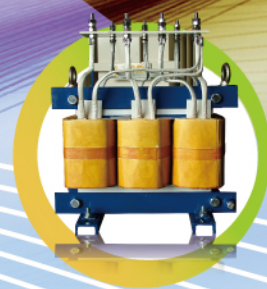


strengthening for excellence
— durable . secure & economical!



峻鼎電機有限公司
JUNTING ELECTRIC CO., LTD



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Our mission 我們的使命

持續不斷的提供電力解決方案

To keep providing the solution to the electricity consistently

發展更高效率的機電整合模式

To develop a more efficient system of mechanical and electrical integration

Our vision 我們的願景

提供客戶穩定，環保，省能源的用電環境

To provide an eco-friendly and energy-saving environment with stable electricity to our customers





Company Profile 公司簡介

峻鼎電機有限公司為專業生產製造、設計、維修各類型變壓器，產品主要有油式變壓器、乾式變壓器、全鑄式變壓器、模鑄式變壓器、比壓器、比流器等等。配電盤事業部、變壓器事業部、維修工程部是目前公司的三大事業，為追求更好更穩定的品質，全員投入於1999年通過ISO 9002品質認證，並於2002年及2009年持續更新品質管理系統至ISO 9001:2000及ISO 9001:2008、並依據客戶規範與IEC、NEMA、ANSI、JEC、CNS等相關標準規範設計、製造，品質榮獲客戶一致好評。

Junting Electric Co., Ltd. specialized in production, design and maintenance of various type transformers. Our main products include oil immersed transformers, dry type transformers, cast resin transformers, potential transformers, current transformers and so on. Our transformers have passed through ISO 9001 Quality Certificate. According to customers' norms, as well as IEC, NEMA, ANSI, JEC, CNS, and related standards for design and production, and our good quality has deeply received well reputation.



峻鼎十年來在台灣參與了許多國家級的配電系統，如台電配電工程，台電變壓器維修工程，國防部軍情局變壓器採購案，更同時為國內各大企業合格供應商之一。峻鼎電機提供的變壓器產品種類眾多，並可依客戶需求訂製高週波專用變壓器，嚴謹健全的品保制度，全線自主性檢測，通過層層品質管制要求，每批出貨均附檢驗報告，提供優質的變壓器產品、技術及極佳的客戶服務水準，製造出品質最優良的產品給客戶。

Junting Electric Co., Ltd. participated in many power distribution systems such as Taiwan power company distribution projects, Tai power transformer maintaining projects, Ministry of National of National Defense R.O.C. transformer purchasing project. Besides, Junting is the supplier of many major corporations in Taiwan. We manufactured various types of products, and customized high frequency transformers according to customers' demands. Rigid and complete QA Systems, together with the whole line with self-examinations through layers of Quality Control. Each shipment attached with an inspection report. We will provide the excellent transformer products, technologies and customer services to manufacture the best quality products for clients.



History 歷史沿革

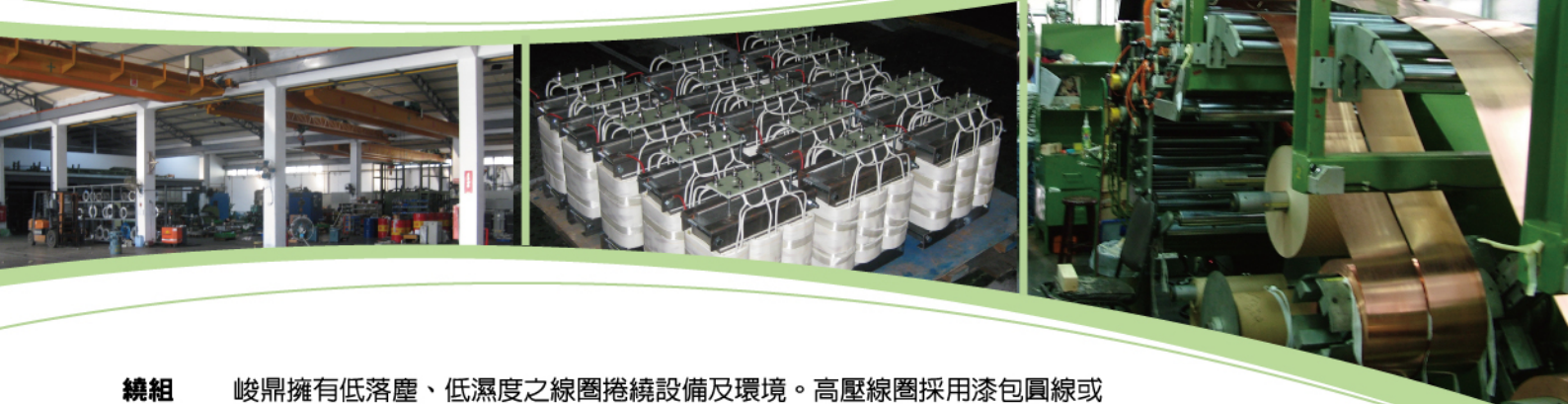
- 1999** 峻鼎電機有限公司成立 Juntong Electric Co., Ltd. was established
成功開發桿上型配電變壓器、單相捲鐵心變壓器製作
Launching Pole-Mounted TR and single phase strip-wound core TR
通過ISO 9002:94品質認證
ISO 9002:94 license permitted by Sep. 1999
通過台電定型桿上型配電變壓器
Award certificate of Pole-Mounted TR by Taiwan Power Company
- 2000** 成功開發亭置式配電變壓器、三相捲鐵心變壓器製作
Launching Pad-Mounted TR and three phase strip-wound core TR
通過台電定型亭置式配電變壓器
Award certificate of Pad-Mounted TR by Taiwan Power Company
- 2001** 成功開發沉水式變壓器 Launching Under-Water TR
通過台電定型沉水式變壓器
Award certificate of Under-Water TR by Taiwan Power Company
- 2002** 通過ISO 9001:2000品質認證 ISO 9001:2000 license permitted by Sep. 2002
通過台電定型密封型桿上變壓器
Award certificate of sealed type Pole-Mounted TR by Taiwan Power Company
成功開發高壓計費用比流器 Launching HV Fare CT
通過台電定型高壓計費用比流器
Award certificate of HV Fare CT by Taiwan Power Company
- 2003** 通過台電定型高壓計費用雙套管比壓器
Award certificate of HV Dual-Bushings Potential Transformer (PT) by Taiwan Power Company
通過台電定型高壓計費用單套管比壓器
Award certificate of HV Single-Bushing PT by Taiwan Power Company
- 2005** 峻鼎電機擴廠3000坪並遷入新廠房
Juntong Electric Co., Ltd. moved in new factory
- 2006** 第二次通過台電定型密封型桿上變壓器
Award certificate of sealed type Pole-Mounted TR by Taiwan Power Company
通過台電定型高壓計費用單套管比壓器(中線端子接地型) Award certificate of HV Single-Bushing PT by Taiwan Power Company (mid-terminal grounding connector type)
通過台電定型低壓貫穿型比流器
Award certificate of LV Penetration CT by Taiwan Power Company
通過台電定型熔絲鏈開關
Award certificate of Fuse Cutout by Taiwan Power Company
- 2007** 成功開發套管比流器(BCT)、全鑄式低噪音乾式變壓器製作
Launching BCT and Whole Resin Cast/Low Noise Dry-Type TR
- 2009** 成功開發非晶質鐵心變壓器製作 Launching Amorphous Core TR
- 2010** 通過ISO 9001:2008品質認證 ISO 9001:2008 license permitted by 2010.



