

CHD 华鼎电器

实力 创造未来



扬州华鼎电器有限公司 Yangzhou Huading Wiring Co.,Ltd.

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中国·扬州



扬州华鼎电器有限公司是生产电力变压器、高低压成套设备以及高低压断路器、电网质量治理设备及器件的专业公司，位于国家级扬州高新技术产业开发区，注册资本20000万元。公司先后荣获江苏省质量管理先进单位、江苏省质量诚信企业、江苏省知识产权管理标准化示范单位等荣誉，是国家高新技术企业、江苏省智能配网及低压无功补偿设备工程技术研究中心、江苏省企业技术中心。

Yangzhou Huading Wiring Co., Ltd. is a professional company that produces power transformers, high-low voltage complete sets of equipment, high and low voltage circuit breakers, power grid quality control devices and devices. It is located in the national Yangzhou hi tech Industrial Development Zone, with a registered capital of 200 million yuan. The company has won the advanced units, Jiangsu Province integrity quality management of enterprises in Jiangsu Province, Jiangsu Province, the quality of intellectual property management standardization demonstration units and other honors, is a national high-tech enterprises in Jiangsu Province, intelligent distribution network and low voltage reactive power compensation equipment engineering technology research center, enterprise technology center of Jiangsu province.

公司主要生产S13、SBH15、SCB12系列配电变压器，SZ13、SCZ13系列有载调压变压器，ZGS13系列组合式变压器，S13-M.ZT智能有载调容调压变压器，S13-M(F)/10GZ系列高过载变压器，ZGS13-G(F)系列光伏(风电)美变，YBW□-12系列箱式变电站，KYN28、HXGN-12系列高压开关柜，GGD、GCS、GCK、MNS系列低压开关柜等高低压成套设备，无功补偿装置等。产品广泛应用于国网、南网及铁路、冶金、油田、水利、光伏、风电等行业，深受用户的信赖与支持。

The company mainly produces S13, SBH15, SCB12 series distribution transformers, SZ13, SCZ13 series variable transformers, ZGS13 series instrument transformers and many other transformers. It is also specialized in producing different series of box substation, high voltage switch cabinet and many other low voltage cabinets and SVC such as GDG GCS. GCK, MNS series. These products are widely used in the State Grid, the Southern Power Grid, China railway and metallurgy, oil-field, water conservancy project, photovoltaic, wind power and other industries, and are deeply trusted and supported by users.



公司技术力量雄厚，工艺装备齐全，内部管理严谨。企业通过ISO9001质量管理体系、ISO14001环境管理体系、OHSAS18001职业健康安全管理体系，ISO10012测量管理体系认证。所有产品通过国家级检测中心的检测和国家强制性标准认证，华鼎牌配电变压器荣获江苏省名牌产品称号。

Huangding makes constant efforts in enhancing its technological capacity, improving its technological equipment and strengthening its interior management. The company been certified with ISO9001 quality management system, ISO14001 environmental management system, OHSAS18001 occupational health and safety management system and ISO10012 measurement management system. All the products have passed the national-level inspection and the national compulsory certification. "Hua-ding" brand distribution transformer has been honored as a well-known brand.

公司始终秉承“稳健、诚信、卓越”的核心价值观和“品质、创新”的企业文化，以一流的产品、专业的解决方案、用户至上的宗旨热忱为广大客户服务，努力为我国电力事业发展做出贡献。

The company always adheres to the core values of "stability, integrity, excellence" and the corporate culture of "quality and innovation". Huangding always try to serve the majority of customers enthusiastically with first-class products, professional solutions, the supreme purpose of the user and always makes great efforts to contribute to the development of our country's electric power industry.



车间生产

Production workshop



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营业执照 Business license



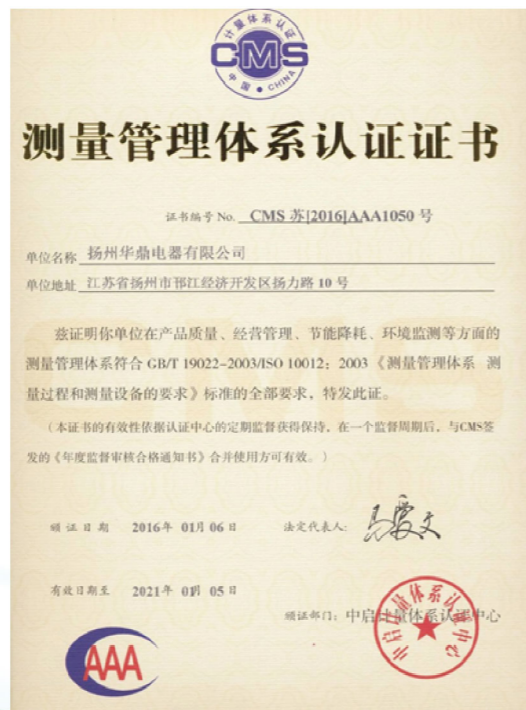
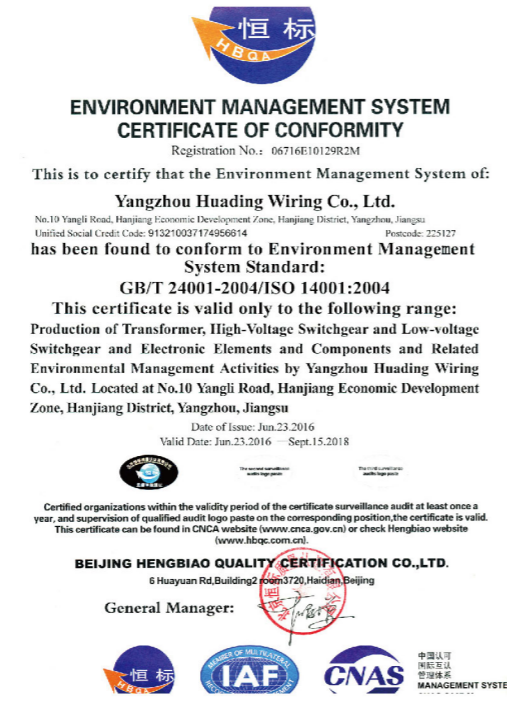
企业信用信息公示系统网址: www.jsgsj.gov.cn:58888/province

中华人民共和国国家工商行政管理总局监制

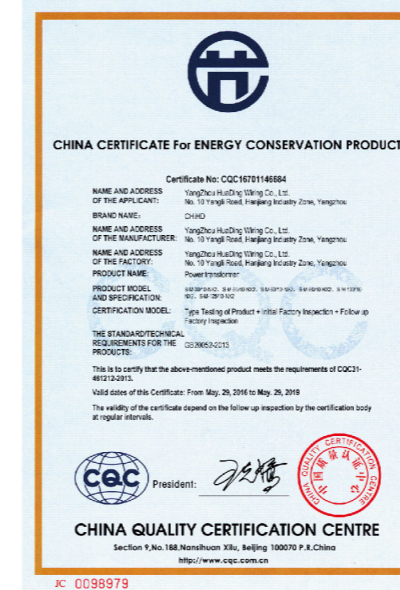
资信等级证书 Creditworthiness certificate



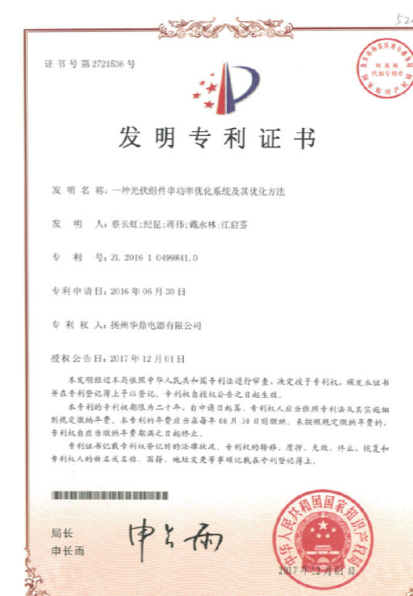
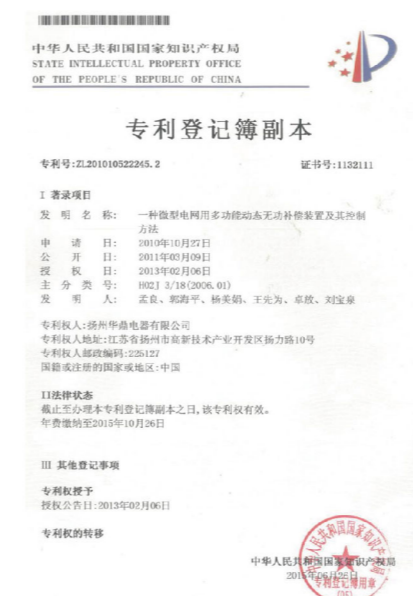
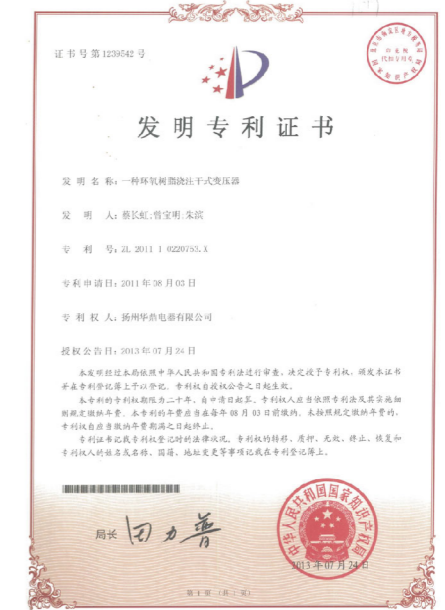
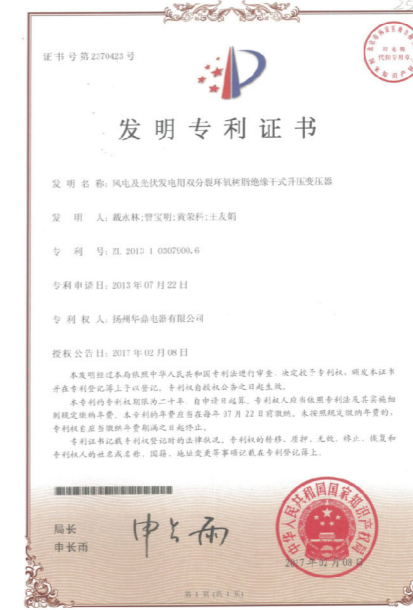
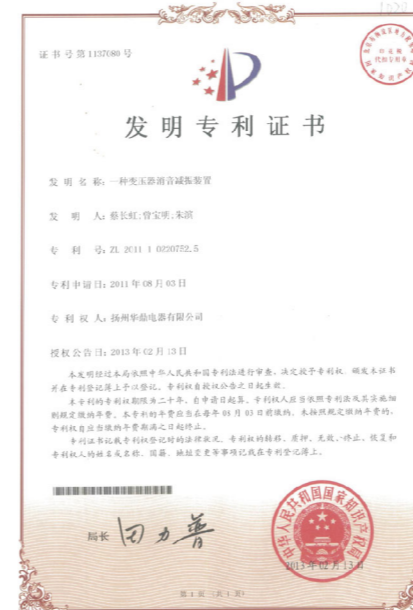
体系认证 System certification



