NAXZ系列全自动变频串联谐振高压试验装置

产品名称	NAXZ系列全自动变频串联谐振高压试验装置
公司名称	南澳电气（武汉）有限公司
价格	100.00/套
规格参数	品牌:南澳电气(武汉)有限公司 型号:NAXZ 用途:针对10kV、35kV、110kV、220kV、变电站及线路等所有电气主设备的交流耐压试验设计制造。
公司地址	武汉市东湖高新技术开发区光谷大道60号光谷科技产业园8栋
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产品详情

产品简介

NAXZ系列全自动变频串联谐振高压试验装置，主要针对10kV、35kV、110kV、220kV、变电站及线路等所有电气主设备的交流耐压试验设计制造。电抗器采用多只分开设计，既可满足高电压、小电流的设备试验条件要求，又能满足低电压的交流耐压试验要求，具有较宽的适用范围，是地、市、县级高压试验部门及电力安装、修试工程单位理想的耐压设备。

产品别名

变频谐振、变频串联谐振、串联谐振、串联谐振变压器、串联谐振试验设备、便携式电缆耐压试验装置、串联谐振系统

产品特性

1、所需电源容量大大减小。串联谐振电源是利用谐振电抗器和被试品电容谐振产生高电压和大电流的，在整个系统中，电源只需要提供系统中有功消耗的部分，因此，试验所需的电源功率只有试验容量的1/Q。

2、设备的重量和体积大大减少。串联谐振电源中，不但省去了笨重的大功率调压仪器和普通的大功率工频试验变压器，而且谐振激磁电源只需试验容量的1/Q，使得系统重量和体积大大减少，一般为普通试验仪器的1/10-1/30。

3、改善输出电压的波形。谐振电源是谐振式滤波电路，能改善输出电压的波形畸变，获得很好的正弦波形，有效的防止了谐波峰值对试品的误击穿。

4、防止大的短路电流烧伤故障点。在串联谐振状态，当试品的绝缘弱点被击穿时，电路立即脱谐，回路电流迅速下降为正常试验电流的1/Q。而并联谐振或者试验变压器方式做耐压试验时，击穿电流立即上升几十倍，两者相比，短路电流与击穿电流相差数百倍。所以，串联谐振能有效的找到绝缘弱点，又不存在大的短路电流烧伤故障点的忧患。

5、不会出现任何恢复过电压。试品发生击穿时，因失去谐振条件，高电压也立即消失，电弧即刻熄灭，且恢复电压的再建立过程很长，很容易在再次达到闪络电压前断开电源，这种电压的恢复过程是一种能量积累的间歇振荡过程，其过程长，且不会出现任何恢复过电压。

产品参数

1.变频电源(一台)：

1.1技术参数

1.1.1 额定功率：5.5-500kW；

1.1.2 输入电压：三相 380V±5% 或单相220V±5%
45～65Hz，当电源为380V时，可做额定负载试验；当电源为220V时，只可做1/2负载试验。

1.1.3 输出电压：0～400V可调

1.1.4 输出电压频率：20～300Hz

1.1.5 频率调节:0.1Hz步进可调

1.1.6 频率不稳定度:≤0.02%

1.1.7 输出电流：13～1250A

2. 高压电抗器

2.1 技术参数

2.1.1 额定工作电压：0～1000kV

2.1.2 额定工作电流：1～10A

2.1.3 额定电感量：30～600H

2.1.4 连续工作时间：15min

2.1.5 温　升：小于60℃

2.1.6 工作频率：20~300Hz

3. 激励变压器(一台)：

3.1 技术参数

3.1.1 额定容量：3.5～500kVA

3.1.2 输入电压：当容量在5.5～20kW输入是200V/400V

当容量在20～500kW输入是400V

4. 电容分压器(一台)：

4.1 技术参数

4.1.1自身电容量：300～5000pF

4.1.4额定电压:10～1000kV

4.1.2工作频率：20～300Hz

4.1.3不确定度：1.0%

Product introduction

NAXZ series frequency series resonant is mainly designed for 10kV, 35kV, 110kV, 220kV, substations and loop and all electrical main AC voltage test equipment design and manufacturing. Reactor uses more than just separate design, not only can meet the high-voltage, low-current device test conditions requirements, but also can meet the low voltage AC voltage testing requirements. It has a wide scope, is the ground, city, county high voltage test departments and electrical installation, repair and test engineering units ideal for pressure equipment.

Also called name

Frequency resonant, frequency series resonant , series resonance, series resonant transformer, series resonant testing device, portable cable withstands testing device, series resonant system

The Characteristics of the products

1,Reduce the power capacity greatly. The series resonant power supply utilizing the resonant reactor and the sample capacitor resonant generate high voltage and high current. In the whole system , the power system only provide the part of the active consumption, therefore, the needed power is 1 / Q of the testing capacity.

2,Reducing the weight and volume greatly. In the series resonant power supply , not only to eliminate bulky power regulator, power instruments and other common frequency test transformer and resonant excitation power simply test the capacity of 1 / Q, making the system significantly reduces the weight and volume , usually common test instrument 1/10-1/30 .

3,To improve the output voltage waveform. Resonant power supply is a resonant filter circuit , can improve the output voltage waveform distortion, get a good sine wave , effectively prevent the harmonic peak error for the test product breakdown .

4,To prevent large short-circuit current fault burns. In the series-resonant state, when the test insulation breakdown weaknesses , the circuit is immediately off the harmonic , the loop current is rapidly decreased to normal test current of 1 / Q. The parallel resonant transformer test or way of doing pressure test , the breakdown current immediately

increased several times, both compared to short-circuit current and the breakdown current difference between the number of times. Therefore, the series resonance can effectively find insulation weaknesses, without the presence of large short-circuit current suffering burns the point of failure .

5,There will be no recovery over voltage. Sample breakdown occurs when the loss of resonance conditions , the high voltage is also disappear immediately , instantly extinguish the arc , and the recovery voltage re- building process is very long, it is easy to reach flash over voltage again before disconnecting the power , this voltage is restored process is an intermittent oscillation energy accumulation process , the process is long .

The parameters of the products

1 Variable frequency power source(1piece) :

1.1 Technical Parameters

1.1.1 Rated power :5.5-500kW;

1.1.2 Input voltage: three-phase 380V ± 5% or single-phase 220V ± 5% 45 ~ 65Hz, when the power supply is 380V, can test the rated load ; when the power supply is 220V, only can test 1/ 2 load.

1.1.3 Output voltage : 0 ~ 400V adjustable

1.1.4 Output voltage frequency : 20 ~ 300Hz

1.1.5 Frequency adjustment : 0.1Hz step adjustable

1.1.6 Frequency instability : ≤ 0.02%

1.1.7 Output Current : 13 ~ 1250A2. High Voltage Reactor

2.1 Technical Parameters

2.1.1 rated voltage :0-1000kV

2.1.2 Rated current :1-10A

2.1.3 Nominal inductance :30-600H

2.1.4 Continuous working time : 15min

2.1.5 Temperature rise : less than 60 degrees

2.1.6 Operating frequency : 20 ~ 300Hz 3. Excitation transformer (a) :

3.1 Technical parameters

3.1.1 Rated Capacity :3.5-500kVA

3.1.2 Input voltage: 5.5-20kW capacity when input is 200V/400V, when the capacity is in the 20-500kW 400V input

4 capacitive divider (a) :

4.1 Technical Parameters

4.1.1 own capacity :300-5000pF

4.1.4 Rated voltage :10-1000kV

4.1.2 Operating frequency : 20 ~ 300Hz

4.1.3 Uncertainty : 1.0%