Factory 工廠簡介

廠房 峻鼎電機為一廠辦合一的變壓器製造商，總面積約為三千坪，廠區內設變壓器作業區、變比器作業區、變壓器維修區、溫昇室、噪音室、試驗室、衝擊短路區等。

Plants: JunTing Electric Co. Limited is a transformer manufacturer with merged plant-office. The plant occupies a total area of about 10,000 square meter. Inside the plant area, there allocate Transformer Production Zone, Instrument Transformer Production Zone, Transformer Maintenance Zone, Temperature Escalating Room, Noise (Control) Room, Experiment Room, Short Circuit Zone, etc.



繞組 峻鼎擁有低落塵、低濕度之線圈捲繞設備及環境。高壓線圈採用漆包圓線或紙包銅角線，層間絕緣採用鑽石紙；低壓線圈依電流大小採用銅角線或鋁箔、銅箔，其層間絕緣採用鑽石絕緣紙。銅箔及鋁箔的使用可以使得軸向力減至傳統變壓器的1/10，增強了變壓器的抗短路能力。

Winding: JunTing owns low-dust and low humidity coil winding equipment and environment; the high-voltage coil adopts enamel-insulated wire or paper-wrapped copper stranded wire, and diamond paper is used in between for insulation. The low-voltage coil may adopt copper stranded wire, aluminum sheet or copper sheet, it will base on the current volume; in between for insulation, the diamond paper is implemented. The adoption of copper or aluminum sheet could make the axial force reduce to 1/10th of that of the traditional transformer and thus increase the anti-short-circuit capacity of the transformer.

鐵心 變壓器鐵心採用高導磁性冷軋壓之方向性矽鋼片製成，並以適當方法緊束，鐵心得採用捲鐵心或積鐵心之內鐵型及外鐵型構造方式。

Iron Core: The transformer iron core is made of oriented silicon steel sheet of high magnetism-conductivity, which is cold rolled and pressed; it is bound in a proper way in the meantime. The iron core is compulsory to adopt the construct method of inner-iron type and outer-iron type made of rolled iron core or accumulated iron core.

外殼 變壓器外箱經過嚴密的管制，油箱在焊接完成後需經過螢光試漏，並在注油後進行油壓試漏試驗，確保了油箱的可靠性，有效降低漏油機率。在防銹和表面處理方面，外殼及上蓋須經噴砂法或磷酸鹽皮膜處理，內面塗以白色耐油絕緣防銹漆。

Tank: The transformer tank has been put through strict control; the oil tank has to pass through the fluorescence leakage test after being welding and will be put under oil-pressure leakage test after being filled up to ensure the oil tank dependability. This could effectively reduce the possibility of oil leaking. For rust-proof and surface processing, the tank and the upper lid will have to be processed by sand-blasting or using phosphate filming approach, the interior will be painted with white oil-resistant insulation anti-rust paint.

絕緣油 標準產品主要採用礦物油，特殊情況下亦可採用高燃點油，絕緣油的品質符合 CNS1326及CNS3070之規定。

Insulation Oil: The standard products mainly come from mineral oil; for special case, the high ignition point oil could also be adopted. The insulation oil quality should meet the CNS1326 and CNS3070 regulations.

灌注 乾燥過的油式變壓器在真空狀態下進行注油，經過真空處理的變壓器油與絕緣紙中的間隙緊密結合，增強了變壓器的絕緣效果。

Filling: The oil-type transformer that has been dried up will be filled with oil under vacuum status, the gap between the vacuum-processed transformer oil and the insulation paper will be tightly integrated; this will enhance the transformer insulation performance.

配件 溫度計、油面計、套管、釋壓裝置、分接頭開關環繞變壓器四周及上蓋，心體下夾件與外箱緊密配合，防止心體的縱向移動，心體垂直拉桿與上夾件緊密連接防止垂直及橫向移動。變壓器可依客戶需求加裝風扇冷卻系統，儲油槽密封系統，或自動壓力釋放裝置等。

Accessories: Temperature Meter, Oil Surface Meter, Bushing, Pressure-Release Device and Split Joint Switch are surrounded around the transformer and upper lid, the lower core clipping object and the tank are matched to prevent from the horizontal sliding of the core object. The core vertical pull-lever and upper clipping object are interconnected to prevent from the vertical and horizontal sliding. The transformer could be added with tailored-made devices like fan cooling system, oil-tank sealing system or automatic pressure-releasing system, etc.

測試 本廠生產產品可依客戶需求標準試驗，所有試驗設備均定期經過校驗單位校驗，產品出廠前均經過嚴格測試，一般出廠試驗項目如下：

- 匝比測試及結線檢定
- 繞組電阻測量
- 負載損及阻抗電壓測試
- 氣密試驗
- 無負載損及激磁電流測試
- 耐壓試驗
- 感應電壓試驗

Test: The products manufactured by our plant could be tested according to the customer demands. All test equipments will be sent for inspection and calibration according to the preset schedule. Before product delivery, all are compulsory to pass through strict test. The general test items before delivery are listed as follows:

- Turn-Ratio Test and Wiring-Connect (Delta or Y) Inspection
- Winding Resistance Measurement
- Load Loss and Impedance Voltage Test
- No-Load Loss and Excitation Current Test
- Withstand Voltage Test
- Induced Voltage Test
- Leak Test

特殊試驗 Special Tests:

- 噪音試驗 Noise Test

型式試驗 Type Tests

- 衝擊試驗 Implus Test
- 短路試驗 Short Circuit Test
- 溫升試驗 Temperature Rise Test

2007年全鑄式低噪音乾式變壓器

峻鼎於2007年改良了全鑄式乾式變壓器，利用減小磁密和鐵心的方法，成功降低了乾式變壓器鐵心噪音，並控制在44dB以下，在鐵心墊角與箱底間放置減振橡膠，亦有降低產品噪音的效果。

2007: Launching the Whole Resin Cast/Low Noise Dry-Type Transformer
JunTing has completed to improve the Whole Resin-Cast Dry-Type transformer; it adopts the method of reducing magnetic density and iron core and thus successfully reduces the iron core noise of the dry transformer, and the noise has been controlled down to below 44dB. Putting vibration-absorbing rubber in between the iron core pad and the tank bottom is also able to achieve the effect of reducing product noise.