节能证书 Energy saving certificate



发明专利 Patent of invention



试验报告 Test report

MA 2014002878Z CNAS 17020 2014 中国合格评定国家认可委员会

实验室名称: 国家电器产品质量监督检验中心
Lab Name: China National Center for Quality Supervision and Test of Electrical Apparatus Products

No. 14M3083-S

检验 (试验) 报告 Test Report

委托单位: 扬州华鼎电器有限公司
Client:

产品名称: 电力变压器
Name of Product:

产品型号: S13-M-400/10
Product Type:

检验类别: 例行试验、型式试验、特殊试验
Test Category:

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DQJC
国家电器产品质量监督检验中心
检验报告

No. 14M3083-S 共 40 页 第 01 页

委托单位	扬州华鼎电器有限公司	检验类别	例行试验、型式试验、特殊试验
生产单位	扬州华鼎电器有限公司	到样日期	2014 年 08 月 08 日
产品名称	电力变压器	产品型号	S13-M-400/10
生产单位地址	扬州市江都区经济开发区扬力路 10 号	原编号或生产日期	62576
检验日期	2014 年 08 月 10 日至 2014 年 08 月 17 日	送样数量	1 台
检验项目	例行试验 型式试验 声级测定 三相变压器空载损耗测量 空载电流谐波测量 短路承受能力试验	检验依据	GB1094.1-1996 GB1094.2-1996 GB1094.3-2003 GB1094.5-2008 GB/T6451-2008 GB/T1094.10-2003 JB/T10088-2004 委托书要求
检验结论	电力变压器 (型号: S13-M-400/10) 例行试验、型式试验、声级测定、三相变压器空载损耗测量、空载电流谐波测量、短路承受能力试验的试验结果符合标准要求和委托书要求, 样品上述试验合格。		
备注	/		

批准: 李明智 审核: 王慧 编制: 张有亮
2014年08月21日
S111-73014 (11)

MA 2014002878Z CNAS 17020 2014 中国合格评定国家认可委员会

实验室名称: 国家电器产品质量监督检验中心
Lab Name: China National Center for Quality Supervision and Test of Electrical Apparatus Products

No. 17N0696-S

检验 (试验) 报告 Test Report

委托单位: 扬州华鼎电器有限公司
Client:

产品名称: 树脂绝缘干式变压器
Name of Product:

产品型号: SCB12-800/10
Product Type:

检验类别: 例行试验、型式试验、特殊试验
Test Category:

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国家电器产品质量监督检验中心
检验报告

No. 17N0696-S 共 30 页 第 01 页

委托单位	扬州华鼎电器有限公司	检验类别	例行试验、型式试验、特殊试验
生产单位	扬州华鼎电器有限公司	到样日期	2017 年 09 月 27 日
产品名称	树脂绝缘干式变压器	产品型号	SCB12-800/10
生产单位地址	扬州市江都区经济开发区扬力路 10 号	原编号或生产日期	84115
检验日期	2017 年 09 月 29 日至 2017 年 10 月 01 日	送样数量	1 台
检验项目	例行试验 型式试验 声级测定 短路承受能力试验	检验依据	GB1094.1-2013 GB1094.11-2007 GB/T10228-2015 JB/T10088-2004 委托书要求
检验结论	树脂绝缘干式变压器 (型号: SCB12-800/10) 例行试验、型式试验、声级测定、短路承受能力试验的试验结果符合标准要求和委托书要求, 样品上述试验合格。		
备注	/		

批准: 李明智 审核: 王慧 编制: 张有亮
2017年10月11日
S111-6303 (11)

MA 2014002878Z CNAS 17020 2014 中国合格评定国家认可委员会

实验室名称: 国家电器产品质量监督检验中心
Lab Name: China National Center for Quality Supervision and Test of Electrical Apparatus Products

No. 17M0291-S

检验 (试验) 报告 Test Report

委托单位: 扬州华鼎电器有限公司
Client:

产品名称: 有载调容调压变压器
Name of Product:

产品型号: SZ13-M-ZT-400(125)/10
Product Type:

检验类别: 例行试验、型式试验、特殊试验
Test Category:

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国家电器产品质量监督检验中心
检验报告

No. 17M0291-S 共 72 页 第 01 页

委托单位	扬州华鼎电器有限公司	检验类别	例行试验、型式试验、特殊试验
生产单位	扬州华鼎电器有限公司	到样日期	2017 年 03 月 09 日
产品名称	有载调容调压变压器	产品型号	SZ13-M-ZT-400(125)/10
生产单位地址	扬州市江都区经济开发区扬力路 10 号	原编号或生产日期	76450
检验日期	2017 年 03 月 11 日至 2017 年 03 月 21 日	送样数量	1 台
检验项目	例行试验 型式试验 有载调容开关试验 压力变形试验 三相变压器空载损耗测量 空载电流谐波测量 短路承受能力试验	检验依据	GB 1094.1-2013 GB 1094.2-2013 GB 1094.3-2003 GB 1094.5-2008 GB/T 1094.10-2003 GB/T 6451-2015 JB/T 10088-2004 JB/T 10779-2007 委托书要求
检验结论	有载调容调压变压器 (型号: SZ13-M-ZT-400(125)/10) 例行试验、型式试验、有载调容开关试验、压力变形试验、三相变压器空载损耗测量、空载电流谐波测量、短路承受能力试验的试验结果符合标准要求和委托书要求, 样品上述试验合格。		
备注	/		

批准: 李明智 审核: 王慧 编制: 张有亮
2017年03月21日
S111-9801 (11)

MA 2013002838Z CNAS 17020 2013 中国合格评定国家认可委员会

No. AK130053-2018

检验报告 TEST REPORT

样品名称: 立体卷铁心配电变压器
型号规格: S13-M, RL-400/10 400KVA

送检单位: 扬州华鼎电器有限公司
检验类别: 型式试验

国家节能产品质量监督检验中心
National Supervision and Inspection Center for Energy-saving Product Quality

DQJC
国家电器产品质量监督检验中心
检验报告

No. 17N0696-S 共 38 页 第 01 页

委托单位	扬州华鼎电器有限公司	检验类别	例行试验、型式试验、特殊试验
生产单位	扬州华鼎电器有限公司	到样日期	2017 年 09 月 27 日
产品名称	树脂绝缘干式变压器	产品型号	SCB12-800/10
生产单位地址	扬州市江都区经济开发区扬力路 10 号	原编号或生产日期	84115
检验日期	2017 年 09 月 29 日至 2017 年 10 月 01 日	送样数量	1 台
检验项目	例行试验 型式试验 声级测定 短路承受能力试验	检验依据	GB1094.1-2013 GB1094.11-2007 GB/T10228-2015 JB/T10088-2004 委托书要求
检验结论	树脂绝缘干式变压器 (型号: SCB12-800/10) 例行试验、型式试验、声级测定、短路承受能力试验的试验结果符合标准要求和委托书要求, 样品上述试验合格。		
备注	/		

批准: 李明智 审核: 王慧 编制: 张有亮
2017年10月11日
S111-6303 (11)

国网一纸证明 A paper proof of State Grid

MA 2014002878Z CNAS L1020

实验室名称: 国家电器产品质量监督检验中心
Lab Name: China National Center for Quality Supervision and Test of Electrical Apparatus Products

№ 15XB3004-S

检验(试验)报告 Test Report

委托单位: 扬州华鼎电器有限公司
Client:

产品名称: 10kV 箱式变电站(美式)
Name of Product:

产品型号: ZGS13-II-630/10
Product Type:

检验类别: 例行试验、型式试验、特殊试验
Test Category:

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国家电器产品质量监督检验中心
检验报告

№: 15XB3004-S 共 5 页 第 1 页

委托单位	扬州华鼎电器有限公司	检验类别	例行试验、型式试验、特殊试验
生产单位	扬州华鼎电器有限公司	到样日期	2015年01月27日
产品名称	10kV 箱式变电站(美式)	产品型号	ZGS13-II-630/10
生产单位地址	扬州市江都区经济开发区	原购号或生产日期	65765
检验日期	2015年02月13日至 2015年04月20日	送样数量	1台
检验项目	例行试验 型式试验 特殊试验 高压负荷开关额定短路电流开断能力试验 断路器开断能力试验	检验依据	JB/T 10217-2013 GB19941-2013 GB/T 6451-2008 JB/T 10681-2006 委托书要求
检验结论	10kV 箱式变电站(美式)(型号: ZGS13-II-630/10) 例行试验、型式试验、特殊试验、高压负荷开关额定短路电流开断能力试验和断路器开断能力试验结果符合标准要求和委托书要求, 样品上送试验合格。 签发日期: 2015年4月29日 有效期至: 2016年4月29日		
备注			

批准: 董志 审核: 刘永平 校核: 刘永平 编制: 刘永平

MA 2014002878Z CNAS L1020

实验室名称: 国家电器产品质量监督检验中心
Lab Name: China National Center for Quality Supervision and Test of Electrical Apparatus Products

№ 17XB0331-S

检验(试验)报告 Test Report

委托单位: 扬州华鼎电器有限公司
Client:

产品名称: 箱式变电站(欧式)
Name of Product:

产品型号: YBW□-12/0.4-630
Product Type:

检验类别: 型式试验
Test Category:

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国家电器产品质量监督检验中心
检验报告

№: 17XB0331-S 共 5 页 第 1 页

委托单位	扬州华鼎电器有限公司	检验类别	型式试验
生产单位	扬州华鼎电器有限公司	到样日期	2017年07月27日
产品名称	箱式变电站(欧式)	产品型号	YBW□-12/0.4-630
生产单位地址	扬州市江都区经济开发区 扬力路10号	原购号或生产日期	82968
检验日期	2017年09月01日至 2017年09月20日	送样数量	1台
检验项目	出厂试验 例行型式试验 通用的型式试验	检验依据	GB 17467-2010 委托书要求
检验结论	箱式变电站(欧式)(型号: YBW□-12/0.4-630) 出厂试验、例行型式试验、通用的型式试验的试验结果符合标准要求和委托书要求, 样品上送试验合格。 签发日期: 2017年9月20日 有效期至: 2018年9月20日 注: 本实验室对试验结果负责。		
备注			

编制: 董志 校核: 刘永平 审核: 刘永平 批准: 董志

(网省)
国家电网公司集中招标活动
供应商资质能力核实结果证明

扬州华鼎电器有限公司:

根据依法依规组建的资质能力核实委员会核实结果, 我们接受你公司递交的、经核实委员会核实的以下事项结果信息数据, 并保留作进一步核实的权利。

表1 基本信息(商务)

信息事项	基本内容	有效期限	核实机关/机构
企业名称	扬州华鼎电器有限公司	-	-
企业简称	扬州华鼎电器有限公司	-	-
成立时间	2000-09-27	-	-
注册资本(万)	¥20000	-	-
注册地址	扬州市江都区	-	-
生产所在地	江苏省扬州市江都区丁渡镇	-	-
法定代表人	董志	-	-
企业类型	制造业	-	-
单位类型	企业法人	-	-
企业性质	民营企业(股份制)	-	-

