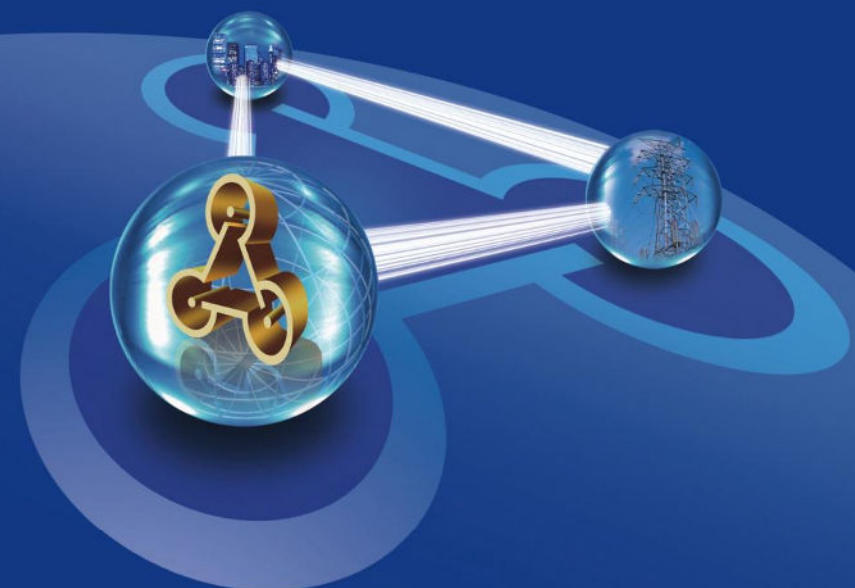




大族能源

三维立体卷铁心节能
变压器技术手册



江西大族能源科技股份有限公司

JIANGXI HAN'S POWER TECHNOLOGY CORP.,LTD

NO. 8528601

- 地址: 江西省南昌市国家高新开发区高新七路918号
- 邮编: 330096
- 电话: 0791-88161086 0791-88161206
- 传真: 0791-88161022 0791-88161087
- 网址: <http://www.hanspower.com>
- 邮箱: sales@hanspower.com
- Add: No.918,Seven Road,High-Tech Zone,NanChang, Jiang Xi,P.R.China
- Sales: Hotline:86-791-88161206 88161086 88160962
- Fax:86-791-88161087 88161022

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江西大族能源科技股份有限公司
JIANGXI HAN'S POWER TECHNOLOGY CORP.,LTD
(原江西大族电源科技有限公司)

关于大族

About Han's

江西大族能源科技股份有限公司（股票名称：大族能源，股票代码：831018）座落于江西省南昌市国家高新技术产业开发区，是一家集科研、设计、生产、销售及技术服务为一体、专业生产节能配电设备的国家级高新技术企业。

为响应国家建设节约型社会的号召，公司始终将高效、节能、环保作为企业发展的核心理念，不断加大对新产品、新技术、新工艺、新材料的研发投入，致力于发展成中低压节能配电一站式的综合服务公司。在国家发改委、中国社科院、省市区政府等相关单位的大力支持下，公司被评为节能中国先进单位、省级企业技术中心、守合同重信用AAA单位，并通过ISO 9001国际质量体系认证、ISO14001国际环境管理体系认证、OHSAS 18001职业健康安全管理体系认证。

公司拥有先进的设备和雄厚的科研实力，世界首创“三维立体卷铁心变压器”，配套生产高低压开关柜及元器件，至今已取得数十项国家专利（其中发明专利2项）。三维立体卷铁心变压器已通过中国节能产品认证及国家权威机构的检测认定，被列入国家重点新产品、国家火炬计划项目、全国十大重点节能工程。

公司拥有完善的销售与服务体系，建立了覆盖国内外的庞大营销网络，为客户提供全面的售前、售中、售后服务。在国家电网的城/农网改造、国内五大发电集团、石油化工、冶金矿业、交通通讯、军事航天及政府重点工程项目中，大族能源以其产品的优越节能特性获得了市场的高度认可。

大族能源将秉承“创民族品牌、立百年基业”的企业使命，开拓创新，立足科技，致力未来。



一流的科技大楼
First-class Technology Building



中国变压器行业院士
朱英浩先生来我公司指导工作
The exclusive Station Academician in Chinese
transformer industry Mr. yinghao Zhu visits and guides us



现代化生产车间
Modern Production Workshop

Jiangxi Han's Power Technology Co., Ltd., located in the Hi-tech development zone, Nanchang, Jiangxi (stock name: Han's Power; stock code: 831018), is a national high and new technology development company that specializes in the production of energy-efficient distribution and substation equipment and integrates R&D, design, production, sales and technical service.

In response to the national call of construction of a resource-conserving society, our company takes high efficiency, energy conservation and environmental protection as the core philosophy of enterprise development and constantly improves investment in development of new products, new technologies, new processes and new materials, devoted to be a company that provides one-stop service of low- and medium-voltage energy efficient power distribution. With support from the National Development and Reform Commission (NDRC), Chinese Academy of Social Sciences (CASS), and other related units of provincial, municipal and regional governments, we were selected as the Chinese advanced unit of energy conservation, technical center of Jiangxi Province, and unit with A level credit, and passed certification of the ISO9001 quality management system, ISO14001 environmental management system, and OHSAS 18001 occupational health and safety management systems.

Backed by our advanced equipment and strong R&D ability, we invent the "3D wound core transformer" and produce the high- and low-voltage switch cabinet and component to accompany with the transformer. So far, we have won more than ten national patents (including 2 invention patents). 3D wound core transformer has been certified by China Certification Center for Energy Conservation Product and recognized by national authoritative organizations, listed into the National Key New Product, China's Torch Program, and ten key energy conservation projects.

We own an outstanding sales and service system and establish a huge marketing network covering market both at home and abroad, which enable us to provide comprehensive service for our customers throughout the sales process. In such sectors as power generation, petrochemistry, metallurgical mining, transportation, telecommunications, and military space, as well as government key projects such as urban and rural grid reconstruction program, Han's transformer product is highly recognized for its superior characteristics of energy efficiency.

Han's Power will adhere to the mission of "Create National Brands, Establish Eternal Career", keeping blazing new trails for the future by utilizing science and technology.

科技创新 卓越品质

Innovative Technology, Excellent Quality

江西大族能源科技股份有限公司注重产品品质、严格执行ISO9001国际质量管理体系标准，每道工序严格把关，“科技创新，卓越品质”是我们始终追求的目标。大族公司拥有庞大的专业技术人员，雄厚的研发实力，产品拥有多项国家专利，先进的生产制造设备为高品质的产品提供了有力保障。

Jiangxi Han's Power Technology Corp., Ltd focus on quality, carry out according to International Quality Management System Standard of ISO9001 strictly, control every process and our invariable target is "Innovative Technology, Excellent Quality". We have a large professional and technical staff, strong research and development ability, honored many national patents. Owned top quality ensured by our advanced production equipments.



VPI真空压力浸渍设备
VPI Vacuum Pressure Dipping Equipment



程控纵剪生产线
Programm-controlled Slitting Line



数控非圆生产线
Digital-controlled Irregularly
Cutting Line



数控真空退火设备
Digital-controlled Vacuum
Annealing Equipment



数控热循环固化设备
Digital-controlled Heat Cycle
Solidifying Equipment



数控真空浇注设备
Digital-controlled Vacuum
Casting Equipment

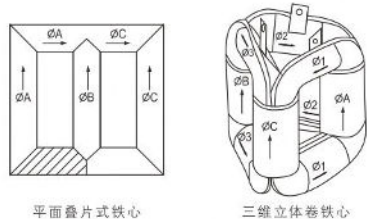
产品性能优势
Special Advantages of product

世界首创“三维立体卷铁心干式变压器”，创造性地改革了传统三相变压器的平面磁路结构，结构新颖独特，性能先进，获得多项国家专利。除具有传统产品的所有特点外，还具有以下独特的优点：

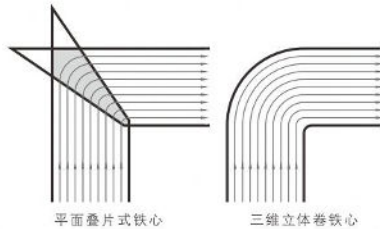
- 1 铁心无缝一次卷绕而成，心柱截面呈纯圆形，填充系数超过99%，优化设计参数好；
 - 2 三相磁路完全对称，长度最短且相等，三相空载电流完全平衡，不产生三次谐波；
 - 3 三相磁路无缝隙，且磁通方向与硅钢片晶体取向完全一致，大幅度降低了产品的空载损耗、空载电流和噪音；
 - 4 特殊的三维立体结构使产品具有“抽风烟囱”般的自然循环风散热效果，承受热冲击性能极好；
 - 5 机械自动化程度高，人为参与少，产品质量稳定；
 - 6 结构紧凑，占用面积小，节省安装空间，安装维护方便；
 - 7 抗酸碱、防霉防潮、局放低，电气性能稳定，具有良好的抗短路能力；
 - 8 运行成本低，性价比优良，经济效益显著。
- 1 Iron core One-time winding and seamless, the section is round; the filling factor is above 99%. The design parameters are fully optimized;
 - 2 Three phase magnetic circuit symmetry, has shortest and identical length; perfectly balanced in three phase no-load current, no third harmonic wave;
 - 3 The three phase magnetic circuit is seamless, the magnetic direction of the silicon steel completely consistent with sheet crystal orientation, no-load loss, no-load current and lowest noise;
 - 4 Unique 3D structure make "Chimney effect", good heat shock withstand performance;
 - 5 High mechanism automation degree, Few human participation and stable product quality;
 - 6 Compact product structure, small size, save installation space, convenient maintenance;
 - 7 Good acid and alkali resistant, fire and damp-proofing, low partial discharge, stable electric performance, good ability in resisting short circuit;
 - 8 Low operation cost, effective cost, remarkable economic benefits.



