

On-load capacity transformer

110kV,220kV EHV transformer

Amorphous metal transformer

Oil-immersion transformer

Resin insulation transformer

Environmental protection transformer

Reactors

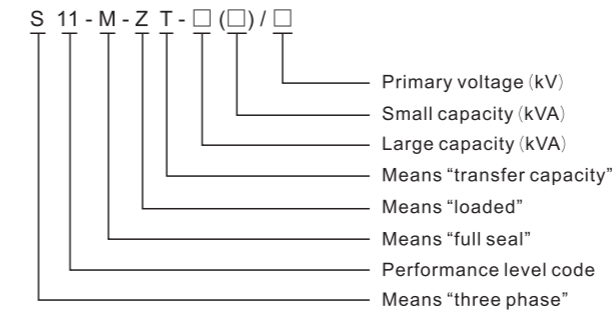


Outline

Intelligent load size adjustable capacitive transformer having two gears capacity, the capacity can be automatically adjusted without operating the power load changes, when executed by a light load or a large-capacity transformer is adjusted close to the small-capacity load, That is to say, the no-load consumption is greatly reduced, and the trouble of manual operation of power-off is overcome, and the purpose of energy saving and intelligence is truly achieved. The product is particularly suitable for the change of seasonal load variation, and is also suitable for load change.

Large 35KV power transformer, the intelligent on-load capacity transformer developed by our company has a number of patents, mainly composed of transformers, on-load capacity adjustment switch and control box with on-load capacity adjustment controller. Remote communication, remote control, remote adjustment, telemetry, intelligent networking, reactive power compensation control, anti-theft and other functions are unmatched by traditional energy-saving products such as iron core and amorphous transformer.

Product type and meaning



Performance parameter

Table 1 Technical parameters of 10kV S11-M-ZT series intelligent on-load capacity-adjusting transformer:

Model	Voltage combination(kV)	Connection	No-load loss (W)	Load loss (W)	Short-circuit impedance (%)	No load current(%)
S11-M-ZT-160(50)	10/0.4 >	Dyn11 Yyn0	280(130)	2310(870)	4.0	0.8 (1.6)
S11-M-ZT-200(63)			340(150)	2730(1040)	4.0	0.7 (1.5)
S11-M-ZT-250(80)			400(180)	3200(1250)	4.0	0.7 (1.4)
S11-M-ZT-315(100)			480(200)	3830(1500)	4.0	0.7 (1.4)
S11-M-ZT-400(125)			570(240)	4520(1800)	4.0	0.6 (1.3)
S11-M-ZT-500(160)			680(280)	5410(2200)	4.0	0.6 (1.2)
S11-M-ZT-630(200)			810(340)	6200(2600)	4.5	0.5 (1.1)

Performance parameter

Annual operating expenses and investment recovery years:

$$Cy = [8600 \times (P_0 + 0.05 \times I_0 \times SN / 100) + 2200 \times (P_k + 0.05 \times UK \times SN / 100)] \times 0.5$$

in the above formula:

Cy is the annual operating cost of the transformer, yuan;

P0 is no-load loss, kW;

PK is the load loss, kW;

SN is rated capacity, KVA;

UK is the percentage of short circuit impedance, %;

I0 is the percentage of no-load current, %;

0.5 is the electricity price, yuan / (kWh);

8600 2200 is the transformer's annual no-load, equivalent full load factor 0.5) hours.

S11-M.ZT series intelligent on-load capacity transformer

China YIFA Holding Group Co., Ltd.

According to the above formula and related performance indicators. Calculate the annual operating cost of the S1-M-ZT series intelligent load-carrying distribution transformer and the S1 common three-phase oil-immersed distribution transformer. Assume that the load-carrying transformer has a three-month capacity operation in one year .9 months of small capacity operation, according to the corresponding technical parameters of the distribution transformer for calculation, the specific data is shown in Table 3.

The load-carrying transformer adapts to the development direction of energy-saving , intelligent , high-efficiency and stable power supply in the field of substation. It can automatically change the rated output capacity of the terminal distribution transformer by tracking the load change, and ensure the power supply in a timely manner .The ground reduces the no-load loss of the transformer by about 40%~50% , which can improve the power factor of the power grid , reduce the reactive component in the distribution network, reduce the network loss, and reduce the power capacitor capacity. This opens up a new way for the development of energy -saving distribution networks. To bring good economic benefits to the society.