企业简介

扬州华鼎电器有限公司是生产变压器及高低压成套设备的专业性公司, 地处扬州市江都区经济开发区, 注册资本20000万元, 现有研发人员27名, 公司在二零零四年以来先后获得扬州市质量管理奖、江苏省质量管理奖、扬州市供用电企业等荣誉, 是国家高新技术企业, 华鼎牌配电压互感器荣获江苏省名牌产品称号, 公司生产的S11-M、S13系列配电压互感器, S13系列组合式金变电压器, S11-M-2T有载调容变压器, S13-10、S13-10系列干式变压器, 及20S11、20S13系列组合式变压器, YBW□-12系列欧式电压互感器等系列产品, 并在江苏、安徽、湖北、浙江等省电网改造中多次中标, 产品同时在中原、江苏等电网及铁路部门广泛使用, 公司通过ISO9001-2008质量管理体系19014:2004环境管理体系认证, 全部产品都通过国家质量监督检验中心或相关国家检测机构检测, 相关产品通过3C强制性认证, 人性化的管理理念, 雄厚的生产研发技术, 先进的制造设备及工艺以及团结、奋进向上的企业精神, 是华鼎以稳健的步伐迈向“争做中国三十五千伏及以下电气设备知名品牌”的坚实基础, 以诚信待人, 以质立企, 华鼎始终关注客户的需求, 关注电力科技的发展, 关注员工的幸福。

经营范围

电气设备和产品的研发和技术服务; 变压器、高低压成套设备、箱式变电站、美式断路器、电器元件的制造、销售、安装及维修; 变压器光伏、风电及其控制系统的销售; 自营和代理各类商品和技术的进出口业务(国家限制或禁止进出口的除外)。(依法须经批准的项目, 经相关部门批准后方可开展经营活动)

营业执照号: 321027000522526 2010年3月28日
营业执照日期: 2017-01-24

表9 生产环境(箱变)

项目	单位	制造厂填写
净化车间2(具体功能)	面积 m ²	1214.39
	温度 °C	15°C-20°C
	相对湿度 %rh	20%-40%
	降尘量 g/m ³ .30天	20

表9 生产环境(箱变)

项目	单位	制造厂填写
厂址总面积	m ²	26721.7
封闭厂房总面积	m ²	8088.15
净化车间总面积	m ²	1944
净化车间1(总装配)	面积 m ²	972
	温度 °C	15°C-20°C
	相对湿度 %rh	20%-40%
	降尘量 g/m ³ .30天	20
净化车间2(具体功能)	面积 m ²	-
	温度 °C	-
	相对湿度 %rh	-
	降尘量 g/m ³ .30天	-

表10 产品产能

产品类型	设计年生产能力(台)
电压等级: 10kV 配变	15000
电压等级: 10kV 箱变	2000

国家电网公司对35千伏及以上变电、输电项目物资(集中批次招标)供应商发放《国家电网公司集中规模招标采购供应商资质能力核实证明》(以下简称《核实证明》), 对10千伏及以下配(农)网项目物资(协议库存招标)供应商发放《国家电网公司集中招标采购活动供应商资质能力核实结果证明函件》(以下简称《证明函件》)。供应商在参与国家电网公司输变电项目变电设备(含电缆)和线路装置性材料招标采购活动时, 应使用《核实证明》; 在参与国家电网公司配(农)网设备材料协议库存招标采购活动时, 应使用《证明函件》。

在参与国家电网公司相应集中招标采购活动时, 请按照招标文件规定, 将最新获取的《核实证明》/《证明函件》复印件(PDF扫描件)输入相应投标文件中。供应商应将变动信息数据单独按本证明表格格式分别进行补充填写, 并在投标文件中连同对应支持证明文件一起提交。《核实证明》/《证明函件》中的业绩数据不满足所投产品资质业绩要求的, 供应商应在投标文件中提供全部业绩支持证明文件。

本《核实证明》/《证明函件》有效期至2018年09月30日。

二〇一七年八月

主要生产设备 Main production equipment

硅钢片纵剪生产线
Silicon steel sheet longitudinal shear production line



BR1-10箔式线圈绕制机
BR1-10 Foil winding machine



主要试验设备 Main test equipment

10kV、35kV变压器综合试验台
10kV、35kV Test room



冲击电压发生器
Impulse voltage generator

变压器类产品 Transformer products

S13-30~1600/10系列三相油浸式配电变压器
Three-phase oil-immersed distribution transformer, series S13-30~1600/10



产品简介:
Product introduction

S13-M系列全密封变压器取消储油柜与吸湿器, 变压器油不与氧气和水分接触, 油体积的变化靠波纹箱波纹片的弹性来补偿, 大大延缓了油与其他绝缘材料的老化, 增强了产品运行的可靠性并延长了变压器使用寿命。

Fully-sealed transformer of series S13-M abandons oil conservator and moisture absorber to realize the separation between oxygen and water, which greatly slows down the aging of insulation materials and increases the product stability and its lifespan, with the changes of oil volume made up by the elasticity of corrugated sheet in the box.

免吊芯该产品器身结构所有紧固件都使用了自锁螺母, 器身四周限位部分与油箱配合紧密, 故能经受长途运输颠簸, 器身不会移位, 因此该产品在投运前无需吊芯检查。

The product is suspended core-free and self-locking nuts are utilized in the whole structure. The space-limited part of the body is closed to the oil tank. As a result, it can withstand the bumping in long distance transportation and the body will not be shifted. As a result, core checking is not inevitable for it before it is put into operation.

免维护全密封式变压器产品采用箱沿与箱盖全密封焊接, 性能优良, 多年使用无需更换, 因而该产品运行中免维护, 用户节约了停机维护的费用。

The machine is free of maintenance. The box edge and the box cover of the fully-sealed voltage transformer are closely welded and it is durable for many years, excellent in performance. As a result, the machine saves maintenance fees for its users because it is free of maintenance.

新工艺该产品在制造中采用了真空注油和不浸漆工艺, 改善了绕组的绝缘和散热性能, 并彻底清除了绝缘材料中的水分, 提高了产品的内在质量。

The machine adopts new craftsmanship such as vacuum oil injection and non-immersion technology. It totally wipes out the moisture in the insulation materials, improving the internal qualities of it.

产品特点:
Characteristics

五阶接缝铁芯结构; 采用波纹油箱或膨胀式散热器;

Iron structure of five stages; corrugated fuel tank or expansion radiator

先进的绕组结构; 变压器油不与外部空气接触。

Advanced winding construction; separation between oil and outer air in the transformer

SBH15-30~630/10系列非晶合金变压器 Amorphous Metal Transformer of series SBH15-30~630/10



产品简介: Product introduction

非晶合金铁芯是用采用新型节能材料——非晶合金带材加工制成。该材料包含铁、硅、硼、碳等金属元素，采用先进的快速急凝固工艺喷制而成，其物理状态表现为金属原子呈无序非晶体排列，与传统的磁性材料相比，具有高饱和磁感，高电阻率，低损耗等特性。

Amorphous alloy core is made of amorphous alloy strip, a new energy saving material. The material contains metal elements such as iron, silicon, boron and carbon and it is made with advanced process of rapid solidification. Physically, it features that the atoms are in disordered amorphous arrangement. Compared with traditional magnetic materials, it is high in magnetism and resistivity but low in wastage.

非晶合金变压器是新一代环保型电力变压器，铁心采用非晶合金材料，高导磁率，超低损耗，变压器空载损耗仅为常规产品的五分之一左右。采用全密封免维护结构，安全节能，可以广泛用于各种配电场所。

The amorphous alloy transformer is a new generation environment-friendly power transformer, whose iron core adopts amorphous alloy material. It is high in permeability but low in dissipation.

产品特点: Characteristics

1、卷铁芯结构，三相五柱式，截面为矩形。

It features coiled iron core, three phases and five columns, whose cross section is in rectangular shape.

2、绕组为矩形，高压采用缩醛漆包线绕制，低压采用铜箔绕制，增加了变压器承受短路的能力。

The winding is in rectangular shape and the high voltage transformer is wounded by polyvinyl lacteal enameled wire while the low voltage is wounded by copper foil, which increases the ability of the transformer to bear electric shortage.

3、变压器联结组采用Dyn11，避免高次谐波影响，耐不平衡负荷能力强，显著提高供电质量。

The transformer coupling group adopts Dyn11 to avoid the influence of high order harmonics and it has a strong ability to withstand unbalanced load, dramatically improving the quality of power supply.

4、变压器采用真空注油，可完全抽除绕组中的气泡，使绝缘性能稳定。

Adopting the technology of vacuum oil injection, the transformer can completely remove the bubble in the winding and keep stable insulation performance.

S13-M.ZT-100(30)~630(200)/10系列有载调容调压变压器 Volume regulating transformer of series S13-M.ZT-100(30) ~ 630(200)/10



{ 产品简介: Product introduction

SZ13-M.ZT系列有载调容调压变压器是我公司与中国电力科学技术研究院联合开发的一种新型节能变压器，该产品采用智能有载调容技术，降低了变压器的空载损耗，具有显著的节能效果。产品适用于季节负荷或昼夜负荷变化较大的农村和城市商业区、工业开发区、居民小区等10KV配电台区和箱式变电站，是智能变配电台区的首选产品，2011年被国家电网公司列入第一批重点推广新技术目录。

Series SZ13 on-load regulating transformer is a new type of energy-saving transformer jointly developed by our company and the China Institute of Electric Power Science and Technology, which adopts intelligent on-load regulating technology, reducing off-load loss. As a result, the product is dramatically efficient in energy-saving. The products are suitable for 10KV radio stations and box substations in rural and urban commercial areas, industrial development zones, residential areas and so on, where the seasonal load or day and night load varies greatly. It is the first choice of the intelligent substation areas, and was listed in the first batch of new technology catalogues released by the national Power Grid Corp in 2011.

{ 产品特点: Characteristics

- 通过降损节能获取良好的经济效益和社会效益;
Economic and social benefits can be obtained by realizing reducing loss and energy saving
- 解决农村现有台区由于季节性负荷变化所造成的“大马拉小车”和严重过载的问题;
The products are expected to solve the existing problem of "cart pulling" and serious overload caused by seasonal load change in the rural areas.
- 代替“母子变压器”，节约投资成本、节省占地面积;
It can take the place of bonding transformer, saving costs and required space.
- 克服了无载调容在停电情况下人工调节的不足;
It overcomes the shortage of manual regulation under the condition of power failure
- 向配电综合管理系统传输各种参数及实时数据，符合智能电网需求。
It transfers various parameters and real-time data to the power distribution integrated management system to meet the requirements of the intelligent power grid.

S13-M.RL-30~1600/10系列三角立体卷铁芯变压器 Triangulated stereoscopically-coiled iron core transformer



产品简介: Product introduction

1、磁路优化

Magnetic circuit optimization

(1) 三维立体卷铁芯层间没有接缝，三相磁路分布均匀，没有接缝处磁通的畸变现象。

There is no seam between the three dimensional core layers, and the distribution of the three phase magnetic circuit is uniform. Besides, there is no distortion of magnetic flux at the joint.

(2) 磁通方向与硅钢片晶体取向完全一致

The direction of magnetic flux is completely consistent with the orientation of silicon steel wafer crystal.

(3) 三相磁路长度完全相等，三相磁路长度之和最短

The length of three magnetic circuits is the same, and the sum of them is the shortest.

