

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。

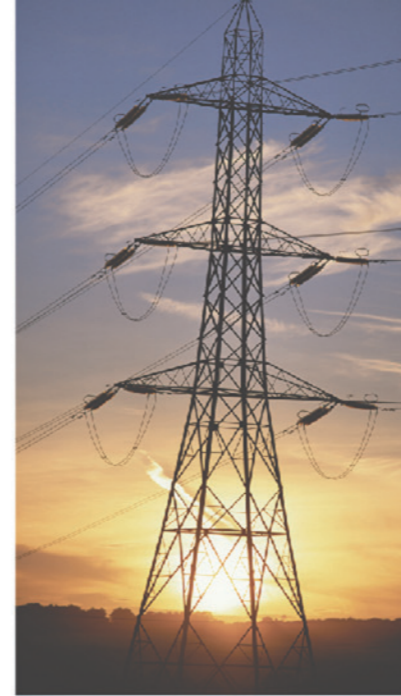
我们立足于根据具体应用提供相应的解决方案。但决策者们要求的不仅仅是创新型的产品，他们需要天铂提供稳固的贴心支持承诺，以“客户成功”为第一要务。更多内容，请访问网站www.tbdlc.com。

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.



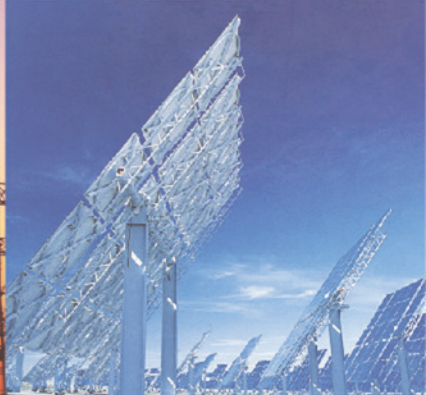
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TEMPER

T-GIC SF6 Gas-insulated Ring Main Unit (RMU)

T-GIC SF6 气体绝缘环网柜



T-GIC

TEMPER

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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个基本理念

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.

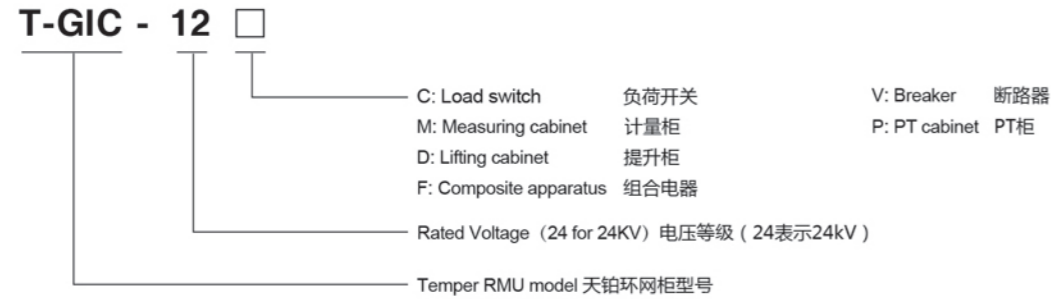
We introduced to the market a full set of intelligent vacuum circuit breakers, environmentally friendly network cabinets and other low-voltage products. All products have passed China's test and certification. We have sales offices in Shanghai, Beijing, Tianjin, Chongqing, Hangzhou, Hefei and Nanchang,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

Model Description 型号说明



T-GIC Technical Parameters T-GIC 技术参数

Normal ambient condition 正常使用环境条件

Ambient temperature 环境温度

Maximum temperature 最高温度	+40°C
Daily average humidity 最高24小时平均湿度	+35°C
Monthly average humidity 最低温度	-40°C

Humidity 湿度

Maximum average relative humidity 最大平均相对湿度	
Daily average humidity 日平均	≤95%
Monthly average humidity 月平均	≤90%

Altitude 海拔高度 ≤2000米

Seismic capacity 抗震能力 8级

Water immersion test 浸水试验

A pressure of 0.3bar is applied underwater at 12kV for 24 hours. 水下施加0.3bar的压力12KV24小时。

Level of protection 防护等级

SF ₆ gas chamber SF ₆ 气室	IP67
Fuse cylinder 熔断器筒	IP67
Switchgear enclosure 开关柜外壳	IP3X

Bus 母线

Bus inside switchgear 开关柜内母线	400mm ² Cu
Earthing bus inside switchgear 开关柜内接地母线	150mm ² Cu
Thickness of stainless steel case of gas chamber 气室不锈钢壳厚度	3.0mm

■ SF₆ gas pressure (relative pressure) at 20°C is 0.4bar SF₆气体压力 (相对压力) 20°C下为0.4bar

■ Annual leakage rate 年泄漏率 ≤0.1%

Special conditions 特殊条件

Please specify whether the switchgear will be installed at the place where the altitude is over 2000m, so that we can adjust the pressure during manufacturing.

当开关柜安装在海拔高度2000米以上时，需特别注明，以便制造时对压力进行调整。

	Module C	Module F	Module V		Module CB	
	C模块	F模块	V模块	V模块	CB模块	CB模块
	Load switch 负荷开关	Composite apparatus 组合电器	Vacuum switch 真空开关	Isolating and earthing switch 隔离及接地开关	Vacuum circuit breaker 真空断路器	Isolating and earthing switch 隔离及接地开关
Rated voltage 额定电压	kV	12	12	12	12	12
Power frequency withstand voltage (phase to phase, phase to ground / fracture) 工频耐受电压相间、相对地/断口	kV	42/48	42/48	42/48	42/48	42/48
Lightning impulse withstand voltage (phase to phase, phase to ground / fracture) 雷电冲击耐受电压相间、相对地/断口	kV	75/95	75/95	75/95	75/95	75/95
Rated current 额定电流	A	630	100	630	1250	
Closed-loop breaking current 闭环开断电流	A	630				
Cable charging breaking current 电缆充电开断电流	A	10				
5% rated active load breaking current 5%额定有功负载开断电流	A	31.5				
Earth fault breaking current 接地故障开断电流	A	31.5				
Cable charging breaking current at earth fault 接地故障时电缆充电的开断电流	A	17.3				
Short-circuit breaking current 短路开断电流	kA		注	20	25	
Making capacity 关合能力	kA	50	注	50	50	63
Short-time withstand current (3s) 短时耐受电流3秒	kA	20		20	20	25
Rated transfer current 额定转移电流	A		1750			
Mechanical life 机械寿命	次	5000	5000	5000	2000	5000

