



电工钢 手册

ELECTRICAL STEEL MANUAL

海安华诚

海安华诚新材料有限公司 江苏

互依诚信

HONEST AND TRUSTWORTHY,
ACHIEVE A WIN-WIN SITUATION

邦耀双赢

铸造高质量精品电工钢
成为中国电工钢行业的
领跑者

It Has Become The
Leader Of China's Electrical
Steel Industry

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MANUAL

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PROFILE GROUP

江苏北辰互邦电力股份有限公司（股票代码：839335）成立于2007年9月，是一家专业从事输配电成套产品研发、生产、销售于一体的高新技术企业。

Jiangsu Beichen Hubang Power Co., Ltd. (stock code: 839335), founded in September 2007, is a high-tech enterprise specializing in the research and development, production and sales of complete sets of power transmission and distribution products.

企业占地面积37936m²，其中建筑面积20000m²，注册资金11776.8万元，总资产达8000万元，年销售额达25000万元。

The company covers an area of 37936 square meters, of which the construction area is 20000 square meters, the registered capital is 16.14million dollars, the total assets reach 10.96 million dollars. Now, the company's annual sales reach 34.26 million dollars and are increasing year by year.

公司主要产品包括：干式变压器、油浸式变压器、新能源变压器、景观式地埋变、城市地下综合管廊变压器、箱式变电站（美式、欧式箱变）及低压电气开关控制成套设备等。

集团简介

The company's main products include: dry-type transformers, oil-immersed transformers, new energy transformers, landscape-type buried transformers, urban underground comprehensive pipe gallery transformers, box-type substations (American and European-style box transformers) and low-voltage electrical switch control complete sets of equipment.

企业的销售和服务网络遍布全国二十多个省市、自治区，并已打开国际市场。

公司产品远销美国，加拿大，巴西、安哥拉、尼日利亚、西班牙、埃塞俄比亚、马拉维、印度尼西亚等国家。

The company's sales and service network covers more than 20 provinces, municipalities and autonomous regions in China, and has opened up the international market.

The company's products are exported to the United States, Canada, Brazil, Angola, Nigeria, Spain, Ethiopia, Malawi, Indonesia and other countries.

产品性能先进、结构新颖、远程智能，具有损耗低、噪音小、耐冲击、抗短路等特点，广泛应用于城乡电网以及石化、冶金、轻纺企业、矿山等。

旗下华诚新材料子公司：聚焦取向硅钢新材料领域，是一家具有自主研发、生产、销售一体的高新技术企业。

The product has advanced performance, novel structure, remote intelligence, low loss, low noise, impact resistance, short circuit resistance, etc., and is widely used in urban and rural power grids and petrochemical, metallurgy, textile enterprises, mines, etc.

The subsidiary of Huacheng New Materials is focusing on the field of oriented silicon steel, it is a high-tech company with independent research and development, production and sales.



PROFILE
COMPANY

海安华诚新材料有限公司位于国家级海安经济技术开发区，境内有新长铁路、宁启铁路、204国道、328国道、沿海高速交汇；距南通国际港口、南通机场仅60公里；从沿海高速海安道口出发，1.5小时内直达上海；2020年沪苏通铁路大桥的开通，大大缩短了到上海、苏州、无锡、常州等经济发达城市的距离。海陆空立体交汇，构成了发达便捷的交通网，所处地理条件优越，交通十分便利。

Haian Huacheng New Materials Co., Ltd. is located in the national-level Haian Economic and Technological Development Zone, where Xinchang Railway, Ningqi Railway, National Highway 204, National Highway 328, and coastal high-speed intersect; it is only 60 kilometers away from Nantong International Port and Nantong Airport; Departing from Hai'an Road, it will reach Shanghai within 1.5 hours; the opening of the Shanghai-Sutong Railway Bridge in 2020 will greatly shorten the distance to economically developed cities such as Shanghai, Suzhou, Wuxi, and Changzhou. The three-dimensional intersection of sea, land and air constitutes a developed and convenient transportation network. The geographical conditions are superior and the transportation is very convenient.

