



概述 General



YFYB 系列智能型箱式变电站是由伊发公司自立开发的最新产品,它吸收了美式箱变、欧式箱变和国产箱变三大派别的优点,适合于我国的国情特点,采用了环保、新材料、新工艺及先进的元器件和高压自动化技术,其中高压(12KV)侧能满足电力部门对于配电网自动化的要求,低压(0.4KV)侧能满足小区物业管理智能化的要求,可以用设置在中心站或物业管理处的上位机对箱式变电站进行“四遥”(遥测、通讯、遥调、遥控)系统管理。当多台智能型箱式变电站连接成“手拉手”环网供电时,在自主软件配合下,能完成故障区段自动定位、故障切除、负荷转带、网络重构等功能,从而保证在一分钟内恢复送电。该系列智能型箱式变电站是由高压单元、电力变压器、低压单元、计量单元及智能系统等,优化组合成的完整的智能化供电成套装置,它功能多、用途广,运行安全可靠,外型美观,并具有安装方便、少占地、少维护、少投资、见效快、寿命长等特点。可作为城市建筑、居民小区、市政设施、工厂、矿山、公路、码头、油田及施工临时用电等部门、场所的变配电设备。

Intelligent box substation of series YF, YB, the newest product developed independently by Yifa Company, integrates the advantages of American box substation, European box substation and home box substation, which adopts environment protection and new material, new technology and advanced components as well as high-low voltage automation technology, and among them, the high voltage side (12KV) can meet the demand of power department for power distribution automation, and the low voltage side (0.4KV) can meet the demand of intelligent community property management, and the upper monitor which is located in the central station or the property management department can be used for four-remote (remote measurement, remote communication, remote adjustment, remote control) system management. When several intelligent box substations connect into “hand-in-hand” ring network and supply power, they, combined with autonomous software, can accomplish the functions of automatic location, fault clearance, load shifting and network reconfiguration at the fault section, so that the recovery of power transmission is guaranteed in one minute. This series of intelligent box substation is one optimized combination of complete intelligent power supply and distribution integrated device consisting of high voltage unit, power transformer, low voltage unit, metering unit and intelligent system, etc. It has the characteristics of multi-functions, wide application, safe and reliable operation, beautiful outline, as well as convenient installation, little land occupation, little maintenance, low cost, quick effect and long service life. It can be used as power transformation and distribution equipment in the following departments and places, such as urban architecture, residential areas, municipal facilities, factories, mines, roads, wharves and oil fields, as well as construction in need of temporary power supply.

产品型号及含义 Product type and meaning

YF Y B □ □ -12/0.4-(□) / □ - □

- 变压器额定容量 kVA Rated capacity of transformer
- 高压开关设备配用操作机构类别
Matched operation mechanism sort for high voltage switch device
- 高压开关设备配备主开关类别
Matched main switch sort for high voltage switch device
- 设计序号 Design No.
- 结构特征: P-“品”字形 M-“目”字形
Structural feature: P- “品” form M- “目” form
- 变电站 Transformer substation
- 预装式 Prefabricated
- 企业代号 Enterprise code

主要技术参数 Main technical parameters

项目 Item	单位 Unit	高压电器 High voltage electrical equipment	变压器 Transformer	低压电器 Low voltage electrical equipment
额定电压 Rated voltage	kV	7.2, 12	6/0.4, 10/0.4	0.4
额定容量 Rated capacity	kVA		自型 “目” type: 200~1250 自型 “品” type: 50~400	
额定电流 Rated current	A	200~630		100~3000
额定开断电流 Rated breaking current	A	负荷开关 Load switch 400~630A		15~63
	kA	组合电器取决于熔断器 Combined electrical equipment is dependent on fuse		
额定短时耐受电流(秒) Rated short time withstand current	kA(xs)	20 × (2) (12.5 × 4)	200~400kV-A 400kV-A	15 × 1 30 × 1
额定峰值耐受电流 Rated peak withstand current	kA	31.5, 50	200~400kV-A 400kV-A	30 63
额定关合电流 Rated closing current	kA	31.5, 50		
工频耐受电压 Line frequency withstand voltage	kV	相对地及相同 Phase to earth and phase similar 32.40 隔离断口 Isolated fracture 34.48	油浸 Oil immersion: 35/5min 干式 Dry type: 28/5min	≤ 300V ± 2kV 300,600V ± 2.5kV
雷击冲击 Thunderstroke impact	kV	相对地及相同 Phase to earth and phase similar 60.75 隔离断口 Isolated fracture 75,85	75	
噪声水平 Noise level	dB		油浸 Oil immersion: <55 干式 Dry type: <65	
防护等级 Protection grade			IP23D	
外形尺寸 Outline dimension		根据所选变压器容量和形式, 选定不同的外形尺寸。 Choose different outline dimension according to the capacity and mode of selected transformer.		

