

YBZ□-12 Intelligent Substation

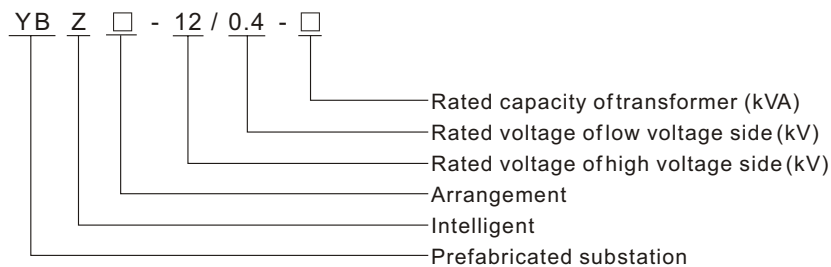
Summary

Compared to the traditional power supply, the box type substation has the obvious superiority, but still has some deficiency, not only dozens of simulations indicating instrument, the massive relays, which will bring enormous in convenient for the production organization, the spare storage product debugging and the maintenance, also the difficulty to control the complex logic. Regarding multi box type substations, it can't realize the centralized management and the sequencing operates, which will bring the hidden danger for the movement. Along with development of the modern industry, the integrated management and intellectualized operation become more and more important, use modern electronic technology, sensor technology, communication, computer network technology to manager the monitor, the protection, the control, the electric power measurement, the communication under the normal operation and the accident condition.



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Model



Product feature

1. There are automatic temperature control and ventilative box, heat up and dew against devices in the box substation.
2. The covering has the features of: Fastness, heat insulation, good performance, against the micro-organism, moisture-proof, good outlooks and the convenience maintenance.
3. The high voltage side always adopts the load break switch and current limited fuse to protect the transformer. When the fuse acting, it can link the three-phase load switches. And the high voltage side also can adopt the vacuum circuit breaker as the circuit protector.
4. The communication network has the features of real time response ability, high reliability, fine electromagnetic compatibility performance, and hierarchical structure.
5. This automatic system adopts the intelligent modulations design, integrated management, so its centrality is good, the installment is simple, as well as the wiring.
6. The integrated protective device with high brightness LED of demonstration menu, it can add the dormancy function with liquid crystal display monitor.
7. It has the strong anti interfere ability and electricity protection function, its parameter and electricity parameter can be set.
8. It can realize the bidirectional communication according the automatic power monitor and control system.

Ambient condition

1. Ambient temperature: $-50^{\circ}\text{C}\sim+50^{\circ}\text{C}$;
2. Attitude: $\leq 2000\text{m}$;
3. Wind pressure: $\leq 700\text{Pa}$;
4. Humidity: daily average $\leq 95\%$, monthly average $\leq 90\%$;
5. Pollution degree: IV;
6. Earthquake intensity: 8 degree;
7. Occasions without strong electromagnetic interferences, conductive dust, fiercely shake and corrosiveness, as well as without flaming and explosive matter.

Application

The intellectualized pre-fabricated substation suits to the public city power distribution, industry and mining enterprise, oil field wharf, residential area, construction, especially the heavy power load place, it can improve the power supply quality and strengthen the energy management through the real-time monitoring.

Technical specification

Technical specification of box

No.	Performance standard	Unit	High voltage element	Transformer	Low voltage unit
1	Rated voltage	kV	12	11/0.4	0.4
2	Rated capacity	kVA		100~1600	
3	Rated current	A	630		144~2309
4	Rated breaking current	kA	20~31.5(circuit breaker)		15~63
5	Rated short circuit withstand current	kA/s	20~31.5(circuit breaker)		30/1
6	Rated peak withstand current	kA(peak)	50~80(circuit breaker)		63
7	Rated closing current	kA	50~80(circuit breaker)		
8	Power frequency withstand voltage		Phase-earth and phase-phase: 42/1	35/1	2.5/1
		kV/min	Across open contacts:48/1		
			10k Connection cable DC withstand phase-earth / phase-phase		
9	Lightning impulse withstand voltage	kV(peak)	Phase-earth and phase-phase:75	75	
			Across open contacts:85		
10	Protective accuracy		IP33	IP33	IP33
11	Noise class	dB		≤55	

The capacity of the transformer: The S9(11)-M fully sealing transformer and SC9 dry transformer, and the capacity data as below: 50, 80, 100, 125, 160, 200, 250, 315, 400, 500, 630, 800, 1000, 1250, 1600kVA.

Integrated protective device BZBH-5000 parameter

	Item	Parameter
Rated parameter	Rated power voltage (V)	220(AC)
	Rated current (A)	1(AC)
	Rated voltage (V)	220
	Frequency (Hz)	50
Measurement accuracy	Current and voltage accuracy (class)	0.5
	DC voltage, frequency sampling accuracy (class)	0.5
	Active power, reactive power, apparent power, power factor (class)	0.5
	Contact site (V)	220(AC)
	Software anti shock time (ms)	20
	Contact capacity	5A(AC)
Remote control	Analogue input	Total: 36 ways (extensible)
	Digital input	Total: 30 ways (extensible)
	Digital output	Total: 32 ways (extensible)
	Communication interface	RS485GSM
Ambient condition	Temperature scope (°C)	-20~+70
	Relative humidity (%)	50~90
	Air pressure (kPa)	66~108
Communication channel	Transmit speed (bit/s)	9600
	Communication rule	User-defined
	Communication medium	Wireless and wire
Power consumption	Whole power consumption under normal work time (VA)	<10
Reliability	Average no fault work time (h)	≥ 10000