

# Combined Transformer Substation

This combined transformer substation is a compact and cost-effective solution for power distribution. It is easy to install, operate, and maintain, making it suitable for various applications.



## ADDITIONAL IMAGES



## Overview

### ZGS Combined Type Transformer Substation

The ZGS11 combined type transformer substation is a compact and cost-effective power distribution solution following American design principles. By integrating high-voltage switchgear, distribution transformers, and low-voltage switches into a single enclosure, it significantly reduces volume and installation costs. This reliable system is engineered for high mechanical strength and energy conservation, making it ideal for demanding B2B infrastructure projects.

## Key Benefits

### Core Advantages

- Compact design with low installation cost
- Low energy loss and strong over-load capability
- Low noise operation for environmental protection
- High mechanical strength and reliable performance
- Easy operation and maintenance

## Technical Ratings

### Performance Metrics

**1600 kVA**

Maximum Rated Capacity

**11 kV**

Max HV Rated Voltage

**0.4 kV**

LV Rated Voltage

## Installation Conditions

Ambient Air Temperature	-25°C to +40°C
Maximum Altitude	1000 m
Relative Humidity	d 95% $\leq$ t +25 )
Maximum Wind Speed	35 m/s
Seismic Acceleration	Horizontal d 0.4m/s <sup>2</sup> , Vertical d 0.2m/s <sup>2</sup>

## Application Areas

Usage Scenarios	Industrial Parks, High-rise Buildings, Residential Districts, Wharfs & Ports, Airports, Hotels, Business Centers
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## Compliance & Standards

### Applicable Standards

GB1094.1 • GB/T6451-2008 • GB1094.3.5-2003 • DL/T 537-93 • ZBK4001-89

## Technical Specifications

Technical parameters

Model	Rated Capacity (kVA)	Connection	Rated Voltage			No-load loss (W)	On-load loss (145°C) (W)	No-load current (%)	short circuit impedance (%)
			HV kV	Tapping range	LV kV				
ZGS11-Z(H)-100/10	100	Yyn0 or Dyn11	6 6.3 10 10.5 11	$\pm 2 \pm 2.5\%$ ±5%	0.4	200	1500	0.8	4
ZGS11-Z(H)-125/10	125					240	1800	0.8	
ZGS11-Z(H)-160/10	160					280	2200	0.7	
ZGS11-Z(H)-200/10	200					320	2600	0.7	
ZGS11-Z(H)-250/10	250					400	3050	0.6	
ZGS11-Z(H)-315/10	315					480	3680	0.6	
ZGS11-Z(H)-400/10	400					560	4300	0.5	
ZGS11-Z(H)-500/10	500					680	5100	0.5	
ZGS11-Z(H)-630/10	630					810	6200	0.5	
ZGS11-Z(H)-800/10	800					980	7500	0.4	
ZGS11-Z(H)-1000/10	1000					1150	10000	0.4	
ZGS11-Z(H)-1250/10	1250					1360	12000	0.4	
ZGS11-Z(H)-1600/10	1600	1600	14500	0.3					

Note: All the dimension and weight is for reference only.

Comprehensive technical specifications including rated capacity, voltage ranges, and loss parameters for various ZGS11 models.

### Model Parameters Reference

Model	Capacity (kVA)	No-load Loss (W)	On-load Loss (W)	Impedance (%)
ZGS11-Z(H)-100/10	100	200	1500	4%
ZGS11-Z(H)-250/10	250	400	3050	4%
ZGS11-Z(H)-500/10	500	680	5100	4%
ZGS11-Z(H)-800/10	800	980	7500	4.5%
ZGS11-Z(H)-1250/10	1250	1360	12000	4.5%
ZGS11-Z(H)-1600/10	1600	1600	14500	4.5%

Connection Types	Yyn0, Dyn11
HV Tapping Range	$\pm 2 \times 2.5\%$ or $\pm 5\%$