



景观型地理式变电站
BURIED LANDSCAPE SUBSTATION

产品概述

Product Overview

传统的箱式变电站错落无序地挤占闹市的黄金地面，与优美的城市环境逐渐显得很很不和谐。同时，城市规划、高速公路、公共设施的建设对电力设备的要求也越来越高，在欧、美、日等发达国家，已按照城市生态设计理念，逐步将变压器埋入地下安装。地理式箱变就是为了满足上述领域的要求而引进，设计，开发的全新的一种电力成套设备。景观型地理式变电站(简称地理式箱变)近几年正以其独特技术和综合经济优势逐渐被我国配电市场所接受。

The traditional Prefabricated Substation scattered on the ground, which seems to be not harmonious with the beautiful city environment. At the same time, urban planning, highways, and public facilities are becoming more demanding on electrical equipments. The transformers are gradually buried underground in developed countries in Europe, America and Japan responding to the call of urban ecological design concept. To meet the above mentioned requirements, the buried prefabricated substation has been introduced, designed and developed as a new complete set of electrical equipment. Landscape buried prefabricated substation in recent years with its unique technology and comprehensive economic advantages gradually accepted by China's distribution market.

产品特点

Product Features

- 1、适合城市环境（安装在地下室和地窖内），尤其适合人口密集的中心城市；
 - 2、适合街道、高速公路、桥梁、隧道、停车场、机场、港口、旅游景点等的照明和动力系统；
 - 3、高低压柜的保护外壳采用双层门结构，防护等级达到IP3X，体积小、轻便、绿色节能的LED发光组件，现场的安装简单快捷；
 - 4、变压器本体外壳采用防腐蚀不锈钢、全密封制作；
 - 5、保护系统充分考虑到设备的操作性以及安全性；
 - 6、考虑到散热条件的特殊性，变压器自身以低损耗和低温度设计为客户大大节省了成本，充分满足散热条件的特殊性；
 - 7、设备地上部分可根据客户的要求，灵活的采用不同的材料来进行预制；
 - 8、变压器地坑内安装防水进入保护及自动排水装置。
- 1、 Suitable for urban environment (installed in the basement and cellar), especially for center of densely populated urban areas.
 - 2、 Suitable for lighting and power systems in streets, highways, bridges, tunnels, parking lot, airports, sea ports, tourist attractions, etc.
 - 3、 IP34 protection enclosure of HV and LV cubicles adopts two-door construction. Small size, light, energy-saving LED lightning components, easy and fast site installation.
 - 4、 The transformer main body enclosure uses anticorrosive stainless steel and whole sealed.
 - 5、 The protection system fully considers the operability and security of the equipment.
 - 6、 To meet the particularity of the cooling conditions, transformer designed with low loss and temperature in order to save customer cost greatly.
 - 7、 The part of equipment in the upper ground can be prefabricated with different materials flexibly according to the requirements of the clients
 - 8、 Install waterproof and automatic drainage device in the pit which transformer buried in.