Note: subject to high-voltage fuse

T-GIC-12 series switchgear complies with standards such as IEC60056, IEC60129, IEC60265, IEC60298, IEC60420, IEC60694, GB/T11022-1999, GB3908-91, GB1985-89, GB16926-1997, GB38041-89, GB3309-89 and GB3804-2004.

注：受限于高压熔断器

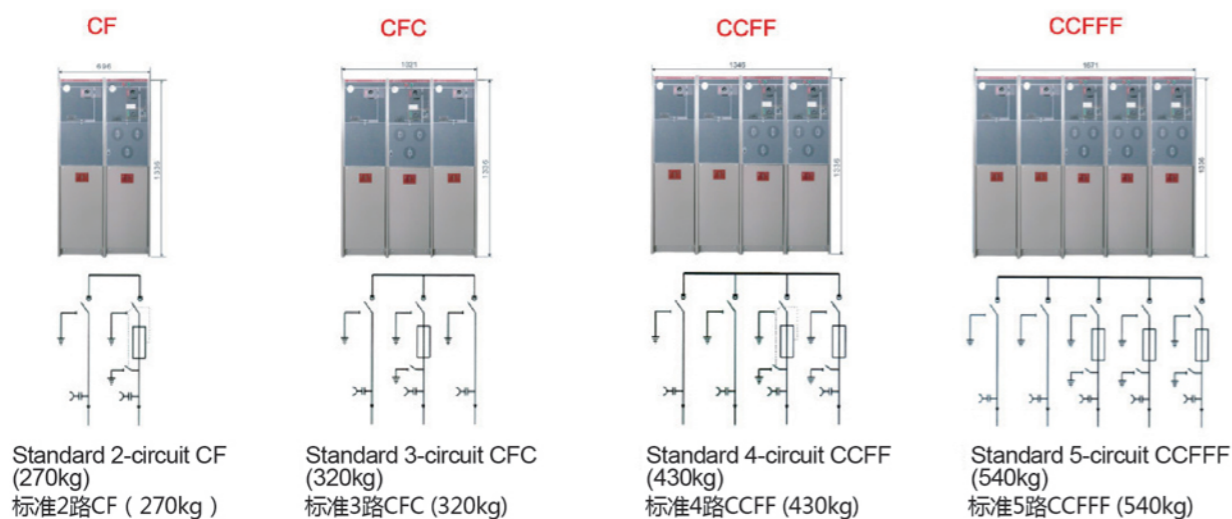
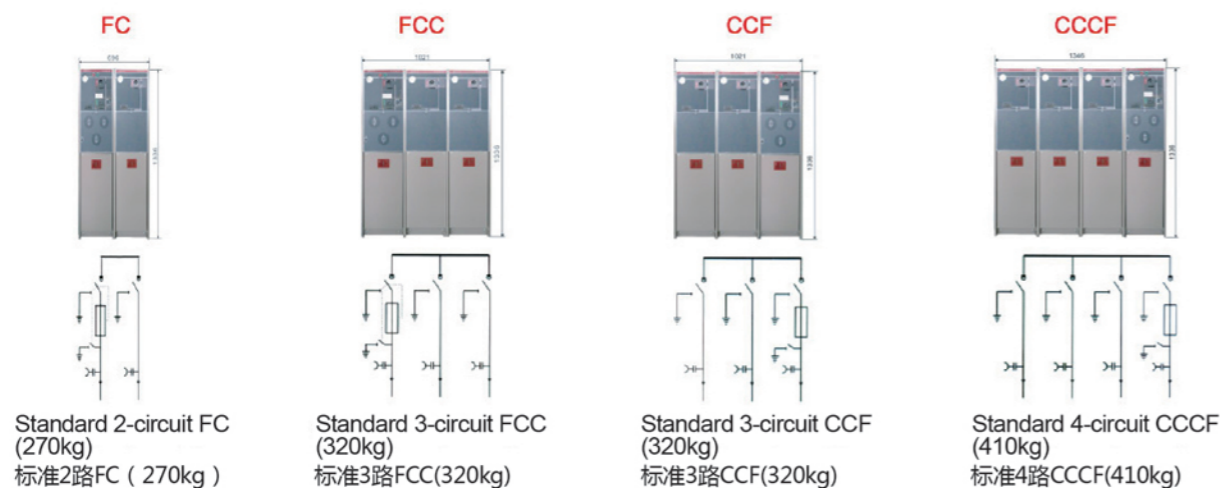
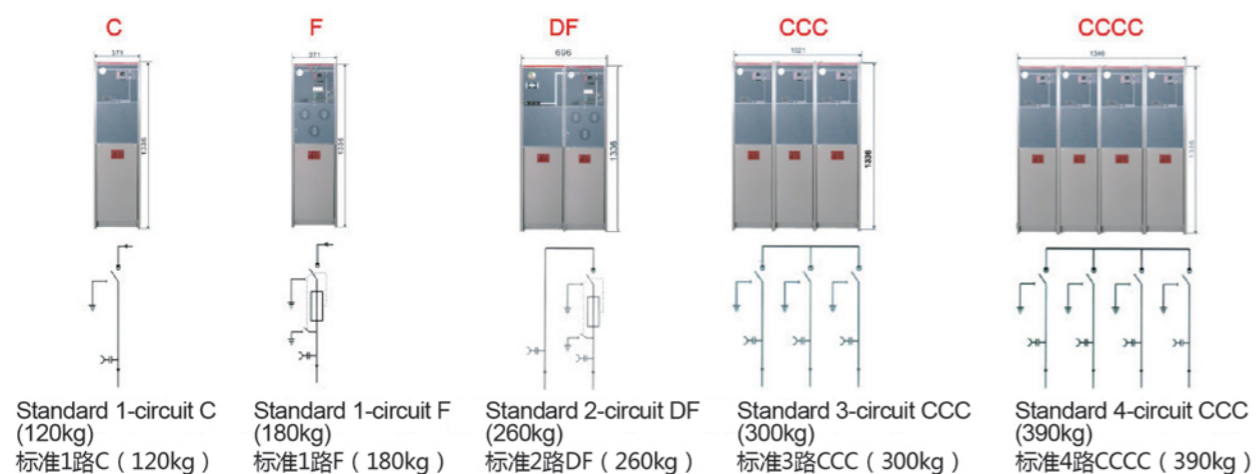
T-GIC-12系列开关柜遵循 IEC60056, IEC60129, IEC60265, IEC60298, IEC60420, IEC60694, GB/T11022-1999, GB3908-91, GB1985-89, GB16926-1997, GB38041-89, GB3309-89, GB3804-2004等标准。