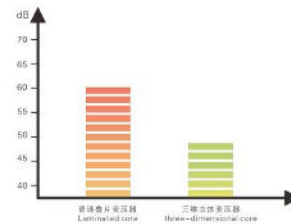
铁心外形图比较 / Core contour map



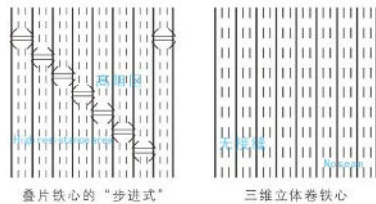
角位图比较 / Angle bitmap comparison



噪声图比较 / The noise figure to compare

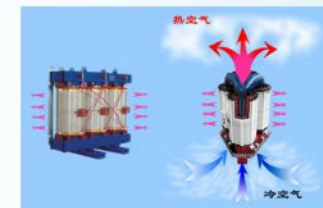


磁通分布图对比 / Magnetic flux distribution of contrast

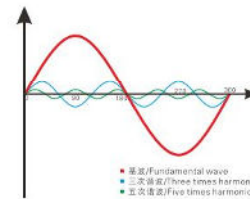


- 三相磁路完全对称，且长度完全相等。
- 三相磁路无缝隙，磁通方向与硅钢片晶体取向完全一致。
- 三相磁通分布均匀，无明显高阻区，大幅降低空载损耗及空载电流。
- Phase magnetic circuit is completely symmetrical, and the length exactly equal.
- Seamless phase magnetic circuit, the magnetic flux and the silicon Crystals in the same direction.
- Three-phase magnetic flux are uniform distribution, no obvious high resistance region, no-load loss and no-load current.

散热图比较 / The cooling figure to compare



谐波示意图 / Harmonic map



- 磁路连贯，卷制紧密，工作磁密低，降噪15-20dB。
- 三条心柱形成“自然抽风”散热器，运行温升低。
- 波形好，不产生三次谐波，改善功率因素，提高供电质量。
- Magnetic circuit coherent, tightly rolled, the flux density is low, reduce noise 15-20dB.
- Three iron columns form a "natural pull wind" radiator, lower operating temperature.
- Better waveform, no the third harmonic, improve the power factor, improve the quality of power supply.

三维立体卷铁心干式变压器
3D Cubic Roll Iron Core Dry-type Transformer

SGB型号说明 / SGB Product Type

SGB□-RL-□/□



SGB技术规范 / SGB Transformer Technical Specification

产品类型为用户内、三相、双绕组、非包封型 (SGB) 节能型干式变压器

Indoor, Three phase, Double winding, Non-envelop (SGB) energy-conservation Dry-type Transformer

- 执行标准 (Executive standard) : GB1094.11-2007、GB/T10228-2008
- 电压等级 (Voltage Class) : 6-35kV
- 容量范围 (Capacity Range) : 30-3150kVA
- 额定频率 (Rated frequency) : 50Hz
- 联结组标号 (Combination symbol) : Dyn11、Yyn0或其它 (Dyn11、Yyn0 or others)
- 调压方式 (Voltage Regulation Mode) : 无励磁或有载调压 (No-load / On-load changer)
- 绝缘水平 (Insulation Level) : LI75 AC35/AC5
- 允许温升 (Temperature Rise) : 125K
- 局放水平 (Partial discharge Level) : ≤5pC
- 冷却方式 (Cooling Type) : AN/AF

SGB型号特点 / SGB Characters

- 采用三维立体卷铁心，三相平衡，不产生三次谐波，节能效果显著
- 采用H级绝缘系统，主绝缘为C级的NOMEX®纸，耐热、阻燃性能好，防火等级高
- 高压绕组采用饼式结构，低压绕组采用箔式结构，绕组端部漏抗小，抗短路能力强
- 产品发热低、散热条件好且绝缘耐热等级高，使产品允许长期过载20%运行，器身整体经二次真空压力浸漆及固化，使产品防潮防腐，局放小，安全可靠
- 产品寿命期后容易分解，不污染环境
- With adoption of 3D cubic roll iron core, three-phase magnetic circuit symmetry, no harmonic wave and energy-conservation
- Adopt H class insulation system, C class of NOMEX® paper, heat resistant, good flame retardant, high fireproof level
- Pie-type coil in High-voltage, foil-type coil in Low-voltage
- Perfect heat emission and high insulation class, the transformer can run 20% over-load
Via second dipping in lacquer under vacuum pressure, damp proof, antiseptis, low partial discharge, safe and reliable
- Easy to decomposed, environmental protection

三维立体卷铁心干式变压器
3D Cubic Roll Iron Core Dry-type Transformer

SGB11、SGB10系列技术参数表 / SGB11、SGB10 Technology Parameter Table

| 额定容量 Rated Capacity kVA | 电压组合 Voltage Combination | | | 联结组 标号 Connection Symbol | 空载损耗 No-load Loss W | | 负载损耗 load Loss W | | 空载 电流 No-load Current % | 短路阻抗 Short Circuit Impedance % | 噪声 (LPA) Noise (LPA) dB | 重量 Weight kg | | | | | | | |
|-------------------------------|-----------------------------|------------------------------|------------------|-----------------------------------|---------------------------|--------|------------------------|-------|-------------------------------------|--|-------------------------------------|--------------------|-------|------|-------|-------|------|----|------|
| | 高压 H.V. kV | 高压分接范围 Tapping Range % | 低压 L.V. kV | | 75℃ | 145℃ | 75℃ | 145℃ | | | | | | | | | | | |
| 100 | 6 | ±5 或 ±2×2.5 | 0.4 | Dyn11 | 11型 | 10型 | 75℃ | 145℃ | 0.6 | 4 | 45 | 650 | | | | | | | |
| 125 | | | | | 340 | 380 | 1300 | 1600 | | | | | 45 | 700 | | | | | |
| 160 | | | | | 460 | 510 | 1770 | 2170 | | | | | 45 | 850 | | | | | |
| 200 | | | | | 520 | 590 | 2100 | 2570 | | | | | 45 | 950 | | | | | |
| 250 | | | | | 610 | 680 | 2290 | 2810 | | | | | 45 | 1100 | | | | | |
| 315 | | | | | 750 | 840 | 2880 | 3530 | | | | | 45 | 1220 | | | | | |
| 400 | | | | | 840 | 930 | 3310 | 4060 | | | | | 46 | 1420 | | | | | |
| 500 | | | | | 990 | 1100 | 4050 | 4960 | | | | | 46 | 1585 | | | | | |
| 630 | | | | | 1140 | 1270 | 4880 | 5980 | | | | | 48 | 1800 | | | | | |
| 830 | | | | | 1110 | 1240 | 4950 | 6080 | | | | | 48 | 1735 | | | | | |
| 800 | | | | | 1300 | 1440 | 5780 | 7080 | | | | | 50 | 2050 | | | | | |
| 1000 | | | | | 10 | ±2×2.5 | 0.4 | Dyn11 | | | | | 1510 | 1680 | 6750 | 8270 | 0.3 | 50 | 2415 |
| 1250 | | | | | 10.6 | | | | | | | | 1790 | 1990 | 8040 | 9850 | 0.3 | 52 | 2870 |
| 1600 | | | | | 11 | | | | | | | | 2090 | 2330 | 9730 | 11930 | 0.25 | 53 | 3530 |
| 2000 | | | | | | | | | | | | | 2600 | 2900 | 12000 | 14700 | 0.2 | 54 | 4100 |
| 2500 | | | | | | | | | | | | | 3080 | 3420 | 14240 | 17480 | 0.2 | 54 | 4925 |
| 1600 | | | | | | | | | | | | | 2090 | 2330 | 10750 | 13200 | 0.2 | 53 | 3580 |
| 2000 | | | | | | 2600 | 2900 | 13240 | | | | | 16230 | 0.2 | 8 | 54 | 4215 | | |
| 2500 | | 3080 | 3420 | 15670 | 19210 | 0.2 | 54 | 5120 | | | | | | | | | | | |
| 2000 | | 2470 | 2760 | 14570 | 17860 | 0.2 | 54 | 3860 | | | | | | | | | | | |
| 2500 | | 2930 | 3250 | 17240 | 21130 | 0.2 | 10 | 54 | 4860 | | | | | | | | | | |
| 3150 | | 3520 | 3910 | 20290 | 24870 | 0.2 | 54 | 5430 | | | | | | | | | | | |