**2007年套管比流器(BCT)**

主要用途是安裝在電力變壓器內的套管上，峻鼎目前可依客戶的需求製作出100A~8000A：5A / 2A / 1A之測量級與保護級的套管比流器。

2007: Launching Bushing Current Transformer

Its main application is to be installed on the bushing inside the power transformer; JunTing is now able to tailor-make 100A~8000A: 5A / 2A / 1A Bushing Current Transformer of Measurement Class and Protection Class.

**2007年鋁線配電變壓器**

峻鼎電機於2007年開始產出鋁線配電變壓器，變壓器線圈由銅線增加為鋁線製作，不僅在材料方面多了另一項選擇，在價格上亦為客戶大大降低了生產成本。所有的設計及效率均符合IEC、ANSI標準。

2007: Launching Aluminum Wire Power Distribution Transformer

JunTing Electric started to produce Aluminum Wire Power Distribution Transformer in 2007; aluminum-made transformer coil has been added to the original copper-made ones, not only it increases an option in the material aspect, it also greatly reduces the production cost for the customer regarding the price. All designs and efficiencies meet the IEC and ANSI standards.

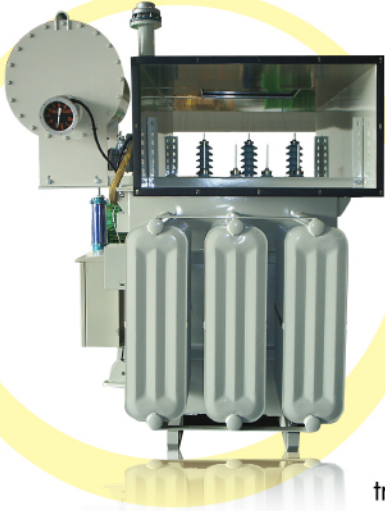


2008~2009年非晶質鐵心變壓器

使用非晶質鐵心變壓器的首次投入成本較高，但其超低損耗特性，能使用戶的長期支出下降，對於電價較高的地區，其節能效果得到了補償。高效率非晶質鐵心變壓器已逐步受到各界的重視，國內已有少量的非晶質鐵心配電變壓器使用，國際間亦已開始推廣此類具環保意識的產品。

2008 ~2009: Launching the Amorphous Core Transformer

The first-time investment cost will be relatively higher when using amorphous core transformer, but its super-low loss feature could reduce customer's long-term expenditure; for the areas of higher electricity fees, its energy-saving effect pays. The high efficiency amorphous core transformer has been gradually paid attention by various industries. There are already a few amorphous core transformers available in country; and, the similar products with environmental protection sense are getting promoted among the international communities.



2007~2009年依客戶要求及特殊場合所開發的新設計

- 儲油槽式導口型變壓器
- 電子式溫控開關
- 高壓套管井式變壓器
- 波浪型散熱片變壓器
- 側出導口型變壓器

2007~2009: New Design Developed according to Customer Demands and Special Locations

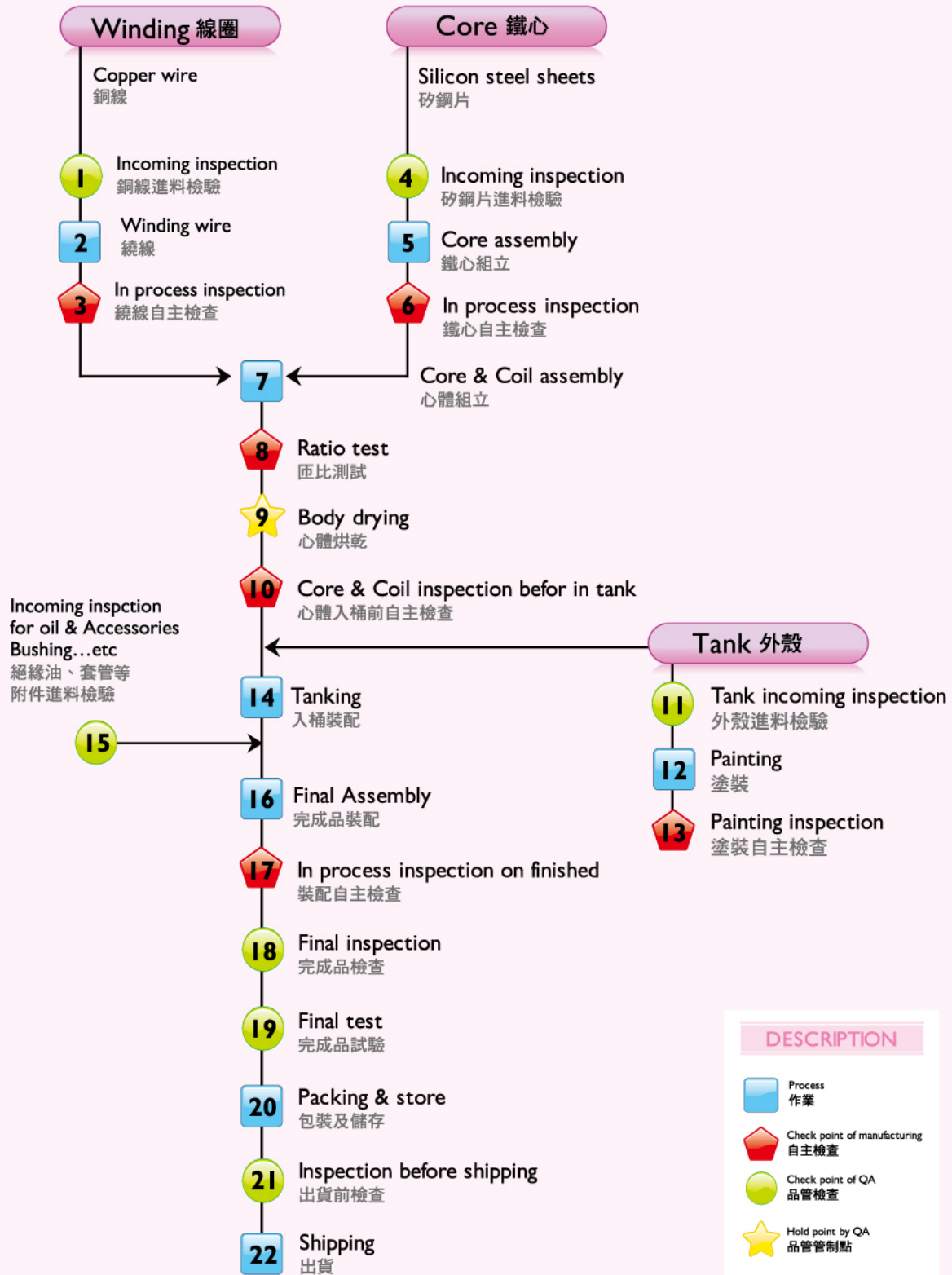
- Oil-Immersed Transformer with Duct and Conservator
- Transformer with Electronic Temperature Control Switch
- High Voltage Bushing Well-Shape Transformer
- Oil-Immersed Transformer with the radiator of corrugated type design
- Side Duct Transformer