Standard Combination 标准组合

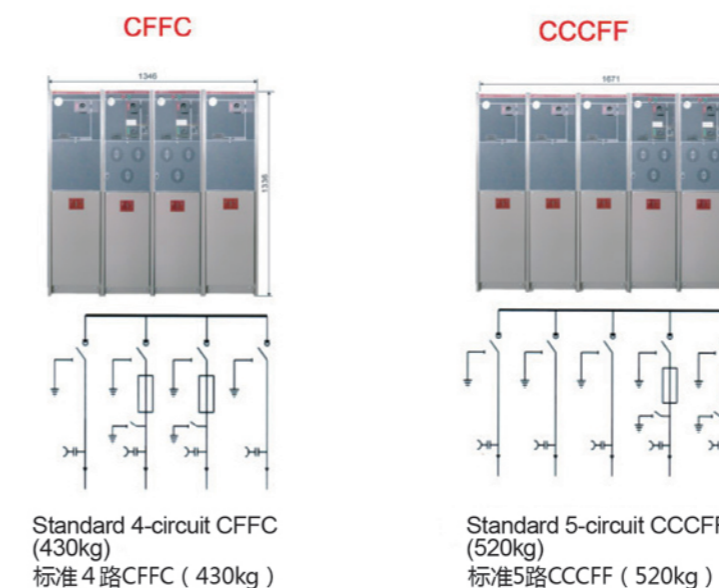
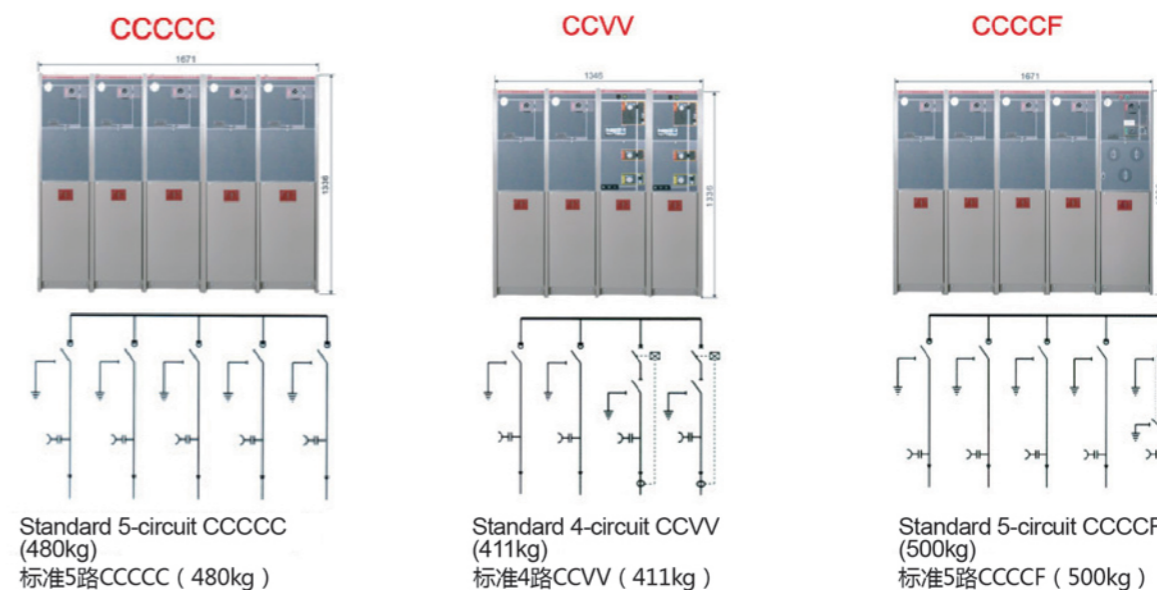
Standard Combination 标准组合