公司成立于2016年9月，占地约7万平方米，公司车间都为兴建的现代化标准厂房。公司现有职工105多人，其中工程师，专业技术人员30余名，是一家专业生产有取向硅钢和变压器铁芯的大型企业，与国内很多知名的变压器制造厂家保持长期良好的合作关系。有取向硅钢现拥有一条大型脱碳生产线、一条拉伸线、一条涂镁线、60个高温罩式退火炉、一套大型20辊轧机机组和一条国内先进技术刻痕机组。变压器铁芯拥有我公司自主研发的2条自动叠片机组、1条900mm横剪线（西安启源）、2条600mm横剪线（西安启源）、3条400mm的横剪线、4条300mm的横剪线（广东科盈）及5条纵剪生产线，我公司研发自动叠片机组生产出来的变压器铁芯已得到下游客户的认可。

公司简介

The company was established in September 2016, covering an area of about 70,000 square meters. The company's workshops are all modern standard workshops. The company has more than 105 employees, including more than 30 engineers and professional technicians. It is a large-scale enterprise specializing in the production of oriented silicon steel and transformer cores. It maintains long-term good cooperative relations with many well-known domestic transformer manufacturers. Oriented silicon steel now has a large decarburization production line, a drawing line, a magnesium coating line, 45 high temperature bell annealing furnaces, a large 20-high rolling mill unit and a domestic advanced technology scoring unit. The transformer core has 2 automatic lamination units developed by our company, 1 900mm cross-cutting line (Xi'an Qiyuan), 2 600mm cross-cutting lines (Xi'an Qiyuan), 3 400mm cross-cutting lines, 4 300mm cross-cutting line (Guangdong Keying) and 5 slitting production lines, the transformer core produced by our company's research and development of automatic lamination unit has been recognized by downstream customers.

公司秉承“专注、极致、规范”基础价值观，始终以积极、诚实的态度面向新老客户。公司先后通过ISO9001、ISO14001和OHSAS18001等管理体系认证。

The company adheres to the basic values of "focus, extremeness, and standardization", and always faces new and old customers with a positive and honest attitude. The company has successively passed ISO9001, ISO14001 and OHSAS18001 and other management system certifications.

展望未来，我们信心百倍，斗志昂扬；在华诚人共同努力拼搏下，一定会把华诚公司打造成为国内一流领军企业，华诚公司一定会走向更加灿烂辉煌的明天！

Looking forward to the future, we are full of confidence and high-spirited; with the joint efforts of Huacheng people, we will definitely build Huacheng into a first-class leading enterprise in China, and Huacheng will surely move towards a more brilliant tomorrow!

海安华诚新材料有限公司

Haian Huacheng New Materials Co., Ltd.



ENTERPRIS EPATENT CERTIFICATE

企业专利 证书



ORIENTED SILICON STEEL

有取向 硅钢

PRODUCT FEATURE

产品特性

1、优异的电磁性能

一流的设备、先进制造工艺以及严格的管理确保了华诚取向硅钢电磁性能的优良、稳定。

Excellent Electromagnetic Performance

First-class equipment,advanced manufacturing technology and strict management ensure the excellent and stable electromagnetic properties of Huacheng oriented silicon steel

2、出色的加工性能

高精度尺寸与优异的力学性能便于用户分样、剪切与叠片。

Excellent Machining Performance

High precision size and excellent mechanical properties for users to strip shear and laminated

3、卓越的尺寸精度

华诚先进的设备和制造技术，确保取向电工钢表面、混度均匀、钢板差小、叠片系数高。

Excellent Dimensional Accuray

The advanced equipment and manufacturing technology of Huacheng ensure the smooth surface of oriented electrical steel with unifom mixing and small lamination coefficient

4、优异的表面涂层性能

华诚取向电工钢具有均匀的表面涂层，良好的附着性，防止加工时的涂层脱落，层间绝缘性能良好。

Excellent Surface Coating Performance

Hua cheng oriented electrical steelhas uniform surface coating,good adnesion, prevent the coating from falling off during processing,and good insulation between layers

5、更多的宽度选择

华诚取向电工钢的板宽940-1010mm,用户可以选择，提高材料的利用率。

More Width Options

The plate width of Huacheng oriented electrical steel is 940-1010mm,which can be selected by users to improve the utilization rate of materials

