

35KV PHOTOVOLTAIC COMBINED TRANSFORMER / PREASSEMBLED SUBSTATION

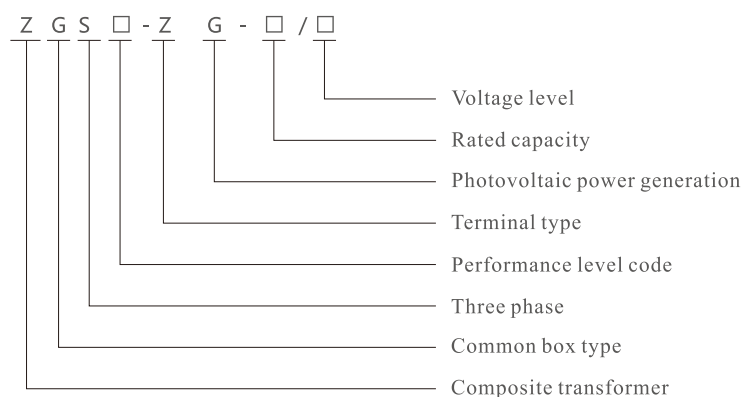
Product overview



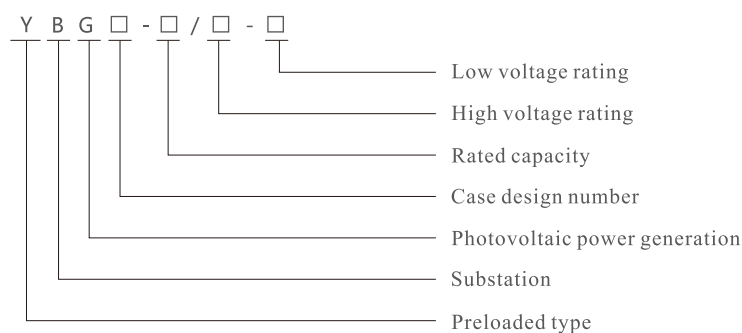
Solar energy is rich in resources and widely distributed. It is the renewable energy with the greatest development potential in the 21st century. With the global energy shortage and environmental pollution and other problems become increasingly prominent, solar photovoltaic power generation because of its clean, safe, convenient, efficient and other characteristics, has become a new industry focused on the development of countries around the world.

Model meaning

Scheme 1: photovoltaic power generation combined transformer (United States variable structure)



Scheme 2: PV pre-installed substation (China transformer structure) Rated capacity (KVA)



Scheme 3: High-voltage/low-voltage pre-installed substation (Eutransformer structure) model is the same as scheme 2

BOX- TYPE SUBSTATION

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Make use of environmental strips

3.1 The altitude is generally not more than 1000m

The ambient temperature range is -25°C~+45°C

3.3 Outdoor wind speed shall not exceed 35m/s

3.4 Anti-shock: horizontal acceleration 0.3m/s; Vertical acceleration is not more than 0.15m/s²

3.5 Fouling rating: dish

3.6 Installation location: outdoor

Beyond the above normal use of environmental conditions, the company can be personalized design according to user requirements.

The main technical parameters

Voltage

System voltage: 35KV, 36.75KV, 38.5KV

High voltage side high working voltage: 40.5KV

Rated voltage of low voltage side: 0.27KV, 0.315KV, 0.4KV

Rated frequency: 50Hz

Rated insulation level

High voltage switch power frequency withstand voltage: 95KV

Power frequency withstand voltage of transformer: 85KV

Peak impact voltage: 200KV

Transformer low voltage side power frequency withstand voltage: 5KV

Phase number: three phase

Protection class: IP68 for fuel tank, IP54 for high and low pressure chamber, IP3X for high pressure chamber door after opening

Main component parameters

Conventional transformer technical parameters

Rated capacity (kVA)	High voltage combination and tap range			Coupling group Label	No load loss kW(9)	Load loss kW(9)	Short circuit impedance %
	High voltage (kV)	Tap range (%)	Low voltage(kV)				
1000	35	±2×2.5	0.315	Yd11,d11	As requested by client	As requested by client	6.5
1100	36.75		0.27				
1250	38.5		0.3 0.4				

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Technical parameters of high pressure oil immersed load switch

Description	Parameters
Model number	BYFI-40.5(manual operation)
Voltage rating (KV)	40.5
Power frequency withstand voltage (KV)	95
Lightning Impulse voltage (KV)	200
Rated current (A)	630
Rated short-time withstand current and time (KV)/2s	20
Breaking current ability (A)	630
Mechanical life	2000(cycles)

Technical parameters of high pressure oil immersed fuse

Description	Parameters
Model number	XRNT-40.5
Fuse current rating (A)	40
Melt current rating (A)	16(500KVA,630KVA) 31.5(1000KVA,1100KVA,1250KVA)
Fuse short circuit breaking current (KA)	31.5
After the fuse has blown, the fuse can be easily replaced on site	

Technical parameters of high voltage arrester

Description	Parameters
Model number	YH5WZ-51/134
Type	Silicone rubber jacket gapless metal zinc oxide arrester
Rated voltage	51
Continuous running voltage	40.8
Rated current (A)	≤73
Dc 1mA reference voltage	
Nominal discharge current (KV)(peak)	≥5
Nominal discharge current residual voltage (KV)(peak)	≤134
2ms square Wave Current Tolerance value (A)(peak)	600~800

BOX- TYPE SUBSTATION

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Technical parameters of low voltage frame circuit breaker

Description	Parameters
Rated voltage (V)	400
Rated current (A)	1250、1600、2000、2500、3200
Short-time withstand current and time (kA/1s)	50

Lighting overhaul transformer parameters

Model number	Rated capacity	High pressure combination		Join group label	Phase number	Frequency
		High voltage (kV)	Low pressure (kV)			
SG10-□/0.315/0.4	As per customer's request	0.315 (0.3、0.27、0.4)	0.4KV	Dyn11	Three phase	50Hz

High voltage vacuum isolated load switch, fuse combination electrical equipment technical parameters

Description	Parameters
Model number	FZRN21C-40.5D(manual and electric operation)
Voltage rating (KV)	40.5
Power frequency withstand voltage (KV)	95
Lightning Impulse voltage (KV)	185
Rated current (A)	Fuse as rated
Rated short-time open circuit breaker (KA)	20/31.5
Mechanical life	1000 (times)

Technical parameters of high pressure air type fuse

Description	Parameters
Model number	XRNT-40.5
Fuse current rating (A)	40
Melt current rating (A)	16(500KVA,630KVA) 31.5(1000KVA,1100KVA,1250KVA)
Fuse short circuit breaking current (KA)	31.5
After the fuse has blown, the fuse can be easily replaced on site	