T-GIC provides the following 18 kinds of standard combination

T-GIC提供以下18种标准组合



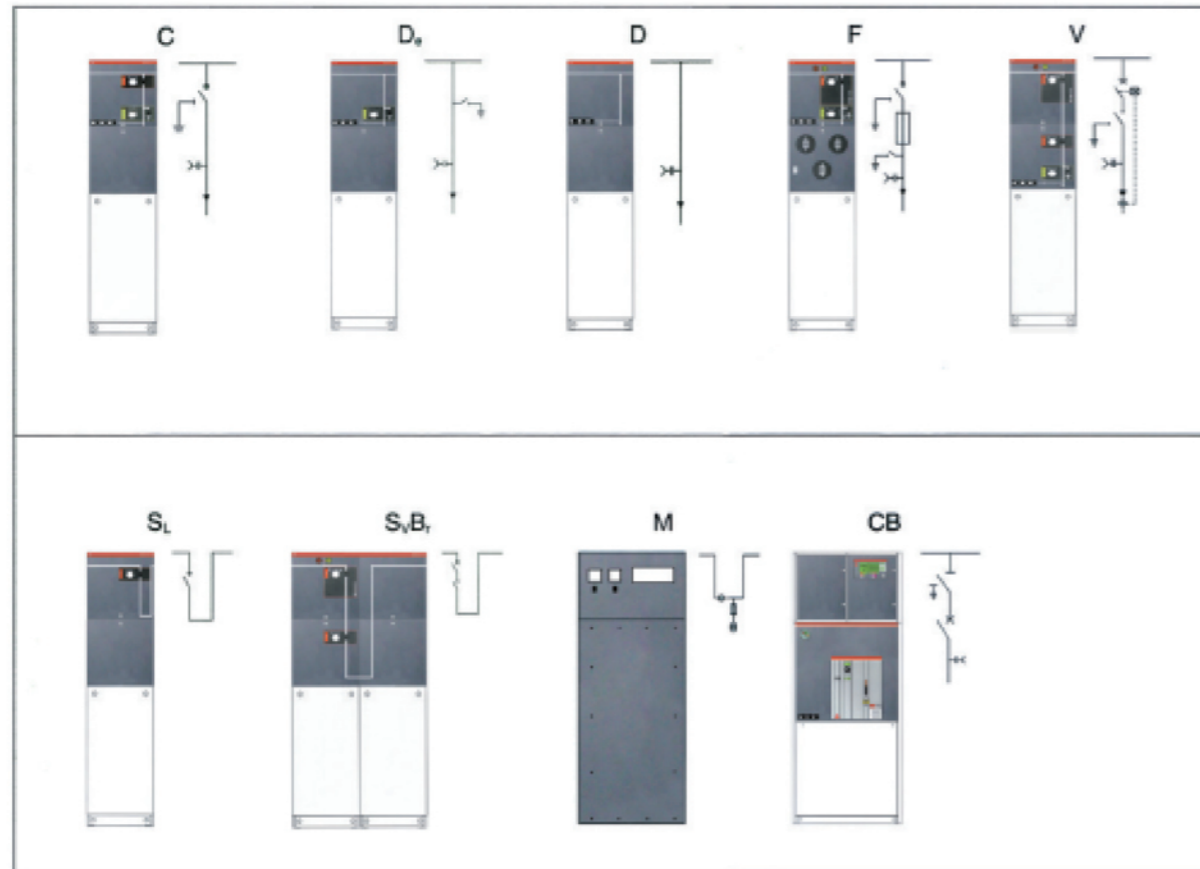
Standard Combination 标准组合



Standard Module 标准模块

T-GIC available modules T-GIC可用的模块

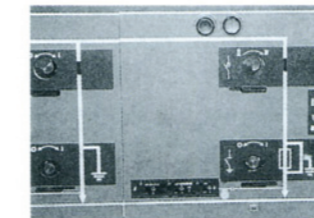
C	Load switch module 负荷开关模块	(Width宽度=325mm)
De	Cable connection module with earthing switch 带接地刀的电缆连接模块	(Width宽度=325mm)
D	Cable connection module without earthing switch 不带接地刀的电缆连接模块	(Width宽度=325mm)
F	Composite apparatus module for load switch fuse 负荷开关熔断器组合电器模块	(Width宽度=325mm)
V	Vacuum switch module 真空开关模块	(Width宽度=325mm)
SL	Bus sectionalizing switch module (load switch) 母线分段开关模块 (负荷开关)	(Width宽度=325mm)
SvBr	Bus sectionalizing switch module (vacuum switch) 母线分段开关模块 (真空开关)	(Width宽度=325mm)
	Sv is always together with bus lifting module Sv总是跟母线提升模块在一起	(Width总宽度=650mm)
M	Measuring module 计量模块	(Width宽度=750mm)
PT	PT module PT模块	(Width宽度=650mm)
CB	Vacuum circuit breaker module 真空断路器模块	(Width宽度=696mm)



Accessories 附件



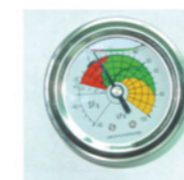
Remote control and detection unit
遥控和检测单元



Capacitive voltage indicator
电容性电压指示器



Cable connection
电缆连接



Pressure indicator
压力指示器

1. Auxiliary contact 辅助接点

All load switches and circuit breakers can be equipped with 2NO+2NC indication switch position. A shunt trip coil (AC or DC) can be installed on the transformer switch / circuit breaker. The low-voltage control unit is at the rear of front panel.

在所有的负荷开关和断路器上都配备2NO+2NC指示开关位置。一个并联脱扣线圈 (AC或DC) 可以安装到变压器开关/断路器上。低压控制部件位于前面板后面。

2. Remote control and detection unit 遥控和检测单元

The integrated remote control and detection unit can be equipped. (See the figure on the left)

This unit is a prefabricated product. It can be assembled into a complex or a new solution, or directly delivered to the factory for accomplishment, but it is only necessary to add a low-voltage box at the top of the switch.