型号 Type	变压器型号 Model	电压组合 Voltage		容量 Capacity (kV·A)	空载损耗 No load loss (kW)	负载损耗 Load loss (kW)	空载电流 No load current (%)	短路阻抗 Short- circuit impedance (%)	地坑外形尺寸 Pit Dimension L×W×H (mm)	广告箱尺寸 Advertising box Dimension L×W×H (mm)	低压配置 L.V. Allocation
		高压 (kV) H.V.	低压 (kV) L.V.								
ZGSZ□-D- 12/0.4-80	S11-M-D-80/10	6	0.4	80	0.180	1.31/1.25	1.2	4.0	2400×1600×1800	3000×1000×2300	低压二路出线 +电容补偿30%
	S13-M-D-80/10			80	0.130	1.31/1.25	1.2	4.0	2400×1600×1800	3000×1000×2300	
	SBH15-M-D-80/10			80	0.060	1.31/1.25	1.0	4.0	2400×1600×1800	3000×1000×2300	
ZGSZ□-D- 24/0.4-80	S11-M-D-80/20			80	0.180	1.44/1.37	1.8	5.5	2400×1600×1800	3000×1000×2300	outgoing+30% capacitance compensation
	S13-M-D-80/20			80	0.145	1.44/1.37	1.8	5.5	2400×1600×1800	3000×1000×2300	
	SBH15-M-D-80/20			80	0.075	1.44/1.37	1.0	5.5	2400×1600×1800	3000×1000×2300	
ZGSZ□-D- 12/0.4-100	S11-M-D-100/10			100	0.200	1.58/1.50	1.1	4.0	2400×1600×1800	3000×1000×2300	低压三路出线 +电容补偿30%
	S13-M-D-100/10			100	0.150	1.58/1.50	1.1	4.0	2400×1600×1800	3000×1000×2300	
	SBH15-M-D-100/10			100	0.075	1.58/1.50	0.90	4.0	2400×1600×1800	3000×1000×2300	
ZGSZ□-D- 24/0.4-100	S11-M-D-100/20			100	0.200	1.73/1.65	1.6	5.5	2400×1600×1800	3000×1000×2300	LV three lines outgoing+30% capacitance compensation
	S13-M-D-100/20			100	0.160	1.73/1.65	1.6	5.5	2400×1600×1800	3000×1000×2300	
	SBH15-M-D-100/20			100	0.090	1.73/1.65	0.90	5.5	2400×1600×1800	3000×1000×2300	
ZGSZ□-D- 12/0.4-125	S11-M-D-125/10	125	0.240	1.89/1.80	1.1	4.0	2400×1600×1800	3000×1000×2300			
	S13-M-D-125/10	125	0.170	1.89/1.80	1.1	4.0	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-125/10	125	0.085	1.89/1.80	0.80	4.0	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 24/0.4-125	S11-M-D-125/20	125	0.240	2.08/1.98	1.5	5.5	2400×1600×1800	3000×1000×2300			
	S13-M-D-125/20	125	0.190	2.08/1.98	1.5	5.5	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-125/20	125	0.100	2.08/1.98	0.80	5.5	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 12/0.4-160	S11-M-D-160/10	160	0.280	2.31/2.20	1.0	4.0	2400×1600×1800	3000×1000×2300			
	S13-M-D-160/10	160	0.200	2.31/2.20	1.0	4.0	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-160/10	160	0.100	2.31/2.20	0.60	4.0	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 24/0.4-160	S11-M-D-160/20	160	0.290	2.54/2.42	1.4	5.5	2400×1600×1800	3000×1000×2300	低压四路出线 +电容补偿30%		
	S13-M-D-160/20	160	0.230	2.54/2.42	1.4	5.5	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-160/20	160	0.120	2.54/2.42	0.60	5.5	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 12/0.4-200	S11-M-D-200/10	200	0.340	2.73/2.60	1.0	4.0	2400×1600×1800	3000×1000×2300	outgoing+30% capacitance compensation		
	S13-M-D-200/10	200	0.240	2.73/2.60	1.0	4.0	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-200/10	200	0.120	2.73/2.60	0.60	4.0	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 24/0.4-200	S11-M-D-200/20	200	0.340	3.00/2.86	1.3	5.5	2400×1600×1800	3000×1000×2300			
	S13-M-D-200/20	200	0.270	3.00/2.86	1.3	5.5	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-200/20	200	0.145	3.00/2.86	0.60	5.5	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 12/0.4-250	S11-M-D-250/10	250	0.400	3.20/3.05	0.90	4.0	2400×1600×1800	3000×1000×2300			
	S13-M-D-250/10	250	0.290	3.20/3.05	0.90	4.0	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-250/10	250	0.140	3.20/3.05	0.60	4.0	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 24/0.4-250	S11-M-D-250/20	250	0.400	3.52/3.35	1.2	5.5	2400×1600×1800	3000×1000×2300	低压五路出线 +电容补偿30%		
	S13-M-D-250/20	250	0.320	3.52/3.35	1.2	5.5	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-250/20	250	0.165	3.52/3.35	0.60	5.5	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 12/0.4-315	S11-M-D-315/10	315	0.480	3.83/3.65	0.90	4.0	2400×1600×1800	3000×1000×2300	outgoing+30% capacitance compensation		
	S13-M-D-315/10	315	0.340	3.83/3.65	0.90	4.0	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-315/10	315	0.170	3.83/3.65	0.50	4.0	2400×1600×1800	3000×1000×2300			
ZGSZ□-D- 24/0.4-315	S11-M-D-315/20	315	0.480	4.21/4.01	1.1	5.5	2400×1600×1800	3000×1000×2300			
	S13-M-D-315/20	315	0.385	4.21/4.01	1.1	5.5	2400×1600×1800	3000×1000×2300			
	SBH15-M-D-315/20	315	0.200	4.21/4.01	0.50	5.5	2400×1600×1800	3000×1000×2300			