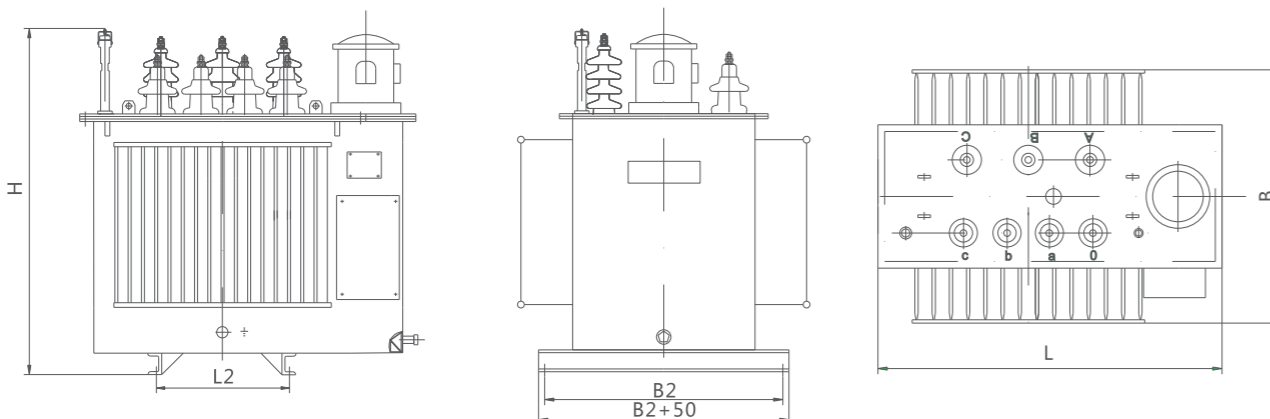
Table 2 S11-M-ZT series of intelligent load transfer capacity transformer and S11type distribution transformers in operation cost comparison

Capacity (kVA)	Load-to-load distribution transformer year Operating cost (yuan)	Ordinary distribution transformerAnnual operating cost (yuan)	Annual operating cost reduction amount (yuan)	Annual operating cost reduction (%)
160(50)	2289	4647	2358	51
200(63)	2710	5550	2840	51
250(80)	3227	6543	3316	51
315(100)	3816	7918	4102	52
400(125)	4588	9531	4943	52
500(160)	5497	11265	5768	51
630(200)	6608	13352	6744	51

Compared with a single S11 distribution transformer , the S11-M-ZT series intelligent capacity distribution transformers reduce the annual operating cost by an average of 51% , saving installation costs and sites compared with the sub-mother,S11-M-Compared with the S11-type distribution transformer, the ZT series intelligent capacity distribution transformer can be recovered in about 3 years.

Appearance dimensions

10KV intelligent load-carrying distribution transformer outline drawing



Triangular 3D roll-core transformer

110kV,220kV EHV transformer

Amorphous metal transformer

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Reactors

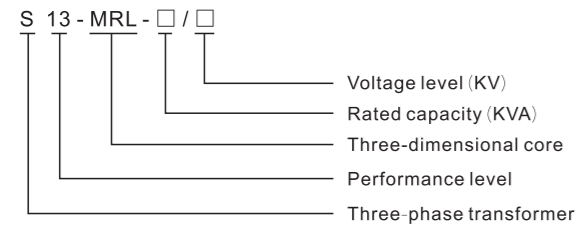


10kV Triangular 3D roll-core transformer

Outline

S13-MRL series three-dimensional triangular coil core transformer breaks through the traditional planar structure and adopts three-phase symmetrical three-dimensional structure. And it is used for the magnetic circuit without gaps, the winding is tighter, the high magnetic direction of the silicon steel strip is exactly the same as the magnetic circuit direction, the three core columns are arranged in an equilateral triangle, the three magnetic circuits are of the same length and the shortest It is a kind of high-efficiency and energy-saving transformer that uses traditional materials but has lower noise and more compact structure. It is in line with China's energy-saving policy in terms of reducing losses and saving material performance. Applicable to power supply network with voltage of 35KV and below, frequency of 50Hz,60Hz.Low-voltage output 400V,distribution transformer with a capacity of 10~1600KVA.

Product type and meaning



Product features

- 1.Energy saving, reducing noise**
 Compared with S7 same-capacity transformer,S13-MRL's new energy-saving three-dimensional triangular-core core transformer reduces the no-load loss by 55%,the load loss by 33%,the no-load current by more than 85%,and the noise drop by 8db(A)-13db(A);
 Compared with the S9 transformer of the same capacity, the no-load loss is reduced by 50%,the no-load current is reduced by more than 80%,and the noise is reduced by 8db(A)-11db(A);
 Compared with the national standard S11 same capacity transformer, the no-load loss is reduced by more than 25%,the no-load current is reduced by 70%,and the noise is reduced by 7db(A)-10db(A);
 Compared with the S13 laminated structure with the same capacity transformer, the no-load current is reduced by more than 70%,and the noise is reduced by 5db(A)-8db(A).
- 2,three-phase balance**
 The three-dimensional triangular core is made up of three identical single frames. The three cores are arranged in an equilateral triangle. The magnetic lengths of the three cores are exactly the same, and they are the shortest, and the three cores have the same loss. Three-phase balance.
- 3,stable quality, improved production efficiency**
 The three-dimensional triangular core is the same as the flat core. The core is rolled on the production line. It does not require cross-cutting equipment, eliminating the quality fluctuation caused by manual lamination, stacking, and detaching of the iron yoke.
- 4,strong resistance to short circuit**
 The structure of the three-dimensional triangular core transformer determines that its short-circuit resistance is better than that of a planar transformer. The reasons are as follows:
 (1) The blocks are distributed around the body, and the central part is pressed against the block by the iron platen, and the three-phase force is evenly symmetrical.
 (2)The area under which the coil is pressed is increased by 15.7%compared with the pressed area of the planar arrangement coil. The clamp member is a three-dimensional triangular frame structure and welded into one body. Due to the stability of the three-dimensional triangle, the overall strength is large, and the three-phase force is consistent.
- 5,theft**
 Stacked core transformers are prone to theft for technical reasons. Disassemble the solid parts of the body and knock down the silicon steel piece of the transformer. At this time, the three windings of the transformer and the silicon steel sheet are immediately separated, and the valuable materials such as silicon steel sheets and coils can be easily stolen and transported away. Since the core of the coil core transformer is a whole, the core cannot be knocked off, and the coil cannot be taken down. It is also quite difficult to remove the whole core and the coil, and it is not easy to separate the valuable objects such as silicon steel sheets and copper wires. Therefore, the wound core transformer has better anti-theft performance.