可以配备集成遥控和检测单元。(参见左图)

这个单元是一个预装式的产品。它可以组装成一个复杂或新的解决方案，或者直接交付工厂来完成，只是要在开关顶部加一个低压箱。

3. Voltage indication 电压指示

The capacitive voltage indicator shows the sleeve is electrified or not, and the socket on it can be used for phase check.

电容性电压指示器显示套管是否带电，其上的插口可用于核相。

4. Short-circuit / earth fault indicator 短路/接地故障指示器

In order to facilitate the fault location, the cable switch module can be equipped with short-circuit / earth fault indicator for simple fault detection.

为了便于故障定位，电缆开关模块可以装备短路/接地故障指示器，进行简单的故障检测。

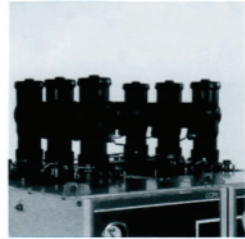
5. Electric operation 电动操作

For load switch and transformer unit, manual operating mechanism is a standard configuration. It is also possible to install electric operating mechanism.

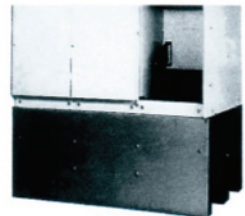
Load switch, vacuum circuit breaker and earthing switch are all operated by the mechanism at the rear of front panel. The load switch and circuit breaker can be operated through the operating handle (standard configuration), or can be equipped with motor operating mechanism (nearby). However, the earthing switch can only receive the operation, and is configured with the structure relevant to fault current capacity.

对于负荷开关与变压器单元手动操作机构是标准的方案。也可以选择安装电动操作机构。

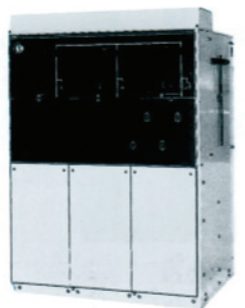
负荷开关、真空断路器和接地开关都是通过位于前面板后面的机构进行操作的。对于负荷开关和断路器，都可以通过操作手柄操作 (标准配置)，或者可以配备马达操作机构 (附近)。但是接地开关只能收到操作，并且配置了有关合故障电流能力的结构。



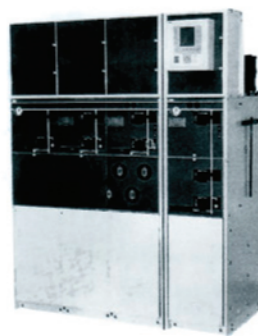
External bus
外部母线



Base
底座



Secondary line chamber at the top of switchgear
开关柜顶部的二次线小室



Low-voltage box at the top of switchgear
开关柜顶部的低压箱

6. Cable connection 电缆连接

The height of standard sleeve above ground is same, and the cable compartment cover can provide protection outside. This cover can be interlocked with earthing switch. In addition, the special twin cable compartment cover can be used for twin cable entry.

标准套管的高度地面高度都相同，并且外有电缆室盖板保护，此盖板可以与接地开关互锁，对于双电缆进线，还可以采用专门的双电缆室盖板。

7. Pressure indicator 压力指示器

The pressure indicator is usually equipped and is the form of pressure gauge. In addition, the electrical contact can also be equipped to set the pressure in order to lower the alarm value.

通常配备压力指示器，该指示器为压力表形式，此外也可以配备电气触点来设定压力降低报警值。

8. Key lock 钥匙锁

Key locks for circuit breaker, load switch and earthing switch can be installed. 可以安装用于断路器、负荷开关以及接地开关的钥匙锁。

9. External bus 外部母线

T-GIC can be equipped with external bus. See the Operating Instructions for details.

T-GIC可以配置外部母线。可参看操作说明书。

10. Base 底座

T-GIC can be installed on a separate base. The base is designed to reserve the cable inlet at both ends and on its back. Two different heights of 272mm and 450mm are available.

T-GIC 可以安装在单独的底座上。该底座的设计在两端和后面都预留了电缆入口。两种不同的高度分别为272mm和450mm可供选择。

11. Secondary line chamber / low-voltage box 二次线小室/低压箱

T-GIC can be equipped with secondary line chamber or low-voltage box at the top of the switch. The secondary line chamber is used to install ammeter (with or without changeover switch) and electrified locking control unit. The low-voltage box is used to install Temper T-P100 integrated protection system, and at the same time can be used to install T-NDI multi-functional meter and electrified locking control unit.

T-GIC 可以配备开关顶部的二次线小室或低压箱。二次线小室用于安装电流表（带或不带转换开关），带电闭锁控制单元。低压箱用于安装天铂公司的综保T-P100，并同时可安装多功能表T-NDI，带电闭锁控制单元。

