务是专一、一对一的服务

我们是从事电气设备生产与销售厂家。在这个领域里，我们已经有了30多年的历史，我们的产品也已经销售到国际市场中。我们企业的理念是：充满自信、优质服务、创新进取、灵活开发。

我们致力于提供与能源、工业、基础设施相关的产品。

我们的市场运作是国际化的，因为我们的灵活与高效，所以我们可以根据客户个性化的要求，提供给他们一个具体的解决方案。

企业发展方向

我们灵活多变的能力使得我们可以发现当前以及将来市场的需求，给我们的客户一个最佳的解决方案。

天铂公司认为最重要的是明确企业发展方向，而不是确定企业的发展目标。

因为明确了企业发展方向可以使得我们能不断地持续改进，使得我们能着眼于未来，不断进步。

企业理念

我们有5个基本概念

充满自信 每个人必须要有足够多的自信心

完成目标 以事情的结果为导向

优质服务 向客户提供优质的服务

创新进取 我们要有不断进取的精神

灵活开放 我们一直以灵活、开放的心态接受变化

质量要求

我们的第一质量标准是争取的客户最大的满意。

我们的产品必须符合所有的标准、法律、技术要求，我们的质量控制系统包括了从设计、生产以及到销售的所有环节的控制。

Introduction

We have our own R&D, production, and sales teams to provide our customers with solutions in the analysis, measurement, protection, and control of electrical components.

We are engaged in the production and sales of electrical components. We have more than 30 years of history in this area. Our products have been sold to the international market. Our business philosophy: Confidence, Quality, Innovation, and Flexibility.

Products to improve energy efficiency, and

Products related to energy, industry and infrastructure

Our market is international. We are flexible and efficient. That's why we can provide our customers with specific solutions according to their customized demands.

The development of our company

Because of our flexibility, we can sense the current and future demands of the market and offer the best solutions to our customers.

Temper considers the direction, rather than the goals, of development the most important for a company. As we are clear about its direction, we can focus on the future and improve continuously.

Corporate philosophy

We have five basic concepts.

Confidence. We must be confident enough.

Achievement. We are result-oriented.

Quality. We offer quality service to our customers.

Improvement. We have the spirit of continuous improvement.

Flexibility. We are flexible, and open to changes.

Our requirements on product quality

Our most important quality rule is to satisfy our customers mostly.

Our products must comply with all legal, standard, and technical requirements. Each link in the supply chain from design to production to sales must be involved in the quality control system.

Our Team 我们的团队

We have a professional, dedicated, motivated team, which allows us to innovate all the time, to provide customers with quality service, and to fulfill the corporate philosophy.

我们有一个专业、敬业、上进的团队，这使得我们可以不断创新、为客户提供优质的服务、实现我们公司的理念。

We give our team members advanced training to help them work positively. In this way, we can face the changing market with the peace of mind and provide first-class service to our customers.

我们团队的人员工作积极，接受过高级培训，这样，我们可以从容地面对不断变化的市场，向客户提供高水平的服务。

Please come to us and visit our team. We adjust our direction for you.

请来我们公司，视察我们的团队，我们因您的需求不断地调整我们的工作方向。



Temper in China 我们在中国

We came to China in 2006, and set up the headquarter in Pudong, Shanghai and the manufacturing site in Changzhou, Jiangsu.

We introduced to the market a full set of intelligent vacuum circuit breakers, environmentally friendly network cabinets and other low-voltage products. All products have passed China's test and certification. We have sales offices in Shanghai, Beijing, Tianjin, Chongqing, Hangzhou, Hefei and Nanchang, and have offices in Hong Kong and Singapore to take care of the sales and customer service in the local markets.

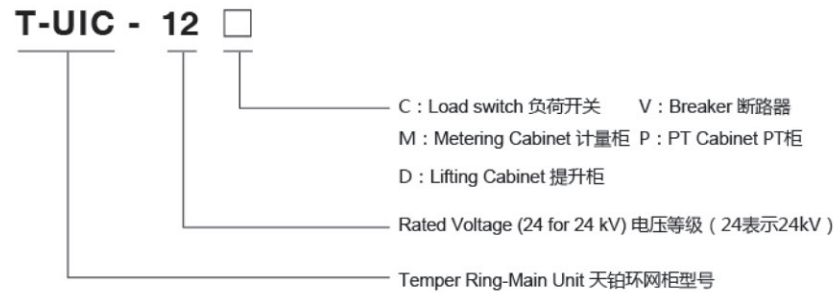
2006年我们来到中国，在上海浦东成立亚太区总部，在江苏常州建有大型生产基地；

全套引进 智能型真空断路器和环保型环网柜方案和其他低压产品。产品全部通过中国的试验和认证。

我们在上海、北京、天津、重庆、杭州、合肥和南昌设有销售办事机构，同时在香港和新加坡设有办事机构，负责当地市场销售和客户服务。

Product Overview 产品概述

Model Guide 型号说明



Green and Smart 绿色、环保、智能解决方案

T-UIC, the RMU based on vacuum technology and solid insulation, is a new-generation and environmentally-friendly product from Temper Electronics.