PRODUCTION PROCESS

生产工艺流程

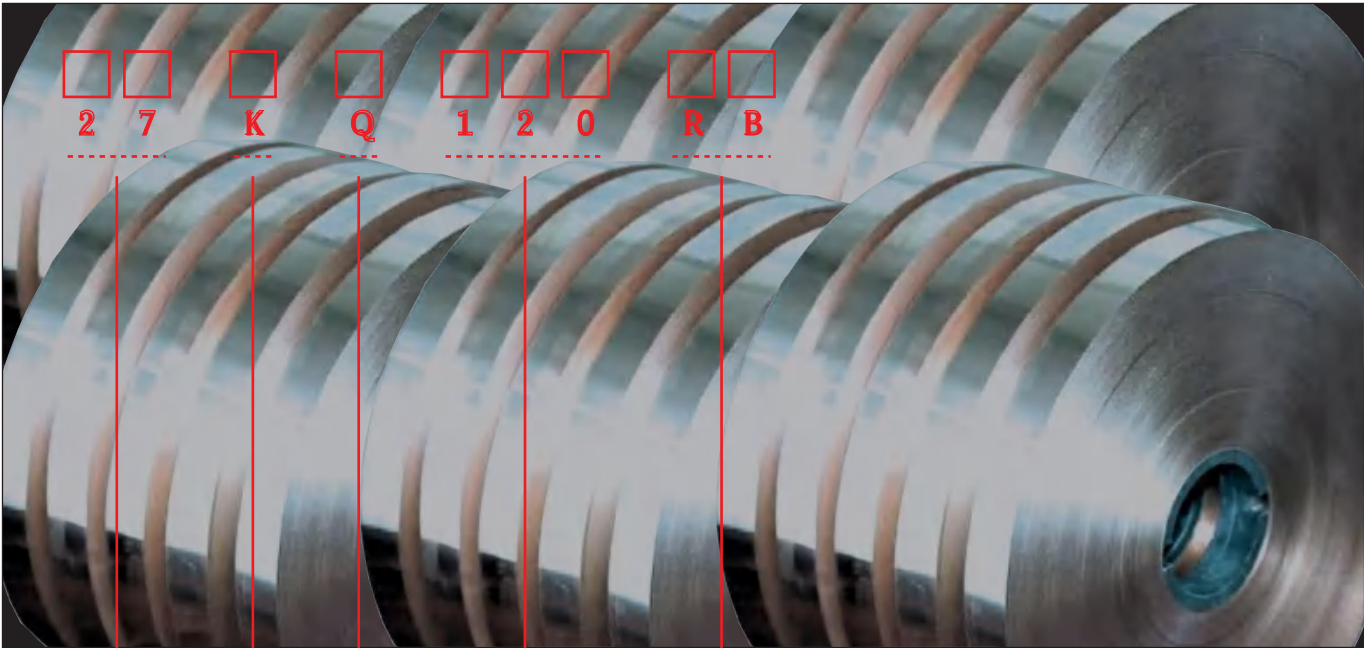
内部流程
Internal Processes

外部流程
External Processes



COMPANY PRODUCT BRAND NUMBER

公司产品牌号表示



RB代表让步品
RB Representative Concession

表示铁损保证值P1.7/50(W/KG)的100倍
Represents The Guaranteed Value Of Iron Loss P1 100 Times Of 7/50(W/Kg)

表示一般取向电工钢
Represents General Oriented Electrical Steel

激光刻痕
Laser Notch

公称厚度 (mm) 100倍
Nominal Thickness(Mm)100Times

示例：27KQ120表示公称厚度为0.27mm的一般取向电工钢带(片), 最大铁损保证值P1.7/50(W/KG)不大于1.20W/KG。

Example：27kq120 refers to general oriented electrical steel strip(sheet) with nominal thickness of 0.27mm,and the maximum iron loss guarantee value p1.7/50(w/kg)is not treater than 1.20w/kg.