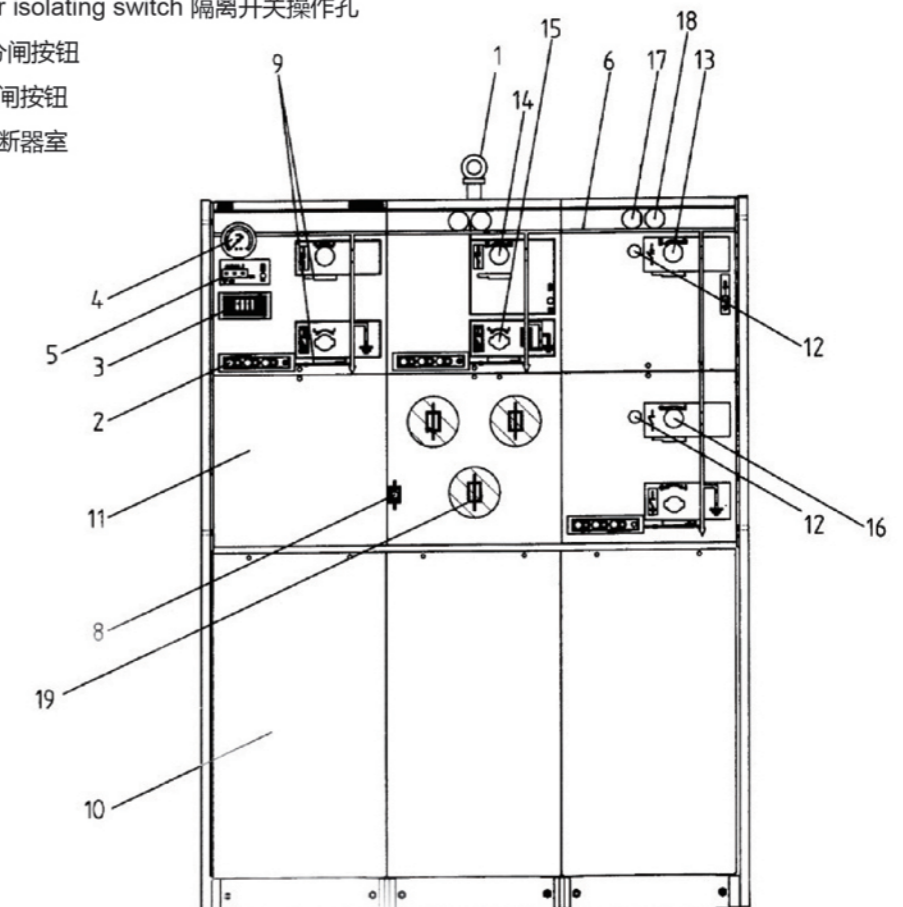
12. Arrester 避雷器

The plug-in arrester can be installed at the cable of T-GIC cable inlet/outlet module, as well as on the bus or in the M cabinet.

T-GIC 的电缆进/出线模块均可在电缆处安装插拔式避雷器；也可以在母线上或M柜内安装插拔式避雷器。

Switchgear Structure Diagram 开关柜结构图

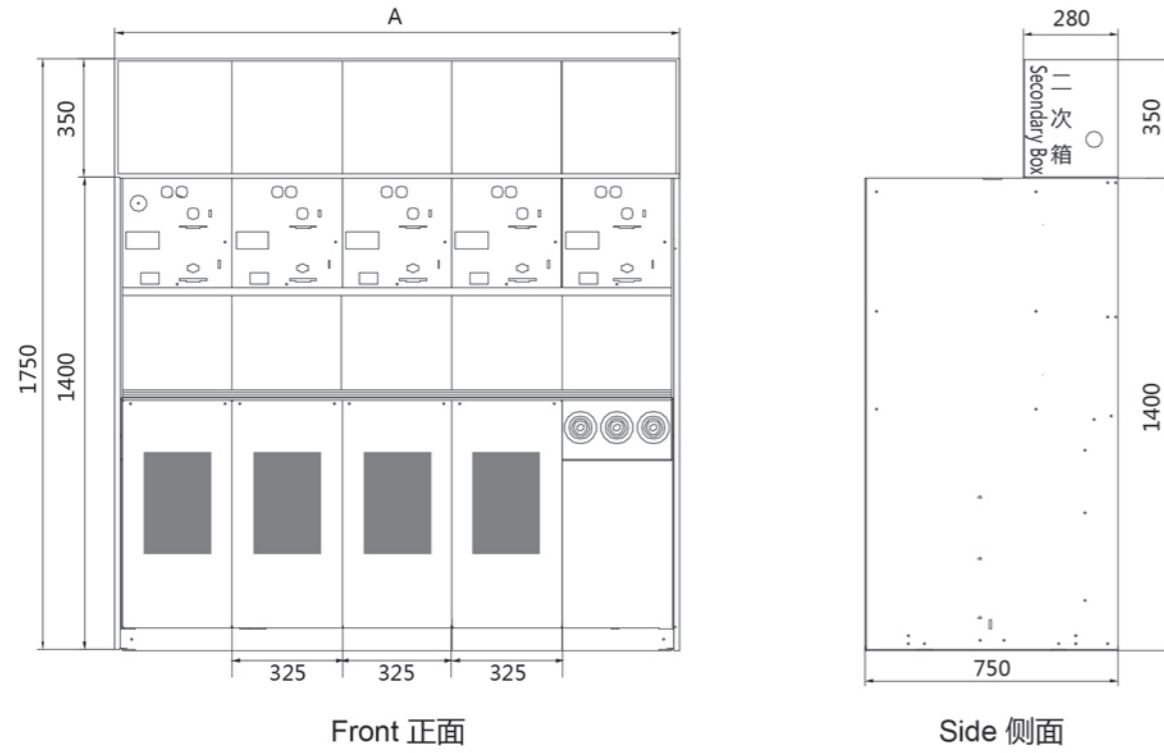
- 1、Lifting ring 吊环
- 2、Capacitive voltage indicator 电容性电压指示器
- 3、Short-circuit connection fault indicator (accessory) 短路连接故障指示器 (附件)
- 4、Pressure indicator 压力指示器
- 5、Sign with serial number 具有序列号的标牌
- 6、Analog circuit diagram 模拟线路图
- 8、Blown fuse indicator 熔断器熔断指示器
- 9、Padlock device on panel 面板上的挂锁装置
- 10、Cable chamber 电缆室
- 11、RTU installation chamber RTU安装室
- 12、Ronis lock (accessory) Ronis锁 (附件)
- 13、Operating hole for circuit breaker 断路器操作孔
- 14、Operating hole for load switch 负荷开关操作孔
- 15、Operating hole for earthing switch 接地开关操作孔
- 16、Operating hole for isolating switch 隔离开关操作孔
- 17、Opening button 分闸按钮
- 18、Closing button 合闸按钮
- 19、Fuse chamber 熔断器室