YFYB 环保智能型预装式变电站

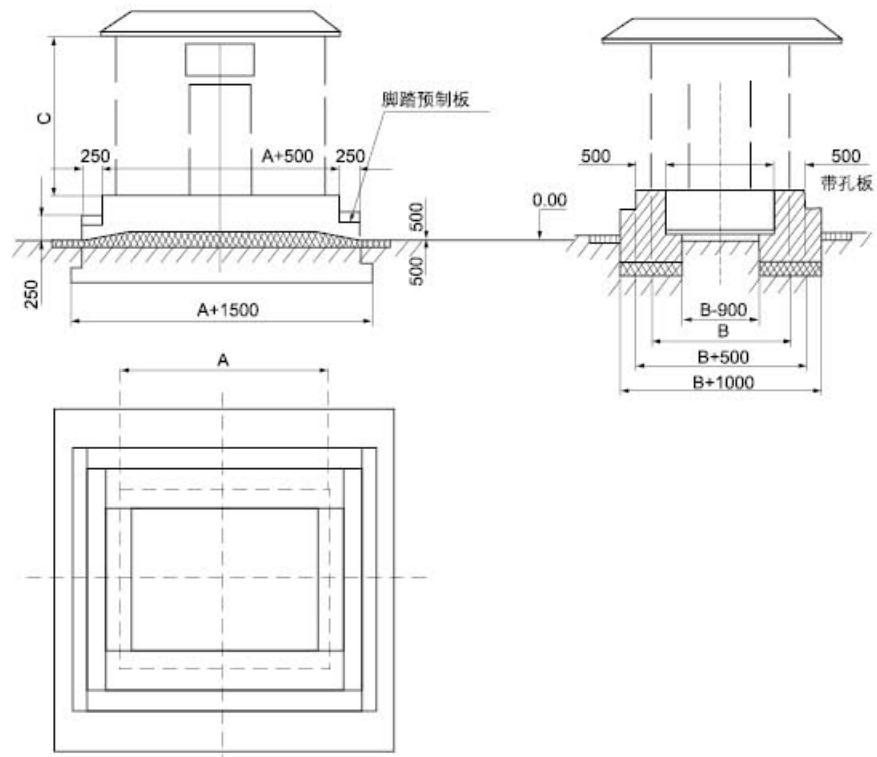
Intelligent prefabricated transformer substation



常用外形尺寸 Common outline dimension

序号 No.	箱体型式 Box type	外形尺寸 (mm) Outline dimension	结构形式 Structure form	操作方式 Operation mode
一	平顶型 Flat top type	3000 × 1600 × 2200	目字型 目-shaped	单面户外操作 Single-sided outdoor operation
		3200 × 2200 × 2500	目字型 目-shaped	单面户外操作 Single-sided outdoor operation
		3700 × 2300 × 2500	目字型 目-shaped	单面户外操作 Single-sided outdoor operation
		4000 × 2500 × 2500	目字型 目-shaped	单面户外操作 Single-sided outdoor operation
		4300 × 2500 × 2500	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
		4700 × 2500 × 2500	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
		5300 × 2500 × 2500	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
		6300 × 2500 × 2700	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
		8000 × 2500 × 2700	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
二	尖顶型 Fastigium typ	3200 × 2200 × 2500	目字型 目-shaped	单面户外操作 Single-sided outdoor operation
		3200 × 2500 × 2500	目字型 目-shaped	单面户外操作 Single-sided outdoor operation
		3600 × 2300 × 2500	品字型 品-shaped	单面户外操作 Single-sided outdoor operation
		4300 × 2300 × 2500	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
		4500 × 2300 × 2500	目字型 目-shaped	走廊式双面操作 Double-sided corridor operation
三	斜顶型 Slanted-top type	3500 × 2000 × 2500	品字型 品-shaped	单面户外操作 Single-sided outdoor operation
		2800 × 1800 × 2500	品字型 品-shaped	单面户外操作 Single-sided outdoor operation

安装基础图 Installation base diagram





高压主电路常用方案 Common scheme of high-voltage main circuit

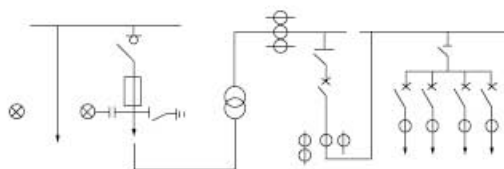
方案编号 Scheme No	01	02	03	04	05	06	07
单线图 Line diagram							
用途 Purpose	电缆进出线 Cable incoming and outgoing	电缆进出线 Cable incoming and outgoing	电缆进出线 Cable incoming and outgoing	电缆进出线 Cable incoming and outgoing	双电源电缆进出线 Incoming and outgoing line of dual power supply	左(左、右)联络、出线 Left(right) interconnection, outgoing line	高压计量 High voltage metering

低压主电路常用方案 Common scheme of low-voltage main circuit

方案编号 Scheme No	01	02	03	04	05	06	07
单线图 Line diagram							
用途 Purpose	受电 Electrification	受电 Electrification	馈电 Feeding	馈电 Feeding	无功补偿 Reactive compensation	受电计量 Electrification-metering	低压计量 Low-voltage metering

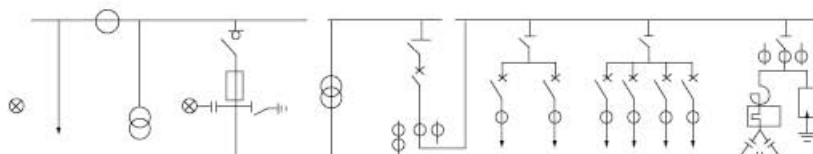
典型系统方案举例参考 Example of typical system scheme

电缆进出，终端供电，低压计量 Cable incoming and outgoing, terminal power supply, low voltage metering



电缆进出，终端供电，高压计量，低压走廊图，低压电容补偿

Cable incoming and outgoing, terminal power supply, high voltage metering, low voltage corridor diagram, low voltage capacitance compensation



电缆进出，环网供电，低压计量，低压走廊式，低压电容补偿

Cable incoming and outgoing, ring network power supply, low voltage metering, low voltage corridor diagram, low voltage capacitance compensation