6,small footprint, beautiful appearance

The transformer tank adopts an approximately triangular structure, so the volume is smaller than that of the conventional rectangular tank, the structure is compact, the appearance is beautiful, and the floor space is small.

7,product economy is good, cost-effective

Compared with the laminated transformer of the same performance level, the three-dimensional triangular core transformer has lower loss value and lower cost, so that the investment cost can be reduced for the user, and the operation cost can be saved for the user.

Single-phase oil-immersed transformer

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	LV (kV)					
160	10 ± 5%	0.4 ± 5%	Yyn0	200	2200	1.3	4.0
200				240	2600	1.2	4.0
250				290	3050	1.2	4.0
315				340	3650	1.1	4.0
400				410	4300	1.0	4.0
500				480	5100	1.0	4.0
630				570	6200	0.9	4.5
800				700	7500	0.8	4.5
1000				830	10300	0.7	4.5
1250				970	12000	0.6	4.5
1600				1170		0.6	4.5

Distribution transformer

110kV,220kV EHV transformer

Amorphous metal transformer

Oil-immersion transformer

Resin insulation transformer

Environmental protection transformer

Reactors



Transformer product standard

GB 1094.1-1996	GB 1094.2-1996	Transformer Standards
GB 1094.3-2003	GB 1094.5-2003	
GB/T 6451-2008	GB/T 6451-1987	
GB/T 10237-1988	GB/T 3837-1998	

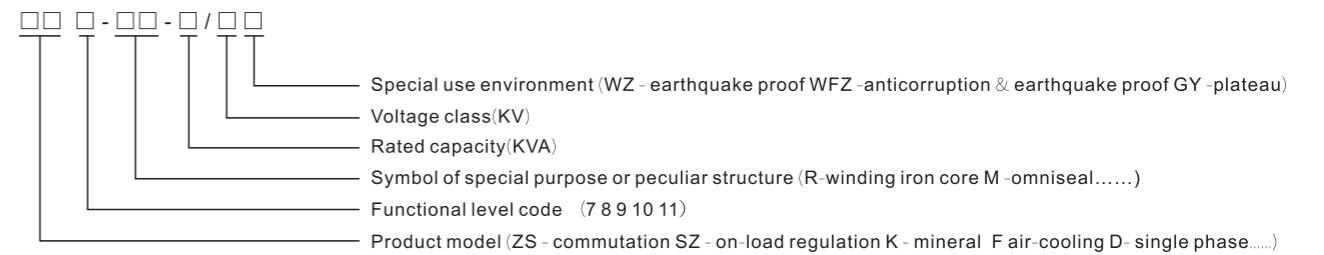
Transformer special service conditions

The height above sea level is above 1000m
 Ambient temperature : highest air temperature + 40°C
 Lowest air temperature -45°C
 (defines in detail when placing an order)

Transformer normal service conditions

The height above sea level is above 1000m;
 Ambient temperature: Highest air temperature +40°C;
 Highest daily average air temperature +30°C;
 Highest annual average air temperature +20°C;
 Lowest outdoor air temperature -25°C.

Transformer model description



10kV series distribution transformer

10kV series distribution transformer

S10 series 10KV distribution transformer

S10,SZ10 series 10KV power transformer

30KVA~2500KVA Three-phase duplex winding non-excited tap-changing distribution transformer

