

# YGZQ series

## Over Voltage Cycle Test System For Shunt Capacitor



Over Voltage Cycle Test System is the type test, repeated over voltage from lowest rated temperature to the ambient temperature to improve the dielectric performance for the shunt capacitor above 10kV. In the recent year, this test is more popular to done in the modern factory.

YGZQ series Over Voltage Cycle Test system can be totally arrive all the requirement for this test, it meet the GB/T 11024.2-2001 and IEC/TS 60871-2:1999 standard.

YGZQ series Over Voltage Cycle Test system is made up by test transformer, high speed response voltage regulator, compensating reactor, voltage divider and automatic control and measuring system. The system is design for heavy duty, even it can permit long time continuous running, the test voltage up to 50kV.

The high speed response voltage regulator of YGZQ series Over Voltage Cycle Test system use the most modern and stability IGBT part, it can change from zero to

any voltage what lower than rated voltage in one sine waveform, one addition function is the system also can viable the frequency from 30hz-300Hz to arrive some special power capacitor test requirement.

The automatic control and measuring system of YGZQ series Over Voltage Cycle Test system is windows base and labview, it can automatic compensating by difference test object, record voltage waveform, current waveform, ambient temperature, RMS HV voltage, running time and over voltage cycle time. Also it have prefect safety function design, like over voltage, over current, emergency stop, door limit switch etc.

### Feature:

1. Automatic change the compensating reactor to compensating to the difference power capacitor
2. Totally arrive GB/T 11024.2-2001 and IEC/TS 60871-2:1999, automatic process the test.
3. Automatic and accuracy record the each voltage waveform, current waveform.
4. Liner adjust the inductance of the compensating reactor
5. Built-in protection against electrical insulation failure of the test object and against stray electrical fields
6. Simple Operation, automatic control and measuring
7. Max voltage up to 50kV, capacitance up to 500kVar.
8. Test frequency from 30Hz-300Hz
9. Voltage response time is lower 0.02 second.

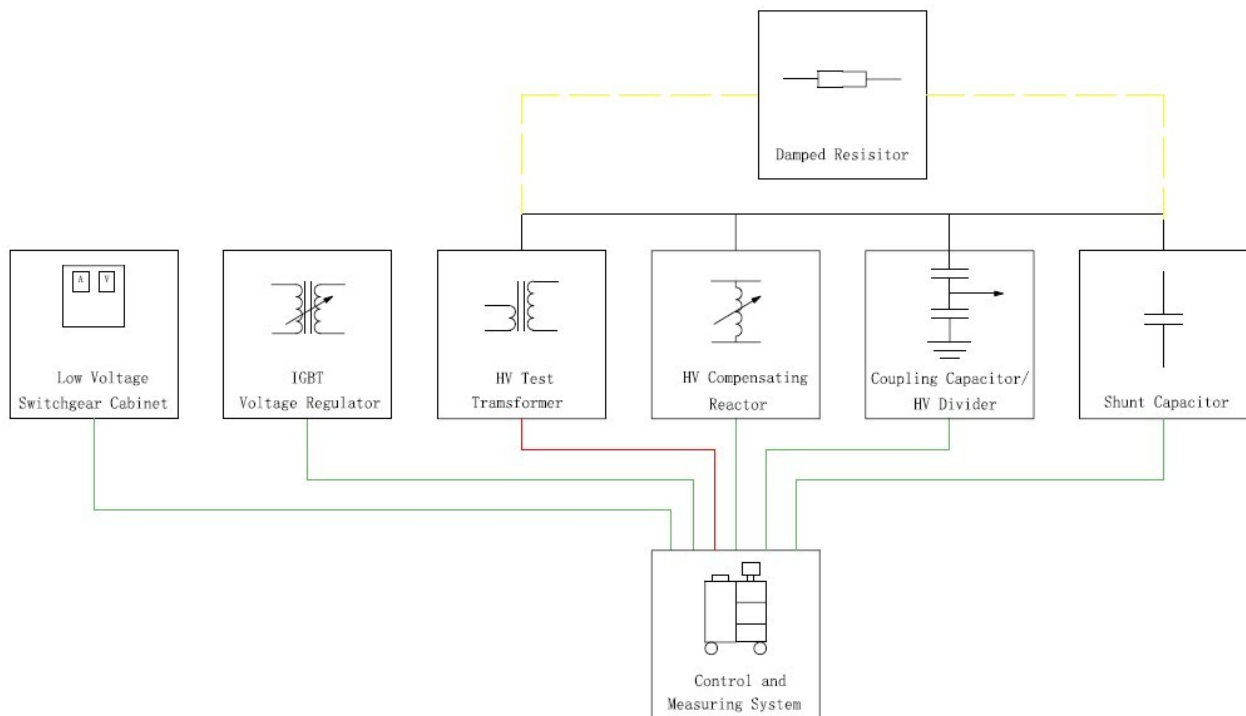
### APPLICATIONS

Power Capacitor

## Design

**YGZQ series** Over Voltage Cycle Test System is designed according to GB/T 11024.2-2001 and IEC/TS 60871-2:1999 standard, it include the HV test transformer, High speed response voltage regulator (IGBT), HV divider, Compensating Reactor, Digital control and measuring system etc,

### Block-diagram of shunt capacitor



Compensating reactor use the viable inductance design, from minimum inductance to maximum inductance is has 20 times range, it is good for user to accuracy compensating to any shunt capacitor if the capacitance in the rated load. Also it can permit the test transformer in the lowest capacity rating. Instead of the traditional reactor, it can be viable inductance by motor, it need not any person to change any taps or bushing out by hand. It save time, also more safety.

High speed voltage regulator use IGBT technology , it can permit response time in  $<1\text{mS}$ , also it can have the additional function for viable the frequency to test the shunt capacitor in difference frequency. It design for the continuous running and it equip strong air cooling system to permit the temperature rise lower than  $30\text{k}$ .

Automatic control and measuring system is made by modern control desk and separate control box, from control box to control desk, it use the fiber glass cable, the software is designed by Labview and Window XP base. Easy use, after setting the system, all the running automatic.



## Specification (YGZQ-30)

### Specification

#### Test Transformer

Capacity:	30kVA
Output Voltage:	6000V+6000V
Input Voltage:	400V (50Hz/60Hz)

#### High Speed Response Voltage Regulator

Capacity:	30kVA
Output Voltage:	400V
Input Voltage:	380-440V (50Hz/60Hz)

#### Compensating Reactor

Inductance:	320mH-6400mH
Current:	100A
Liner Adjust by 220V DC motor;	

#### Coupling Capacitor Divider

Voltage:	15kV
Capacitance:	100pF
Divider Ratio:	100:1

#### Automatic Control and Measuring System

Accuracy:	
AC Voltage:	0.5%
AC Current:	0.5%
Frequency:	0.5%

**Range:**

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AC Voltage: 0-200V

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AC Current: 0-150A

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Frequency: 20-300Hz

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**Environmental Conditions**

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Operating Temperature: -10° C ~ 40° C

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Humidity: < 90%

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**Power Supply**

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Voltage: 380V±10%

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Frequency: 50/60Hz

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Power: 30kVA

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**Weight and Dimension**

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Dimensions:

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Weight:

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**For further information please contact:**

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