MAIN PRODUCT BRANDS AND CHARACTERISTICS

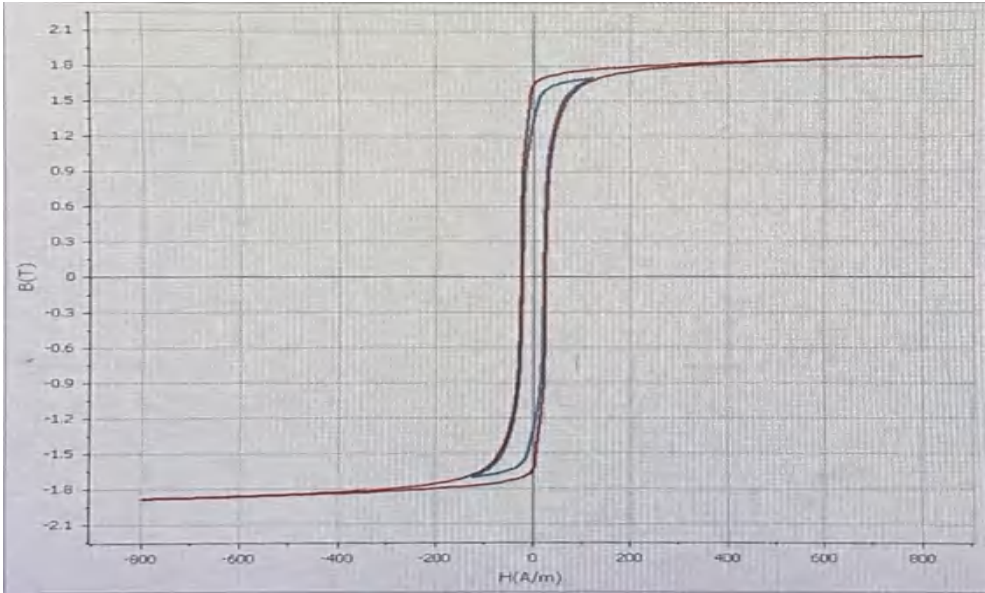
主要产品牌号及特性

普通级取向电工钢带（片）的磁特性和技术特性					
Magnetic and technical characteristics of general-grade oriented electrical strip(sheet)					
牌号 Marks	公称厚度 (mm) Nominal Thickness(mm)	理论密度 (kg/dm³) Theoretical Density (kg/dm³)	最大铁损P17/50 (w/kg) Largest Iron Loss P17/50(w/kg)	最小磁感J800 (T) Minimum Magnetic Induction J800(T)	最小叠装系数 (%) Minimum Stacking Factor(%)
23KQ085	0.23	7.65	0.81	1.87	95
23KQ090	0.23	7.65	0.86	1.87	95
23KQ095	0.23	7.65	0.91	1.87	95
23KQ100	0.23	7.65	0.96	1.86	94.5
23KQ105	0.23	7.65	1.01	1.86	94.5
23KQ110	0.23	7.65	1.06	1.86	94.5
27KQ105	0.27	7.65	1.01	1.86	96
27KQ110	0.27	7.65	1.06	1.86	96
27KQ120	0.27	7.65	1.14	1.86	96
27KQ130	0.27	7.65	1.30	1.80	96
30KQ105	0.3	7.65	1.01	1.86	96
30KQ110	0.3	7.65	1.06	1.86	96
30KQ120	0.3	7.65	1.16	1.86	96
30KQ130	0.3	7.65	1.30	1.80	96