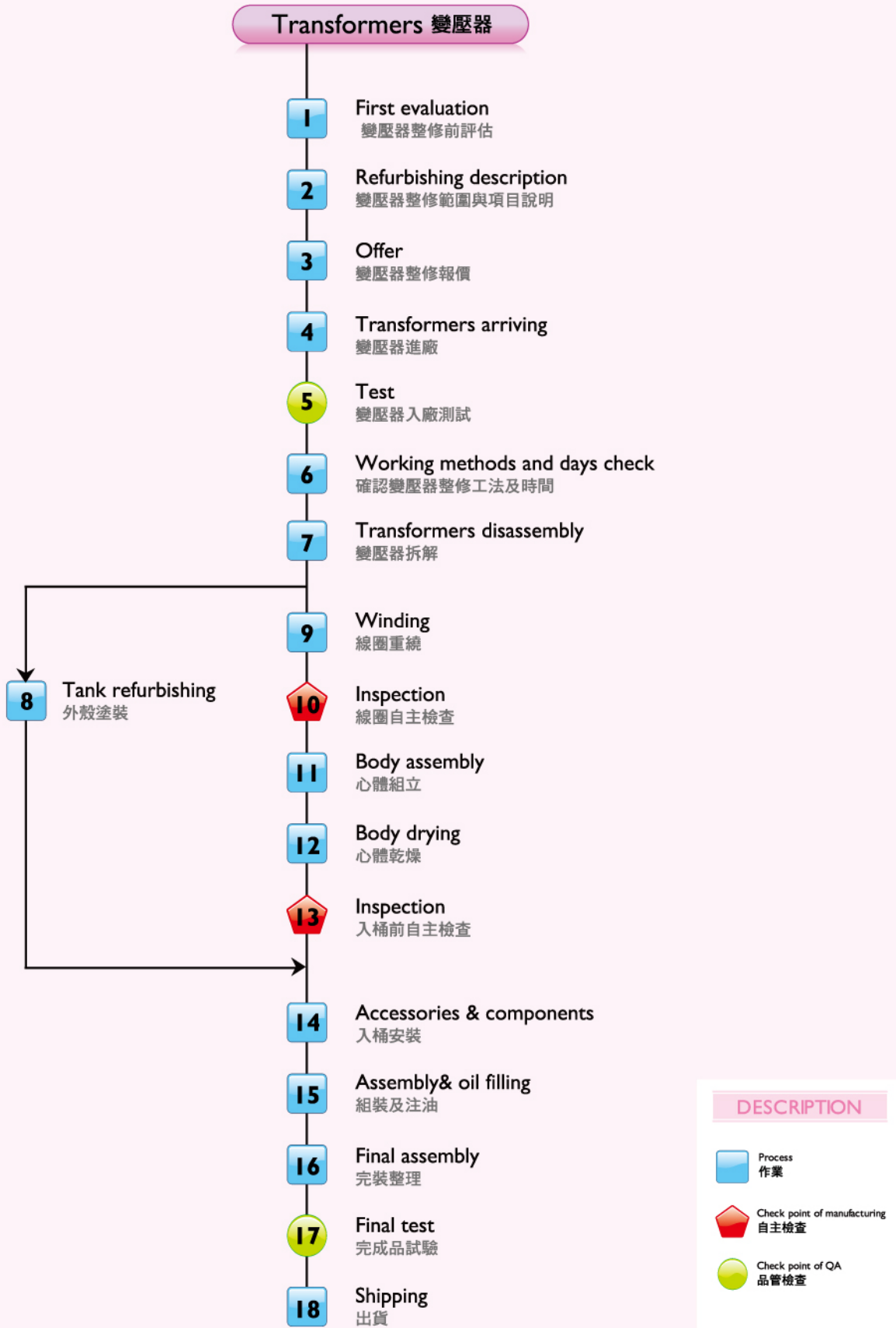


Manufacturing Processes 嚴謹的製程

變壓器製作流程圖 Process Flow Chart



變壓器整修流程圖 Maintaining Process Flow Chart





Technical Data 特性及規格

高壓系列 HV Series	容量 (kVA) Capacity	全損失 (W) Full-load loss	激磁電流 (%) Exciting current	阻抗 (%) Impedance	噪音 (dB) Lpa	效率 (%) Efficiency	底座安裝尺寸 (mm) Installation distance	概略尺寸 (mm) Dimension LxWxH	概略油重 (kg) Oil mass	概略重量 (kg) Total mass
油入式 (導口型) Oil immersed transformer	100	2,511	5	2.5~3.5	50	97.55	500x450	920x1210x1500	155	680
	150	3,610	5	3~4	52	97.65	500x450	920x1210x1500	155	730
	200	4,604	5	3~4	52	97.75	550x500	960x1310x1520	185	835
	250	5,493	5	3~4	54	97.85	550x500	960x1310x1520	215	950
	300	6,279	4.5	3~4	56	98.20	600x550	1010x1210x1500	250	1085
	400	7,955	4.5	3~4	57	98.27	600x550	1020x1370x1630	335	1400
	500	9,424	4.5	3~4	58	98.35	600x550	1210x1370x1630	410	1550
	600	10,998	4.5	3.5~4.5	59	98.40	650x650	1360x1580x1740	480	2000
	750	13,359	4	4~5	60	98.45	700x800	1320x1780x1810	595	2450
	1000	16,777	3.5	4~5	62	98.50	700x800	1310x1920x1890	715	3000
	1500	25,165	3	5~6	63	98.55	700x800	1620x2130x1890	925	3900
	2000	31,488	2.5	5~6	64	98.65	700x800	1610x2260x1980	1110	4650
	2500	36,783	2.5	5~6	65	98.75	700x800	2400x1910x2130	1120	5550
	3000	44,140	2.5	5~6	65	98.75	800x800	2600x1890x2230	1290	6250
高效率 (導口型) High efficiency transformer	100	1,523	5	3~4	50	98.50	500x600	700x1330x1680	290	1050
	150	1,853	5	3~4	52	98.78	500x600	700x1330x1680	305	1180
	200	2,224	5	3~4	52	98.90	500x600	810x1350x1660	335	1320
	250	2,781	5	3~4	54	98.90	500x600	810x1400x1690	360	1470
	300	3,092	4.5	3~4	56	98.98	500x600	800x1450x1720	390	1610
	400	4,000	4.5	3~4.5	57	99.01	600x600	910x1450x1720	430	1810
	500	4,948	4.5	3~4.5	58	99.02	600x600	1000x1450x1720	470	2090
	600	5,938	4.5	3.5~5	59	99.02	700x800	1000x1720x2080	695	2900
	750	7,270	4	4~5.5	60	99.04	700x800	1200x1720x2080	705	3090
	1000	9,897	3.5	4~5.5	62	99.02	700x800	1300x1780x2080	730	3370
	1500	14,998	3	5~7	63	99.01	800x800	1700x1830x2080	870	4140
	2000	16,739	2.5	5~7	64	99.17	800x800	1800x1900x2280	1080	5370
	2500	20,924	2.5	5.5~7.5	65	99.17	800x800	1900x1950x2280	1270	6080
	3000	25,108	2.5	6~8	65	99.17	900x800	2100x1950x2280	1360	6750
非晶質 (導口型) Amorphous core transformer	100	1844	3.5	3~4	50	98.15	600x600	1180x900x1610	250	930
	150	2570	3.5	3~4	52	98.32	600x600	1200x1100x1650	300	1220
	200	3435	3.5	3~4	52	98.31	650x650	1300x1100x1650	350	1320
	250	4168	3.5	3~4	54	98.36	700x700	1340x1100x1670	420	1580
	300	4835	3	3~4	56	98.41	700x700	1370x1200x1695	530	1700
	400	5990	3	3~4	57	98.52	750x750	1400x1300x1695	600	2000
	500	7370	3	3~4	58	98.54	800x800	1550x1300x1755	650	2350
	600	8650	3	3.5~4.5	59	98.57	800x800	1590x1350x1800	670	2530
非晶質 (環保標章) Amorphous core transformer	750	10050	2.5	4~5	60	98.68	800x800	1640x1400x1820	720	2910
	1000	9832	2.5	4~5	62	99.02	800x800	1680x1450x1870	800	3500
	1500	13372	2.5	5~7	63	99.11	800x800	1930x1700x1910	1050	4750