630KVA~6300KVA 3-phase duplex winding non-excited tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Boundary dimension (mm) LxWxH		Gauge vertical/horizontal (mm)			
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total	Omniseal	Un-omniseal				
30	6 6.3 10 10.5 11	±5 ±2×2.5	0.4	Dyn11	4.0	0.11	0.63/0.60	2.0	4.0	0.21	0.08	0.32	1000×550×1050	1065×550×1135	400/400		
50						0.15	0.91/0.87	1.9		0.275	0.09	0.43	1050×580×1100	1105×670×1185	450/400		
63						0.18	1.09/1.04	1.8		0.316	0.10	0.50	1080×600×1150	1135×685×1120	450/400		
80						0.20	1.31/1.25	1.7		0.37	0.12	0.52	1100×635×1150	1100×630×1300	450/400		
100						0.23	1.58/1.50	1.55		0.40	0.12	0.58	1150×675×1095	1150×670×1245	450/400		
125						0.27	1.89/1.80	1.45		0.48	0.15	0.70	1170×710×1220	1170×710×1370	550/400		
160						0.31	2.31/2.20	1.3		0.56	0.17	0.83	1230×740×1270	1230×740×1410	550/550		
200						0.38	2.73/2.60	1.2		0.65	0.17	1.05	1320×760×1290	1320×760×1420	550/550		
250						0.46	3.20/3.05	1.1		0.75	0.22	1.12	1330×760×1360	1330×760×1510	650/550		
315						0.54	3.83/3.65	1.0		0.85	0.23	1.30	1380×780×1380	1380×760×1530	650/550		
400				0.65	4.52/4.30	1.0	1.03	0.30	1.62	1500×860×1460	1500×830×1610	750/550					
500				0.78	5.41/5.15	1.0	1.20	0.32	1.85	1550×890×1500	1550×890×1650	750/660					
630				Dyn11	4.5	Yyn0	4.5	0.92	6.20	0.8	4.5	1.53	0.44	2.31	1680×960×1580	1680×960×1730	750/660
800								1.12	7.50	0.7		1.71	0.49	2.67	1700×960×1650	1700×960×1850	850/660
1000								1.32	10.30	0.6		2.01	0.56	3.05	1750×1080×1650	1750×1080×1950	850/820
1250								1.56	12.00	0.6		2.37	0.66	3.57	1840×1140×1770	1840×1140×1970	850/820
1600								1.88	14.50	0.6		2.70	0.79	3.95	1930×1300×1810	1930×1300×2020	900/820
2000								2.27	17.80	0.5		3.65	0.90	4.65	2100×1640×1930	2100×1640×2170	900/820
2500								2.67	20.70	0.4		3.72	0.98	5.76	2120×1750×1970	2120×1750×2190	1070/1070

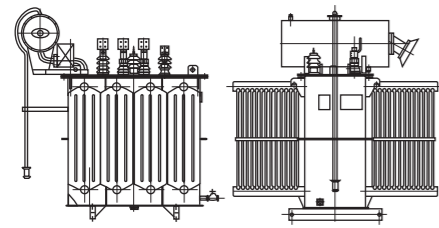
Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Gauge vertical/horizontal (mm)	
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total		
630	6 6.3 10 10.5 11	±5 ±2×2.5	0.4	Yd11	5.5	0.82	6.93	1.1	5.5	1.65	0.45	2.61	750/660
800						1.01	8.46	1.0		1.90	0.52	3.11	850/660
1000						1.18	9.92	1.0		2.18	0.60	3.66	850/820
1250						1.40	11.80	0.9		2.48	0.70	4.07	850/820
1600						1.69	14.11	0.8		2.68	0.78	4.46	900/820
2000						2.02	16.93	0.8		3.10	0.89	5.27	900/820
2500				2.38	19.67	0.8	3.82	0.96	6.37	1070/1070			
3150				2.81	23.09	0.7	4.44	1.18	7.80	1070/1070			
4000				3.46	27.36	0.7	5.30	1.55	9.35	1070/1070			
5000				4.10	31.38	0.7	6.25	1.76	11.08	1070/1070			
6300				4.90	35.06	0.6	7.32	1.93	13.15	1070/1070			

Note 1: According to requirements, the transformer can supply HV tap change ± 2 X 2.5%.

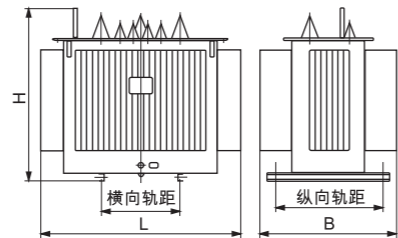
Note 1: The load loss above the oblique line in the table applies to Dyn11 or Yzn11; the load loss below the oblique line applies to Yyn0.

200KVA~2500KVA 3-phase duplex winding on-load tap-changing distribution transformer

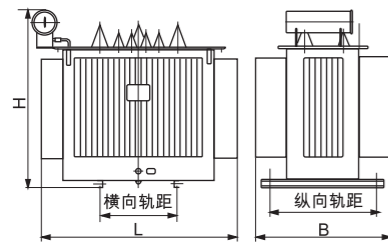
Outline dimension



Omniseal (encapsulate) sheet type transformer
Un-omniseal sheet type transformer



Omniseal corrugated type transformer



Un-omniseal corrugated type transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Gauge vertical/horizontal (mm)	
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total		
200	6 6.3 10	±4×2.5	0.4	Dyn11	4.0	0.38	2.91	1.5	4.0	0.88	0.26	1.43	550/550
250						0.45	3.42	1.4		0.97	0.31	1.64	650/550
315						0.54	4.10	1.4		1.12	0.35	1.78	650/550
400						0.64	4.96	1.3		1.28	0.43	2.07	750/550
500						0.77	5.90	1.2		1.45	0.45	2.30	750/660
630						0.96	7.27	1.1		1.70	0.53	2.72	750/660
800						1.12	8.89	1.0		1.95	0.60	3.12	850/660
1000						1.36	10.43	1.0		2.218	0.68	3.51	850/820
1250				1.56	12.40	0.9	2.42	0.77	4.00	850/820			
1600				1.92	14.19	0.8	2.87	0.88	4.650	900/820			
2000				2.268	18.69	0.6	3.87	0.99	5.51	900/820			
2500				2.52	21.74	0.6	3.94	1.08	6.75	1070/1070			

Note 1: According to requirements, the transformer can supply HV winding voltage 10.5KV and 11KV.