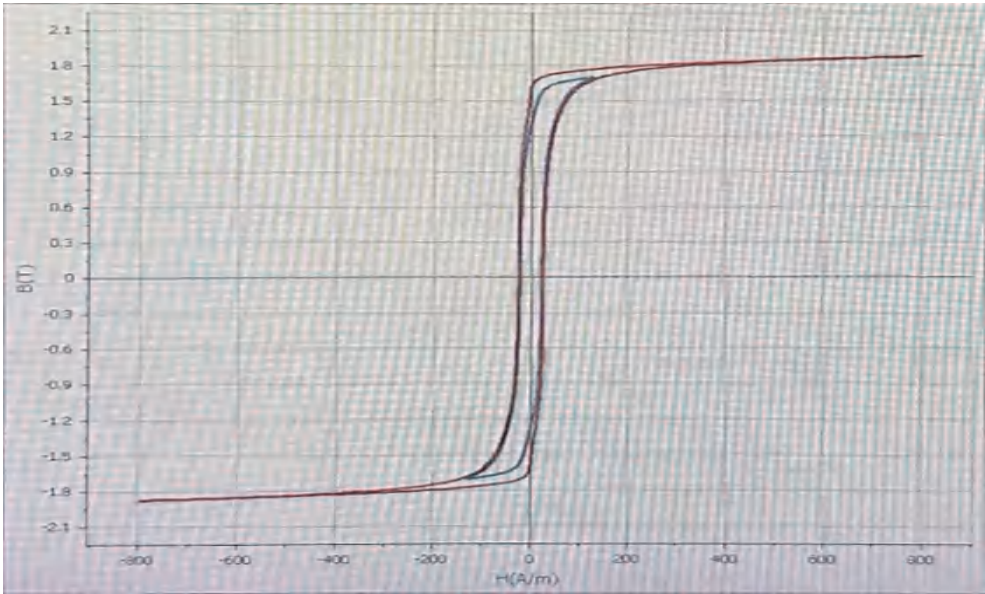
产品宽度、厚度、长度偏差					
Product width,thickness and length deviation					
公称宽度(mm) Nominal Width(mm)	公称厚度 (mm) Nominal Thickness(mm)	厚度偏差 (mm) Thickness Deviation (mm)	宽度偏差 (mm) Width Deviation (mm)	2M内镰刀弯 (mm) Sickle Bend Within 2m(mm)	不平度 (%) Inequality(%)
940-1010	0.23	±0.015	±0.5	≤0.9	≤1.5
940-1010	0.27	±0.015	±0.5	≤0.9	≤1.5
940-1010	0.30	±0.015	±0.5	≤0.9	≤1.5
产品规格、交货重量及执行标准					
Product specifications,delivery weight and execution standard					
产品规格 Product Spexifications	交货重量 Delivery Weight	执行标准 Execution Standard			
厚度0.23mm或者0.27mm×宽度940-1010mm×卷 Thickness 0.23mm or 0.27mm×breadth 940-1010×reel	产品以卷交货、卷重2-5吨 The products are delivered in rolls weighing 2-5 tons	GB/T2521.2-2016			
厚度0.3mm×宽度940-1010mm×卷 Thickness 0.3mm×breadth 940-1010×reel	产品以卷交货、卷重2-5吨 The products are delivered in rolls weighing 2-5 tons	GB/T2521.2-2016			