	2000	16628	2	5~7	64	99.17	1000x1000	2040x1900x2015	1330	6050
	2500	20778	2	5~7	65	99.2	1000x1000	2110x2100x2065	1520	7050
3000	23192	2	5~7	65	99.23	1000x1000	2300x2000x2145	1870	8150	

低壓系列 LV Series	容量 (kVA) Capacity	全損失 (W) Full-load loss	激磁電流 (%) Exciting current	阻抗 (%) Impedancet	噪音 (dB) Lpa	效率 (%) Efficiency	底座安裝尺寸 (mm) Installation distance	概略尺寸 (mm) Dimension LxWxH	概略油重 (kg) Oil mass	概略重量 (kg) Total mass
油入式 Oil immersed transformer	100	2,355	5	2.5~3.5	50	97.70	400x400	760x620x1130	135	660
	150	3,530	5	3~4	52	97.70	450x400	760x650x1090	140	750
	200	4,500	5	3~4	52	97.80	500x450	860x830x1170	170	850
	250	5,365	5	3~4	54	97.90	500x500	990x830x1275	200	1000
	300	6,120	4.5	3~4	56	98.00	500x500	1070x1150x1160	225	1100
	400	7,747	4.5	3~4	58	98.10	500x500	1100x1210x1260	270	1250
	500	9,165	4.5	3~4	58	98.20	500x500	1100x1200x1410	315	1400
乾式 Dry type transformer	100	2040	5.5	5 以下	56	98.00	700x400	750x500x800	---	390
	150	2860	5	5 以下	58	98.13	700x400	750x500x850	---	470
	200	3560	5	5 以下	60	98.25	700x460	750x560x950	---	550
	250	4270	5	5 以下	60	98.32	900x500	950x600x950	---	860
	300	5095	4.5	5 以下	62	98.33	900x500	950x600x1100	---	1000
	400	6585	4.5	5 以下	62	98.38	1150x800	1200x900x1500	---	1500
	500	7610	4.5	6 以下	62	98.50	1350x1000	1400x1100x1700	---	1900
模鑄式 Cast resin transformer	100	2150	5.5	2.5~5.5	56	97.90	400x550	740x820x500	---	470
	150	2920	5.5	2.5~5.5	58	98.09	400x550	900x820x500	---	570
	200	3660	5	2.5~5.5	60	98.20	500x600	970x920x600	---	750
	250	4400	5	2.5~5.5	60	98.27	500x600	1150x920x600	---	800
	300	5150	4	2.5~5.5	62	98.31	500x600	1180x1000x600	---	1000
	400	6800	4	2.5~5.5	62	98.33	500x600	1250x1100x600	---	1200
	500	8200	4	4~6	62	98.39	700x700	1260x1200x800	---	1300
全鑄式 Whole resin cast transformer	3	185	10	4.5 以下	40	94.19	240x100	290x150x480	---	50
	5	275	10	4.5 以下	40	94.79	250x110	300x160x500	---	55
	7.5	400	10	4.5 以下	40	94.94	270x120	320x170x530	---	70
	10	450	7	4.5 以下	40	95.69	270x125	320x175x560	---	80
	15	580	7	4.5 以下	40	96.28	300x150	350x200x610	---	105
	20	730	6	4.5 以下	40	96.48	310x160	360x210x630	---	130
	25	870	6	4.5 以下	40	96.64	350x170	400x220x630	---	150
	30	990	5	4.5 以下	40	96.81	350x190	400x240x690	---	170
	37.5	1190	5	4.5 以下	40	96.92	390x200	440x250x700	---	200
	50	1350	5	4.5 以下	44	97.37	490x260	540x310x750	---	270
	75	1900	5	4.5 以下	44	97.53	500x280	550x330x830	---	370
	100	2450	5	4.5 以下	44	97.61	520x290	570x340x830	---	410
高效率 High efficiency transformer	100	1950	5	2.5~3.5	50	98.09	400x400	760x630x1100	165	760
	150	2800	5	3~4	52	98.17	450x400	770x660x1120	170	850
	200	3500	5	3~4	52	98.28	500x450	860x850x1190	200	950
	250	4280	5	3~4	54	98.32	500x500	1000x840x1275	250	1100
	300	4500	4.5	3~4	56	98.52	500x500	1070x1150x1170	275	1200
	400	5740	4.5	3~4	57	98.59	500x500	1100x1230x1260	320	1350
500	6300	4.5	3~4	58	98.76	500x500	1110x1210x1410	365	1500	