The RMU has been known for operational safety, and is applicable to power systems up to 24kV.

T-UIC is designed to be simple and compact, with a set of 2-6 units, or with an extensible combination of a single unit or multiple units. The mechanical parts of the RMU are completely covered with metal, and the conductive loop effectively sealed with epoxy, shield the unit from external impact.

There are basically two types that can be chosen from:

- Vacuum load switches and breakers to connect power distribution systems, and
- Vacuum load switches and breakers to protect terminal transformers and cable connections.

The two types are combined in varying sequences to compose a whole RMU.

T-UIC is an exquisite RMU that protects the environment effectively.

T-UIC是来自天铂电气的新一代环保型固体绝缘真空环网柜产品。

该产品一直以高度的操作安全性著称，并且适用于高达24kV的电力系统。

T-UIC的设计简洁紧凑，可以提供2~6单元的整体间隔，也可提供单个或者多个单元组成的可扩展柜型的产品。环网柜的机械部分都采用了全封闭的金属外壳，同时导电回路用环氧树脂有效密封，屏蔽了环境的影响。

在天铂的产品中有两种基本的单元功能柜型可供选择：

- 一种用于环网供电连接系统的真空负荷开关及真空断路器
- 一种用于用户终端变压器和电缆连接保护的真空断路器真空负荷开关及真空断路器

两种柜型可以按照要求以不同的顺序组合成一个环网柜。

T-UIC是一款设计精巧的环保型真空配电环网柜。

Clean and Poison-Free 绿色、清洁不含任何有毒气体

All materials used in the manufacturing of the RMU are acceptable to the natural environment. The manufacturing process has excluded the SF6 gas. The insulation was completed in clean dry air, and switching arc in vacuum, achieving the sustainable development of energy use. When the RMU reaches the end of its service life, its components can be easily disassembled and reused. This is because everything is labeled with its chemical composition, making the recycle of the RMU after its service life simple and easy, and avoiding additional disposal expense and environmental burden. A humidity indicator has been set up for the dry air in the gas chamber, showing light blue under normal circumstances. Please contact us when the indicator turns pink.

T-UIC环网柜全部采用能够被自然环境所接受的材料制造，不含SF6气体。绝缘介质使用清洁、干燥的空气，开关灭弧介质采用真空。从而，真空做到了能源使用的可持续发展。环网柜在使用寿命到达以后可以方便的拆除并投入循环使用，它所使用的各种材料都使用标签进行明确说明。这就方便了环网柜退出使用后能够有效的进行回收利用，同时也避免了额外的处理开销和环境负担。气室里的干燥空气设有湿度指示器，正常情况下湿度指示器为淡蓝色，当指示器变为粉红色时请与公司联系。



Solid Insulating 固体绝缘母线

solid-insulated busbar is made with quality rubber and presents high performance with regard to thermostability, hydrophobicity and aging resistance. Insulation Strength is not less than 20 kV/mm.

采用高品质橡胶绝缘母线，耐高温、憎水性和抗老化性能均好，绝缘强度不小于20kV/mm。

Internal-Arc Resistant 内部燃弧防护

The RMU is designed to prepare for any internal short-circuit with explosion-proof film on the lower part and a pressure release channel on the relief cover. In this way the RMU can prevent equipment damage or personal injury caused by the explosion.

假如发生内部短路故障，环网柜优秀的内燃弧设计，有专门的后下部防爆膜和泄压盖板压力释放通道，从而全面防止柜体爆炸造成设备损坏甚至人身伤害。

Safe and Reliable 安全、可靠

It is essentially important to be fully aware of the status of every component when operating on the equipment or the lines. For this reason, when it comes to the safety of the technician, Temper will do its best to be rigorous and perfect. Therefore, visualized insulation is adopted in the RMU. Through the observation window that is unique to the T-UIC and the power monitor, the operator can directly observe the three tasks of the insulating switch.

The T-UIC series is completely enclosed and each component is insulated, which has greatly reduced the risk of any failure being expanded and therefore reaches a higher level of safety and reliability.