(4) 三相磁路完全对称，三相空载电流完全平衡

The three-phase magnetic circuit is completely symmetrical and the three-phase no-load current is completely balanced.

2、损耗低，节电效果显著 The product is low in energy consumption and remarkable in electricity saving.

(1) 在材质相同的前提下，卷铁芯与叠铁芯相比，工艺系数从1.3-1.5之间下降到1.05左右，可使铁芯损耗降低10-20%。

In the premise of the same material, compared with the stacked core, the process coefficient of coiled iron core decreased from 1.3-1.5 to about 1.05, which can reduce the core loss by 10-20%.

(2) 由于特殊的三维立体结构，使铁心的铁轭部分用材量比传统叠片铁芯减少25%，且减少的角重量占铁芯总重约6%。

Because of the unique three-dimensional structure, the amount of material used in the yoke of the iron core is 25% less than that of the traditional laminated core, and the reduced angular weight accounts for about 6% of the total weight of the core.

(3) 对硅钢片的剪切处理会使其导磁性能恶化，而三维立体卷铁芯经高温(800℃)真空充氮退火处理，不仅消除了铁心的机械应力，而且细化了硅钢片的磁畴，提高了硅钢片二次再结晶能力，使硅钢片的性能大大优于其出厂时的性能。

Shearing on the silicon steel plate will deteriorate its magnetic properties and high temperature (800 DEG C) nitrogen vacuum annealing treatment not only eliminates the core mechanical stress of three-dimensional rolled iron but also refines the domain of silicon steel sheet, improving the secondary recrystallization capacity of silicon steel sheet so that the performance of silicon steel sheet is greatly better than the factory performance

(4) 经检测认定，立体卷铁芯变压器的空载损耗较叠铁芯平均降低25-35%，空载电流最高可降低92%。

It has been detected that the no-load loss of the solid coil core transformer is 25%-35% lower than that of the stacked core and the maximum no-load current can be reduced by 92%.

3、噪音低 Low in noise

由于三维立体卷铁芯是将硅钢片条料在专用的铁芯卷绕机上不间断、紧密连续卷制而成，没有接缝，不会产生如叠片式匆忙那样因磁路不连续而发出的噪音。同时，三相磁路、磁通完全对称，工作磁密设计合理，因而产品噪音大大降低。

The three-dimensional rolled iron core is a silicon steel strip material uninterrupted in core winding machine, which is tightly and continuously rolled so that there is no seam between. As a result, it does not produce such discontinuous magnetic noise as laminated rush. At the same time, the three-phase magnetic circuit and magnetic flux is completely symmetrical. The working magnetic density design is reasonable, so the product noise is greatly reduced.

4、过载能力强 Strong in overloading capacity

(1) 产品本身的发热量很低：卷铁芯变压器其空载损耗、空载电流都非常小，产品本身发热量就很小；

The calorific value of the product itself is very low because there is no load loss in the coiled core transformer. As a result, the no-load current is very small and the product itself releases very little heat.

(2) 如图所示，三相线圈呈“品”字形排布，在线圈间形成一条上下贯通的中心天然气道——“抽风烟筒”，由于上下铁轭温差30-40℃，产生强烈的空气对流，冷空气从下面往中心通道补充，热量从上铁轭内斜面辐射出去，自然循环中迅速带走变压器产生的热量。

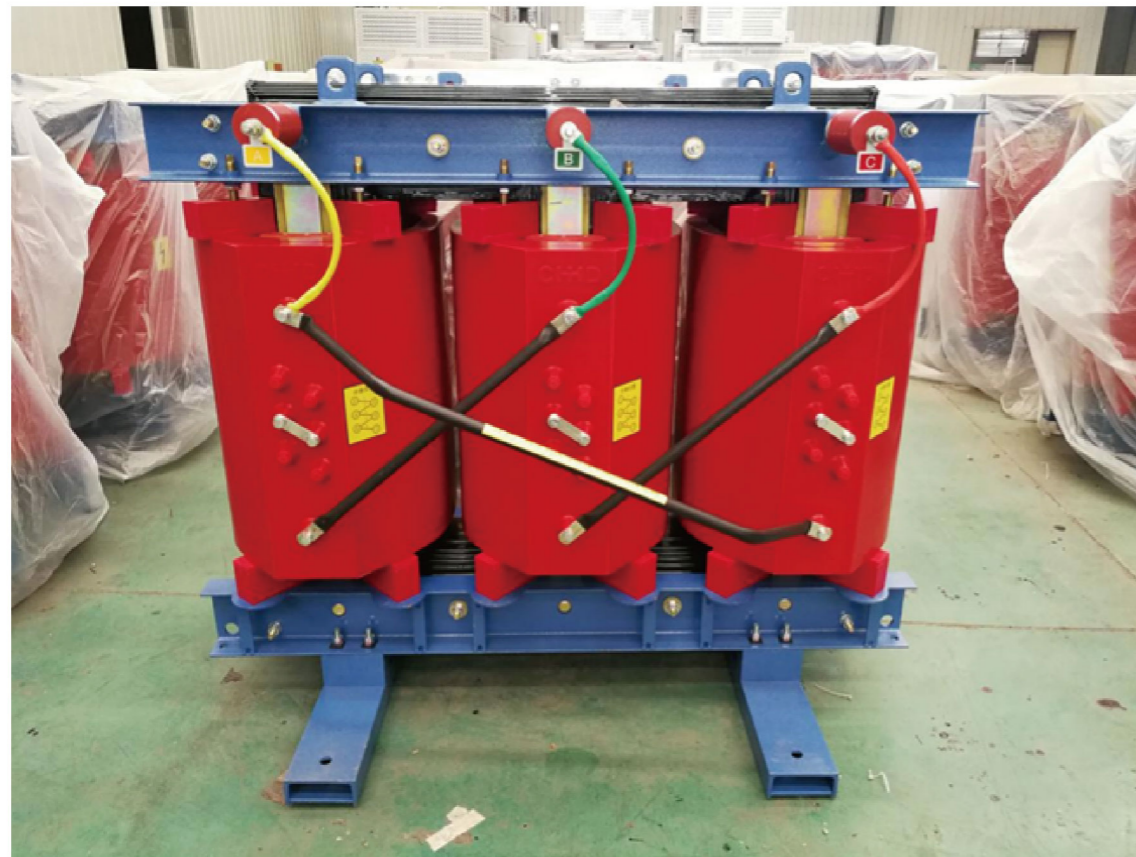
As shown in the diagram, the three-phase coil is arranged in the shape of Chinese character “品” and a central natural gas channel exists between coils, which is the “exhausting pipe”. Due to fact that the temperature gap between the upper and lower iron yoke is 30-40 °C, strong air convection will produced in which the cold air is replenished to the central passage from the bottom while the heat is radiated out from the inner slope of the upper iron yoke, taking away the heat generated by the transformer quickly in the natural circulation.

5、结构紧凑，占地小 Compact and space-saving

特殊的三维立体铁芯使产品结构紧凑、布局合理，器身平面占用面积比传统产品减少10-15%，器身高度降低10-20%，若安装在箱式变电站中可缩小箱体体积近1/4。

The three-dimensional core makes the product compact and reasonable in its lay-out. The area occupied by the plane of the device is 10%-15% less than that of the traditional products and the height of the device is reduced by 10%-20%. If installed in a box substation, it can reduce the volume of the box by nearly a quarter.

SCB12系列环氧浇注干式变压器 Epoxy cast dry transformer of Series SCB12



产品简介: Product introduction

该产品的引进德国P.C.公司的全套技术,包括产品设计、材料选用、生产工艺、模具结构及树脂配方等。公司生产的干式变压器高、低压绕组根据容量不同分别采用H级漆包无氧铜线(315kVA及以下)或铜箔绕制(400kVA及以下),玻璃纤维网布增强,环氧树脂浇注薄绝缘结构。浇注用模具采用镜面不锈钢薄壁膜,凝胶工艺采用自下而上的定向凝胶工艺,有效控制固化后绕组轴向尺寸,脱模后上下端面平整无凹坑,无需打磨、涂漆,表面光洁美观。

The product adopts P.C. full set of technology introduced from Germany, including product design, material selection, production technology, mold structure and resin formulation, etc. The high and low voltage windings of dry transformers produced by the company adopt H-class en-ambled oxygen-free copper wire (315kVA and below) or copper foil winding (400kVA and below) respectively according to their capacity. It also adopts Glass reinforced fiber mesh and epoxy resin cast thin insulation structure. The casting mold adopts a mirror-mirror stainless steel thin wall film and utilizes a bottom-up directional gel process to effectively control the axial dimension of the solidified winding. The upper and lower end surfaces of the de-molding are smooth and free of pits without grinding, which needs no polishing-up, painting and is smooth and esthetic.

树脂及填料由德国Bakelite公司提供,混合料在填料比达饱和区后性能有了较大的改善,如膨胀系数更加匹配铜导线,热容量增加,导热系数提高,阻燃特性好,不会产生沉淀等,提高了产品的防开裂、过载能力和阻燃性。

The resin and filler were supplied by Bakelite Company of Germany and the performance of the mixture was improved greatly after the filler reaches the saturation zone. For example, the expansion coefficient is more matched with copper conductor while the heat capacity is increased and the thermal conductivity is improved. Meanwhile, the flame-retardant property is good and no precipitation will be produced and so on, which improves the product's anti-cracking ability, over-loading capacity and fire retardancy.

我公司环氧树脂真空浇注系统采用外循环式高效薄膜脱气和全电子控制同步驱动的陶瓷计量(计量精度达 $\pm 1g$),且首次采用由伺服电机带动沿浇注罐轴线方向平移浇注接头和旁通阀门接头位置,使用更方便性和灵活性。浇注时树脂和固化剂经过静态混料器进行真空浇注,经过加压浸透→补浇→定向凝胶→倒梯式固化工序完成线圈制造。

The epoxy resin vacuum casting system of our company adopts external cycle efficient film degassing technology and fully measured by electronic control of synchronous drive ceramic metering system(measuring precision of $\pm 1g$). For the first time, servomotor driven by servo motor is used to shift the position of pouring joint and bypass valve door along the axis of pouring tank, which is more convenient and flexible in utilization.

产品特点: Characteristics

低损耗——采用优质的取向硅钢制造铁芯,线圈采用优质的无氧铜材制造,具有低损耗低噪音特点;
The product is low in energy-loss. The coil is made of high quality oxygen-free copper, which is low in loss and noise.

环保型——由于采用环氧树脂和空气作为产品的绝缘介质,没有变压器油可能造成的污染,故属于环保型产品;

The product is environment-friendly because it uses epoxy and air as the insulating medium for the product. Transformer oil is not available in it so it is environmentally friendly.

过负载能力强——绕组采用薄绝缘结构、H级绝缘材料,并配置散热风机加速空气冷却,使产品具有较强的过负载能力。

The product is strong in overloading capacity because the winding utilizes thin insulation structure and H-class insulation materials. It is also equipped with cooling fan to speed up air cooling so that the product has a strong overload capacity.

SCZ13系列有载调压干式变压器 Load regulating dry transformer of Series SCZ13



产品简介: Product introduction

产品采用真空有载调压开关，根据电网电压的波动情况手动或自动调节开关档位，使变压器二次电压保持恒定，确保二次设备可靠运行。

The product adopts the vacuum on-load tap changer, manually or automatically adjusting the switch gear position according to the fluctuation of the grid voltage so that the second voltage of the transformer keeps constant, ensuring the reliable operation of the two equipments.