SGB13系列技术参数表 / SGB13 Technology Parameter Table

| 额定容量 Rated Capacity kVA | 电压组合 Voltage Combination | | | 联结组 标号 Connection Symbol | 空载损耗 No-load Loss W | | 负载损耗 load Loss W | | 空载 电流 No-load Current % | 短路阻抗 Short Circuit Impedance % | 噪声 (LPA) Noise (LPA) dB | 重量 Weight kg | | | | | | |
|-------------------------------|-----------------------------|------------------------------|------------------|-----------------------------------|---------------------------|-------------------|------------------------|-------|-------------------------------------|--|-------------------------------------|--------------------|------|-------|-------|------|----|------|
| | 高压 H.V. kV | 高压分接范围 Tapping Range % | 低压 L.V. kV | | 75℃ | 145℃ | 75℃ | 145℃ | | | | | | | | | | |
| 100 | 6 | ±5 或 ±2×2.5 | 0.4 | Dyn11 | 290 | 1235 | 1520 | 0.6 | 0.6 | 4 | 45 | 690 | | | | | | |
| 125 | | | | | 340 | 1455 | 1780 | 0.8 | | | | | 45 | 785 | | | | |
| 160 | | | | | 385 | 1670 | 2050 | 0.6 | | | | | 45 | 955 | | | | |
| 200 | | | | | 445 | 1985 | 2440 | 0.6 | | | | | 45 | 1060 | | | | |
| 250 | | | | | 515 | 2170 | 2665 | 0.5 | | | | | 45 | 1350 | | | | |
| 315 | | | | | 635 | 2730 | 3355 | 0.5 | | | | | 45 | 1535 | | | | |
| 400 | | | | | 705 | 3135 | 3850 | 0.5 | | | | | 46 | 1880 | | | | |
| 500 | | | | | 835 | 3835 | 4705 | 0.4 | | | | | 46 | 2015 | | | | |
| 630 | | | | | 965 | 4620 | 5660 | 0.4 | | | | | 48 | 2405 | | | | |
| 630 | | | | | 6.3 | ±5 或 ±2×2.5 | 0.4 | Dyn11 | | | | | 935 | 4685 | 5760 | 0.35 | 48 | 2230 |
| 800 | | | | | 6.6 | | | | | | | | 1095 | 5470 | 6715 | 0.35 | 50 | 2820 |
| 1000 | | | | | 10 | | | | | | | | 1275 | 6390 | 7885 | 0.3 | 50 | 3150 |
| 1250 | | | | | 10.6 | | | | | | | | 1505 | 7615 | 9335 | 0.3 | 52 | 3540 |
| 1600 | | | | | 11 | | | | | | | | 1765 | 9220 | 11320 | 0.25 | 53 | 4100 |
| 2000 | | | | | | | | | | | | | 2195 | 11355 | 14005 | 0.2 | 54 | 6100 |
| 2500 | | | | | | 2590 | 13495 | 16605 | | | | | 0.2 | 54 | 6950 | | | |
| 1600 | | | | | | 1765 | 10180 | 12510 | | | | | 0.2 | 53 | 4305 | | | |
| 2000 | | | | | | 2195 | 12540 | 15400 | | | | | 0.2 | 54 | 6405 | | | |
| 2500 | | 2590 | 14845 | 18260 | 0.2 | 54 | 7300 | | | | | | | | | | | |
| 2000 | | 1675 | 11200 | 13760 | 0.2 | 54 | 4520 | | | | | | | | | | | |
| 2500 | | 2085 | 13800 | 16940 | 0.2 | 10 | 54 | 6720 | | | | | | | | | | |
| 3150 | | 2460 | 16300 | 20090 | 0.2 | 54 | 7660 | | | | | | | | | | | |

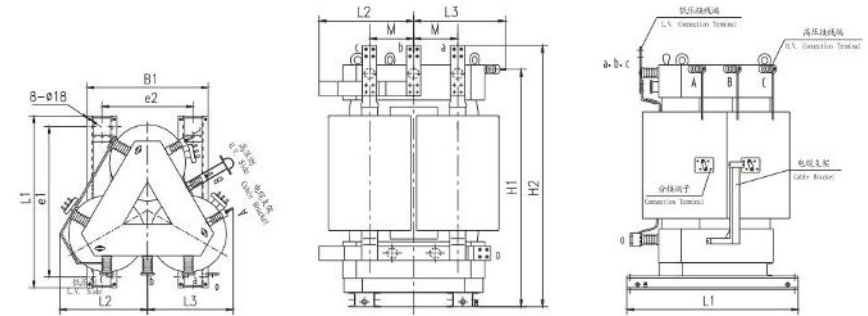
三维立体卷铁心干式变压器
3D Cubic Roll Iron Core Dry-type Transformer

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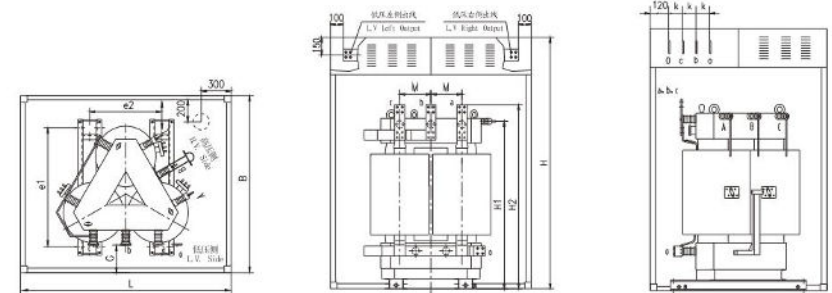
SGB11、SGB10外形及安装尺寸 / SGB11、SGB10 Appearance And Installation Dimension Table

| 额定容量 Rated Capacity kVA | 短路阻抗 Short Circuit impedance % | 变压器本体尺寸 Transformer Body Dimension (mm) | | | | | | | | | 外壳尺寸 protect case size (mm) | | | 安装尺寸 installation size (mm) | | 端子 terminal |
|-------------------------------|---|---|------|------|------|-----|-----|-----|-----|------|-----------------------------------|------|------|-----------------------------------|-----|----------------|
| | | L1 | B1 | H1 | H2 | L2 | L3 | M | K | G | L | B | H | e1 | e2 | |
| 100 | 4 | 750 | 600 | 855 | 925 | 405 | 415 | 180 | 100 | 200 | 1300 | 1100 | 1300 | 610 | 410 | (a) |
| 125 | | 770 | 600 | 875 | 945 | 405 | 420 | 183 | 100 | 200 | 1300 | 1100 | 1300 | 620 | 410 | (a) |
| 160 | | 800 | 670 | 925 | 995 | 435 | 430 | 190 | 100 | 200 | 1300 | 1100 | 1400 | 650 | 500 | (a) |
| 200 | | 780 | 696 | 1180 | 1255 | 430 | 430 | 193 | 100 | 2000 | 1400 | 1200 | 1500 | 640 | 510 | (a) |
| 250 | | 810 | 696 | 1215 | 1280 | 450 | 440 | 198 | 100 | 2000 | 1400 | 1250 | 1500 | 670 | 510 | (a) |
| 315 | | 950 | 746 | 1240 | 1335 | 485 | 470 | 220 | 100 | 2000 | 1500 | 1600 | 800 | 560 | (b) | |
| 400 | | 950 | 746 | 1235 | 1330 | 510 | 490 | 232 | 100 | 200 | 1500 | 1300 | 1600 | 800 | 560 | (b) |
| 500 | | 1010 | 792 | 1345 | 1430 | 510 | 490 | 231 | 100 | 200 | 1500 | 1300 | 1700 | 840 | 580 | (c) |
| 630 | | 960 | 792 | 1420 | 1505 | 525 | 495 | 230 | 100 | 200 | 1500 | 1300 | 1700 | 790 | 580 | (c) |
| 630 | | 1050 | 792 | 1350 | 1440 | 545 | 500 | 245 | 100 | 200 | 1600 | 1400 | 1700 | 880 | 580 | (c) |
| 800 | 1100 | 840 | 1345 | 1450 | 585 | 555 | 265 | 100 | 220 | 1600 | 1400 | 1800 | 930 | 630 | (d) | |
| 1000 | 1100 | 840 | 1440 | 1545 | 590 | 560 | 270 | 100 | 220 | 1600 | 1400 | 1800 | 930 | 630 | (d) | |
| 1250 | 6 | 1150 | 840 | 1520 | 1640 | 610 | 570 | 280 | 100 | 220 | 1700 | 1450 | 1900 | 980 | 630 | (e) |
| 1600 | 1150 | 910 | 1715 | 1830 | 635 | 595 | 290 | 100 | 250 | 1800 | 1500 | 2100 | 980 | 690 | (f) | |
| 2000 | 1220 | 912 | 1725 | 1840 | 670 | 650 | 308 | 120 | 250 | 1800 | 1550 | 2100 | 1050 | 690 | (f) | |
| 2500 | 1300 | 1010 | 1845 | 1995 | 690 | 670 | 323 | 120 | 250 | 1800 | 1650 | 2200 | 1130 | 785 | (g) | |
| 1800 | 1060 | 912 | 1690 | 1815 | 620 | 600 | 283 | 100 | 250 | 1800 | 1650 | 2200 | 900 | 690 | (f) | |
| 2000 | 1120 | 912 | 1850 | 1960 | 645 | 630 | 305 | 120 | 250 | 1800 | 1650 | 2200 | 955 | 685 | (f) | |
| 2500 | 1150 | 962 | 1815 | 1900 | 655 | 645 | 315 | 120 | 250 | 1800 | 1650 | 2200 | 990 | 740 | (g) | |
| 2000 | 1090 | 912 | 1820 | 1845 | 635 | 615 | 295 | 120 | 250 | 1800 | 1650 | 2200 | 920 | 690 | (f) | |
| 2500 | 1170 | 962 | 1775 | 1915 | 685 | 660 | 323 | 120 | 250 | 1800 | 1650 | 2200 | 1010 | 740 | (g) | |
| 3150 | 1250 | 1012 | 1915 | 2095 | 755 | 710 | 325 | 120 | 250 | 2100 | 1850 | 2300 | 1100 | 790 | (h) | |