峻鼎電機 Junting Electric

配電盤事業部 Switchgear

1. 高壓配電盤:

- 標稱電壓: 3.3kV to 24kV
- 容量: 25MVA to 1000MVA
- 連續電流: 600A to 4000A
- 衝擊耐壓: 60kV to 150kV
- 箱體型式: 屋內型式屋外型
- 斷路器種類:
 - 3.3kV to 7.2kV: 真空接觸器(VCS)&瓦斯接觸器(GCS)
 - 11.4kV to 24kV: 真空斷路器(VCB)& 瓦斯斷路器(GCB)



1. High Voltage Metal-Clad Switchgear

- Voltage: 3.3kV to 24kV
- Interrupting Capacity: 25MVA to 1000MVA
- Continuous Rating: 600A to 4000A
- BIL: 60kV to 150kV
- Type: Indoor or Outdoor
- Circuit Breaker Type:
 - 3.3kV to 7.2kV: Vacuum Contact Switch (VCS) & Gas Contact Switch (GCS)
 - 11.4kV to 24kV: VCB & GCB

2. 低壓配電盤:

- 標稱電壓: 220V to 480V
- 遮斷容量: 65kA (對稱值)
- 連續電流: 4000A 最大值
- 衝擊耐壓: 60kV to 150kV
- 箱體型式: 屋內型或屋外型
- 斷路器種類:
 - 空氣斷路器 (ACB)
 - 無熔絲斷路器 (MCCB)



2. Low Voltage Switchgear

- Rated Voltage: Up to 600V
- Breaking: Up to 65KA(SYM)
- Current Rating: Up to 4000A
- BIL: 60kV to 150kV
- Enclosure: Indoor/Outdoor
- Breaker Types:
 - Molded Case Circuit Breaker (ACB)
 - Air Circuit Breaker (MCCB)

3. 馬達控制中心:

- 標稱電壓: 500V最大值 (50Hz or 60Hz)
- 額定水平銅排容量: 2000A最大值
- 額定垂直銅排容量: 600A
- 短時間電流: 25kA, 42kA (對稱值)
- 啓動器容量:
 - 抽出式: 100HP最大值
 - 固定式: 100HP以上
- 饋線每分路容量:
 - 抽出式: 225A最大值
 - 固定式: 250A以上

3. Motor Control Centers

- Rated Voltage: Up to 500V (50Hz or 60Hz)
- Current Rating: Up to 2000A
- Vertical Busbar: Up to 600A
- Short Time Current: Up to 42kA (SYM)
- Starter Unit:
 - Draw Out: Up to 100HP
 - Fix: \geq 100HP
- Feeder Unit:
 - Draw Out: Up to 225A
 - Fix: \geq 250A



4. 受電箱 分電箱 弱電箱:

- 標稱電壓: 480最大值
- 遮斷容量: 35kA (對稱值)
- 連續電流: 1000A 最大值
- 箱體型式: 屋內/屋外/埋入/壁掛
- 斷路器種類:
 - 無熔絲斷路器 (MCCB)
 - 漏電斷路器 (ELCB)



4. Panelboards

- Rated Voltage: Up to 480V
- Breaking: Up to 35KA(SYM)
- Current Rating: Up to 1000A
- Enclosure: Indoor/Outdoor
- Breaker Types:
 - Molded Case Circuit Breaker (MCCB)
 - Earth Leakage Circuit Breaker (ELCB)

變壓器事業部 Transformer



(水平導口型)

■ 產品目錄

■ 標準油式變壓器

設備承製能力在33kV(含)以下，5000 kVA (含)以下
設備維修能力在33kV(含)以下，50000 kVA (含)以下
符合IEC,CNS等相關標準的通用型產品。

■ Products Overview:

■ Oil Immersed Transformer

Manufacturing Capacity: Up to 33kV(inclusive), 5000 kVA (inclusive)

Maintaining Capacity: Up to 33kV(inclusive), 50000 kVA (inclusive)

Universal purpose products that meet the relevant standards like IEC, CNS, etc.



■ 桿上密封型變壓器

標準：台電密封型桿上變壓器之 C035 (87-08) 標準。

適用範圍：本規範適用於三相四線式6.6/11.4KV多重接地之架空配電線路，屋外桿上裝置之油浸自冷式配電變壓器。變壓器之適用之情況為海拔1000公尺以下，周溫 40°C 以下。

■ Pole Mounted Transformer

Standard: C035 (87-08) standard of Tai-Power Seal Type Pole Mounted Transformer.

Application Range: This norm applies to 3-phase/4-wire 6.6/11.4KV, multiple-grounded elevated power distribution circuitry and the outdoor pole mounted oil-immersed self-cooling power-distribution transformer. The transformer applicability environment will be below sea level 1000 meters, ambient temperature below 40°C.



■ 亭置式變壓器

標準：均符合台電單相亭置式變壓器規範，C001(87-03)標準。

適用條件：本規範適用於油浸自冷式，裝置於屋外地面上、站台上或屋內配電室等之配電變壓器。變壓器之使用情況為海拔1000公尺以下，周溫40°C以下。

■ Pad mounted Transformer:

Standard: Tai-Power Single-Phase Pad Mounted C001 (87-03) Transformer Specification.

Application Terms: This norm applies to the power distribution transformers of oil-immersed/self-cooling type, which will be installed on outdoor ground, standing platform or in indoor power distribution room. The transformer applicability environment will be below sea level 1000 meters, ambient temperature below 40°C.



■ 低壓H級 乾式變壓器

無外箱之乾式變壓器能直接看到鐵芯和線圈，大多是使用矽橡膠套管，而且乾式變壓器是依靠空氣對流進行冷卻。乾式變壓器一般用於需要防火及防爆等場所，適用於局部照明，電子線路等小容量變壓器。

■ Low Voltage H-Class Dry Type Transformer

The dry type transformer is generally implemented for locations that demand fire fighting and anti-explosion; it is applicable for small capacity transformers like partial illumination, electronic circuits, etc.