当进行各项设备动作和线路操作的时候，明确各个部件的工作状态至关重要。为此，当涉及到操作人员安全的时候，天铂电气尽量将一切都做到严谨和完善。这也就是环网柜采用了可视化绝缘设计的原因，通过增加独有的观察窗，实现对隔离刀闸三个工作的直接观察，同时配备了来电显示器。

T-UIC环网柜采用全封闭设计，并且在各个主要部件之间都做到相对绝缘。这就大大降低了故障扩大的风险，也就提供了更高级别的安全性和实用性。

Mechanical locking between the breaker and the door to prevent misuse:

- a) The door cannot be opened if breaker switch is ON and disconnector is ON,
- b) The door cannot be opened if breaker switch is OFF and disconnector is ON,
- c) The door can be between the breaker and the door to prevent misuse:
- d) Breaker switch cannot be turned OFF if the door is open

断路器单元应与门板之间应有防止误操作的机械闭锁装置

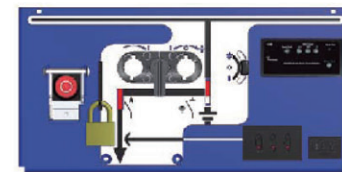
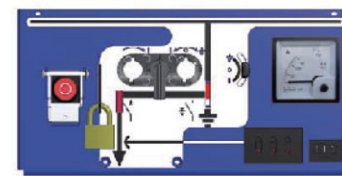
- a. 断路器单元的主开关在合闸位置，隔离开关在导通位置或隔离位置，门板应不能打开；
- b. 断路器单元的主开关在分闸位置，隔离开关在导通位置或隔离位置，门板应不能打开；
- c. 断路器单元的主开关在合闸位置，隔离开关在接地位置，门板可以打开；
- d. 当门板打开时，断路器单元的主开关不能手动分闸。

Mechanical locking between the main switch and the selection handle to prevent misuse:

- a) Handle cannot be turned to switch hole if main switch is ON, and
- b) Handle cannot be turned to switch hole if main switch is OFF

主开关与选择手柄应有防止误操作的机械闭锁装置

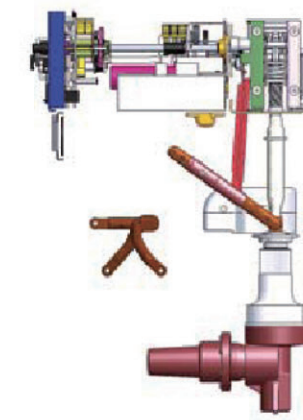
- a. 主开关在合闸位置，选择手柄不能旋到主开关操作孔位置；
- b. 主开关在分闸位置，选择手柄可以旋到主开关操作孔位置。