SGB变压器本体尺寸图 / SGB Dimension Of Transformer Body Diagram



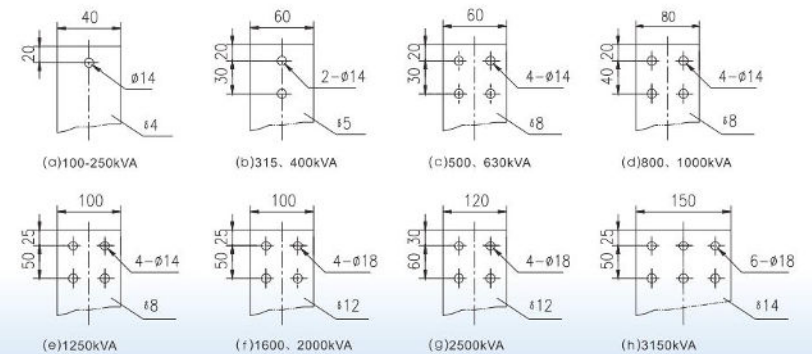
SGB防护外壳尺寸图 / SGB Dimension Of The Protective Shell Diagram



SGB13 外形及安装尺寸 / SGB13 Appearance And Installation Dimension Table

| 额定容量 Rated Capacity kVA | 短路阻抗 Short Circuit impedance % | 变压器本体尺寸 Transformer Body Dimension (mm) | | | | | | | | | 外壳尺寸 protect case size (mm) | | | 安装尺寸 installation size (mm) | | 端子 terminal |
|-------------------------------|---|---|------|------|------|-----|-----|-----|-----|------|-----------------------------------|------|------|-----------------------------------|-----|----------------|
| | | L1 | B1 | H1 | H2 | L2 | L3 | M | K | G | L | B | H | e1 | e2 | |
| 100 | 4 | 860 | 600 | 1120 | 1175 | 395 | 400 | 178 | 100 | 200 | 1400 | 1200 | 1300 | 810 | 410 | (a) |
| 125 | | 880 | 600 | 1145 | 1215 | 405 | 415 | 185 | 100 | 200 | 1400 | 1200 | 1400 | 830 | 410 | (a) |
| 160 | | 900 | 670 | 1205 | 1265 | 430 | 435 | 193 | 100 | 200 | 1400 | 1200 | 1400 | 850 | 500 | (a) |
| 200 | | 920 | 700 | 1265 | 1300 | 440 | 450 | 200 | 100 | 200 | 1400 | 1200 | 1400 | 870 | 500 | (a) |
| 250 | | 950 | 700 | 1290 | 1355 | 450 | 485 | 205 | 100 | 200 | 1400 | 1200 | 1500 | 900 | 505 | (a) |
| 315 | | 980 | 750 | 1315 | 1370 | 465 | 470 | 210 | 100 | 200 | 1500 | 1250 | 1500 | 930 | 560 | (b) |
| 400 | | 1000 | 750 | 1360 | 1415 | 480 | 490 | 218 | 100 | 200 | 1500 | 1250 | 1600 | 950 | 560 | (b) |
| 500 | | 1030 | 790 | 1385 | 1465 | 505 | 510 | 227 | 100 | 200 | 1600 | 1300 | 1600 | 980 | 575 | (c) |
| 630 | | 1050 | 790 | 1415 | 1505 | 530 | 535 | 238 | 100 | 200 | 1600 | 1300 | 1700 | 1000 | 575 | (c) |
| 630 | | 1070 | 790 | 1460 | 1550 | 555 | 550 | 245 | 100 | 200 | 1600 | 1300 | 1700 | 1020 | 575 | (c) |
| 800 | 1100 | 840 | 1510 | 1620 | 575 | 570 | 258 | 100 | 200 | 1700 | 1400 | 1800 | 1060 | 630 | (d) | |
| 1000 | 1160 | 840 | 1585 | 1705 | 610 | 605 | 275 | 100 | 200 | 1700 | 1400 | 1900 | 1110 | 630 | (d) | |
| 1250 | 6 | 1220 | 840 | 1705 | 1810 | 645 | 640 | 288 | 100 | 200 | 1800 | 1500 | 2000 | 1170 | 630 | (e) |
| 1600 | 1270 | 912 | 1825 | 1915 | 685 | 685 | 305 | 100 | 250 | 1800 | 1500 | 2100 | 1220 | 585 | (f) | |
| 2000 | 1320 | 912 | 1850 | 1980 | 705 | 690 | 328 | 120 | 250 | 1900 | 1550 | 2100 | 1270 | 585 | (f) | |
| 2500 | 1370 | 1012 | 1970 | 2065 | 725 | 700 | 340 | 120 | 250 | 1900 | 1600 | 2200 | 1320 | 785 | (g) | |
| 1800 | 1300 | 912 | 1750 | 1800 | 695 | 680 | 310 | 100 | 250 | 1800 | 1550 | 2000 | 1250 | 585 | (f) | |
| 2000 | 1330 | 912 | 1800 | 1935 | 725 | 700 | 353 | 120 | 250 | 1900 | 1600 | 2100 | 1280 | 585 | (f) | |
| 2500 | 1400 | 1012 | 1925 | 2020 | 745 | 715 | 368 | 120 | 250 | 2000 | 1650 | 2200 | 1350 | 785 | (g) | |
| 2000 | 1320 | 912 | 1765 | 1900 | 740 | 720 | 370 | 120 | 250 | 2000 | 1600 | 2200 | 1270 | 585 | (f) | |
| 2500 | 1350 | 1012 | 1870 | 1980 | 765 | 730 | 385 | 120 | 250 | 2000 | 1700 | 2200 | 1300 | 585 | (g) | |
| 3150 | 1450 | 1112 | 1995 | 2115 | 785 | 740 | 393 | 120 | 250 | 2100 | 1800 | 2300 | 1400 | 885 | (h) | |

SGB接线端子图 / SGB Diagram Connecting Terminals



三维立体卷铁心树脂绝缘干式变压器
3D Cubic Roll Iron Core Resin-insulating Dry-type Transformer

SCB型号说明 / SCB Product Type

SCB□-RL-□/□



SCB技术规范 / SCB Transformer Technical Specification

产品型式为户内、三相、双绕组、包封型 (SCB) 节能型干式变压器

Indoor, Three phase, Double winding, Envelop (SCB) energy-conservation Dry-type Transformer