一、二次电压同为10kV，用于系统联络、控制的隔离变压器。多用于电网容量不足，负荷与供电中心距离过远及电压变化较大引起的电压波动幅度较大的场合。

The primary and secondary voltages are both 10kV, which are used for the isolation transformers for system connection and control. Most of them are used for the lack of power network capacity. The situation where the voltage fluctuation caused by the distance between load and power supply center is too long so the voltage changes greatly.

产品特点: Characteristics

自动、手动有载调压；环保型、维护方便；
Automatic, manual load voltage regulation; environmental protection, easy for maintenance;

节能型低损耗；可带微机测控，实现远方监控功能；
Energy-saving and low in losses; the remote monitoring function can be realized by using microcomputers.

耐热等级为H级，过载能力强。
H-class anti-heating capacity, strong over-loading ability

成套类产品 Complete sets of products

10kV/20kV箱式变电站（美变）：

Box-type substation (American style) of Series 10kV/20kV



产品简介：

Product introduction

我公司采用了先进的技术，自行设计了适用于10kV、20kV电网运行的ZGS、ZFS、ZGSH、ZFSH系列箱式变电站（美式），或称组合式变压器、美式箱变，简称美变。美式箱变具有体积小、全密封、安装操作灵活、运行成本低等特点，既可用于户外又可用于户内，被广泛用于工厂、街道、各种建筑物、居民小区繁华商业中心等场所。

Our company has adopted advanced technology to self-design ZGS-ZFS-series box type substation (American-style transformer, or combination transformer, American-style box transformer). American box substations are small in size, fully sealed, flexible in installing and operations and low in running costs. It can be used both outdoors and indoors, and are widely used in factories, streets and buildings, residential district bustling commercial center and other places.

美式箱变将变压器器身、高压负荷开关、保护熔断器等设备放在油箱中，具有其体积小，结构紧凑；变压器为全绝缘结构，无需绝缘距离，可靠保证人身安全；200A电缆插头可带负荷拔插；可加装避雷器、带电显示器、故障指示器等附件；绕组采用Dyn11接线结构，其突出优点是电压质量高、中性点不漂移、噪音低；组合变压器过载能力强、损耗小、抗短路能力强、防雷性能强；既可用于环网，又可用于终端，转换方便，提高供电可靠性。

The high-voltage load switch, protection fuse and other equipment of American box transformer are put in the fuel tank and it is small in size and compact in structure; Transformer adopts fully-insulated structure and requires no insulation distance, which reliably guarantees personal safety. 200A cable plug can be unplugged with load and can be installed with lightning arresters, live display, fault indicators and other accessories. The winding adopts Dyn11 junction structure, which has the advantages of high voltage quality, no drifting neutral point and low noise. The combination transformer is strong in overloading ability, low in loss, strong in anti-short-circuit ability and strong in lightning protection performance. It can be used not only in the ring network, but also in the terminal, so it is convenient to convert and improve the reliability of power supply.

产品特点：

Characteristics

体积小：过载能力强；双熔丝保护；全封闭、全绝缘；

Small in volume, strong in over-loading capacity, double fuse protection, fully sealed and completely insulated
损耗低：可配置缺相保护；箱体特殊防腐设计、适合恶劣环境

The special anti-corrosion design of the box body is suitable for the stale environment.

12/24kV箱式变电站 (欧式)

Box - type substation (Euro style) of Series 12/24kV



产品简介: Product introduction

YBW□-12/0.4型、YBW□-24/0.4型、YBW□-24/12/0.4户外箱式变电站 (简称欧式箱变)，箱式变电站是一种将高压开关设备、配电变压器和低压配电装置，按一定用电方案集成一体的工厂预制户外紧凑型配电设备，即将高压受电、变压器降压、低压配电等功能有机地组合在一起，安装在一个防潮、防尘、防小动物、防盗、全封闭、可移动的箱体内部。适用于城市公共配电、路灯用电、工矿企业、市区建筑、住宅、山区、宾馆、公园及工地施工等。可实现环网型和终端型供电方式。

YBW □ -12 / 0.4 type , YBW □ -24 / 0.4 type , YBW □ - 24 / 12 / 0.4 outdoor box type substation (simply European box transformer) , the box - type substation is a factory pre-fabricated outdoor compact power distribution equipment with high voltage switch equipment, distribution transformer and low voltage distribution equipment. It is installed in a box body with moisture-proof, dust-proof, anti-small-animal, and anti-theft, totally enclosed and movable box. It is suitable for urban public power distribution, street lamp electricity utilization, industrial and mining enterprises, urban buildings, residences, mountain areas, hotels, parks and construction sites and can realize terminal power supplies.

YBW□-12/0.4型、YBW□-24/0.4型、YBW□-24/12/0.4箱式变在技术上具有结构紧凑、成套性强、运行安全可靠、维修方便、造型美观等特点，能满足城市环网供电要求；在经济上具有占地面积小、移动方便、建设周期短、等良好效果。

The YBW-12/0.4 YBW-24 / 0.4 YBW-24 / 12 / 0.4 boxes variant is technically compact, complete set, safe and reliable. Convenient maintenance, beautiful shape and other characteristics can meet the power supply requirements of urban ring networks. Economically, it is space-saving, convenient in movement, short in construction period and so on.

产品特点: Characteristics

欧式箱变的基本结构分为“品”字型、“目”字型及带走廊和不带走廊布置的。高压配电装置结构：欧式箱变高压配电装置，从进线方式上分为：终端型、环网型两种；从进线方位上可分为：从箱体顶部架空进线（传统箱变用此法较多）和利用高压电缆沟从地下进出线，这是现代设计较为普遍的采用方法；高压计量：高压配电装置中，如用户有高压计量要求的，还须设置高压计量柜。高压室内装有高环网开关设备，可根据用户需要选用压气式，真空式负荷开关，SF6负荷开关，且具有“五防”功能，当采用限流型高压熔断器时，有某相熔断器熔断时，负荷开关自动分闸，避免了因缺相运行而引起故障。

The basic structure of European box change is divided into categories of shape of Chinese character “品” and “目”，ones with or without corridor arrangements.

The high voltage distribution device of European box transformer can be divided into two types: terminal type and return type. It can be divided into two parts from the orientation of the entry line, namely the over-head line from the top of the box (which is more used in the traditional box) and the underground line by using the high-voltage cable trench, which is a popular method in modern design. High voltage metering: high voltage metering cabinet should be set up in the high voltage distribution device if the user has high voltage metering requirement. The high voltage room is equipped with high ring network switchgear, which can be selected as pressure type or vacuum type according to the needs of users. The SF6 load switch has the function of “five precautions”. When the current limiting type high voltage fuse is used, there is a certain phase fuse. The load switch opens automatically to avoid the fault caused by the lack of phase operation.

箱体骨架采用槽钢和角钢焊接而成，具有较高的机械强度。箱体外壳材料可采用不锈钢板、敷铝锌板、铝合金板、优质普通钢板、彩钢板及碳金属环保材料等。外表面经喷涂处理后，有极好的防腐能力，经喷漆着色可与周围环境相协调。

The frame of the box is welded with channel steel and angle steel and it is strong in physical solidarity. The shell material of the box is made of stainless steel plate coated with aluminum zinc plate, aluminum alloy plate and high quality common steel plate. Colored steel plate and carbon metal which is environmentally friendly etc. it is excellent in resisting corrosions and can coordinate with the surrounding environment by painting and coloring.

有良好的隔热通风措施。箱体四周设有上下可通风的风道，并且有加强筋，箱体顶盖可在夹层中含有30-50mm厚的新型阻燃材料制成的隔热层，能有效地防止太阳光辐射。在变压器室顶部装有自动控制的轴流风机，并与外部形成通风，可保证在高温季节变压器能满载运行。

The device is fabulous in heat insulation and ventilation because there is an upper and lower ventilation duct around the box and a reinforced rib. The top cover of the box can be made of a new flame retardant material with a thickness of 30-50 mm in the interlayer. It is equipped with automatic control axial flow fan on the top of the transformer chamber, and forms ventilation with the outside, which can guarantee the transformer to run at full load under the circumstances of high temperatures.

箱体外门锁，采用防雨、防堵、防锈、防盗的专用门锁，外门打开后可定位在开门位置。外门框可安装专用的橡皮嵌条，箱顶四周设有防雨檐，底部电缆进出线口加装了宝塔形橡皮圈，能有效地防雨水、防灰尘、防小动物，保证电气设备可靠运行。

The door lock of the box is rain-proof, blocking-proof, rust-proof and theft-proof. After the outer door is opened, it can be located in the position of opening the door. The outer door frame can be installed with special rubber inlaid bar, and the top of the box has rain-proof eaves on the top. The bottom cable inlet and outlet is equipped with a pagoda rubber band, which can effectively prevent rainwater, dust and small animals, and ensure the reliable operation of electrical equipment.

箱体采用下起吊方式，起吊平稳、可靠。

The box can be lifted from the bottom, which is stable and reliable.

35kV风力/光伏发电用组合式变压器

Combined transformer for wind / photovoltaic power generation of 35kV



{ 产品简介: Product introduction

35kV风力/光伏作为节能能源、清洁无污染能源，目前得到了大家的认可，并大力推广和应用。风力/光伏发电专用组合式变压器（简称美式箱变），是将风力/光伏发电配套升压站预先在工厂内制造、装配成一组成套电器设备。其包括升压变压器、高压负荷开关、高压熔断器、高压避雷器、低压断路器、遥控/测控装置以及电源变压器等辅助设备，配置在一个公用外壳内，并通过了型式试验的一种成套变电站。主要应用于风力/光伏发电场所，作升压变压设备用。光伏美变变压器低压线圈可根据需要，采用双分裂式。

35kV wind power/photovoltaic (PV) has been recognized by everyone and vigorously promoted and applied. The special combined transformer for wind/ photovoltaic power generation (short for American box transformer) is to build and assemble a wind power/photovoltaic auxiliary booster station in a factory and assemble it into a complete set of electrical equipment. It includes step-up transformer, high voltage load switch, high voltage fuse, high voltage surge arrester, low voltage circuit breaker, remote control/measurement and control device, power transformer and other auxiliary equipment. It is equipped in a public enclosure and has passed the type test of a complete substation. It is mainly used in wind power/ photovoltaic power generation stations for pressure variable equipment. The low voltage coil of PV transformer can be divided into two split types according to the user's need.

{ 产品特点: Characteristics

35kV风力/光伏发电专用美式箱变具有体积小，占地面积小，变压器油箱裸露在外，散热效果好，过载能力强，整体密封性、防护等级高。箱体有足够的机械强度，在运输、安装中不会发生变形。外观色彩与环境协调。外壳油漆喷涂均匀，抗暴晒、抗腐蚀、抗风沙，有牢固的附着力，产品的防护等级可达到IP54要求。

The 35kV wind/photovoltaic power generation American box transformer is small in volume, small in footprint, equipped with exposed transformer oil tank, good in heat dissipation, strong in over-loading capacity, high in overall sealing and high in protection level. The box is strong enough and it will not be deformed during transportation and installation. Color accords with the environment. The coating paint is evenly sprayed, anti-explosion, anti-corrosion, anti-sand, and strong in adhesion; high in product protection level can reach IP54 requirements.