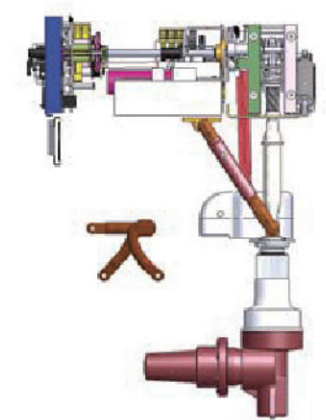
Inner Structure 内部结构



closing 工作状态

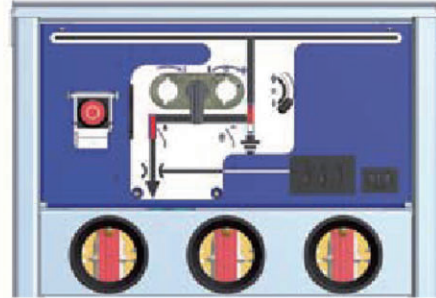


isolating 隔离状态

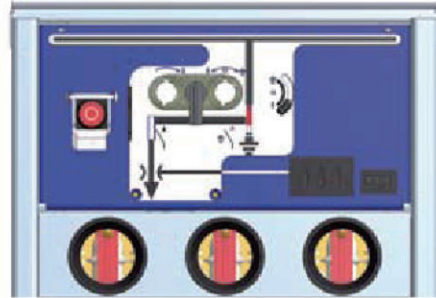


Earthing 接地状态

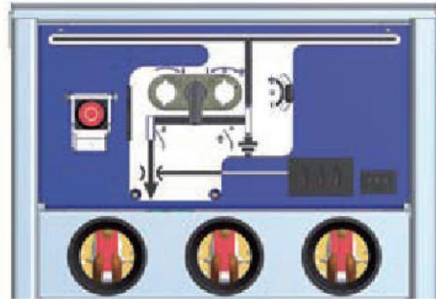
Position Indicators 位置指示



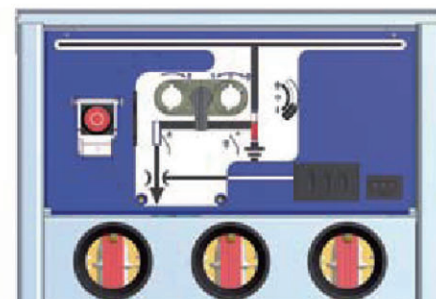
Working 工作位置



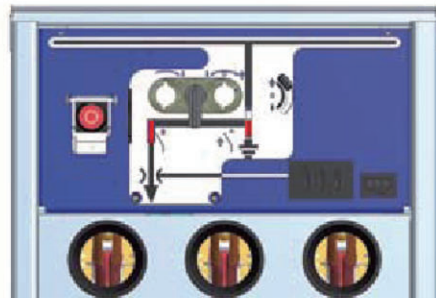
Breaker Off 分闸位置



Isolated 隔离位置



Pre-earthing 预接地位置



Earthing 接地检修位置

Position of disconnecting indicator can be seen through window
通过窗口可以看到接地刀闸的位置

Cable Plug 插拔式电缆头

Bushing are made with epoxy resin. Shape, connection and size of nozzles conform to DIN 47636 / EN 50181 (C) standards. Bushing are connected and fastened with M16 bolts. Rated current measures up to 630 A.

环氧树脂套管的外形、连接和尺寸的接口满足DIN47636 / EN 50181 套管C标准，连接方式为M16螺栓固定连接，额定电流可达630A



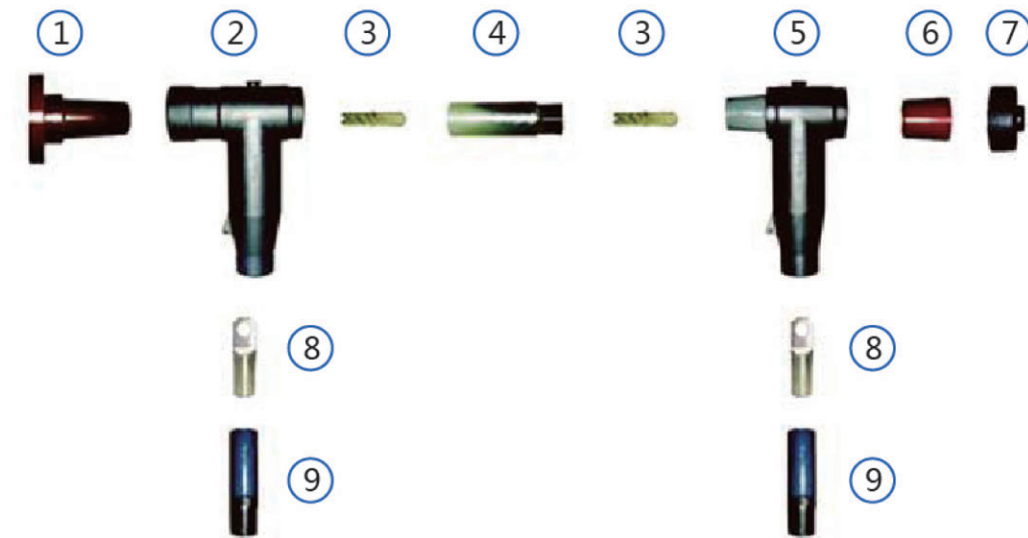
Front Plug 前插头



End Plug 后插头



End Plug w/ arrester 后插避雷器



- 1. Epoxy resin bushing 环氧树脂套管
- 2. Front Plug 前接头
- 3. Stud 双头螺栓
- 4. Pipe Link 连接杆
- 5. End Plug 后接头
- 6. End Cap 后堵头
- 7. Tail Cap 尾盖
- 8. Lug 线耳
- 9. Stress Cone 应力锥

Connections of Cable Plugs 插拔式电缆头连接示意图

Cable plugs are from imported brands NKT / Elastimold / Euromold or well-known home brands. Front door would be thickened if more than 2 cables are connected to a lightning rod. Cable plugs are optional. Please specify on orders if purchasing with ring main units.

插拔式电缆头优先选用进口品牌为NKT/Elastimold/Euromold或国内知名厂家生产。

接2根以上电缆再加避雷器，前门板需加厚。

插拔式电缆头为选配件，如需随环网柜一起供货，需要注明。

Technical Specifications 技术参数

General 常规			
Rated Voltage 额定电压 kV	7.2	12	24
Impulse Withstand Voltage 冲击耐压 kV	60	75	125
Power-Frequency Withstand Voltage 工频耐压 kV	32	42	65
Rated Frequency 额定频率 Hz	50 / 60	50 / 60	50 / 60
Internal Arcing Withstand Current 内部燃弧耐受电流 kA/s	20 / 1, 25 / 1	20 / 1, 25 / 1	20 / 1, 25 / 1

Busbar 母线			
Rated Current 额定电流 A	630	630	630
Rated Short-Circuit Withstand Current 额定短路耐受电流 kA/s	20 / 4, 25 / 4	20 / 4, 25 / 4	20 / 4, 25 / 4
Rated Peak Withstand Current 额定峰值耐受电流 kA	50, 63	50, 63	50, 63

