



非晶合金干式变压器

AMORPHOUS ALLOY DRY-TYPE TRANSFORMER

产品特点 Product Features

- 节能环保，空载损耗比常规10型干变低70%~80%；
- 三防能力强，动热稳定性高；
- 投资回收期短，客户长期受益。

- Energy saving and environment protection, no-load loss is 70%~80% less than S10 series;
- Fireproofing, explosion-proof;
- Short payback period of investment, more benefits.



产品概述 CHARACTERISTICS

非晶合金干式变压器空载损耗比GB/T10228表4组降低75%,负载损耗比GB/T10228表4降低15%,是当代最先进的节能型干式变压器。

The no-load loss of SCBH 16 amorphous dry type transformer is 75% less than GB/T10228 table 4 group I, load loss is 15% less than GB/T10228 table 4, which is the most advanced energy conservation dry-type transformer.

使用环境 PRODUCT CHARACTERISTICS

使用条件 Service condition

环境温度 Ambient temperature

最高气温 +40°C Highest air temperature +40°C

最低气温 -5°C Lowest air temperature -5°C.

最热月平均温度 +30°C Hottest monthly average temperature +30°C

最热年平均温度 +20°C Hottest yearly average temperature +20°C

海拔不超过1000m The height above the sea level is below 1000m;

电源电压的波形近似于正弦波 The power supply voltage wave is similar to sine wave

三相电源电压应大致对称 Three-phase power supply voltage is approximately symmetrical

安装环境无明显的污秽 Installation without evidence of filth.

户内使用. Service indoor.

结构特点 CHARACTERISTICS OF THE STRUCTURE

本产品低压为箔式线圈,采用铜箔绕制,高压线圈采用H级高强度漆包线绕制,采用玻璃纤维加强的环氧树脂封装结构,具有优良的耐潮和抗裂性能。铁心由非晶合金带材卷而成,采用矩形截面、四框五柱或三框三柱结构。

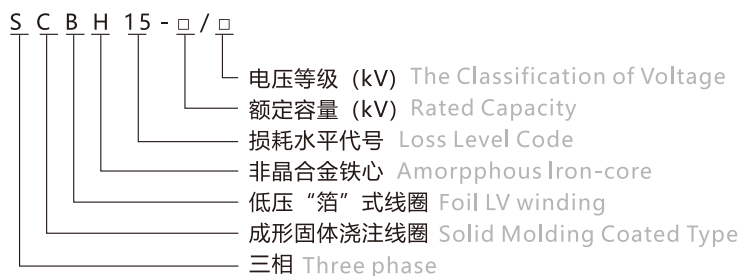
The product adopts LV winding copper foil winding, HV winding rolled by paint coated thread, with glass fibre added insulation resin, which is good for humidity-bearing and anti-crack, the iron-core is made of Amorphous strip material, with rectangular section, four frame five column or three frame three column structure.

产品用途 PURPOSE

本产品具有空载损耗低、无油、阻燃自熄、耐潮、抗裂和免维修等优点。凡是现在使用普通干变的场所都可由非晶干变所取代,可用于高层建筑、商业中心、地铁、机场、车站、工矿企业和发电厂。特别适合于易燃、易爆等防火要求高的场所安装使用。

This product has the merit of low no-load loss, no oil self burnout if prohibition is encountered, humidity endurance, anticrack, no maintenance etc. It may take replace any normal Dry-Type Transformer at high building, business centre, subway, airport, bus station, industrial enterprise and power-plant, extremely suit for those site with high inflammable & explosive needs.

型号标志 MODEL DESCRIPTION



产品标准 PRODUCT STANDARDS

GB/T22072-2018 GB1094.11-2007

额定高压 Rated HV:
10(10.5,11,6,6.3,6.6)kV

额定低压 Rated LV: 0.4kV

分接范围 Tap connection range:
无励磁调压 Non-exciting regulation
($\pm 5\%$, $\pm 2 \times 2.5\%$)

有载调压 On-load regulation ($\pm 4 \times 2.5\%$)