- 执行标准 (Executive standard) : GB1094.11-2007、GB/T10228-2008
- 电压等级 (Voltage Class) : 6-35kV
- 容量范围 (Capacity Range) : 30-3150kVA
- 额定频率 (Rated frequency) : 50Hz
- 联结组标号 (Combination symbol) : Dyn11、Yyn0或其它 (Dyn11、Yyn0 or others)
- 调压方式 (Voltage Regulation Mode) : 无励磁或有载调压 (No-load / On-load changer)
- 绝缘水平 (Insulation Level) : LI75 AC35/AC5
- 允许温升 (Temperature Rise) : 125K
- 局放水平 (Partial discharge Level) : ≤5pC
- 冷却方式 (Cooling Type) : AN/AF

SCB型号特点 / SCB Characters

- 采用三维立体卷铁心，三相平衡，不产生三次谐波，节电效果显著
- 采用F级绝缘系统，主绝缘采用环氧树脂包封，阻燃、防爆，防火等级高
- 绕组经真空浇注固化为坚固的整体，局放小，机械强度高，抗短路能力强
- 线圈不吸潮，间断运行无须去潮处理
- 树脂绝缘层薄，散热性能好，允许长期过载20%运行
- With adoption of 3D cubic roll iron core, three-phase magnetic circuit symmetry, no harmonic wave and energy-conservation
- Adopt F class insulation system, Insulation using epoxy resin envelope, good flame retardant, good explosion proof, high fireproof level
- Winding casted by vacuum and solidify a whole, low partial discharge, high mechanical strength, and good ability in short circuit resistant
- The winding is non-hygroscopic, running with no need to handle the moisture
- Thin resin insulation layer, good heat emission, allowed 20% in long-term overload operation

三维立体卷铁心树脂绝缘干式变压器
3D Cubic Roll Iron Core Resin-insulating Dry-type Transformer

SCB11、SCB10 系列技术参数表 / SCB11、SCB10 Technology Parameter Table

| 额定容量 Rated Capacity kVA | 电压组合 Voltage Combination | | | 联结组 标号 Connection Symbol | 空载损耗 No-load Loss W | | 负载损耗 load Loss W | | 空载 电流 No-load Current % | 短路阻抗 Short Circuit Impedance % | 噪声 (LPA) Noise (LPA) dB | 重量 Weight kg |
|-------------------------------|-------------------------------------|------------------------------|------------------|-----------------------------------|---------------------------|------|------------------------|-------|-------------------------------------|--|-------------------------------------|--------------------|
| | 高压 H.V. kV | 高压分接范围 Tapping range % | 低压 L.V. kV | | 11型 | 10型 | 75℃ | 120℃ | | | | |
| 100 | 6 6.3 6.6 10 10.5 11 | ±5 或 ±2×2.5 | 0.4 | Dyn11 | 340 | 380 | 1300 | 1490 | 0.7 | 4 | 45 | 650 |
| 125 | | | | | 400 | 450 | 1540 | 1760 | 0.7 | | 45 | 700 |
| 160 | | | | | 460 | 510 | 1770 | 2030 | 0.7 | | 45 | 850 |
| 200 | | | | | 520 | 590 | 2100 | 2400 | 0.6 | | 45 | 950 |
| 250 | | | | | 610 | 680 | 2290 | 2620 | 0.5 | | 45 | 1100 |
| 315 | | | | | 750 | 840 | 2880 | 3300 | 0.5 | | 45 | 1220 |
| 400 | | | | | 840 | 930 | 3310 | 3790 | 0.5 | | 46 | 1430 |
| 500 | | | | | 990 | 1100 | 4050 | 4640 | 0.4 | | 46 | 1630 |
| 630 | | | | | 1140 | 1270 | 4880 | 5590 | 0.4 | | 48 | 1920 |
| 630 | | | | | 1110 | 1240 | 4950 | 5660 | 0.35 | | 48 | 1730 |
| 800 | | | | | 1300 | 1440 | 5780 | 6610 | 0.35 | | 50 | 2080 |
| 1000 | | | | | 1510 | 1680 | 6750 | 7730 | 0.3 | | 50 | 2490 |
| 1250 | | | | | 1790 | 1990 | 8040 | 9210 | 0.3 | | 52 | 2970 |
| 1600 | | | | | 2090 | 2330 | 9730 | 11140 | 0.25 | | 53 | 3940 |
| 2000 | | | | | 2600 | 2900 | 12000 | 13730 | 0.2 | | 54 | 4330 |
| 2500 | | | | | 3080 | 3420 | 14240 | 16310 | 0.2 | | 54 | 5720 |
| 1600 | | | | | 2090 | 2330 | 10750 | 12310 | 0.2 | | 53 | 3810 |
| 2000 | | | | | 2600 | 2900 | 13240 | 15160 | 0.2 | | 8 | 54 |
| 2500 | 3080 | 3420 | 15670 | 17950 | 0.2 | 54 | 5210 | | | | | |
| 2000 | 2470 | 2780 | 14570 | 16690 | 0.2 | 54 | 4560 | | | | | |
| 2500 | 2930 | 3250 | 17240 | 19740 | 0.2 | 10 | 54 | 5410 | | | | |
| 3150 | 3520 | 3910 | 20290 | 23230 | 0.2 | 54 | 6260 | | | | | |

SCB13系列技术参数表 / SCB13 Technology Parameter Table

| 额定容量 Rated Capacity kVA | 电压组合 Voltage Combination | | | 联结组 标号 Connection Symbol | 空载损耗 No-load Loss W | 负载损耗 load Loss W | | 空载 电流 No-load Current % | 短路阻抗 Short Circuit Impedance % | 噪声 (LPA) Noise (LPA) dB | 重量 Weight kg |
|-------------------------------|-------------------------------------|------------------------------|------------------|-----------------------------------|---------------------------|------------------------|-------|-------------------------------------|--|-------------------------------------|--------------------|
| | 高压 H.V. kV | 高压分接范围 Tapping Range % | 低压 L.V. kV | | | 75℃ | 120℃ | | | | |
| 100 | 6 6.3 6.6 10 10.5 11 | ±5 或 ±2×2.5 | 0.4 | Dyn11 | 290 | 1235 | 1415 | 0.7 | 4 | 45 | 660 |
| 125 | | | | | 340 | 1455 | 1665 | 0.7 | | 45 | 730 |
| 160 | | | | | 385 | 1670 | 1915 | 0.7 | | 45 | 910 |
| 200 | | | | | 445 | 1985 | 2275 | 0.6 | | 45 | 990 |
| 250 | | | | | 515 | 2170 | 2485 | 0.5 | | 45 | 1250 |
| 315 | | | | | 635 | 2730 | 3125 | 0.5 | | 45 | 1435 |
| 400 | | | | | 705 | 3135 | 3590 | 0.5 | | 46 | 1710 |
| 500 | | | | | 835 | 3835 | 4390 | 0.4 | | 46 | 1980 |
| 630 | | | | | 965 | 4620 | 5290 | 0.4 | | 48 | 2170 |
| 630 | | | | | 935 | 4685 | 5365 | 0.35 | | 48 | 2045 |
| 800 | | | | | 1095 | 5470 | 6265 | 0.35 | | 50 | 2610 |
| 1000 | | | | | 1275 | 6390 | 7315 | 0.3 | | 50 | 2940 |
| 1250 | | | | | 1505 | 7615 | 8720 | 0.3 | | 52 | 3430 |
| 1600 | | | | | 1765 | 9220 | 10555 | 0.25 | | 53 | 3960 |
| 2000 | | | | | 2195 | 11355 | 13005 | 0.2 | | 54 | 5920 |
| 2500 | | | | | 2590 | 13495 | 15455 | 0.2 | | 54 | 6750 |
| 1600 | | | | | 1765 | 10180 | 11660 | 0.2 | | 53 | 4160 |
| 2000 | | | | | 2195 | 12540 | 14360 | 0.2 | | 8 | 54 |
| 2500 | 2590 | 14845 | 17000 | 0.2 | 54 | 7080 | | | | | |
| 2000 | 1675 | 11200 | 12825 | 0.2 | 54 | 4370 | | | | | |
| 2500 | 2085 | 13800 | 15800 | 0.2 | 10 | 54 | 6530 | | | | |
| 3150 | 2460 | 16300 | 18700 | 0.2 | 54 | 7400 | | | | | |