CHARACTERISTIC CURVE 特性曲线

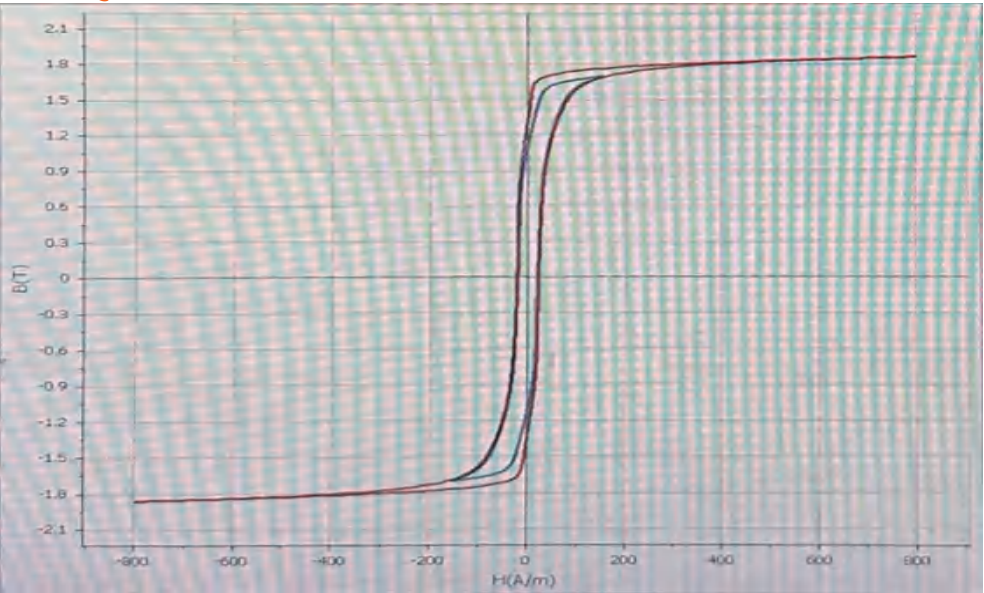
27KQ100铁损曲线图



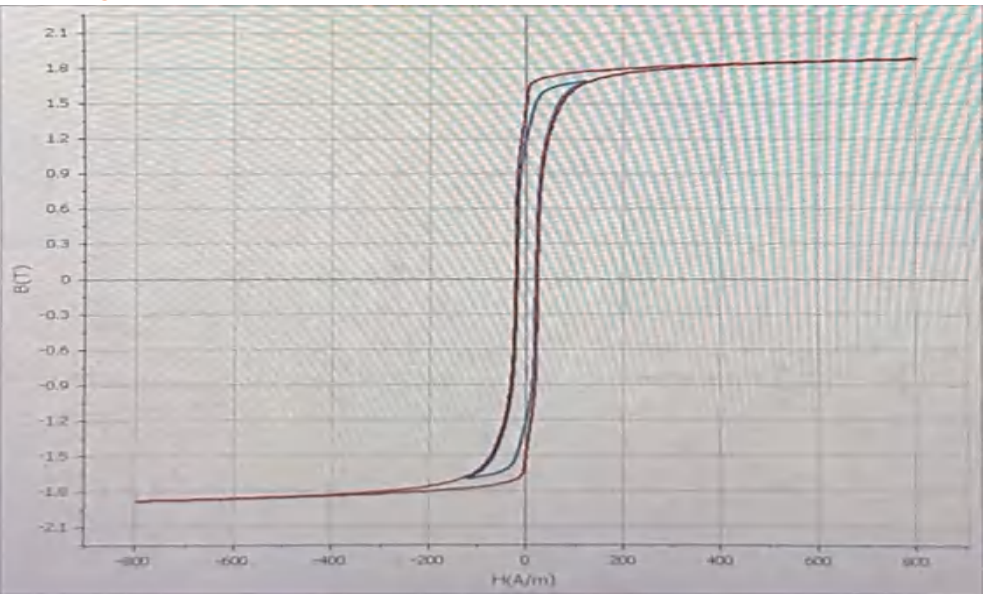
27KQ105铁损曲线图



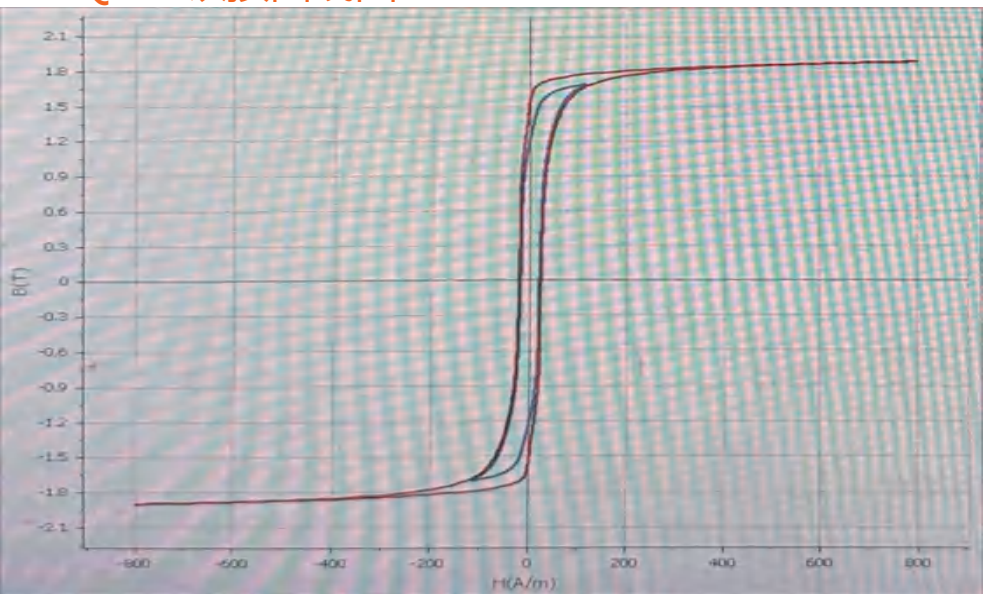
23KQ100铁损曲线图



23KQ095铁损曲线图



23KQ090铁损曲线图



APPLICATION AREA

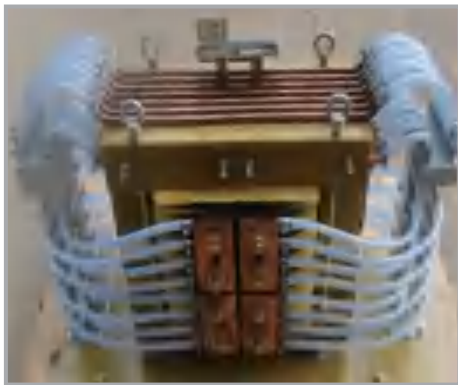
应用领域



大型电机
Large Electrical Machine



大型变压器
Large Transformer



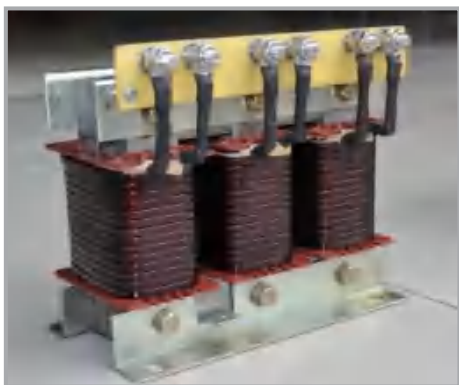
中频变压器
Medium Frequency Transformer



中小型变压器
Medium And Small Size Transformer



分配变压器
Distribution Transformer



电抗器和磁放大器
Reactors And Magnetic Amplifiers



调压器
Voltage Regulator



互感器
Instrument Transformer



充电桩
Charging Station



MAIN EQUIPMENT TECHNOLOGY

主 要 装 备 技 术



20辊轧机



脱碳退火线



涂氧化镁线



高温退火线



拉伸平整，并激光刻痕线



纵剪线

PRODUCT INSPECTION

产 品 检 测 仪 器



氧氮氢分析仪



方圈检测设备



盐雾试验机



干燥炉



氧分仪



高频红外碳硫分析仪



外径千分尺



X射线测厚仪



分析天平



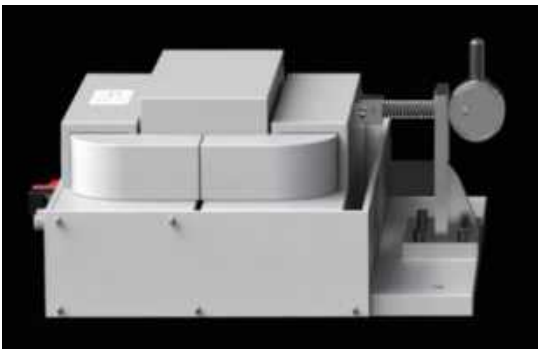
硬度计



露点仪

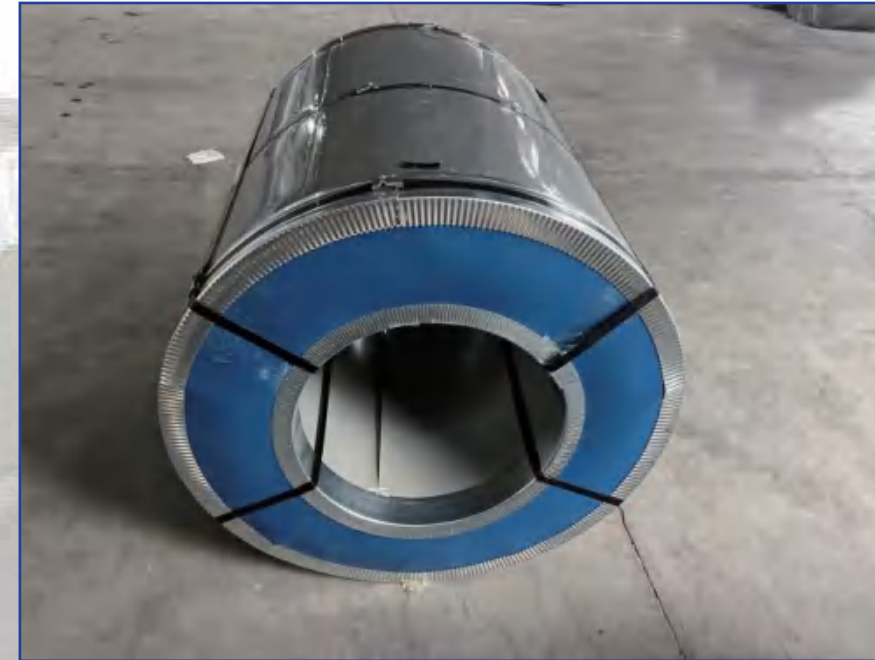


单片测试（有取向）



PRODUCT PACKAGING AND IDENTIFICATION