Breaker 断路器			
Rated Current 额定电流 A	200 / 630	200 / 630	200 / 630
Rated Breaking Current 额定开断电流 kA	20, 25	20, 25	20, 25
Rated Short-Circuit Closing Current 额定短路关合电流 kA	50, 63	50, 63	50, 63
Rated Short-Time Withstand Current 额定短时耐受电流 kA/s	20 / 4, 25 / 4	20 / 4, 25 / 4	20 / 4, 25 / 4
Service Life 机械寿命	10000 次	10000 次	10000 次

Load Switch 负荷开关			
Rated Current 额定电流 A	630	630	630
Rated Load Current 额定负载电流 A	630	630	630
Rated Load Current (when power factor is 0.7, A)	630	630	630
Rated Short-Circuit Closing Current 额定短路关合电流 kA	50, 63	50, 63	50, 63
Rated Short-Time Withstand Current 额定短时耐受电流 kA/s	20 / 4, 25 / 3	20 / 4, 25 / 3	20 / 4, 25 / 3
Service Life 机械寿命	10000 次	10000 次	10000 次

Notice: For solutions for deployment of 24kV 1250A please consult us.
注: 24kV电压等级和母线电流为1250A的方案, 请咨询。

Conforming Standards 标准

T-UIC conforms to the following international standards: T-UIC达到以下的各项国际标准:

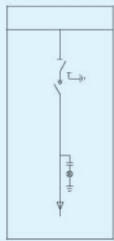
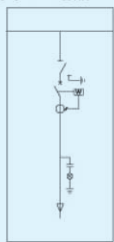
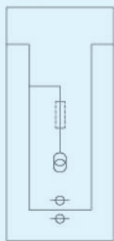
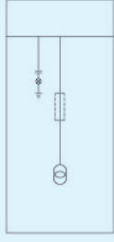
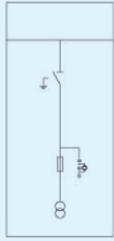
IEC 60694	Common specifications
IEC 60932	Severe climatic conditions
IEC 60298	Metal-enclosed switchgear and controigear
IEC 62271-100	Circuit-breakers
IEC 60265-1	Switches
IEC 62271-102	Disconnectors and earthing switches
IEC 60529	Degrees of protection
IEC 60044-1	Current transformers
EN 50181	Cable cones

Type tests conform to the following standards: 型式试验依据标准:

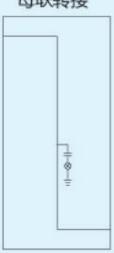
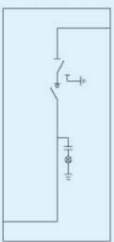
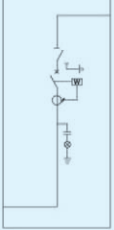
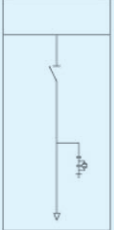
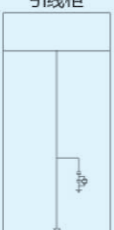
GB 3906	Metal-Enclosed Switchgear (3-35 kV) 3-35kV交流金属封闭开关设备
GB 3804	High-Voltage Load Switch (3-63 kV) 3-63kV交流高压负荷开关
GB 1984	High-Voltage Circuit Breaker 交流高压断路器