Note 2: According to requirements, the transformer can supply LV 0.69KV.

10kV series distribution transformer

10kV series distribution transformer

S11 series 10KV distribution transformer

S11,SZ11 series 10KV power transformer

30KVA~2500KVA Three-phase duplex winding non-excited tap-changing distribution transformer

630KVA~6300KVA 3-phase duplex winding non-excited tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Boundary dimension (mm) LxWxH		Gauge vertical/horizontal (mm)	
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total	Omniseal	Un-omniseal		
30	6 6.3 10 10.5 11	±5 ±2×2.5	0.4	Dyn11	0.10	0.63/0.60	2.3	4.0	0.22	0.10	0.39	1050×570×1100	1105×570×1185	350/400	
50					0.13	0.91/0.87	2.0			0.28	0.12	0.53	1080×600×1150	1080×600×1120	350/400
63					0.15	1.09/1.04	1.9			0.35	0.12	0.59	1100×635×1150	1100×635×1300	350/400
80					0.18	1.31/1.25	1.9			0.41	0.14	0.67	1150×675×1095	1150×675×1245	400/400
100					0.20	1.58/1.50	1.8			0.47	0.15	0.75	1170×710×1220	1170×715×1370	450/400
125					0.24	1.89/1.80	1.7			0.53	0.16	0.83	1230×740×1270	1230×740×1420	550/550
160					0.28	2.31/2.20	1.6			0.62	0.18	0.96	980×650×1230	1320×800×1410	550/550
200					0.34	2.73/2.60	1.5			0.69	0.20	1.09	1000×730×1280	1330×770×1510	550/550
250					0.40	3.20/3.05	1.4			0.84	0.23	1.28	1180×740×1230	1380×770×1530	550/550
315					0.48	3.83/3.65	1.4			0.98	0.24	1.47	1240×800×1330	1500×870×1610	550/550
400				0.57	4.52/4.30	1.3	1.03		0.30	1.62	1340×880×1260	1550×900×1650	550/550		
500				0.68	5.41/5.15	1.2	1.37		0.31	2.04	1430×960×1310	1680×970×1730	660/660		
630				0.81	6.20	1.1	1.53		0.45	2.33	1510×950×1420	1700×970×1850	660/660		
800				0.98	7.50	1.0	1.710		0.49	2.67	1750×985×1650	1750×985×1980	820/820		
1000				1.15	10.30	1.0	2.20		0.57	3.10	1840×1140×1770	1840×1040×1970	820/820		
1250				1.36	12.00	0.9	2.47		0.67	3.70	1930×1200×1810	1930×1200×2020	820/820		
1600				1.64	14.50	0.8	2.85		0.79	4.20	2100×1300×1930	2100×1300×2150	820/820		
2000				1.96	17.80	0.5	3.75		0.98	4.84	2150×1640×1950	2150×1640×2170	1070/1070		
2500				2.31	20.70	0.4	3.72		1.18	5.76	2160×1750×1970	2160×1750×2190	1070/1070		
							Yzn11								
				Yyn0											
				Dyn11											
				Yyn0											

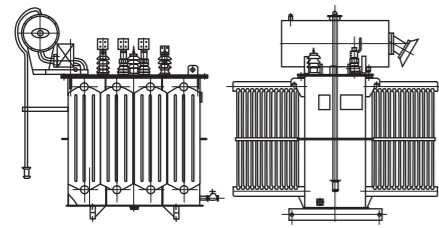
Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Gauge vertical/horizontal (mm)
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total	
630	6 6.3 10 10.5 11	±5 ±2×2.5	3 3.15 6.3	Yd11	0.84	6.93	1.1	5.5	1.78	0.45	2.71	750/660
800					1.02	8.46	1.0		2.10	0.52	3.31	850/660
1000					1.20	9.92	1.0		2.58	0.60	3.86	850/820
1250					1.42	11.80	0.9		2.88	0.70	4.37	850/820
1600					1.71	14.11	0.8		3.40	0.78	4.76	900/820
2000					2.04	16.93	0.8		3.80	0.89	5.57	900/820
2500					2.40	19.67	0.8		4.35	0.96	6.67	1070/1070
3150					2.84	23.09	0.7		4.94	1.18	8.50	1070/1070
4000					3.48	27.36	0.7		5.90	1.58	9.85	1070/1070
5000					4.16	31.38	0.7		6.85	1.76	11.58	1070/1070
6300	4.96	35.06	0.6	7.92	1.91	13.65	1070/1070					

Note 1: According to requirements, the transformer can supply HV tap change ± 2 X 2.5%.

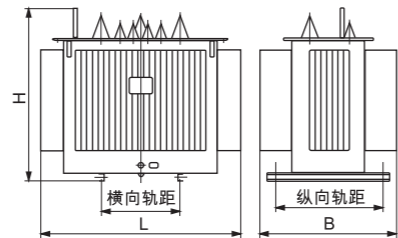
Note 1: The load loss above the oblique line in the table applies to Dyn11 or Yzn11; the load loss below the oblique line applies to Yyn0.

