



ZBW SERIES COMBINATION TRANSFORMER SUBSTATION

General:

To meet requirement of urban network construction, ZBW series combination substation is designed by our company with its own advantage such as compact, complete unit, reliable and safe, convenient maintenance, artistic appearance and so on. It is applicable for the outdoor administration of power supply such as high building, residential area, stations and wharfs, ports, factory and park.

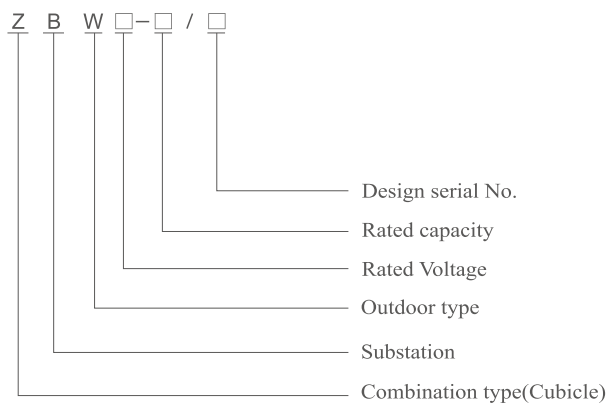
Feature :

- 1. The frame of substation is made of steel and angle iron galvanized to have the enough mechanical strength.
- 2. Cold-rolled steel sheet, stainless steel, aluminum alloy sheet or compound colorful sheet is used for the enclosure.
- 3. Each cubicle is separated by steel sheet to be different shape inside.
- 4. The illuminating devices are installed inside L.V.&H.V. cubicles and transformer cubicle for supervision and maintenance.
- 5. The cover is double-layer to prevent the heat from increasing temperature.
- 6. Natural ventilation is taken for transformer. When the temperature inside the transformer cubicle is higher than the set temperature, the fan installed on the top will start to work and control the temperature.
- 7. Sealing devices are put on the turning parts to be moisture-proof.
- 8. Perfect protection and convenient operation, particularly "five-proof"functions on H.V. side ensures the security of maintenance.
- 9. The product is good-looking and natural in certain environment

Operation condition:

Altitude:<1000m  
Ambient temperature:-25℃—+40℃  
Wind speed: <30m/s  
Relative humidity: <90%

Type designation:



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Main technical parameter:

Table 1

No	Item	Unit	High voltage apparatus	Transformer	Low voltage apparatus
1	Rated voltage $U_e$	kV	7.2、12	6/0.4、10/0.4	0.4
2	Rated capacity $S_e$	kVA		200~1250	
3	Rated current $I_e$	kA	200~630		100~3000
4	Rated drop out current	A kA	switch disconnector 400~630A subject to fuse if the combined appliance is adopted		15~63
5	Rated short time withstand current	kA	20(2S) 12.5(4S)	200~400kV A 400kV A	15 (1S) 30 (1S)
6	Rated crest withstand current	kA	31.5、50	200~400kV A 400kV A	30 63
7	Rated making current	kV	31.5、50		
8	1min power frequency withstand voltage	kV	phase to earth phase to phase42、30 across isolating distance 48、34	oil-immersed transformer:35/5min dry type:28/5 min	$\leq 300V$ when 2kV 300、660V when 2.5kV
9	lightning impulse withstand voltage	kV	phase to earth phase to phase85、75 phase to earth phase to phase85、75	75	
10	Noise	dB		oil-immersed transformer:< 55 dry type:< 65	
11	Protection class		IP33	IP23	IP33
12	outline dimension	Choose different dimension according to the capacity and type of power transformer			

Plan Layout And Outline Dimension:

Plan layout please see drawing 1-1, 1-2, 1-3, 1-4.

“type includes” 1-1 and 1-2

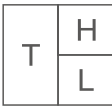
“type includes” 1-3 and 1-4



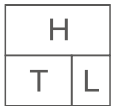
drawing 1-1



drawing 1-2



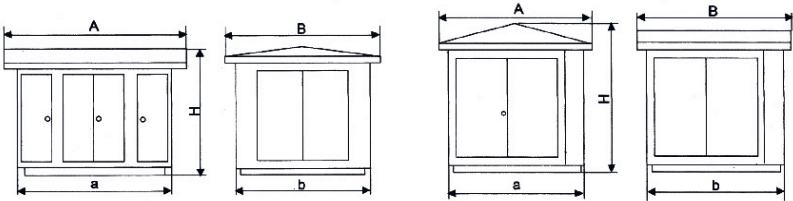
drawing 1-3



drawing 1-4

H: high voltage cubicule T—transformer cubicule L: Low voltage cubicule

Outline Dimension Please See Drawing 2  
Drawing 3 And Table 2



# BOX- TYPE SUBSTATION

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### Main technical parameters

Type			A	a	B	b	H	The most suitable site
Three phase		100-630kVA	4140	3750	2590	2290	2320	Mine , oil field
		800-1250kVA	5184	4880	2500	2290	2626	Residential area
		50-400kVA	2500	2300	2400	2200	2320	
Single phase		≤50kVA	2500	2300	1260	1060	2215	Power supply for street lamp
		80-100kVA	2500	2300	1840	1640	2215	

Note: above dimension only for your information during design period, the dimension subject to dimension of objective

### Ordering Notes :

1. Type of substation
2. Type of transformer
3. H.V/ L.V. wiring mode, type and parameters of chosen components
4. Regarding to enclosure color, if there is no special requirement by customer, it would be dark green.