35kV风力/光伏发电用箱式变电站

Box type substation for wind power / photovoltaic power generation of 35kV



产品简介:

Product introduction

风力/光伏作为节能能源、清洁无污染能源，目前得到了大家的认可，并大力推广和应用。YBW □-40.5/0.4高压/低压预装式风力/光伏发电用箱式变电站（简称风力/光伏发电欧式箱变），是一种将高压开关设备、升压变压器和低压开关设备、遥控、测控、保护等装置，按电气主接线方案图，组合成一体工厂预制户外紧凑型发电设备。其具有结构紧凑、成套性强、运行安全可靠、维修方便、造型美观、具有占地面积小、移动方便、建设周期短等良好效果。

Wind power/photovoltaic (PV) has been greatly recognized by everyone and vigorously promoted and applied. YBW/40.5/0.4 high/low voltage prefabricated wind/ photovoltaic power generation box type substation (referred to as the wind / photovoltaic power generation European box changes), is a kind of high voltage switchgear, transformer and low voltage switchgear combining remote control, monitoring and protection device, according to the main electrical connection scheme, integrated prefabricated outdoor compact type of power generation equipment. It has the advantages of compact structure, complete set, safe and reliable operation, convenient maintenance, beautiful appearance, small footprint, convenient mobile operation and short construction period.

产品特点:

Characteristics

风力/光伏发电欧式箱变的平面布置可为“品”字型和“目”字型，低压室分带操作走廊和不带操作走廊。具有结构紧凑、成套性强、运行安全可靠、维修方便、造型美观等特点。

The plain arrangement of the wind/photovoltaic generation of the European style can be the in the shape of Chinese character “品” and “目”. The low pressure chamber is with or without operation corridor. It has the characteristics of compact structure, strong complete set, safe and reliable operation, convenient maintenance, beautiful shape and so on.

外壳金属材料可采用普通钢板、热镀锌钢板、敷铝锌钢板、不锈钢板等。外壳油漆喷涂均匀，抗暴晒、抗腐蚀、抗风沙，有牢固的附着力，产品的防护等级可达到IP44要求。高/低压室的防护等级可达到IP54的要求。

Shell metal materials can be made of ordinary steel plate, hot galvanized steel plate, aluminum zinc plate, stainless steel plate, etc. The shell paint is uniform, anti-explosion, anti-corrosion, anti-wind sand and is strong in strong adhesion. The protective grade of the product can meet the requirements of IP44. The protection grade of the high/low pressure chamber can meet the requirements of IP54 as well.

外壳门锁采用具有防雨、防堵、防锈、防盗等功能的专用门锁。

Door lock is rain-proof, blocking proof, corrosion and anti-theft.

可实现远程通信、远程测控、远程控制等功能。

It can realize remote communication, remote measurement and control, remote control and so on.

升压变压器既可选用油浸式变压器，也可采用干式变压器。

The step-up transformer can be either an oil-immersed transformer or a dry-type transformer.

模块化结构强，各个单元更换方便。

The modular structure makes the replacement of each unit is convenient to operate.

KYN□-12/24(Z)型中置柜:
Middle cabinet Type KYN□-12/24(Z)



产品简介:
Product introduction

KYN□-12/24(Z)铠装移开式交流金属封闭开关设备（简称12/24kV中置柜）。它适用于三相交流50Hz电力系统，用于接受和分配电能并对电路实行控制、保护及检测。

Armoured transfer type AC metal closed switch gear Type KYN□-12/24(Z) (Middle cabinet Type KYN-12/24(Z) for short) is suitable for three phase AC 50Hz power system. It is used for power acceptance and distribution as well as circuit control, protection and detection.

适用标准:
Applicable Standard

- GB3906 《3.5KV-40.5KV交流金属封闭开关设备和控制设备》
- GB/T11022 《高压开关设备和控制设备标准的共用技术要求》
- IEC298 《额定电压1KV以上50KV及以下交流金属封闭开关设备和控制设备》
- DL404 《户内交流高压开关柜订货技术条件》
- GB1984 《高压交流断路器》
- GB3906 Metal closed switch gear and control equipment with 3.5KV-40.5KVAC
- GB/T11022 Common technical requirements for high voltage switch gear and control equipment standards
- IEC298 AC metal closed switch gear and control equipment with Rated voltage between 1KV and 50KV
- DL404 Order technical conditions of indoor AC high voltage switch gear
- GB1984 High voltage AC circuit breaker

产品特点:
Features of Product

开关设备按GB3906-2006中的铠装式金属封闭开关设备而设计。整个是由柜体和中置式可抽出部件（即手车）两大部分组成。柜体分四个单独的隔室，外壳防护等级为IP4X，各小室间和断路器室门打开时防护等级为IP2X。具有架空进出线、电缆进出线及其他功能方案，经排列组合后，能成为满足各种要求的配电装置。

Switch gear is designed in accordance with the armoured metal closed switch gear in Type GB3906-2006, which mainly consists of two components including cabinet and intermediate type extractable one (namely hand car). The cabinet has four separate compartments with the shell protection grade IP4X. When the doors of the small rooms and the circuit breakers open, the protection grade is IP2X. It has the overhead line, the cable import and export line and other functions and can satisfy all kinds of distribution devices with combination.

HXGN-12(L) 户内环网柜: Inner ring net cabinet Type HXGN-12(L)



{ 产品简介: Product introduction

HXGN-12(L)型户内交流金属封闭SF6开关设备(以下简称“SF6环网柜”),是新一代以六氟化硫负荷开关作为主开关而整柜采用空气绝缘的、适用于配电自动化的、既紧凑又可扩展的金属封闭开关设备。

Indoor AC metal closed SF6 switch gear Type HXGN-12(L) (Ring net cabinet Type SF6 for short) is a new generation metal closed switch gear with six sulfur fluoride load switch as primary switch and air-insulated cabinet, which is compact and extensible and suitable for distribution automation.

SF6环网柜主要元件为六氟化硫负荷开关及与高压限流式熔断器组合,属可扩展式结构,具有齐全的一次方案,如架空线或进线柜、变压器保护柜、联络柜、计量柜等,能完全满足各种接线要求。

It mainly consists of six sulfur fluoride load switch and high pressure current limiting fuse and belongs to extensible structure. It has a complete scheme, such as overhead line or feeder cabinet, transformer protection cabinet, contact cabinet, metering cabinet and so on and can meet the requirements of all connectivity.

SF6环网柜适用于三相交流额定频率50-60Hz,额定电压12kV环网供电或双辐射供电系统中作为电路的控制和保护装置。广泛应用于工业及民用电网环网及供电末端。

It is suitable for three phase AC with rated rate 50-60Hz, rated voltage 12kV ring network power supply or a control and protection device used as a circuit in a dual radiation power supply system. It is widely used in industrial and civil cable ring network and power supply terminal.

特别适用于小型二次配电站、箱式变电站、开闭所、工矿企业、城市居民小区、机场、铁路、隧道、高层建筑等电力系统中作为接受和分配电能之用。

Especially, it is used as the function of power acceptance and distribution in electric power system of small two times distribution station, box type substation, open and close station, industrial and mining enterprise, urban residential district, airport, railway, tunnel, high rise building and so on.

{ 产品特点: Features of Product

SF6环网柜分母线室、熔断器和电缆室、仪表室,采用金属板隔开成各隔室,各隔室均有可靠接地,环网柜允许靠墙安装,开启前门时电缆的安装、接线应有足够的空间,以及能方便更换或维护熔断器和其它元件。

It has busbar room, fuse and cable room, instrument room with metal plate to block off. Each of them has reliable grounding and the ring cabinet is allowed to be installed by the wall. When the front door is opened, there should be enough space for the cable to be installed and connected to replace or maintain the fuse and other components more conveniently.

SF6环网柜的负荷开关、接地开关、熔断器和前门有以下的机械联锁,达到“五防”要求。

The load switch, grounding switch, fuse and front door of the ring net cabinet Type SF6 have the following mechanical interlocking to meet the requirements of “Five Defense”.

GGD型交流低压配电柜: AC low voltage distribution cabinet Type GGD



产品简介: Product introduction

GGD型交流低压配电柜适用于发电厂、变电所、厂矿企业等电力用户的交流50Hz, 额定电压400V, 配电系统中, 作为动力、照明及配电设备的电能转换、分配与控制作用。

AC low voltage distribution cabinet Type GGD is suitable for power users such as power plants, substations, factories and mines with AC 50Hz, rated voltage 400V. In the power distribution system, it is used as the function of power conversion, distribution and control of power, lighting and distribution equipment.

该产品符合IEC60439《低压成套开关设备和控制设备》, GB7251《低压成套开关设备》等标准。

It meets the standards of IEC60439 Low Voltage Switch gear and Control Equipment and GB7251 Low Voltage Switch Gear and so on.

产品特点: Features of the product

GGD型交流低压配电柜的柜体采用通用柜的形式, 柜架用8MF冷变型钢局部焊接或组装而成, 框架零件及专用配套零件。由本公司生产配套供货, 以保证柜体的精度和质量。通用柜的零部件按模块原理设计, 并有20模的安装孔, 通用系数高。可使工厂实现予生产。既缩短了生产制造周期, 也提高了工作效率。

It adopts the form of general cabinet. The cabinet is partially welded or assembled with 8MF cold variant steel, frame parts and special supporting parts. It is produced and supplied by our company to ensure the accuracy and quality. The parts of the general cabinet are designed with the principle of module, and there are 20 modes of installation holes with high common coefficient to make the factory produce, which not only shorten the production cycle, but also improve the efficiency.

GGD柜设计时充分考虑到柜体运行中的散热问题。在柜体上下两端均有不同数量的散热槽孔, 当柜内电器元件发热时, 热量上升, 通过上端槽孔排出, 而冷风不断地由下端槽孔补充进柜, 使密封的柜体自下而上形成一个自然通风道, 达到散热的目的。

Its design takes the heat dissipation of operation into consideration. So, there are different numbers of heat sink holes at both ends of the cabinet. When the electrical components are heated, the heat rises, and it is discharged through the upper end slot. The cold air is continuously replenish into the cabinet through the lower end slot, so that the sealed cabinet body forms a natural ventilation from bottom to top to dissipate heat.

GGD柜按照现代工业产品造型设计的要求, 采用黄金分割比的方法设计柜体外形和各部分的分割尺寸, 使整柜美观大方。

According to styling design of modern industrial products, it uses the golden section ratio to design the shape of the cabinet and the partition size of each part to make it beautiful and generous.

柜门用转轴式活动铰链与构架相连、安装、拆卸方便。门的折边处均嵌有一根山型橡胶条, 关门时门与柜之间的嵌条一定的压缩行程, 能防止门与柜体直接碰撞, 也提高了门的防护等级。

Connected with shaft type movable hinge and frame, the cabinet door is easy to install and disassemble. There is a mountain type rubber and plastic bar inlaid at the folding edge of the door to ensure some compression stroke between the door and frame when closing it. Thus, the direct collision between the door and cabinet can be avoided and raise the level of protection at the same time.