三维立体卷铁心树脂绝缘干式变压器

3D Cubic Roll Iron Core Resin-insulating Dry-type Transformer

SCB11、SCB10外形及安装尺寸/SCB11、SCB10 Appearance And Installation Dimension Table

| 额定容量 Rated Capacity kVA | 短路阻抗 Short Circuit impedance % | 变压器本体尺寸 Transformer Body Dimension (mm) | | | | | | | | | 外壳尺寸 protect case size (mm) | | | 安装尺寸 installation size (mm) | | 端子 terminal |
|-------------------------------|---|---|------|------|------|-----|-----|-----|-----|------|-----------------------------------|------|------|-----------------------------------|-----|----------------|
| | | L1 | B1 | H1 | H2 | L2 | L3 | M | K | G | L | B | H | e1 | e2 | |
| 100 | 4 | 750 | 600 | 855 | 925 | 405 | 415 | 180 | 100 | 200 | 1300 | 1100 | 1300 | 800 | 410 | (a) |
| 125 | | 770 | 600 | 875 | 945 | 405 | 420 | 183 | 100 | 200 | 1300 | 1100 | 1300 | 820 | 410 | (a) |
| 160 | | 800 | 670 | 925 | 995 | 435 | 430 | 190 | 100 | 200 | 1300 | 1100 | 1400 | 840 | 500 | (a) |
| 200 | | 790 | 696 | 1115 | 1190 | 420 | 425 | 188 | 100 | 200 | 1300 | 1100 | 1400 | 840 | 505 | (a) |
| 250 | | 810 | 696 | 1205 | 1270 | 455 | 475 | 203 | 100 | 200 | 1500 | 1100 | 1500 | 860 | 505 | (a) |
| 315 | | 900 | 746 | 1310 | 1410 | 455 | 500 | 213 | 100 | 200 | 1600 | 1300 | 1500 | 930 | 560 | (b) |
| 400 | | 950 | 746 | 1345 | 1440 | 470 | 510 | 219 | 100 | 200 | 1500 | 1300 | 1600 | 800 | 560 | (b) |
| 500 | | 1040 | 792 | 1435 | 1520 | 490 | 520 | 225 | 100 | 200 | 1600 | 1350 | 1700 | 870 | 575 | (c) |
| 630 | | 1050 | 792 | 1420 | 1505 | 535 | 550 | 240 | 100 | 200 | 1600 | 1400 | 1700 | 880 | 575 | (c) |
| 630 | | 1050 | 792 | 1285 | 1370 | 550 | 555 | 253 | 100 | 200 | 1600 | 1400 | 1700 | 880 | 575 | (c) |
| 800 | 1100 | 840 | 1380 | 1485 | 575 | 575 | 264 | 100 | 200 | 1700 | 1450 | 1800 | 930 | 575 | (d) | |
| 1000 | 1140 | 840 | 1495 | 1605 | 590 | 590 | 275 | 100 | 200 | 1700 | 1450 | 1900 | 970 | 630 | (d) | |
| 1250 | 1200 | 840 | 1545 | 1685 | 615 | 615 | 290 | 100 | 220 | 1700 | 1500 | 2000 | 1030 | 630 | (e) | |
| 1600 | 1230 | 910 | 1780 | 1915 | 645 | 640 | 307 | 100 | 250 | 1800 | 1600 | 2200 | 1060 | 685 | (f) | |
| 2000 | 1270 | 912 | 1780 | 1915 | 670 | 660 | 319 | 120 | 250 | 1900 | 1650 | 2300 | 1100 | 685 | (f) | |
| 2500 | 1360 | 1010 | 1965 | 2095 | 735 | 705 | 350 | 120 | 250 | 2000 | 1750 | 2400 | 1190 | 785 | (g) | |
| 1800 | 1230 | 912 | 1735 | 1870 | 655 | 640 | 315 | 100 | 250 | 1800 | 1600 | 2200 | 1060 | 685 | (f) | |
| 2000 | 1300 | 912 | 1790 | 1925 | 690 | 675 | 338 | 120 | 250 | 1900 | 1650 | 2300 | 1130 | 685 | (f) | |
| 2500 | 1300 | 962 | 1975 | 2125 | 735 | 695 | 350 | 120 | 250 | 2000 | 1750 | 2400 | 1300 | 785 | (g) | |
| 2000 | 1270 | 912 | 1910 | 2030 | 680 | 665 | 338 | 120 | 250 | 1900 | 1650 | 2300 | 1100 | 685 | (f) | |
| 2500 | 1350 | 962 | 1940 | 2090 | 705 | 690 | 353 | 120 | 250 | 2000 | 1750 | 2400 | 1180 | 785 | (g) | |
| 3150 | 1400 | 1012 | 2160 | 2340 | 755 | 795 | 378 | 120 | 250 | 2200 | 1800 | 2500 | 1420 | 885 | (h) | |

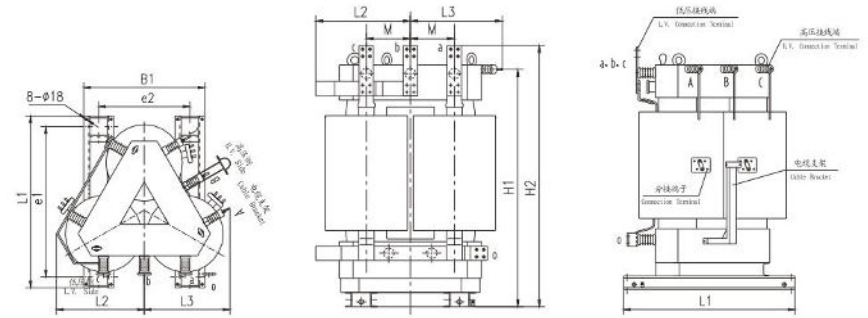
SCB13 外形及安装尺寸 / SCB13 Appearance And Installation Dimension Table

| 额定容量 Rated Capacity kVA | 短路阻抗 Short Circuit impedance % | 变压器本体尺寸 Transformer Body Dimension (mm) | | | | | | | | | 外壳尺寸 protect case size (mm) | | | 安装尺寸 installation size (mm) | | 端子 terminal |
|-------------------------------|---|---|------|------|------|-----|-----|-----|-----|------|-----------------------------------|------|------|-----------------------------------|-----|----------------|
| | | L1 | B1 | H1 | H2 | L2 | L3 | M | K | G | L | B | H | e1 | e2 | |
| 100 | 4 | 820 | 600 | 935 | 1010 | 385 | 400 | 183 | 100 | 200 | 1400 | 1200 | 1300 | 770 | 410 | (a) |
| 125 | | 850 | 600 | 970 | 1050 | 400 | 415 | 188 | 100 | 200 | 1400 | 1200 | 1300 | 800 | 410 | (a) |
| 160 | | 880 | 670 | 1010 | 1090 | 415 | 440 | 195 | 100 | 200 | 1400 | 1200 | 1300 | 830 | 500 | (a) |
| 200 | | 900 | 700 | 1065 | 1135 | 440 | 460 | 200 | 100 | 200 | 1400 | 1200 | 1300 | 850 | 505 | (a) |
| 250 | | 930 | 700 | 1120 | 1200 | 460 | 485 | 210 | 100 | 200 | 1400 | 1200 | 1300 | 880 | 505 | (a) |
| 315 | | 930 | 750 | 1180 | 1255 | 485 | 510 | 220 | 100 | 200 | 1500 | 1300 | 1500 | 880 | 560 | (b) |
| 400 | | 1000 | 750 | 1240 | 1335 | 505 | 530 | 228 | 100 | 200 | 1500 | 1300 | 1500 | 950 | 560 | (b) |
| 500 | | 1100 | 790 | 1290 | 1375 | 515 | 545 | 238 | 100 | 200 | 1500 | 1300 | 1600 | 1050 | 575 | (c) |
| 630 | | 1150 | 790 | 1340 | 1420 | 530 | 550 | 240 | 100 | 200 | 1500 | 1300 | 1600 | 1100 | 575 | (c) |
| 630 | | 1190 | 790 | 1405 | 1480 | 545 | 560 | 253 | 100 | 200 | 1600 | 1400 | 1700 | 1140 | 575 | (c) |
| 800 | 1210 | 840 | 1445 | 1520 | 550 | 580 | 263 | 100 | 200 | 1600 | 1400 | 1700 | 1160 | 630 | (d) | |
| 1000 | 1260 | 840 | 1525 | 1610 | 580 | 575 | 268 | 100 | 200 | 1600 | 1400 | 1700 | 1210 | 630 | (d) | |
| 1250 | 1280 | 840 | 1600 | 1670 | 630 | 625 | 280 | 100 | 200 | 1700 | 1500 | 1900 | 1230 | 630 | (e) | |
| 1600 | 1300 | 912 | 1685 | 1750 | 650 | 630 | 283 | 100 | 250 | 1700 | 1500 | 1900 | 1250 | 585 | (f) | |
| 2000 | 1350 | 912 | 1765 | 1855 | 700 | 685 | 310 | 120 | 250 | 1800 | 1650 | 2100 | 1300 | 585 | (f) | |
| 2500 | 1400 | 1012 | 1810 | 1900 | 720 | 695 | 330 | 120 | 250 | 1900 | 1700 | 2100 | 1350 | 585 | (g) | |
| 1800 | 1320 | 912 | 1680 | 1660 | 670 | 645 | 303 | 100 | 250 | 1800 | 1550 | 1800 | 1270 | 585 | (f) | |
| 2000 | 1370 | 912 | 1730 | 1800 | 730 | 700 | 333 | 120 | 250 | 1900 | 1700 | 2000 | 1320 | 585 | (f) | |
| 2500 | 1400 | 1012 | 1775 | 1820 | 750 | 715 | 355 | 120 | 250 | 1900 | 1800 | 2000 | 1350 | 785 | (g) | |
| 2000 | 1350 | 912 | 1700 | 1780 | 715 | 700 | 350 | 120 | 250 | 2000 | 1800 | 2000 | 1300 | 585 | (f) | |
| 2500 | 1400 | 1012 | 1750 | 1805 | 755 | 725 | 375 | 120 | 250 | 2000 | 1850 | 2000 | 1350 | 585 | (g) | |
| 3150 | 1450 | 1112 | 1915 | 2030 | 775 | 735 | 395 | 120 | 250 | 2100 | 1900 | 2300 | 1400 | 885 | (h) | |