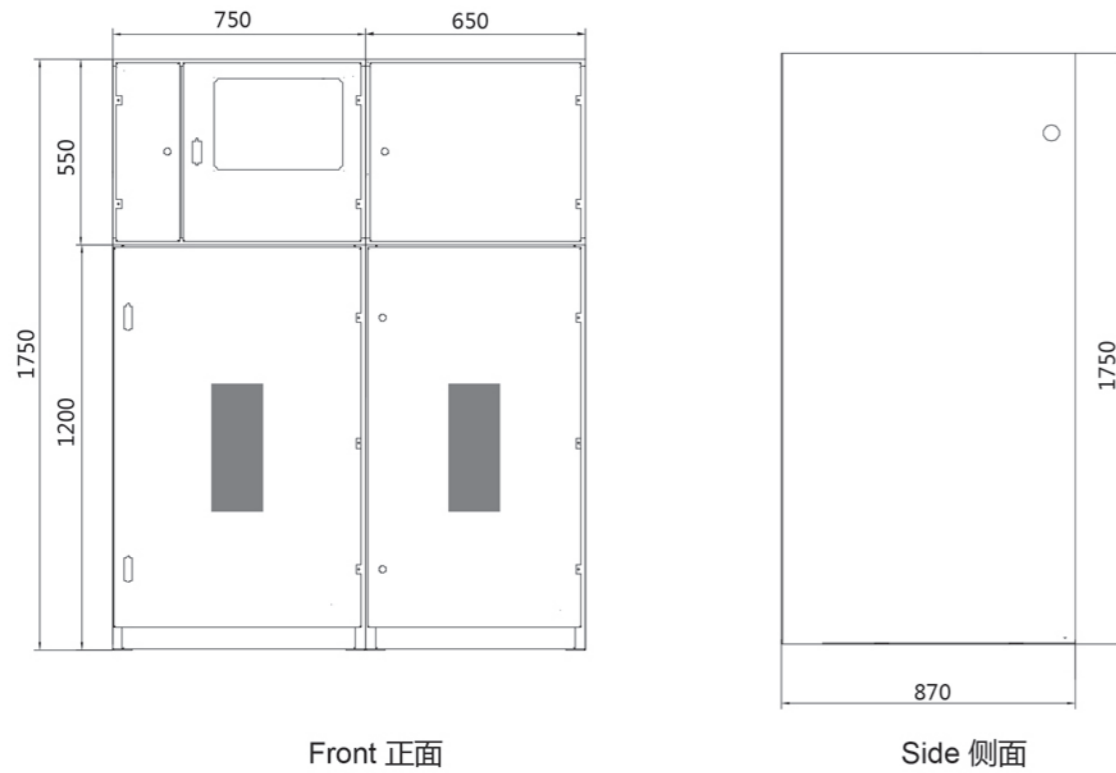
Overall Dimension Diagram 外形尺寸图

Baseplate Diagram 底板图

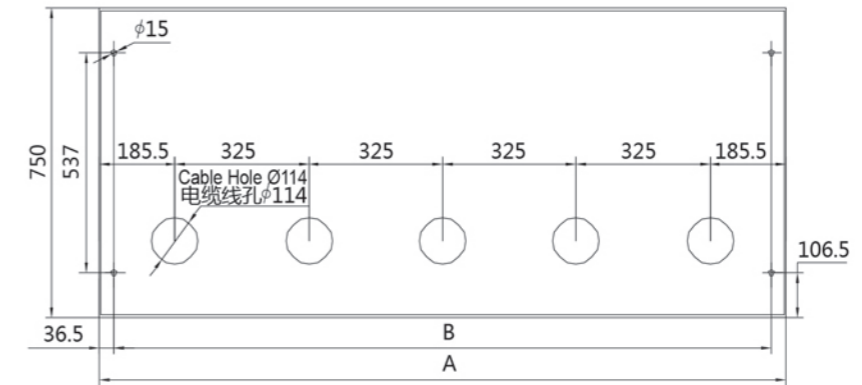
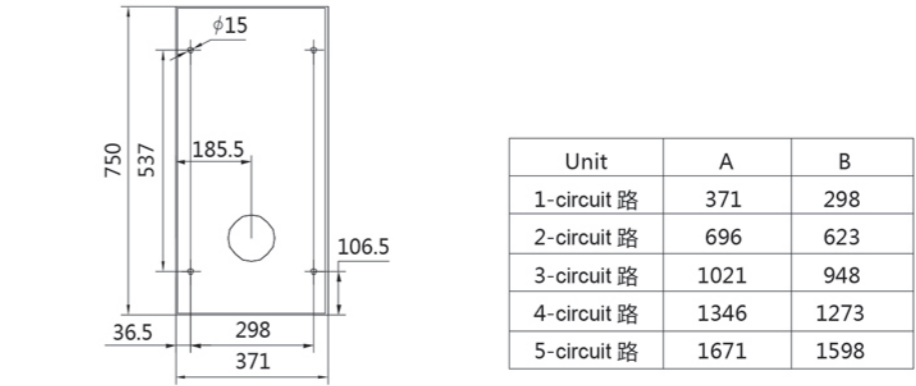
Overall Dimension Diagram 外形尺寸图