联结组别 Vector group: Dyn11 or Yyno

性能参数 PERFORMANCE PARAMETER

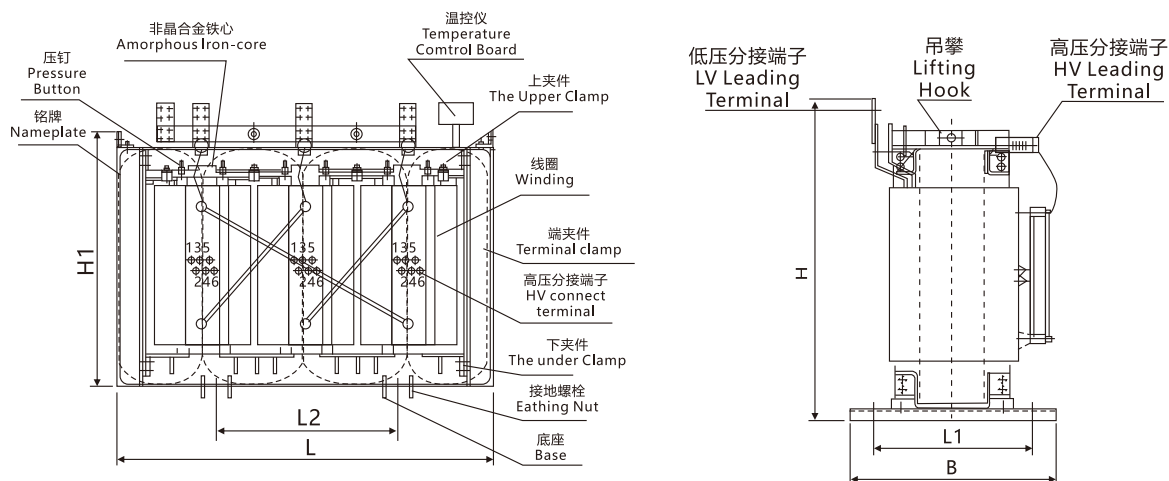
容量 Capacity(KVA)	电压组合 Voltage com bi-nation	高压分接范围% HV tap connect	低压 LV (KV)	联结组标号 Vector group	空载损耗 No-load Loss (W)	空载电流 NO-load current %	负载损耗 Load current(120°)W	阻搞电压 Impedance volatge(%)			
100	6	±5 ±2×2.5	0.4	Dyn11 Y yno*	130	1.2	1570	4			
160					170	1.1	2130				
200					200	1.0	2530				
250					230	1.0	2760				
315					280	0.9	3470				
400					310	0.8	3990				
500					360	0.8	4880				
630					410	0.7	5960				
800	10.5	±5 ±2×2.5	0.4	Dyn11 Y yno*	480	0.7	6960	6			
1000	11				550	0.6	8130				
1250					650	0.6	9690				
1600					760	0.6	11730				

注：带“*”的联结组Yyno适用于容量 $\leq 400\text{kV}$ 的变压器；特殊规格或非标产品的各项技术参数由供需双方协商确定。

Note: With the "*" vector group Yyno is suit for the transformer capacity is no more than 400kVA;

The client should consult with the supplier about the technical data when special model or non-standard product is needed.

产品外形结构图 PRODUCT OUTLINE STRUCTURE DRAWING



节能效果 EFFECT OF ENERGY CONSERVATION

非晶干变的空载损耗比现行国标GB/T10228-2008中表4组I规定的数值降低四分之三。以630 kVA为例，SCBH15-630/10与SC10-630/10相比，空载损耗降低925W。

假设：无功经济当量 $k_1=0.1\text{kW/kVar}$ ；年运行时间 $T=8760\text{h}$ ；电费单价 $A=0.6\text{元/kWh}$ ；年平均负载系数取0.8，一台容量为630kVA的SCBH15型的非晶干变代替SC10型干变运行可降低运行损耗 P 为： $P=[1.345+0.1 \times 1.6 \times 630 \times 10^{-2} + 5.875 \times 0.82] - [0.42 + 0.1 \times 0.5 \times 630 \times 10^{-2} + 5.875 \times 0.82] = 1.68\text{kW}$

运行一年的经济效益和社会效益如下：

节约电能14174度(kWh)、节约电费8504元、节煤5.8吨；少排放二氧化碳11.7吨、相当于增加净化空气的森林面积31200²m。

Amorphous Dry Type Transformers No-load Loss is 3/4 less than the required data in GB/T10228-2008 Table 4 Group I, Compare SCBH15-630/10 with SC10 Dry Type transformer, the No-load Loss deducted 925W.

Suppose when $k_1=0.1\text{Kw/kVar}$; working hour/year $T=8760\text{h}$ payment of electricity charge=RMB 0.6 yuan/kWh, yearly on-load modulus is 0.8, a SCBH10 Amorphous Dry Type Transformer with the capacity is 630kVA can reduce loss P as following,

A year running economical and social benefit is:

Save electricity energy 14174(kWh) Discharge Less CO₂ 11.7T Save payment of electricity charge RMB 8504Yuan.

Save Coal 5.8T, It is to say this increased 31200m² forest area.