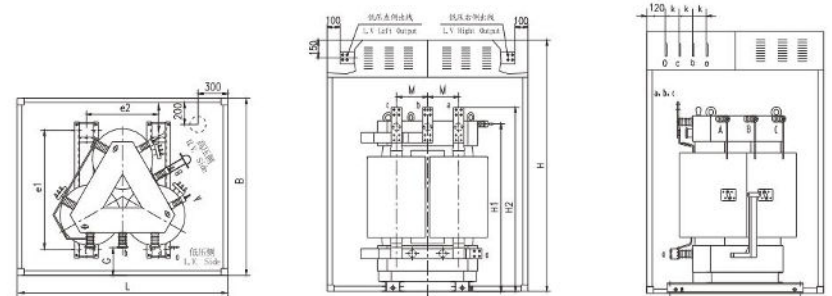
三维立体卷铁心树脂绝缘干式变压器

3D Cubic Roll Iron Core Resin-insulating Dry-type Transformer

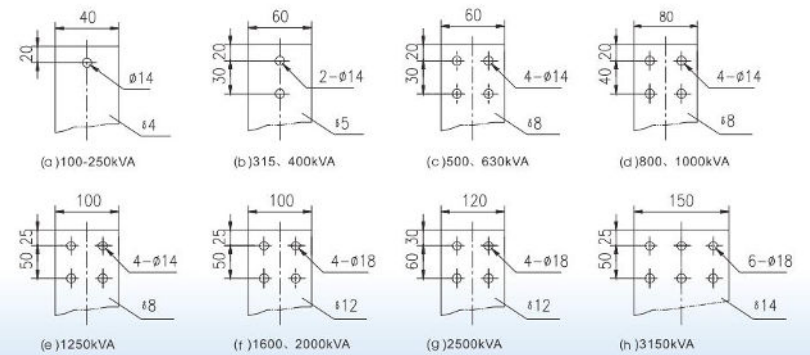
SCB变压器本体尺寸图 / SCB Dimension Of Transformer Body Diagram



SCB防护外壳尺寸图 / SCB Dimension Of The Protective Shell Diagram



SCB接线端子图 / SCB Diagram Connecting Terminals



三维立体卷铁心全密封油浸式变压器
3D Cubic Roll Iron Core All-envelop Oil-immersed Type Transformer

SB型号说明 / SB Product Type



SB技术规范 / SB Transformer Technical Specification

产品型式为户外、三相、双绕组、节能型油浸式变压器

Outdoor, Three phase, Double winding, Energy conservation oil-immersed Transformer

- 执行标准 (Executive standard) : GB 1094.1-1996、GB/T 6451-2008
- 电压等级 (Voltage Class) : 6-35kV
- 容量范围 (Capacity Range) : 30-3150kVA
- 额定频率 (Rated frequency) : 50Hz
- 联结组标号 (Combination symbol) : Dyn11、Yyn0或其它 (Dyn11、Yyn0 or others)
- 调压方式 (Voltage Regulation Mode) : 无励磁或有载调压 (No-load / On-load changer)
- 绝缘水平 (Insulation Level) : LI75 AC35/AC5
- 允许温升 (Temperature Rise) : 线圈温升 (Coil) ≤65K, 顶层油温升 (Oil) ≤60K
- 冷却方式 (Cooling Type) : ONAN

SB型号特点 / SB Characters

- 采用三维立体卷铁心，三相平衡，不产生三次谐波，节电效果显著
- 采用全密封油箱及真空注油技术，防止油老化，无漏油现象，免维护
- 油箱外设波纹散热片，既可散热，又可调节油体积的变化，免设储油柜
- 高低压引线采用软连接，配置压力释放阀和测温装置，保证变压器的安全运行
- 应用户要求可注高燃点油，更安全可靠，寿命长
- With adoption of 3D cubic roll iron core, three-phase magnetic circuit symmetry, no harmonic wave and energy-conservation
- Adopt envelop oil box and epoxy oiling technology, avoid oil aging, no oil leakage phenomenon, maintenance-free
- With ripple cooling fin design on the oil box, it can emit heat and regulate the volume of oil, no need oil conservator
- HV/LV leading line adopt flexible connection, configuration pressure relief valve and temperature measurement equipment, protect safe running of transformer
- High burning point of oil if the user requires, more reliable, longer service life

三维立体卷铁心全密封油浸式变压器
3D Cubic Roll Iron Core All-envelop Oil-immersed Type Transformer

SB14、SB13、SB11系列技术参数表 / SB14、SB13、SB11 Technology Parameter Table

| 额定容量 Rated Capacity kVA | 电压组合 Voltage Combination | | | 联结组 标号 Connection Symbol | 空载损耗 No-load Loss W | | | 负载损耗 load Loss W | | 空载 电流 No-load Current % | 短路 阻抗 Short Circuit Impedance % | | | | |
|-------------------------------|-----------------------------|------------------------------|------------------|-----------------------------------|---------------------------|-------------------|-----|------------------------|-----------|-------------------------------------|--|------|-----------|-----------|------|
| | 高压 H.V. kV | 高压分接范围 Tapping Range % | 低压 L.V. kV | | 11型 | 13型 | 14型 | 11/13型 | 14型 | | | | | | |
| 30 | 6 | ±5 或 ±2×2.5 | 0.4 | Dyn11 或 Yyn0 | 100 | 80 | 80 | 630/600 | 505/480 | 0.3 | 4 | | | | |
| 50 | | | | | 130 | 100 | 100 | 910/870 | 730/695 | 0.24 | | | | | |
| 80 | | | | | 180 | 130 | 130 | 1310/1250 | 1050/1000 | 0.22 | | | | | |
| 100 | | | | | 200 | 150 | 150 | 1580/1500 | 1265/1200 | 0.21 | | | | | |
| 125 | | | | | 240 | 170 | 170 | 1890/1800 | 1510/1440 | 0.2 | | | | | |
| 160 | | | | | 280 | 200 | 200 | 2310/2200 | 1850/1760 | 0.19 | | | | | |
| 200 | | | | | 340 | 240 | 240 | 2730/2600 | 2185/2080 | 0.18 | | | | | |
| 250 | | | | | 400 | 290 | 290 | 3200/3050 | 2560/2440 | 0.16 | | | | | |
| 315 | | | | | 6.3 | ±5 或 ±2×2.5 | 0.4 | Dyn11 或 Yyn0 | 480 | 340 | | 340 | 3830/3650 | 3065/2920 | 0.16 |
| 400 | | | | | 6.6 | | | | 570 | 410 | | 410 | 4520/4300 | 3615/3440 | 0.16 |
| 500 | | | | | 10 | | | | 680 | 480 | | 480 | 5410/5150 | 4330/4120 | 0.16 |
| 630 | | | | | 10.5 | | | | 810 | 570 | | 570 | 6200 | 4960 | 0.15 |
| 800 | | | | | 11 | | | | 980 | 700 | | 700 | 7500 | 6000 | 0.15 |
| 1000 | | | | | | | | | 1150 | 830 | | 830 | 10300 | 8240 | 0.14 |
| 1250 | | | | | | | | | 1360 | 970 | | 970 | 12000 | 9600 | 0.13 |
| 1600 | | | | | | | | | 1640 | 1170 | | 1170 | 14500 | 11600 | 0.12 |
| 2000 | | | | | | | | | 1940 | 1550 | | 1550 | 18300 | 14640 | 0.11 |
| 2500 | | | | | | | | | 2290 | 1830 | | 1830 | 21200 | 16960 | 0.11 |
| 3150 | | 2750 | 2200 | 2180 | 24100 | | | | 20200 | 0.11 | | | | | |
| | | | | | | | | | | | | | 4.5 | | |
| | | | | | | | | | | | | | 5.5 | | |
| | | | | | | | | | | | | | 6 | | |