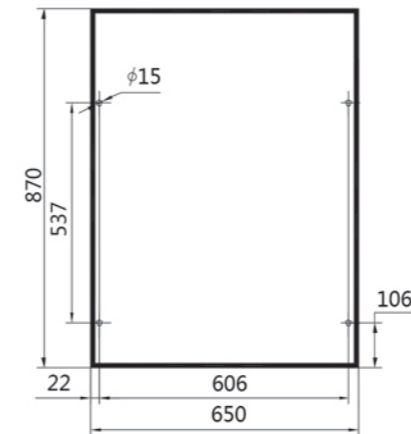
M Cabinet M柜 P Cabinet P柜



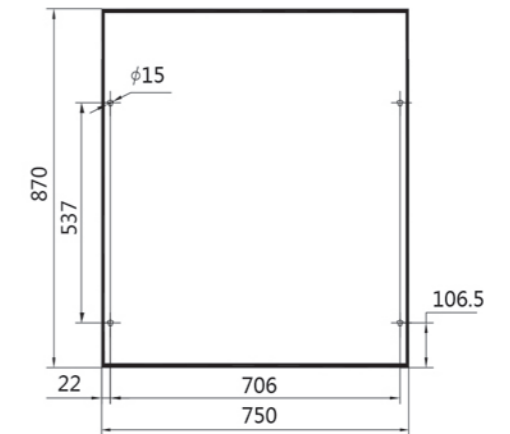
Baseplate Diagram 底板图



Baseplate Diagram of T-GIC Unit Module
T-GIC 单元模块底板图

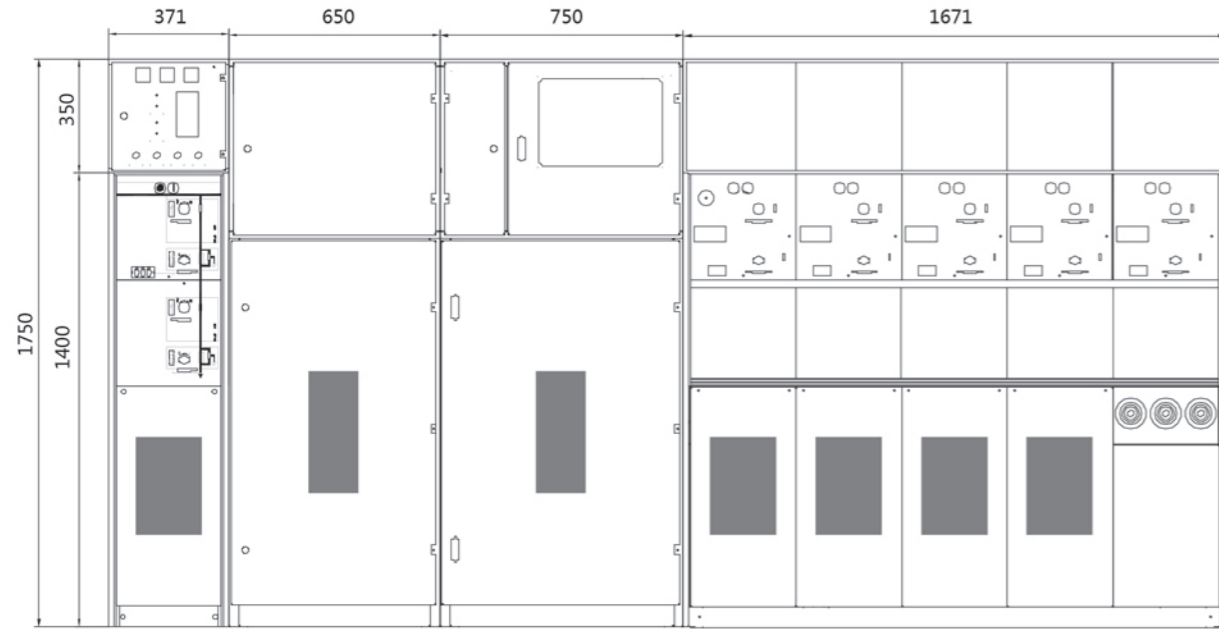


Baseplate Diagram of PT Cabinet
PT柜底板图

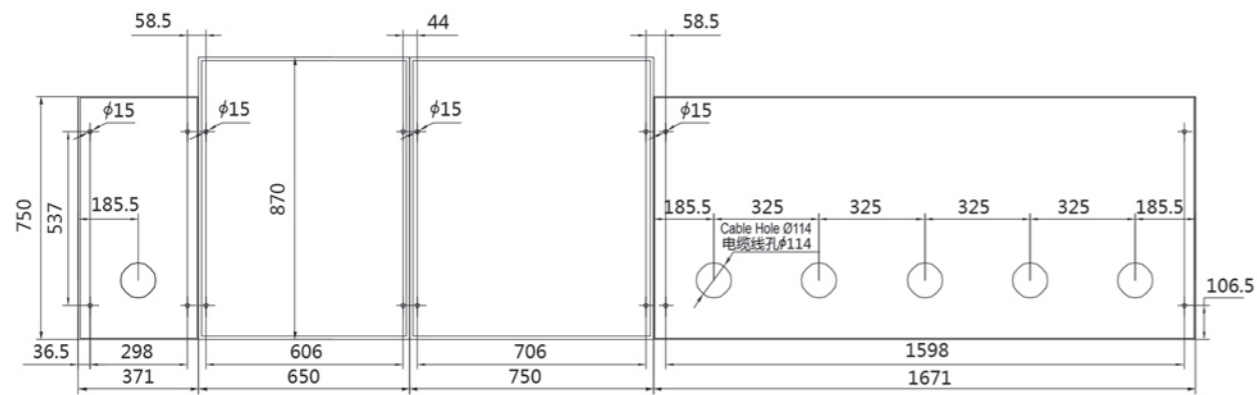


Baseplate Diagram of M Cabinet
M柜底板图

Project Example Diagram 工程示例图



Cabinet Surface Arrangement Diagram of T-GIC Module V + Module PT + Module M + Module + 5*V Combination
T-GIC的V模块+PT模块+M模块+5*V模块组柜的柜面排布图



Baseplate Arrangement Diagram of T-GIC Module V + Module M + Module PT + Module 5*V Combination
T-GIC的V模块+M模块+PT模块+5*V模块组柜的底板图