Examples of Units 典型方案图

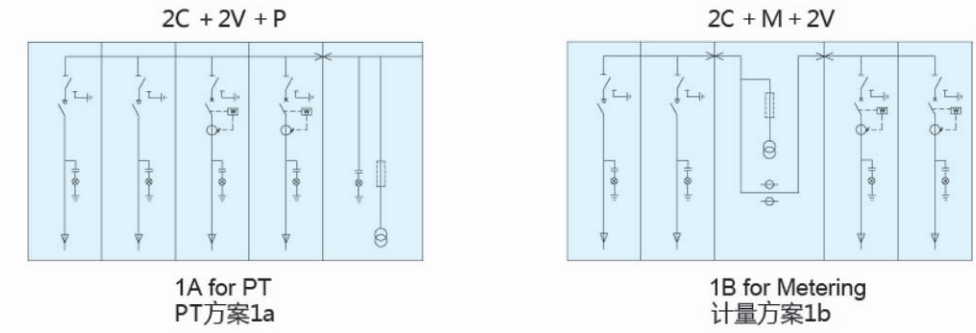
Unit 方案	Model 型号	Function 功能	Standard Deployment 标准配置	Optional Accessories 可选配置, 附件
 <p>Load Switch 负荷开关柜</p>	C	<p>Connects to vacuum load switches and three-position disconnectors in series Switches on or off the connections between in- / outlet cables and the busbar Prepares simultaneous earthing of three-position cables and short-circuit closing 440 mm with extension unit 配有真空负荷开关并串联三工位隔离开关 接通及断开进出线电缆与母线的连接 可使进出线电缆三相同时接地, 并且具有短路关合能力, 带扩展功能宽度440mm</p>	<p>Vacuum load switch Voltage detection system Manual load switch handle Grounding bar Handle Interlock 真空负荷开关 带电显示器 负荷开关手操机构 接地母排 五防联锁 630A母线</p>	<p>Electrical breaker handle Short circuit and earth fault indicator Low-voltage secondary chamber Current transformer Plug in arrester Key lock 负荷开关电操机构 短路及接地故障指示器 低压二次室 插拔式避雷器 电流互感器 钥匙锁</p>
 <p>Vacuum Breaker 真空断路器柜</p>	V	<p>Connects to vacuum load switches and three-position disconnectors in series With self-powered protection Controls and protects distribution network and transformer B/D: 630/200A 440 mm with extension unit 配有真空断路器并串联三工位隔离开关 装配自供电保护装置 用于线路、变压器的控制和保护 B/D: 630/200A 带扩展功能宽度440mm</p>	<p>Vacuum breaker Manual breaker handle Mechanical interlock and position indicator Voltage detection system Grounding bar Handle 630A Busbar 真空断路器 断路器手操机构 机械联锁及位置指示 带电显示器 接地母排 操作手柄 630A母线</p>	<p>Motor-energized mechanism Short circuit and earth fault indicator Plug in arrester Low-voltage secondary chamber Current transformer Key lock Regular relay protection 断路器电操机构 短路及接地故障指示器 插拔式避雷器 低压二次室 电流互感器 钥匙锁 常规继电器保护</p>
 <p>Metering 计量柜</p>	M	<p>With current and voltage transformers Compatible with any other cabinet Measures electricity 840 mm with extension unit 配有常规的电流互感器和电压互感器 可与其他任何一种柜体方便组合 用于电能计量 带扩展功能宽度840mm</p>	<p>Current transformer potential transformer 630A Busbar 电流互感器 电压互感器 630A母线</p>	<p>Voltmeter and ammeter Power meter and hour meter PT Fuse Domestic components that conform to local power supply department: separate and insulated, 3/2 for CT, 2/1 for PT 电压表、电流表 有功电度表、无功电度表 PT熔断器 可以装设国产符合当地供电部门要求的产品全部为分立式全绝缘, CT可装3/2只, PT为2/1只</p>
 <p>PT Cabinet PT柜</p>	P	<p>With voltage transformer Detects system voltage and supplies operating power 840 mm with extension unit 配有电压互感器 用于检测系统电压及提供操作电源 带扩展功能宽度840mm</p>	<p>potential transformer 630A Busbar PT Fuse 电压互感器 630A母线 PT熔断器</p>	<p>Low-voltage secondary chamber Lightning arrester Voltage detection system 低压二次室 避雷器 带电显示器</p>
 <p>PT Cabinet PT柜</p>	P1	<p>With three-position disconnectors With voltage transformer Detects system voltage and supplies operating power 640 mm with extension unit 三工位隔离开关 配有电压互感器 用于检测系统电压及提供操作电源 带扩展功能宽度640mm</p>	<p>Voltage transformer 630A Busbar PT Fuse 电压互感器 630A母线 PT熔断器</p>	<p>Low-voltage secondary chamber Lightning arrester Voltage detection system 低压二次室 避雷器 带电显示器</p>