200KVA~2500KVA 3-phase duplex winding on-load tap-changing distribution transformer

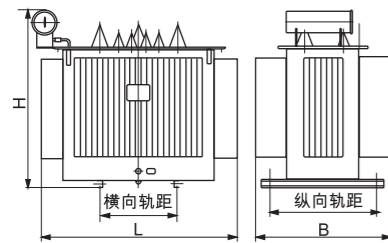
Outline dimension



Omniseal (encapsulate) sheet type transformer
Un-omniseal sheet type transformer



Omniseal corrugated type transformer



Un-omniseal corrugated type transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Gauge vertical/horizontal (mm)
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total	
200	6 6.3 10	±4×2.5	0.4	Dny11 Yyn0	0.39	2.91	1.5	4.0	0.98	0.26	1.53	550/550
250					0.45	3.42	1.4		1.07	0.31	1.74	650/550
315					0.54	4.10	1.4		1.32	0.35	1.98	650/550
400					0.65	4.96	1.3		1.58	0.43	2.27	750/550
500					0.77	5.90	1.2		1.75	0.45	2.50	750/660
630					0.97	7.27	1.1		1.90	0.53	2.92	750/660
800					1.13	8.89	1.0		2.15	0.60	3.32	850/660
1000					1.38	10.43	1.0		2.48	0.68	3.71	850/820
1250					1.58	12.40	0.9		2.62	0.77	4.20	850/820
1600					1.94	14.79	0.8		3.10	0.88	4.85	900/820
2000	2.27	18.69	0.6	3.98	1.08	5.88	900/820					
2500	2.52	21.74	0.6	3.95	1.30	6.37	1070/1070					

Note 1: According to requirements, the transformer can supply HV winding voltage 10.5KV and 11KV.

Note 2: According to requirements, the transformer can supply LV 0.69KV.

10kV series distribution transformer

20kV series distribution transformer

S13 series 10KV distribution transformer

S11 series 20KV oil-immersed distribution transformer

30KVA~2500KVA Three-phase duplex winding non-excited tap-changing distribution transformer

30KVA~2500KVA Three-phase duplex winding non-excited tap-changing distribution transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	Loss (kW)		No-load current (%)	Impedance voltage	Weight (T)			Boundary dimension (mm) LxWxH		Gauge vertical/horizontal (mm)
	HV (kV)	HV Tap Range (%)	LV (kV)		No-load	Load			Body	Oil	Total	Omniseal	Un-omniseal	
30	6 6.3 10 10.5 11	±5 ±2×2.5	0.4	Dyn11	0.10	0.63/0.60	2.3	4.0	130	700	300	710×710×930	930×580×1000	400/400
50					0.10	0.91/0.87	2.0		200	800	400	730×710×1010	950×600×1080	400/400
63					0.11	1.09/1.04	1.9		240	900	450	750×730×1040	970×630×1100	400/400
80					0.13	1.31/1.25	1.9		280	1000	520	760×740×1060	980×640×1120	400/400
100					0.15	1.58/1.50	1.8		310	1000	550	770×750×1130	1000×650×1200	450/400
125					0.17	1.89/1.80	1.7		370	1200	640	800×770×1150	1030×670×1220	550/550
160					0.20	2.31/2.20	1.6		440	1300	740	820×780×1240	1050×680×1310	550/550
200					0.24	2.73/2.60	1.5		500	1400	810	840×810×1260	1070×700×1330	550/550
250					0.29	3.20/3.05	1.4		610	1600	970	870×850×1300	1100×750×1370	550/550
315					0.34	3.83/3.65	1.4		750	2000	1200	1180×820×1390	1400×720×1460	550/550
400				0.41	4.52/4.30	1.3	900	2400	1420	1260×840×1450	1480×760×1520	550/550		
500				0.48	5.41/5.15	1.2	1050	2500	1620	1300×860×1470	1560×800×1600	660/660		
630				0.57	6.20	1.1	1240	2800	1860	1370×890×1470	1630×890×1570	660/660		
800				0.70	7.50	1.0	1510	3400	2250	1430×930×1580	1690×930×1680	820/820		
1000				0.83	10.30	1.0	1560	3600	2410	1600×1100×1610	1860×1100×1720	820/820		
1250				0.97	12.00	0.9	1910	4200	2930	1690×1140×1750	1950×1140×1860	820/820		
1600				1.17	14.50	0.8	2320	5200	3630	1820×1650×2060	1820×1650×2060	820/820		
2000				1.26	17.80	0.6	2820	6600	4550	1920×1750×2160	1920×1750×2160	820/820		
2500				1.49	20.70	0.8	3550	7600	5470	2020×1910×2260	2020×1910×2260	1070/1070		