装有电器元件的仪表门用多股软铜线与框架相连。柜门的安装件与框架间用滚花垫圈连接, 整柜构成完整的接地保护系统。

Equipped with the electrical components, the instrument doors are mostly connected with a plurality of soft copper wire and frame. The installation of the cabinet door is connected to the frame with the floral washer, and the whole cabinet consists of a complete grounding protection system.

柜体的顶盖在需要时可拆除, 便于现场主母线的装配和调整, 柜面的四角装有吊环, 用于起吊和装运。

The top of the cabinet can be dismantled when needed to assemble and adjust the main bus-bar. The four angles of the counter are equipped with the rings for lifting and loading.

柜体的防护等为IP30, 用户可根据使用环境的要求在IP20-IP40之间选择。

The protection degree of the cabinet is IP30 and the user can choose between the IP20-IP40 according to the environment.

GCK型低压抽出式开关柜:

AC Low-voltage Drawer Type Switch gear cabinet Type GCK



产品简介:

Product introduction

GCK低压抽出式开关柜广泛应用于发电厂、变电所、厂矿企业和高层建筑的动力配电中心PC和电动机控制中心MCC，作为交流50~60Hz，额定工作电压为660V及以下，额定电流为6300A及以下的发、供电系统中配电、电动机集中控制、无功补偿使用的低压成套配电装置。

It is widely used in power plant, substation, factory and mining enterprise and high building power distribution center PC and motor control center MCC. It is a low voltage switch gear assembly for distribution, motor centralized control and reactive power compensation for AC 50~60Hz, rated operating voltage of 660V and less than 6300A and below.

产品特点:

Features of the product

本系列产品的基本柜架为组合装配式结构，柜体的全部结构件通过螺钉坚固互相连接成基本框架，再按需要加上门、挡板、隔板、抽屉、安装支架以及母线和电器组件等零件，组装成一台完整的开关柜。

The basic cabinet of this series of products is fabricated structure. The structures of the cabinet are connected to each other with screw and a complete switch gear can add some parts when necessary such as door, baffles, clapboards, drawers, mounting brackets, busbar electrical components and so on.

柜架采用C型钢材，框架及零部件安装孔按模数E=25mm（或20mm）变化，抽屉高度模数标准为200mm，分1/2单元、1单元、1.5单元、2单元、2.5单元、3单元六个系列。

The cabinet is made of C steel and the mounting holes of the frame and parts are changed according to the modulus E=25mm (or 20mm). The module number of drawer height is 200mm, which is divided into six series including 1/2 units, 1 units, 1.5 units, 2 units, 2.5 units and 3 units.

GCS型低压抽出式开关柜

AC Low-voltage Drawer Type Switch gear cabinet Type GCS



{ 产品简介: Introduction

GCS型低压抽出式开关柜(以下简称装置)是两部联合设计组根据行业主管部门、广大电力用户及设计单位的要求设计研制出的符合国情、具有较高技术性能指标、能够适应电力市场发展需要并可与现有引进产品竞争的低压抽出式开关柜。该装置目前已经被电力用户广泛选用。

AC Low-voltage Drawer Type Switch gear cabinet Type GCS (Device for short) is a AC low-voltage drawer type switch gear cabinet with high technical index developed by Two Joint Design Groups based on the industry authorities, the power users and the design units that conforms to the national conditions, market requirements and compete with the existing imported products. It is widely used by power consumers.

装置适用于发电厂、石油、化工、冶金、纺织、高层建筑等行业的配电系统。在大型发电厂、石化系统等自动化程度高,要求与计算机接口的场所,作为三相交流频率为50(60)HZ,额定工作电压为380V(400V、660V)、额定电流为4000A及以下的发、供电系统中的配电、电动机集中控制、无功功率补偿使用的低压成套配电装置。

Device is used for power distribution system in power plants, petroleum, chemical, metallurgical, textile, high-rise buildings. In the place of high degree automation and computer interface like large power plant and petrochemical system, it is the low voltage switch gear for distribution, motor centralized control and reactive power compensation as the power generating and supply system including the three-phase AC frequency of 50 (60) HZ, rated voltage of 380V (400V, 660V), rated current 4000A and below.

{ 产品特点: Features of Product

装置的主构架采用8MF型钢,构架采用拼装和部分焊接两种结构形式。主构架上均有安装模数孔E=20mm。

The main frame of the Device is 8MF type steel and is composed of two kinds of structural forms including assembly and partial welding. The main frame is installed with module hole E=20mm.

装置各功能室严格分开,其隔室主要分为功能单元室、母线室、电缆室;各单元的功能相互独立。

The function rooms are separated strictly. The compartment is divided into functional unit room, bus room and cable room and the functions of each unit are independent.

抽屉层高的模数为160mm。分1/2单元、1单元、1.5单元、2单元、3单元五个尺寸系列。

The modulus height of the drawer is 160mm. It is divided into five dimensions including 1/2 unit, 1 unit, 1.5 unit, 2 unit and 3 unit.

MNS型低压抽出式开关柜

AC Low-voltage Drawer Type Switch gear cabinet Type MNS



产品简介: Introduction

MNS型低压成套开关设备（简称MNS柜）具有结构紧凑、通用性强、模块化设计等特点。能根据客户的要求，选用相应的电器元件，并满足结构性能要求。

AC Low-voltage Drawer Type Switch gear cabinet Type MNS (Cabinet MNS for short) is compact, versatile and designed with modular. It can satisfy the requirements of customers and structural performance with corresponding electrical components.

MNS柜广泛应用于发电厂、铁路、石油、化工、冶金、纺织等厂矿企业和住宅小区、高层建筑等场所，可作为50-60Hz额定工作电压交流660V及以下的配电系统的电能转换和消耗设备控制之用。

It is widely used in power plants, railways, petroleum, chemical, metallurgical, textile, and other factories and mines, and residential and high-rise buildings and the distribution system with 50-60Hz rated working voltage AC 660V and below for power conversion and consumption of equipment control.

产品特点: Features of Product

该产品设计紧凑，以较小的空间容纳较多的功能单元。结构通用性强、组装灵活，以25mm为模数的C型型材能满足各种结构型式、防护等级及使用环境的要求。采用标准模块化设计，分别可组成保护、操作、转换、控制、调节、测量、指示等标准单元，用户可根据需要任意选用组装。

It is compact and accommodates more functional units with smaller spaces. It is versatile and flexible. The C profile with modulus 25mm can meet the requirements of various structural types, protection grades and the use of the environment. The standard modular design can be used to form standard units such as protection, operation, conversion, control, adjustment, measurement, instruction and so on. Users can choose assembly according to their needs.

安全性：大量采用高强度阻燃型工程塑料组件，有效加强防护安全等级。

High Security: A large number of high-strength and flame retardant engineering plastic components are used to effectively strengthen the safety grade of protection.

技术性能高：主要参数均达到国际水平。

High technical performance: The main parameters are all at the international level.

装配方便：标准化程度高，安装快速、方便，不需要特殊复杂工具。

装配可预留自动化接口，也可把智能模块安装在开关柜上，实现“四遥”等功能。

Easy Assembly: High degree of standardization, rapid installation, convenient without any special complex tools. It can reserve automatic interface, and also install the intelligent module on the switch cabinet to achieve the “four remote” and other functions.

10kV柱上变压器台

Transformer station on 10kV column

产品简介: Product introduction

10kV柱上变压器台(又称:10kV配电台区)是根据国家电网公司最新公布的方案要求,按照“标准化台架、模块化组件”的原则,优化整合为1个方案,包含1个台架,4个模块,形成3个组合方案。

According to the latest requirements of the national Power Grid Corp, Transformer station on 10kV column (also known as 10kV radio distribution area) is optimized and integrated into 1 schemes, including 1 platforms, 4 modules, and 3 combinations based on the principle of “standardized platform and modular components”.

10kV柱上三相变压器台典型设计方案编号为“ZA-1”,由1个标准化台架与变压器、熔断器、避雷器、高压引线4个组件模块按最优组合拼接,组合成3个子方案。

The typical design plan of 10kV three-phase transformer stage is ZA-1, which is optimally composed of one standardized platforms and 4 modules, including transformer, fuse, lightning arrester and high voltage lead, which are combined into 3 sub programs.

方案1:变压器侧装、电缆侧面引下对应的子方案编号为“ZA-1-CX”;方案2:变压器侧装、架空绝缘线侧面引下对应的子方案编号为“ZA-1-CX”;方案3:变压器正装、架空绝缘线正面引下对应的子方案编号为“ZA-1-ZX”。

Scenario 1: The corresponding subscheme of the side loading of the transformer and the side of the cable is numbered "ZA-1-CX".

Scenario 2: The corresponding subscheme of the side installation of the transformer and the overhead insulation line is numbered "ZA-1-CX".

Scenario 3: The corresponding subscheme of the positive and overhead insulation line of the transformer is numbered "ZA-1-ZX".



方案ZA-1主要技术原则:10kV侧采用电缆或架空绝缘线引下,低压综合配电箱采用悬挂式安装,进线采用架空绝缘导线或低压单芯电缆,出线采用架空绝缘导线或电缆引出,10kV变压器为1台50kVA~400kVA的组合方案。

Main technical principles of scenario 1: The 10kV uses a combination scheme, which is led by cable or overhead insulated line. Besides, the low-voltage integrated distribution box is suspended installed and the incoming line is used with the overhead line or low voltage single core cable and the overhead line with insulated conductor or cable, turning the 10kV transformer into one between 1 50kVA and 400kVA.

产品特点: Features of Product

1. 变压器选用容量为400kVA及以下,高效节能型变压器,宜采用油浸式、全密封、低损耗油浸式变压器。

The capacity of the transformer is 400kVA and below. It is the high efficiency and energy saving transformer and is suitable for oil immersed, fully sealed and low loss oil consumption.

2. 10kV侧选用跌落式熔断器或封闭型熔断器,10kV避雷器采用金属氧化物避雷器。

The 10kV side uses the fall type fuse or closed fuse and 10kV lightning arrester uses the metal oxide arrester.

3. 低压综合配电箱

Low voltage integrated distribution box

低压综合配电箱外形尺寸按照1350mm×700mm×1200mm(宽×深×高)设计,空间满足400kVA及以下容量配变的1回进线、3回馈线、计量、无功补偿、配电智能终端等功能模块安装要求。对于选用10m等高杆的农村、山区,低压综合配电箱外形尺寸按照800mm×650mm×1200mm设计,空间满足200kVA及以下容量配变的1回进线、2回馈线、计量、无功补偿、配电智能终端等功能模块安装要求。

The overall size of the low voltage integrated distribution box is designed according to 1350mm * 700mm * 1200mm (width * depth * height). The space meets the installation requirements of 400kVA and below including 1 incoming line, 3 feedback line, metering, the reactive power compensation and the distribution intelligent terminal. For the 10m height pole in rural and mountainous area, dimensions of low-voltage integrated distribution box is designed according to 800mm * 650mm * 1200mm. The space meets the installation requirements of 200kVA and below including 1 incoming line, 2 feedback line, metering, the reactive power compensation, and the distribution intelligent terminal.