■ 低壓全鑄式變壓器

容量約5~75kVA，擁有較低的變壓器噪音，適合用在住宅或辦公大廈、百貨公司、地下鐵路、車站、發電廠、學校、醫院及輪船等。

■ Low-Voltage Whole Cast Resin Transformer

Capacity is about 5~75kVA; it has lower transformer noise and is applicable for locations of residence or office building, department store, underground railway, station, power plant, school, hospital and marine vessels, etc.



(無外箱型)

■ 低壓模鑄式變壓器

由於模鑄式變壓器的樹脂為不燃性，抗熱強度很高，較可避免火災爆炸之慮。所以模鑄式變壓器特別適用於用電密度較大或須特別要求安全的場所，如住宅或辦公大廈、百貨公司、地下鐵路、車站、發電廠、學校、醫院及輪船等。

■ Low Voltage Cast Resin Transformer

Because the Resin of a Cast Transformer is non-flammable with very high anti-heat strength, it could prevent from the concerning about fire explosion. So the Cast Transformer is especially applicable for locations that demand higher electricity consumption or special safety requirement such as residence or office building, department store, underground railway, station, power plant, school, hospital and steaming ship, etc.

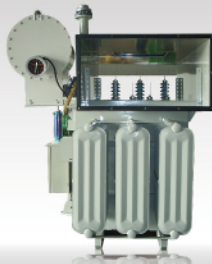


■ 環保型高效率變壓器

鐵心採用高導磁雷射矽鋼片製成，可以使鐵損大幅降低，再透過改良線圈設計來降低銅損。由於全損失大幅的降低約四成，對於長期電費有大幅遞減的效果。

■ Environmental Protection Type High Efficiency Transformer

The iron core is made of high magnetism conductivity laser silicon steel sheet, it could greatly reduce the iron loss; and then, one could reduce the copper loss by improving the coil design. Because the full loss will be greatly reduced to an amount of about 40%, it brings the effect of great reduction in the long-term electricity fees.



■ 非晶質變壓器

非晶質鐵心材料替代方向性矽鋼片鐵心製作變壓器，其鐵損可減少至矽鋼片鐵心的1/3 ~ 1/4。使用非晶質鐵心變壓器的首次投入成本較高，但其超低損耗特性，能使用戶的長期支出下降，對於電價較高的地區，其節能效果得到了補償。

■ Amorphous Core Transformer

The amorphous core material is adopted to replace the oriented silicon steel sheet for making a transformer; its no-load loss could be reduced to 1/3 ~ 1/4 of that of the silicon steel sheet iron core. The first-time investment cost will be relatively higher when using amorphous core transformer, but its super-low loss feature could reduce customer's long-term expenditure; for the areas of higher electricity fees, its energy-saving effect pays.



■ 爐用變壓器

可分為煉鋼爐用變壓器；電石爐變壓器；感應熔煉爐變壓器；煉鐵合金爐變壓器．．．等等。

■ Furnace-Specific Transformer

It could be divided into steel-smelting-furnace-specific transformer, carbide furnace transformer, sensing smelting furnace transformer, iron-smelting alloy furnace transformer, etc.



■ 特殊用途變壓器

如高壓試驗變壓器。電氣設備出廠或大修後，應當進行交流耐壓試驗，常見的被試品如電力變壓器、高壓套管、互感器、開關、絕緣子及電力電纜等。

■ Special-Application Transformer:

Such as High-Voltage Test Transformer: after product delivery or overhaul maintenance of electrical equipment, an AC withstand voltage test should be performed. The most often seen articles for test are power transformer, high voltage bushing, mutual inductor, switch, insulator, power cable, etc.



■ 高壓計費用比壓器

比壓器適用於有圍體包繞下裝用，最高周溫不得超過40°C，適用範圍於12kV級及24kV級與計費電錶等配合組套的屋外架構、桿上或配電箱裝置之比壓器。

■ High-Voltage Fare Potential Transformer

The voltage transformer iron core adopts cold-rolled oriented silicon steel sheet, rolled iron core; the coil is a copper conductor with a minus polarity; two ends of the bushing and the coil are entirely insulated. Therefore, the voltage transformer is applicable for installation within a surrounding casing; the maximum ambient temperature should not exceed 40°C. It applies to voltage transformer for outdoor structure, pole-mounted or power distribution device usage of 12kV level and 24kV level and is to be implemented in bundle-sets with the electric meters.



■ 高壓計費用比流器

適用於12kV級及24kV級與計費電表等配合組套的屋外構架、桿上或配電箱裝置之比流器。

■ High-Voltage Fare Current Transformer

It applies to current transformer for outdoor structure, pole-mounted or power distribution device usage of 12kV and 24kV level and is to be implemented in bundle-sets with the electric meters.



■ 低壓貫穿型比流器

適用於屋內，與計費電表等配合組套用。

■ Low Voltage Penetration Current Transformer

It applies for indoor usage and is to be implemented with electric meters.



■ 套管比流器

主要用途是安裝在電力變壓器內的套管上，峻鼎目前可依客戶的需求製作出100A~8000A：5A / 2A / 1A之測量級與保護級的套管比流器。

■ BCT (Bushing Current Transformer)

Its main application is to install on the bushing inside a power transformer. JunTing is now able to produce the tailor-made 100A~8000A: 5A / 2A / 1A bushing current transformer of measurement and protection.



■ 熔絲鏈

適用範圍：適用於6.6/11.4kV屋外架空配電線路之熔絲鏈開關。

■ Cutout

Range: It applies for the cutout of a 6.6/11.4kV outdoor elevated power distribution circuitry, measurement and protection.

維修工程部 Maintaining Department

現行國內擁有最完善設備，最專業技術，經驗最豐富，三十年以上維修技師。專業維修國家級之配電變壓器及各公司之大型變壓器。目前客戶來自各大發電廠、鋼鐵、化工、煉油、化肥、造紙、水泥、鋁製品、自來水等配套使用的中大型變壓器設備等。更在2009年維修35MVA、24KV級爐用變壓器，運轉情況良好，為客戶節省千萬採購費用。

- 維修保固: 半年
- 維修能力: 33kV以下; 50MVA以下

JunTing has the most experienced engineers, cutting-edge technologies and facilities. We specialized in maintaining distribution transformers and large-size transformers for nations and major companies. Our customers include power plants, iron and steel plants, chemical factories, petroleum refineries, chemical fertilizer factories, papermaking factories, cement plants, aluminum factories and water companies. In 2009, a 35MVA, 24KV furnace transformer was fixed by JunTing and saved the owner tens of millions of dollars.