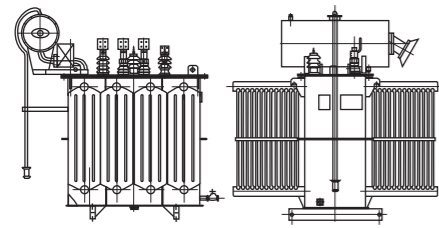
Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	HV Tap Range (%)	LV (kV)					
30	20	±5	0.4	Dyn11	0.10	0.69/0.66	2.1	5.5
50					0.13	1.01/0.96	2.0	
63					0.15	1.20/1.15	1.9	
80					0.18	1.44/1.37	1.8	
100					0.20	1.73/1.65	1.6	
125					0.24	2.08/1.98	1.5	
160					0.29	2.54/2.42	1.4	
200					0.34	3.00/2.86	1.3	
250					0.40	3.52/3.35	1.2	
315					0.48	4.21/4.01	1.1	
400				0.57	4.97/4.73	1.0		
500				0.68	5.94/5.66	1.0		
630				0.81	6.82	0.9		
800				0.98	8.25	0.8		
1000				1.15	11.33	0.7		
1250				1.38	13.20	0.7		
1600				1.66	15.95	0.6		
2000				1.95	19.14	0.6		
2500				2.34	22.22	0.5		

Note 1: The load loss above the oblique line in the table applies to Dyn11 or Yzn11; the load loss below the oblique line applies to Yyn0.

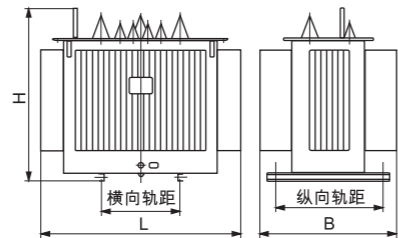
Note 1: Rate capacity 500KV and below transformer, the load loss above the oblique line in the table applies to Dyn11 or Yzn11; the load loss below the oblique line applies to Yyn0.

Note2: According to requirements, the transformer can supply HV tap change ±2 X 2.5% or other change range.

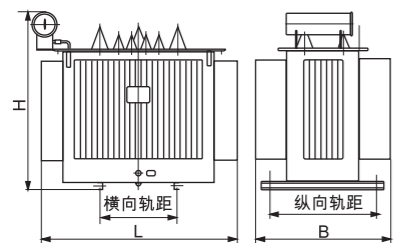
Outline dimension



Omniseal (encapsulate) sheet type transformer
Un-omniseal sheet type transformer



Omniseal corrugated type transformer



Un-omniseal corrugated type transformer

Single-phase oil immersed transformer

China YIFA Holding Group Co., Ltd.

Standard

ANSI C57.12.00 C57.12.20
IEC 76
Gb10138



Product characteristic

The single-phase oil-filled pole-mounted distribution transformers are specifically designed for the decentralization distribution network of servicing residential overhead distribution loads of town and countryside . They are also suitable for light and diversified power applications These transformers are designed for the application conditions normally encountered on electric utility power distribution systems.

fers 2 basic transformer types:

Conventional type and Complete Self Protecting type, and for the transformer core, 2 types materials are available; C. R. G. O word core and amorphous metal Core.

Single-phase oil-immersed transformer

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	No-load loss(kW)	Load loss(kW)	No-load current (%)	Short-circuit Impedance voltage(%)	Gross weight(kg)
	HV(kV)	LV(kV)						
10	10 ± 5%	0.23	lio	0.50	0.24	2.0	3.5	210
20				0.70	0.38	1.8		270
30				0.85	0.49	1.7		300
50				0.14	0.66	1.6		350
63				0.16	0.79	1.5		400
80				0.18	0.93	1.4		460
100				0.21	1.10	1.3		520
125				0.24	1.30	1.2		580
160				0.27	1.50	1.0		650

Power transformer

110kV,220kV EHV transformer

Amorphous metal transformer

Oil-immersion transformer

Resin insulation transformer

Environmental protection transformer

Reactors



35kV Series power transformer

35kV Series power transformer

Transformer product standard

GB 1094.1-1996	GB 1094.2-1996	Transformer Standards
GB 1094.3-2013	GB 1094.5-2003	
GB/T 6451-2008	GB/T 7595-1987	
GB/T 10237-1988	JB/T 3837-1998	

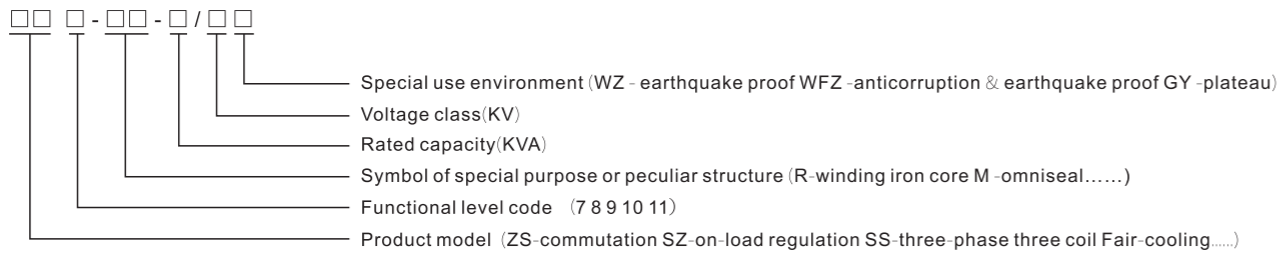
Transformer special service conditions

The height above sea level is above 1000m
 Ambient temperature : Highest air temperature + 40°C
 Lowest air temperature -45°C
 (defines in detail when placing an order)

Transformer normal service conditions

The height above sea level is above 1000m;
 Ambient temperature: Highest air temperature +40°C;
 Highest daily average air temperature +30°C;
 Highest annual average air temperature +20°C;
 Lowest outdoor air temperature -25°C.