Examples of Units 典型方案图

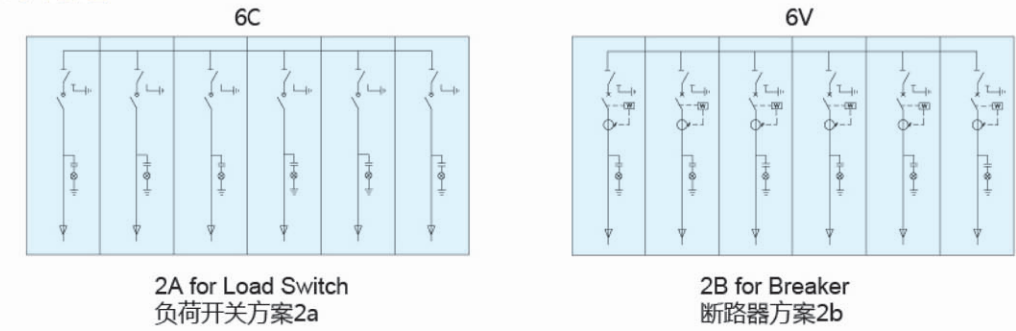
Unit 方案	Model 型号	Function 功能	Standard Deployment 标准配置	Optional Accessories 可选配置、附件
busbar riser 母联转接 	L1	Use for bus connection equipping with charged indicator With extended function, the width is 440mm 用于母线的联络 配有带电显示 带扩展功能宽度440mm	630A busbar Voltage detection system 630A母线 带电显示器	Low-voltage secondary chamber 低压二次室
Busbar Disconnecter 母联隔离开关柜 	LI1	With three- or two-position load switches Connects or disconnects busbar with load Connects with busbar 440 mm with extension unit 配有三或二工位负荷开关 可以带负荷接通或断开主母线 用于母线的联络 带扩展功能宽度440mm	isolation switch Load switch Manual operating mechanism 630A busbar Operating handle 隔离开关 负荷开关手操机构 630A母线 操作手柄	Electrical load switch handle Low-voltage secondary chamber Key lock Voltage detection system 负荷开关电操机构 低压二次室 钥匙锁 带电显示器
bus-coupling 母联断路器柜 	LB1	Connects to vacuum load switches and three-position disconnectors in series Connects or disconnects busbar with load Connects with busbar 440 mm with extension unit 配有真空断路器串联三工位隔离开关 可以带负荷接通或断开主母线 用于母线的联络 带扩展功能宽度440mm	Vacuum breaker Manual breaker handle Mechanical interlock and position indicator 630A busbar Earth busbar Handle Current transformer 真空断路器 断路器手操机构 机械联锁及位置指示 630A母线 接地母排 操作手柄 电流互感器	Motor-energized mechanism Plug in arrester Low-voltage secondary chamber Key lock Voltage detection system 断路器电操机构 插拔式避雷器 低压二次室 钥匙锁 带电显示器
Disconnecter 隔离开关柜 	G1	With disconnecter Used for insulation 配有隔离开关 用于需要隔离的场合	Voltage detection system 630A busbar 带电显示器 630A母线	Low-voltage secondary chamber Lightning arrester 低压二次室 避雷器
cable lead 引线柜 	D	Connects cable plugs with busbar Connects incoming/outgoing cables 440 mm with extension unit 电缆接头与母线直接连接 用于进出线电缆的连接带 扩展功能宽度440mm	Voltage detection system 630A busbar 带电显示器 630A母线	Low-voltage secondary chamber Lightning arrester 低压二次室 避雷器

