

Compact Substation

Prefabricated transformer

Logo & Packaging Customization

Parameter & Drawing Design Customization



OPTIMIZED
PERFORMANCE



HIGH
EFFICIENCY



SUPERIOR
SAFETY



ECO
FRIENDLY



MAINTENANCE
FREE



Overview

Advanced Technology & Economy: The HV switchgear, transformer, and LV switchgear are organically combined into a trinity. This prefabricated design significantly reduces the design workload, construction period, and labor costs compared to traditional civil engineering substations. The overall system investment is optimized for high efficiency.

High-Strength Enclosure (Long Lasting): The shell adopts a double-layer structure with special thermal insulation materials. Using aluminum-zinc coated plates or high-quality stainless steel, the surface undergoes electrostatic spraying treatment. It features excellent anti-corrosion, dust-proof, and moisture-proof capabilities, ensuring a long service life in harsh outdoor environments.

Safe & Reliable Operation: The substation adopts a "Mu" or "Pin" structure, dividing the interior into three independent isolated chambers: HV room, Transformer room, and LV room. Complete "Five-Prevention" mechanical interlocks are installed to prevent misoperation. The electrical gap allows for easy maintenance and guarantees personnel safety.

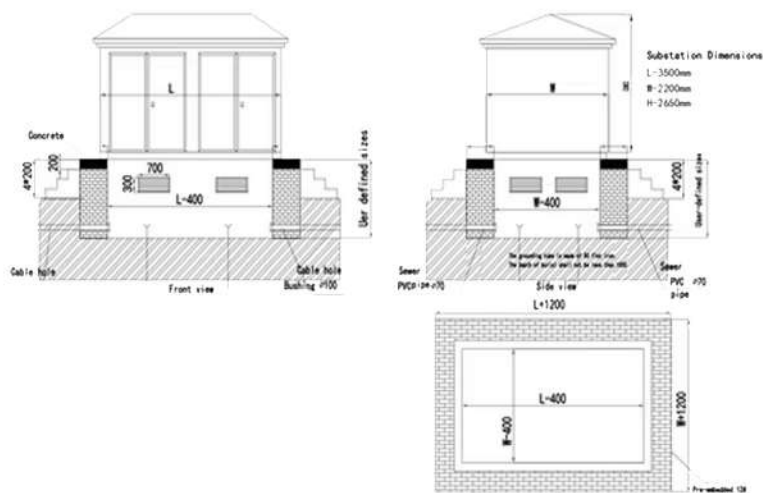
Compact & Environmentally Friendly (Small footprint): With a compact structure and high integration, it occupies a small land area (only 1/10 of a traditional substation). The exterior design is flexible and can be customized (e.g., landscape style) to coordinate beautifully with the surrounding environment, making it suitable for urban networks and residential areas.

Public Infrastructure (Airports/Stations)
High Integration, Low Maintenance & Secure



Wind & Solar Power Plants
Grid-Compatible, Weather-Resistant & Stable

Outline Drawing



Application



Urban Residential Districts
Space-saving, Aesthetically Pleasing & Safe

Industrial Parks & Factories
Deep into Load Center,
Efficient & Reliable



Construction Sites & Temporary Power
Plug-and-Play, Flexible & Movable

Accessories / Components



HV Ring Main
Unit (RMU)



Distribution
Transformer



LV Distribution
Panel



European Style
Cable Connector



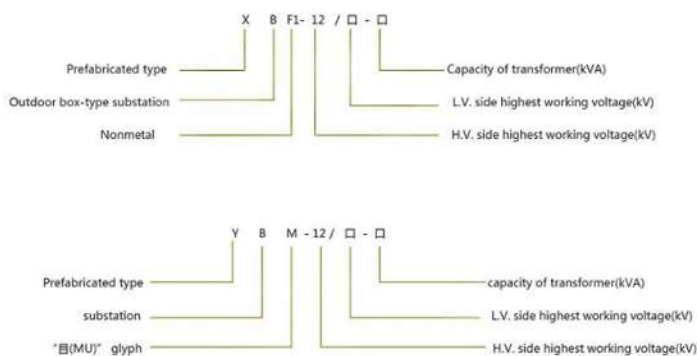
High-Voltage
Current-Limiting
Fuse

Technical Parameters

Main performance parameter

NO.	Item	Unit	Value		
			first	transformer	secondary
1	Rated voltage	kV	6,10	6,10/0.4	0.4
2	Rated current	A	20-200	115.5/4000	100-4000
3	Capacity of transformer	kVA		50-2500	
4	Rated short-circuit drop-out current	kA	31.5,50		30-50
5	Rated short-circuit closing current	kA	60		
6	Rated thermostability current	kA/s	20/2		30/1
7	Rated dynamic current(peak value)	KA	50		63
8	Power frequency withstand voltage 1min	KV	H.V. loop 42	H.V.fracture 48	
9	Lightning impulse withstand voltage	KV	loop 75, fracture 48		
10	Protection level		IP3X	IP2X	IP3S
11	Noise level		dry type less than 65dB, oil-immersed type less than 55dB		
12	Loop		1-10	1-2(pc)	4-20