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		高压 (kV) H.V.	低压 (kV) L.V.									
ZGSZ□-D- 12/0.4-400	S11-M-D-400/10	6	0.4	400	0.570	4.52/4.30	0.80	4.0	2400×1600×1800	3000×1000×2300	低压六路出线 +电容补偿30%	
	S13-M-D-400/10			400	0.410	4.52/4.30	0.80	4.0	2400×1600×1800	3000×1000×2300		
	SBH15-M-D-400/10			400	0.200	4.52/4.30	0.50	4.0	2400×1600×1800	3000×1000×2300		
ZGSZ□-D- 24/0.4-400	S11-M-D-400/20			400	0.570	4.97/4.73	1.0	5.5	2400×1600×1800	3000×1000×2300		
	S13-M-D-400/20			400	0.455	4.97/4.73	1.0	5.5	2400×1600×1800	3000×1000×2300		
	SBH15-M-D-400/20			400	0.240	4.97/4.73	0.50	5.5	2400×1600×1800	3000×1000×2300		
ZGSZ□-D- 12/0.4-500	S11-M-D-500/10			500	0.680	5.41/5.15	0.80	4.0	2400×1600×1800	3000×1000×2300		
	S13-M-D-500/10			500	0.480	5.41/5.15	0.80	4.0	2400×1600×1800	3000×1000×2300		
	SBH15-M-D-500/10			500	0.240	5.41/5.15	0.50	4.0	2400×1600×1800	3000×1000×2300		
ZGSZ□-D- 24/0.4-500	S11-M-D-500/20			500	0.680	5.94/5.66	1.0	5.5	2400×1600×1800	3000×1000×2300		
	S13-M-D-500/20			500	0.545	5.94/5.66	1.0	5.5	2400×1600×1800	3000×1000×2300		
	SBH15-M-D-500/20			500	0.290	5.94/5.66	0.50	5.5	2400×1600×1800	3000×1000×2300		
ZGSZ□-D- 12/0.4-630	S11-M-D-630/10	630	0.810	6.20	0.60	4.5	2400×1600×1800	3000×1000×2300				
	S13-M-D-630/10	630	0.570	6.20	0.60	4.5	2400×1600×1800	3000×1000×2300				
	SBH15-M-D-630/10	630	0.320	6.20	0.30	4.5	2400×1600×1800	3000×1000×2300				
ZGSZ□-D- 24/0.4-630	S11-M-D-630/20	630	0.810	6.82	0.90	6.0	2400×1600×1800	3000×1000×2300				
	S13-M-D-630/20	630	0.650	6.82	0.90	6.0	2400×1600×1800	3000×1000×2300				
	SBH15-M-D-630/20	630	0.370	6.82	0.30	6.0	2400×1600×1800	3000×1000×2300				
ZGSZ□-D- 12/0.4-800	S11-M-D-800/10	800	0.980	7.50	0.60	4.5	2400×1600×1800	3000×1000×2300				
	S13-M-D-800/10	800	0.700	7.50	0.60	4.5	2400×1600×1800	3000×1000×2300				
	SBH15-M-D-800/10	800	0.380	7.50	0.30	4.5	2400×1600×1800	3000×1000×2300				
ZGSZ□-D- 24/0.4-800	S11-M-D-800/20	800	0.980	8.25	0.80	6.0	2400×1600×1800	3000×1000×2300				
	S13-M-D-800/20	800	0.785	8.25	0.80	6.0	2400×1600×1800	3000×1000×2300				
	SBH15-M-D-800/20	800	0.450	8.25	0.30	6.0	2400×1600×1800	3000×1000×2300				

选型说明

- 1、设备外壳：可根据用户需要采用景观灯箱外壳或其它材料外壳。
- 2、设备高压回路由以下两种选择：
a：可根据用户需要将终端型或环网型油浸式负荷开关放在地理式变压器本体油箱内，可参考方案图二。
b：可根据用户需要将环网柜放在景观灯箱内，可参考方案图一。
- 3、设备变压器：可根据用户需要采用油浸式变压器、非晶合金变压器。
- 4、设备低压回路：列表中低压回路为常规配置，用户可根据实际需要配置，确定方案。
- 5、设备电容补偿：可分为智能电容和普通电容；容量可根据用户的需求而定。

Note:

- 1、Landscape light enclosure or other material enclosure can be selected as per customer's requirements
- 2、Equipment of H.V circuit has following two options:
a. Put terminal or ring main type oil-immersed load switch in the buried transformer tank like Plan 2
b. Put ring main cabinet into the landscape lamp box, like Plan 1
- 3、Adopt oil-immersed transformer or amorphous alloy transformer as per customer's requirements
- 4、L.V circuit in above list is the general configuration, it can be changed as per customer's requirements.
- 5、Equipment capacitance compensation can be divided into intelligent capacitance and common capacitor.It's capacity can be changed as per customer's requirements.