产 品 包 装 及 标 识

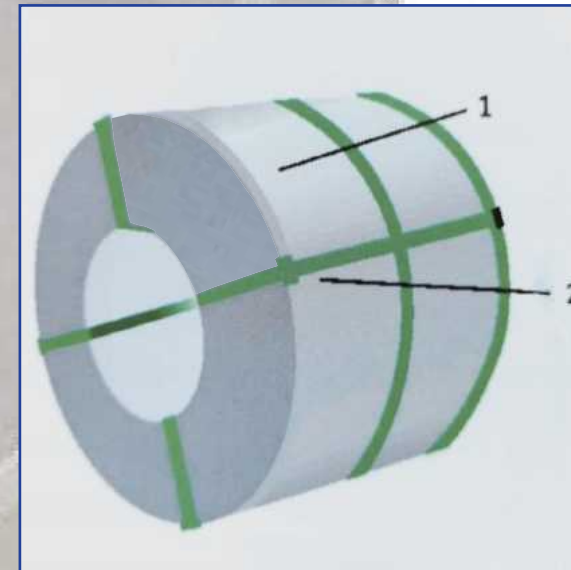


精包装 Lavishly Packaged

特别提示：满足较远客户需求
Special Note: meet the needs of distant customers

- 1.打1道PET
- 2.内、外塑料钢专用防锈纸全封
- 4.塑料薄膜全封
- 5.瓦楞纸内外护板
- 6.内外护角

- 1.One pass of pet
- 2.Inner and outer plastic corner guards
- 3.The inner and outer silicon steel speial antirust paper shall be fully sealed
- 4.Plastic film full seal
- 5.Corrugated paper inner and outer guard board
- 6.Inner and outer corner guards



简易包装 Pre-Packaging

特别提示：满足较近客户需求
Special Note: meet the needs of close customers

- 1.塑料薄膜全封
- 2.防水牛皮纸

- 1.Plastic film full seal
- 2.Waterproof kraft paper



外贸包装 Foreign Trade Packaging

- 1.打1道PET
 - 3.内、外硅钢专用防锈纸全封
 - 5.瓦楞纸内外护板
 - 7.精致木托
- 2.内、外塑料护角
 - 4.塑料薄膜全封
 - 6.内外护角

- 1.One pass of pet
- 2.Inner and outer plastic corner guards
- 3.The inner and outer silicon steel speial antirust papershall be fully sealed
- 4.Plastic film full seal
- 5.Corrugated paper inner and outer guard board
- 6.Inner and outer corner guards
- 7.Exquisite wooden support