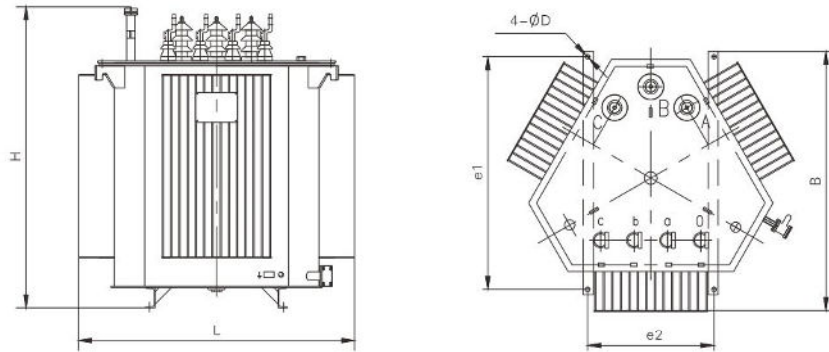
| 额定容量 Rated Capacity kVA | 短路阻抗 Short Circuit Impedance % | 安装轨距 Installation Gauge e1×e2 mm | | 外形尺寸 Case Size L×B×H mm | | | 重量 Weight kg | | | 端子 Terminal |
|-------------------------------|--|---|----------|----------------------------------|----------------|----------------|--------------------|------|------|----------------|
| | | 11/13型 | 14型 | 11型 | 13型 | 14型 | 11型 | 13型 | 14型 | |
| 30 | 4 | 550×400 | 550×400 | 900×780×860 | 845×735×885 | 820×715×920 | 280 | 290 | 440 | (a) |
| 50 | | 550×400 | 550×400 | 905×785×910 | 900×780×925 | 890×760×1040 | 350 | 385 | 520 | (a) |
| 80 | | 550×400 | 550×400 | 945×820×960 | 910×790×1000 | 950×810×1070 | 440 | 465 | 650 | (a) |
| 100 | | 550×400 | 550×400 | 955×830×1010 | 955×830×1040 | 955×820×1100 | 490 | 545 | 720 | (a) |
| 125 | | 660×550 | 660×550 | 1015×880×1020 | 965×835×1060 | 955×830×1120 | 600 | 610 | 810 | (a) |
| 160 | | 660×550 | 660×550 | 1020×885×1060 | 1010×875×1100 | 980×855×1160 | 670 | 695 | 940 | (a) |
| 200 | | 660×550 | 660×550 | 1070×925×1100 | 1060×920×1165 | 1030×900×1210 | 760 | 860 | 1100 | (a) |
| 250 | | 660×550 | 660×550 | 1160×1000×1130 | 1120×970×1185 | 1100×950×1250 | 880 | 1000 | 1250 | (b) |
| 315 | | 800×550 | 800×550 | 1200×1040×1160 | 1160×1005×1235 | 1140×990×1300 | 1030 | 1145 | 1500 | (c) |
| 400 | | 800×550 | 800×550 | 1280×1110×1220 | 1240×1075×1275 | 1200×1050×1340 | 1230 | 1345 | 1720 | (c) |
| 500 | | 820×550 | 820×550 | 1360×1180×1240 | 1325×1150×1315 | 1290×1125×1400 | 1410 | 1580 | 2300 | (d) |
| 630 | | 1070×550 | 1070×550 | 1435×1245×1340 | 1400×1215×1450 | 1365×1195×1500 | 1800 | 2020 | 2600 | (d) |
| 800 | | 1070×550 | 1070×550 | 1455×1260×1370 | 1460×1265×1460 | 1430×1235×1560 | 2020 | 2300 | 3100 | (d) |
| 1000 | | 1070×660 | 1070×660 | 1525×1520×1410 | 1510×1310×1480 | 1480×1290×1620 | 2250 | 2430 | 3600 | (d) |
| 1250 | | 1070×660 | 1070×660 | 1585×1590×1480 | 1615×1615×1565 | 1590×1590×1725 | 2620 | 3070 | 4220 | (e) |
| 1600 | | 1070×660 | 1070×660 | 1610×1615×1580 | 1700×1675×1625 | 1670×1650×1800 | 3030 | 3705 | 5000 | (e) |
| 2000 | | 1070×660 | 1070×660 | 1690×1675×1620 | 1720×1700×1645 | 1700×1690×1835 | 3570 | 3855 | 6250 | (e) |
| 2500 | | 1070×660 | 1070×660 | 1765×1755×1670 | 1805×1780×1715 | 1790×1775×1900 | 4120 | 4560 | 7400 | (f) |
| 3150 | 6 | 1070×660 | 1070×660 | 1920×1900×1720 | 1950×1900×1970 | 1930×1890×2150 | 5100 | 5500 | 8700 | (f) |

注：1. 表中斜线上方的负载损耗适用于Dyn11联结组，斜线下方的负载损耗值适用于Yyn0联结组。
2. 以上数据原技术改进原因而有变动请恕未告知。
Note: 1. The on-load loss slash above the table is applicable to Dyn11 link group, while the on-load loss slash below the table is applicable to Yyn0.
2. The upper data will be changed if technique improves, please forgive not to notify.

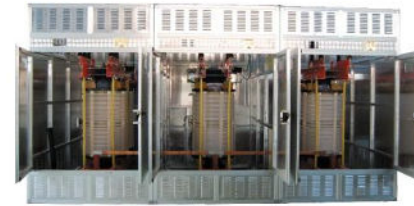
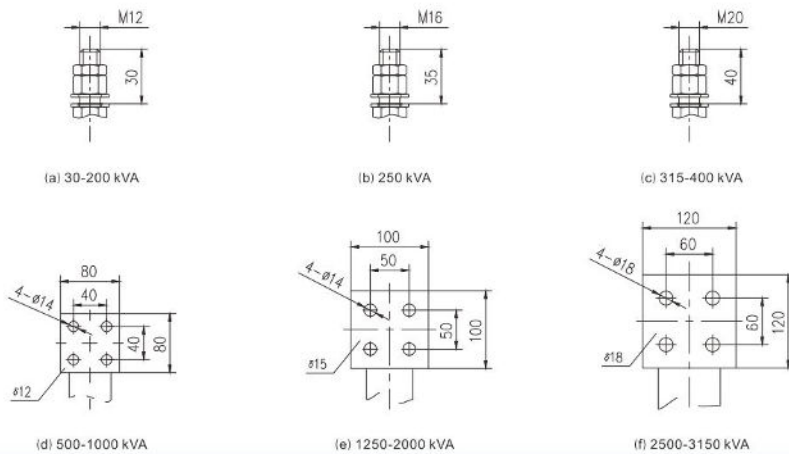
三维立体卷铁心全密封油浸式变压器
3D Cubic Roll Iron Core All-envelop Oil-immersed Type Transformer

相关技术储备
Relevant Technical Reserves

SB变压器本体尺寸图 / SB Dimension Of Transformer Body Diagram



SB接线端子图 / SB Diagram Connecting Terminals



单相励磁干式变压器
Single-phase Dry-type Excitation Transformer



低压大电流十二脉冲整流变压器
Low Voltage High-current 12 Pulse Rectifier Transformer



光伏专用分裂变压器
Photovoltaic Special Split Transformer



双电压干式变压器
Double-voltage Dry-type Transformer



隔离变压器
Isolation Transformer



欧式箱变
European-type Prefabricated Substation



美式箱变
American-type Prefabricated Substation

利用本项目核心技术满足不同行业客户的各种需求，设计生产有载调压、接地、隔离、单相励磁变压器、两爆变、牵引变、三倍频变压器智能化小型变电站及低压大电流十二脉冲干式变压器等相关产品，特殊产品的批量化生产已列入本公司的技术储备。

Using the core techniques of the project to meet the diverse needs of customers in different industries, to design and produce on-load changer, grounding, isolation and single-phase excitation transformer, flameproof drill transformer, traction transformer, three times frequency small intelligent substation and 12-pulse rectifier dry-type transformer etc. mass production of special products have been included in the technical reserves.

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 天津市电力公司
 重庆市电力公司
 南水北调中线
 万科企业股份有限公司 (长沙万科城)
 保利房地产集团有限公司 (重庆保利国际广场)
 上海绿地集团有限公司 (南昌绿地新都会)
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 粤电集团 (惠来电厂)
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 中国航天科工集团
 大连船舶重工 (航母基地)
 南昌铁路局、西安铁路局
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 中金岭 (南丹霞冶炼厂)
 中海油海上风电项目
 福建南安光伏发电系统20MW示范项目
 长沙中联重科
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 江铃汽车集团公司
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 浙江大学
 Indonesia East kalimantan Thermal Power Project
 India WPCPL power engineering project
 Ghana 6000 m³/h cooling tower engineering project



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South-to-North Water Diversion Project centerline



Dalian shipbuilding and aircraft carriers project



Riyue mountain wind power plant



CLP Guixi power plant

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