- Warranty period of maintained transformers: 180days
- Maintaining capacity: up to 33kV; 50MVA



High Efficiency Transformers 高效率變壓器

高效率變壓器特點 Features

- 節能:
 - 鐵心採用高導磁雷射矽鋼片(HI-B Core)製成，使鐵損大幅降低。
 - 線圈構造改良，使銅損大幅降低。
- 節費
 - 由於全損大幅降低約四成，使得全年電費可以大幅遞減。
- 體積小
 - 由於運轉時產生的損失減少，因此變壓器所使用的散熱器可以相對小型化。
- Energy saving
 - The iron core is made of high magnetism conductivity laser silicon steel sheets (HI-B Core) to greatly reduce the iron loss.
 - Improvements have been made on coil structure to reduce copper loss sharply.
- Power bill saving
 - Due to the full loss will be greatly reduced around 40%, it brings the effect of great reduction on the annual power bill.
- Space saving
 - Since the losses can be lessened during operation, the dimensions of radiator in the transformer can be size down.

高效率變壓器成本效益 Cost Effectiveness

以3φ 60HZ 1000kVA 11.4kV/220V之變壓器為例:

一般型變壓器效率98.50%

高效率變壓器效率99.02%

平均每度電費以NT\$2.5計算

$1000\text{kVA} \times (99.02 - 98.5)\% = 5200\text{W}$

高效率變壓器每小時可減少損失5200瓦

$5200 \times 24 \times 30 \div 1000 = 3744\text{度/月}$

一個月電費節省3744度

$3744 \times \$2.5 = \text{NT}\$9360/\text{月}$

一年節省NT\$ 9360 x 12 =NT\$112,320

二年節省NT\$112,320 x 2=NT\$224,640

三年節省NT\$112,320 x 3=NT\$336,960

高效率變壓器相較一般型變壓器之投資回收期約為1.5~3年。(圖一)

待回收期過後，累計節省電費將相當可觀，變壓器長期運轉情況下，高效率變壓器比一般型變壓器運轉成本低廉。(圖一;表一)

The transformer 3p 60HZ 1000kVA 11.4kV/220V is used as an example:

	Normal Type	HE Type
Efficiency (%)	98.50	99.02

Average electricity cost: NT\$2.5/kWh

$$1000\text{kVA} \times (99.02 - 98.5)\% = 5200\text{W}$$

Full-load losses in HE Type Transformer can be saved: 5200W/h

$$5200 \times 24 \times 30 \div 1000 = 3744 \text{ kWh/month}$$

Power bill saving: 3744 kWh/month

$$3744 \text{ kWh} \times \$2.5 = \text{NT\$}9360/\text{month}$$

Annual power saving : NT\$ 9360 x 12 = NT\$112,320

Two years power saving : NT\$112,320 x 2 = NT\$224,640

Three years power saving: NT\$112,320 x 3 = NT\$336,960

HE Type compared with normal type transformer, the investment return period will be 1.5~3 years approximately. (Fig.1) After that, the total power saving will be huge. The cost effectiveness of HE-TR will be more than the normal oil-immersed TR in the long-term operation. (Fig.1, Table 1)

表一、變壓器累計運轉成本 (萬元)

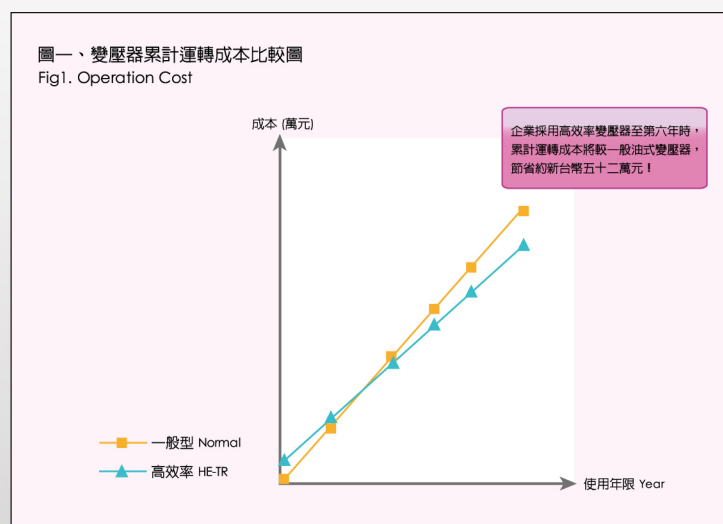
Table 1. Operation Cost (NT\$10K)

使用年限 Year	0 (成本) TR Cost	1	2	3	4	5	6
一般型 Normal	33	465	897	1329	1761	2193	2625
高效率 HE-TR	53	473	893	1313	1733	2153	2573

Operation Condition: 8h/day; 22days/month; loading rate: 80%

圖一、變壓器累計運轉成本比較圖

Fig1. Operation Cost





Project References 客戶實績

- 台灣鐵路管理局 Taiwan Railway Administration 3 ϕ 1250 kVA 油式
- 台灣電力公司 Taiwan Power Company 1 ϕ 167, 100, 50, 25 kVA 桿上 & 亭置式
- 台灣電力公司 Taiwan Power Company 3 ϕ 500 kVA 非晶質連絡用變壓器
- 台灣國際造船公司 CSBC CORP, Taiwan 3 ϕ 500, 300, 250 kVA 高壓油式
- 台灣國際造船公司 CSBC CORP, Taiwan 3 ϕ 50, 30, 20 kVA 低壓模鑄式
- 台灣中油股份有限公司 CPC Corporation, Taiwan 3 ϕ 1500, 750, 500, 250 kVA 高壓油式
- 國防部軍情局 Ministry of National Defense R.O.C. 3 ϕ 600, 400, 300 kVA 油式
- 交通部公路總局台中監理站 Directorate General of Highways, M.O.T.C. 3 ϕ 500, 200 kVA 油式
- 台塑集團 Formosa Plastics Group 3 ϕ 1500, 500, 300, 200, 150 kVA 油式
- 高雄港務局 Port of Kaohsiung 3 ϕ 2000, 600 kVA 油式
- 中山科學研究院 Chung-Shan Institute of Science & Technology 3 ϕ 225, 200 kVA 油式
- 南亞塑膠林口廠 Nan Ya Plastics Corporation Co., Ltd 3 ϕ 1250 kVA 油式
- 行政院衛生署豐原醫院 Fong Yuan Hospital 3 ϕ 600, 500, 400, 200 kVA 油式
- 長庚紀念醫院 Chang Gung Memorial Hospital 3 ϕ 1500, 500, 300, 200, 150 kVA 油式
- 興陽工程 Hsing Yang Engineer Co., Ltd. 3 ϕ 75, 40, 20, 15, 10, 7.5 kVA 低壓全鑄式





strengthening for excellence

— durable . secure & economical!



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