Examples of Units 典型方案图

Distribution Substation 配电变电站



Nodes 网络节点站



Terminal Substation 终端用户变电站

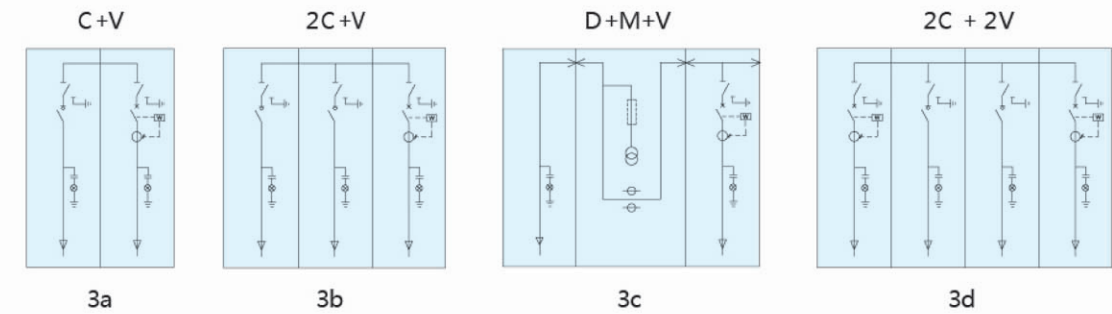
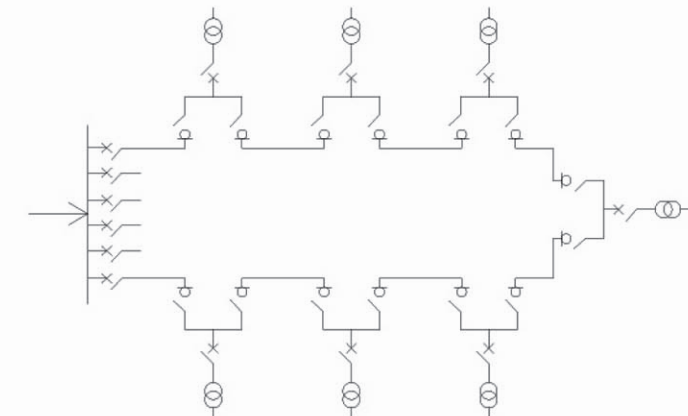
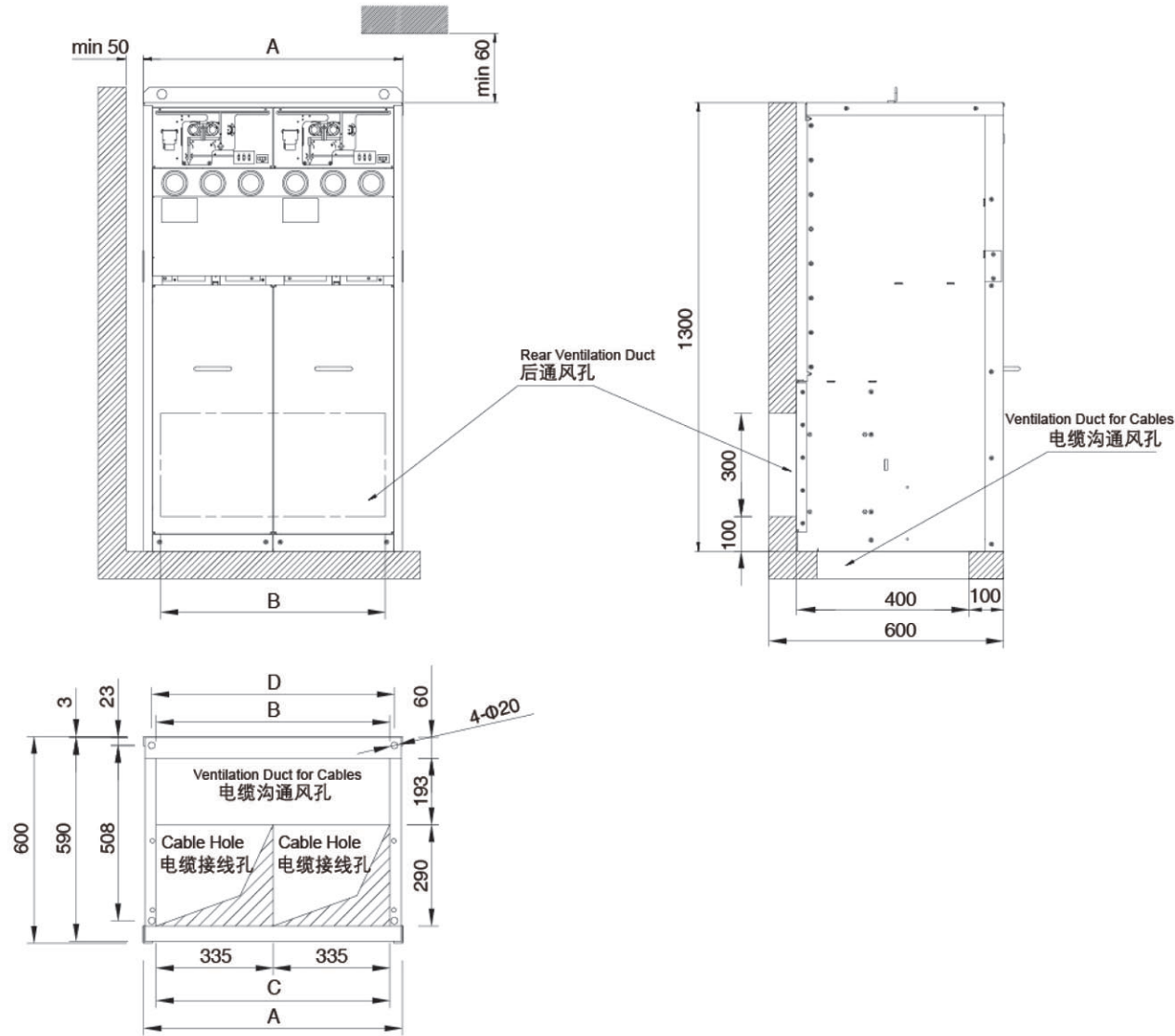


Diagram of Unit Connections 环网联接示意图



Foundation Drawing 基础图



Number of Units T-UIC 结构类型	A	B	C	D
2-unit 二单元结构	750 mm	675 mm	675 mm	700 mm
3-unit 三单元结构	1100 mm	1025 mm	1025 mm	1050 mm
4-unit 四单元结构	1450 mm	1375 mm	1375 mm	1400 mm
5-unit 五单元结构	1800 mm	1725 mm	1725 mm	1750 mm
6-unit 六单元结构	2150 mm	2075 mm	2075 mm	2100 mm

- For structures with number of units from 3 to 6, width of cable hole is 350 mm.
- 三单元至六单元中间电缆接线孔宽度为350mm。

Note: Width of unit is 40 mm.
Space for main unit between extension units measures 50 mm.

注：拼柜组件宽度为40mm
扩展单元拼装中间有50mm的拼柜空间

Memorandum 备忘录