4. 导线选择

Selection of Conductor

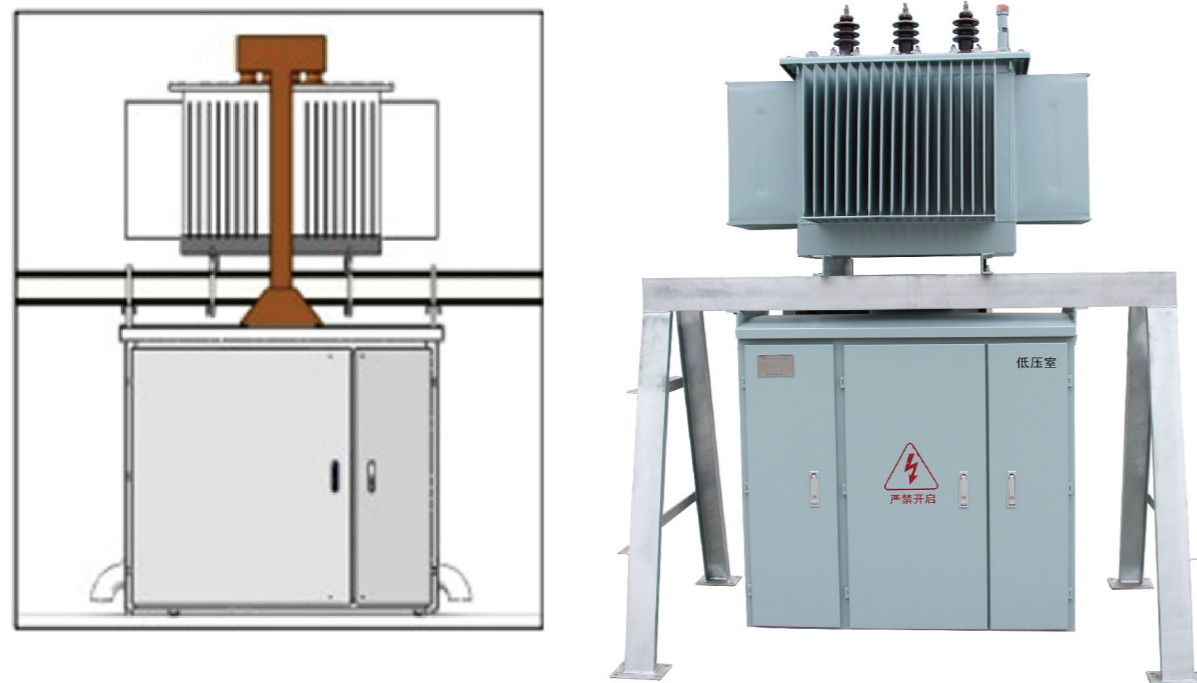
变压器10kV引下线一般选择:YJV-8.7/15-3×35mm²电缆或JKTRYJ-10/35 mm²导线。变压器至低压综合配电箱出线选择:200kVA及以下选用JKTRYJ-1-1×150mm²架空绝缘导线或ZV-YJV-0.6/1kV-1×150mm²单芯电缆;400kVA及以下选用JKTRYJ-1-1×300mm²架空绝缘导线或ZV-YJV-0.6/1kV-1×300mm²单芯电缆;低压综合配电箱出线根据负荷情况设计选定。

The transformer 10kV cable mainly chooses cable of YJV-8.7/15-3 x 35mm² or wire of JKTRYJ-10/35 mm². The choice of transformer to the low-voltage integrated distribution box outlet: 200kVA and below chooses JKTRYJ-1-1 * 150mm² overhead insulated wire or ZV-YJV-0.6/1kV-1 * 150mm² single core cable; 400kVA and below chooses JKTRYJ-1-1 * 300mm² overhead insulated wire or ZV-YJV-0.6/1kV-1 * 300mm² single core cable. The outlet line is selected according to the load condition.

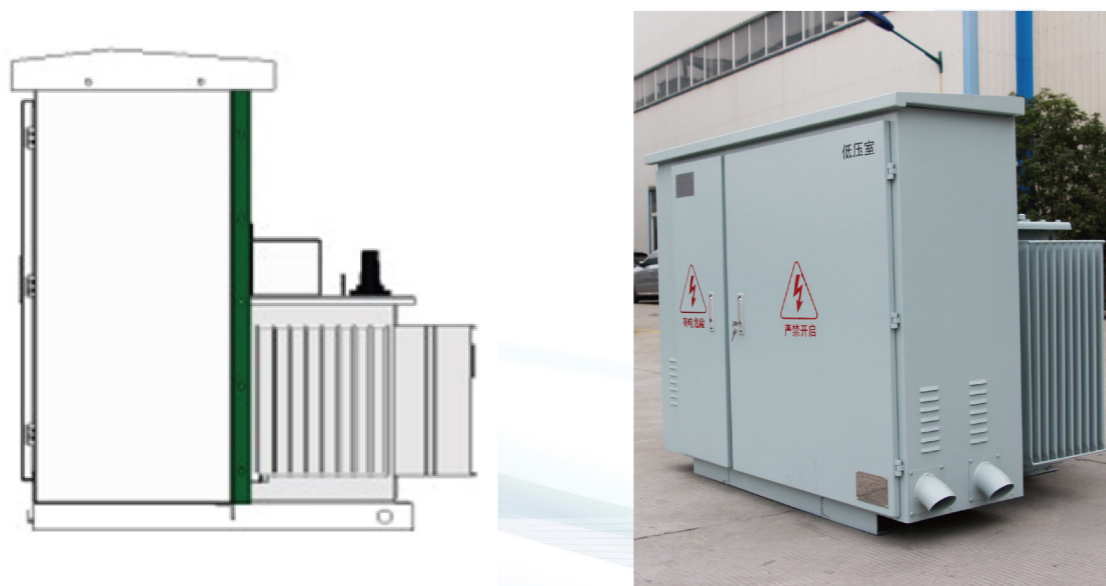
5. 线路金具按“节能型、绝缘型”原则选用,变压器台架承重力按照400kVA变压器及配套综合配电箱重量考虑设计。

The route gold fittings are on the principle of "energy saving and insulation". The gravity of the transformer platform is designed according to the weight of the 400kVA transformer and matching integrated distribution box.

纵向一体化柱上变压器台成套装置： Vertical integrated pole-type transformer



横向一体化柱上变压器台成套装置 Transverse integrated pole-type transformer



产品简介： Introduction

10kV一体化柱上变压器台（又称：10kV一体化配电台区），是根据国家电网公司最新公布的方案要求设计的具有标准化、集成化和智能化的10kV一体化柱上变压器台。

10KV integrated pole-type transformer(also known as 10KV integrated distribution network) is an integrated pole-type transformer with standardization, integration and intelligentization according to the latest announcement of the national Power Grid Corp.

10kV一体化柱上变压器台是指将高压模块、变压器模块、低压配电模块及附件组合为一体式结构的柱上变压器台。根据变压器模块与低压配电模块固定连接方式不同，分为10kV纵向一体化柱上变压器台和10kV横向一体化柱上变压器台。

It is the combination of high voltage module, transformer module, low voltage distribution module and the accessories. According to the different connection modes between the transformer module and the low voltage distribution module, it can be divided into 10kV vertical integrated pole-type transformer and 10kV transverse integrated pole-type transformer.

产品特点： Features of Product

10kV纵向一体化柱上变压器台是指将低压配电模块通过悬挂方式垂直固定在变压器模块下方，组合为一体式结构的柱上变压器台。

10kV vertical integrated pole-type transformer is an integrated structure which the low-voltage distribution module is fixed vertically under the transformer module by suspension.

10kV横向一体化柱上变压器台是指将低压配电模块前后固定为一体式结构的柱上变压器台，低压配电模块与变压器模块之间留有散热通道。

10kV transverse integrated pole-type transformer is an integrated structure fixed by the low voltage distribution module. There is a heat dissipation channel between the low-voltage distribution module and the transformer module.

1. 变压器选用容量为400kVA及以下，高效节能型变压器，宜采用油浸式、全密封、低损耗油浸式变压器。

The capacity of the transformer is 400kVA and below. It is the high efficiency and energy saving transformer and is suitable for oil immersed, fully sealed and low loss oil consumption.

2. 10kV侧选用跌落式熔断器或封闭型熔断器，10kV避雷器采用金属氧化物避雷器。

The 10kV side uses the fall type fuse or closed fuse and 10kV lightning arrester uses the metal oxide arrester .

3. 低压综合配电箱

3.1 纵向一体化柱上变压器台所用低压综合配电箱，满足1回进线、2回馈线、计量、无功补偿（100kVA及以下变压器模块不配置）、配电智能终端等功能模块安装要求，其中，100kVA（50kVA）综合配电箱外形尺寸按照1000mm×650mm×700mm（宽×深×高）设计。400kVA（200kVA）综合配电箱外形尺寸按照1350mm×700mm×1200mm（宽×深×高）设计。综合配电箱可采用绝缘母线系统结构，外壳选用304不锈钢材料。

The low voltage integrated distribution box of vertical integrated pole-type transformer meets functional module installation requirements including 1 incoming line, 2 feedback line, metering, reactive power compensation (100kVA and below transformer module is not configured) and distribution intelligent terminal, in which the size of 100kVA (50kVA) integrated distribution box is designed with 1000mm x 650mm x 700mm (width * depth * height), the size of 400kVA (200kVA) integrated distribution box is designed with 1350mm x 700mm x 1200mm (width * depth * height). The integrated distribution box uses the insulation busbar system and the outer covering uses 304 stainless steel material.

3.2 横向一体化柱上变压器台所用低压综合配电箱，满足1回进线、2回馈线、计量、无功补偿（100kVA及以下变压器模块不配置）、配电智能终端等功能模块安装要求，其中，100kVA（50kVA）综合配电箱外形尺寸按照1000mm×500mm×900mm（宽×深×高）设计。400kVA（200kVA）综合配电箱外形尺寸按照1550mm×500mm×1200mm（宽×深×高）设计。综合配电箱可采用绝缘母线系统结构，外壳选用304不锈钢材料。

The low voltage integrated distribution box of transverse integrated pole-type transformer meets functional module installation requirements including 1 incoming line, 2 feedback line, metering, reactive power compensation (100kVA and below transformer module is not configured) and distribution intelligent terminal, in which the size of 100kVA (50kVA) integrated distribution box is designed with 1000mm x 500mm x 900mm (width * depth * height), the size of 400kVA (200kVA) integrated distribution box is designed with 1550mm x 500mm x 1200mm (width * depth * height). The integrated distribution box uses the insulation busbar system and the outer covering uses 304 stainless steel material.

4. 线路金具按“节能型、绝缘型”原则选用，变压器台架承重力按照400kVA变压器及配套综合配电箱重量考虑设计。

The route gold fittings are on the principle of "energy saving and insulation". The gravity of the transformer platform is designed according to the weight of the 400kVA transformer and matching integrated distribution box.



win-win cooperation

CHD

Service commitment

Our company promises for product quality warranty period from the contract goods through the acceptance and put into operation after 24 months. With any product quality problems, our company will be responsible for repair and replacement for free. In the case of equipment damage caused by the liability of non - our company, our company will have the priority to provide the obligation of spare parts and repair. If the equipment is found to have any defects, our company will complete free replacement or maintenance within 24 hours after receiving the notification of the user. Our company provides full life cycle service for our customers.