Introduction of products model



Products usage

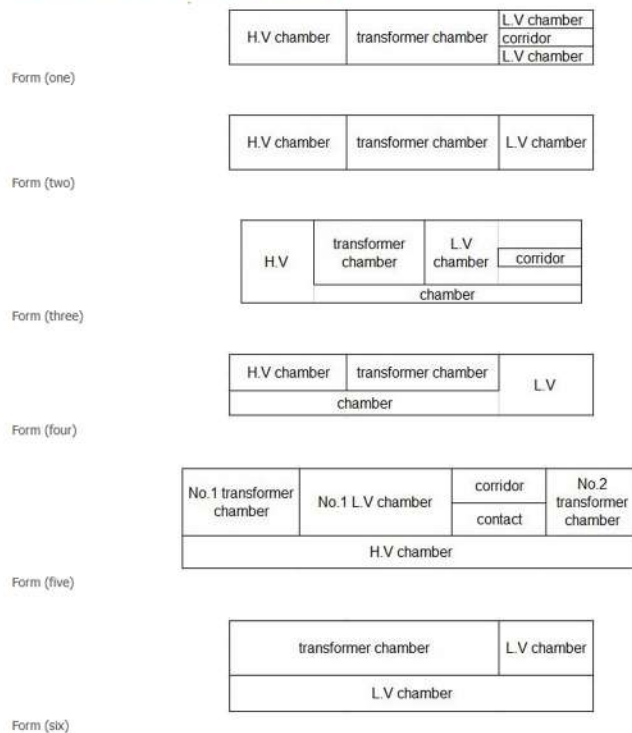
XB(F1)-12,YBM-12 series high/low voltage prefabricated substation, is a new power transformer equipment developed by our company on the basis of absorbing domestic and foreign products advantages, combing the actual situation of our national electricity-providing. This product meets national standards of GB/T17467-2010 《H.V./L.V prefabricated type substation》, DL/T537 《Technology conditions of ordering 6-35kv box-type substation》, etc., as the power-supply terminal of 6-10kv round-ring radial grids;

Capacity of transformer(kVA)	H.V. chamber assembly form	L.V. chamber assembly form	A	B	C	D	H
50-250	terminal	Y	2900	1800	3130	2030	2530
		Z	3500	2100	3730	2330	2530
	round-ring grids	Y	2900	2400	3130	2630	2530
		Z	3500	2400	3730	2630	2530
315-630	terminal	Y	3200	2200	3330	2430	2530
		Z	4000	2200	4230	2430	2530
	round-ring grids	Y	3200	2400	3430	2630	2530
		Z	4000	2400	4230	2630	2530
800-1000 (dry type)	terminal	Y	3800	2200	3430	2430	2530
		Z	4250	2200	4480	2430	2530
	round-ring grids	Y	3800	2400	3430	2630	2530
		Z	4250	2400	4480	2600	2530

Notes:

- more than 1000kVA, determine according to H.V and L.V outlet loops
- Y is low voltage chamber without corridor, Z is low voltage chamber with corridor
- this size uses 6-8 loops of L.V. outlet as example
- length (A,C) of high voltage chamber with corridor need be added 700-800mm

Products structure assembly forms



Installation and Maintenance

- Combination(box-type) transformer substation, when you receive it, pls check whether it is damaged during the transportation, if you find somewhere is damaged, you must inform relevant departments to check the reason; if the product will not be installed immediately, you should put it on a suitable place where need meet the conditions of normal operation.
- Installation of combination(box-type) substation should be based on the scheme of ordering and supplier's installation diagram; prepare the appropriate installed base and materials by users themselves; prepare grounding grids at the surrounding of base, grounding resistance not more than 4Ω.
- Lift the substation on the base, straighten and level, seal the gap between the substation and base by cement, and finally connect the cable.
- After complete the installation, you need crop some grass or trees around the substation to reduce sand to be blown into the substation inside, and it need be surrounded by fences.

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