CUSTOMER
ORDERING
SERVICE GUIDE

客 户 订 货
服 务 指 南

客户订货须知及提供材料

Customer Ordering Service Guide

客户名称	Customer Name
产品牌号及规格数量	Product Brand Number And Specition Quantity
结算方式	Clearing Form
地址及发货要求	Adress And Shipping Requirements
注明特殊条款	Specify Special Terms
供需双方签订商务合作合同书	Business Contract Signed By Both Parties

温馨提示 Warm Prompt

1.产品成分、性能及规格等执行取向硅钢GB/T2521.2-2016

Product composition performance and specifications of oriented silicon steel (GB/T2521.2-2016)

2.最小订货量及交易周期，由供需双方协商解决

Minimum Order Quantity And Transaction Period Shall Be Negotiated By Both Parties

3.产品包装及标识以本公司发布信息为准

Product Packaging And Labeling Shall Be Subject To The Information By The Company

COOPERATIVE PARTNER

合作伙伴

STRATEGIC PARTNER

战略合作伙伴



山东泰开变压器有限公司



山东泰开箱变有限公司

福州天宇电气有限公司



钱江电气 浙江钱江电气有限公司
QIANTANG RIVER ELECTRIC



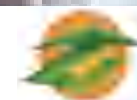
河南许继变压器有限公司



江苏亚威变压器有限公司



河南森源变压器有限公司



山东泰莱电气股份有限公司



江苏瑞恩电气股份有限公司



北京合纵电气股份有限公司



中浦电气 无锡中浦电气有限公司
ZHONGPU ELECTRIC



广东明阳电气股份有限公司