Transformer model description



SZ 10 series 35KV power transformer

2000kVA~20000kVA 3-phase duplex winding on-load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss(kW)	Load loss(kW)	No-load current (%)	Short-circuit impedance voltage (%)	
	HV(kV)	HV Tap Range (%)	LV(kV)						
2000	35	±3×2.5	6.3	Yd11	2.88	20.25	0.80	6.5	
2500			10.5		3.40	21.73	0.80		
3150			6.3		10.5	4.04	26.01		0.72
4000						4.84	30.69		0.72
5000						5.80	36.00		0.68
6300	35~38.5	±3×2.5	6.3	YNd11	7.04	38.70	0.68	7.5	
8000					9.84	42.75	0.60		
10000					11.60	50.58	0.60		
12500					13.68	59.85	0.56		
16000					16.46	74.02	0.54		
20000	19.46	87.14	0.54	8.0					

Note 1: Outline dimension is designed according to requirements.

S10 series 35KV power transformer

50kVA~1600kVA 3-phase duplex winding non-excited tap-changing distribution transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss(kW)	Load loss(kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV(kV)	HV Tap Range (%)	LV(kV)					
50	35	±5	0.4	Dny11 Yyn0		1.21/1.15	2.00	6.5
100					0.26	2.01/1.92	1.80	
125					0.31	2.38/2.26	1.70	
160					0.32	2.82/2.69	1.60	
200					0.39	3.33/3.16	1.50	
250					0.46	3.95/3.76	1.40	
315					0.55	4.76/4.53	1.40	
400					0.66	5.75/5.47	1.30	
500					0.77	6.92/6.58	1.20	
630					0.94	7.87	1.10	
800					1.11	9.41	1.00	
1000					1.30	11.54	1.00	
1250					1.58	13.94	0.90	
1600					1.91	16.67	0.80	

Note 1: Rate capacity 500kVA and below transformer, the load loss above the oblique line in the table applies to Dyn11 or Yzn11; The load loss below the oblique line applies to Yyn0.
 Note 2: According to requirements, the transformer can supply HV tap change±2x2.5%.
 Note 3: Outline dimension is designed according to requirements.

35kV Series power transformer

35kV Series power transformer

S10 series 35kV power transformer

S11 series 35kV power transformer

630kVA~31500kVA 3-phase duplex winding non-load tap-changing power transformer

50kVA~1600kVA 3-phase duplex winding non-excited tap-changing distribution transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	HV Tap Range (%)	LV (kV)					
630	35	± 5	3.15	Yd11	0.94	7.87	1.10	6.5
800					1.11	9.41	1.00	
1000					1.30	11.54	1.00	
1250					1.58	13.94	0.90	
1600					1.91	16.67	0.80	
2000					2.45	18.38	0.70	
2500	35~38.5	± 5	3.15	Yd11	2.88	19.67	0.60	7.0
3150					3.42	23.09	0.56	
4000					4.07	27.36	0.56	
5000					4.86	31.38	0.48	
6300					5.90	35.06	0.48	
8000					8.10	38.48	0.42	
10000	35~38.5	± 2 × 2.5	3.15	YNd11	9.79	45.32	0.42	7.5
12500					11.34	53.87	0.40	
16000					13.68	65.84	0.40	
20000					16.20	79.52	0.40	
25000					19.15	94.05	0.32	
31500					22.75	112.86	0.32	

Note 1: Outline dimension is designed according to requirements

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	HV Tap Range (%)	LV (kV)					
50	35	± 5	0.4	Dny11 Yyn0	0.17	1.21/1.15	2.00	6.5
100					0.23	2.01/1.92	1.80	
125					0.27	2.38/2.26	1.70	
160					0.29	2.82/2.69	1.60	
200					0.34	3.33/3.16	1.50	
250					0.41	3.95/3.76	1.40	
315					0.49	4.76/4.53	1.40	
400					0.58	5.75/5.47	1.30	
500					0.69	6.92/6.58	1.20	
630					0.83	7.87	1.10	
800					0.98	9.41	1.00	
1000					1.15	11.54	1.00	
1250					1.41	13.94	0.90	
1600					1.70	16.67	0.80	

Note 1: Rate capacity 500kV and below transformer, the load loss above the oblique line in the table applies to Dyn11 or Yzn11; The load loss below the oblique line applies to Yyn0.

Note 2: According to requirements, the transformer can supply HV tap change ±2x2.5%.

SZ 10 series 35kV power transformer

630kVA~31500kVA 3-phase duplex winding non-excited tap-changing distribution transformer

2000kVA~20000kVA 3-phase duplex winding on-load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	HV Tap Range (%)	LV (kV)					
2000	35	± 3 × 2.5	6.3	Yd11	2.59	19.24	0.80	6.5
2500			10.5		3.06	20.64	0.80	
3150	35~38.5	± 3 × 2.5	6.3	Yd11	3.64	24.71	0.72	7.0
4000					4.36	29.16	0.72	
5000					5.22	34.20	0.68	
6300					6.34	36.77	0.68	
8000	35~38.5	± 3 × 2.5	6.3	YNd11	8.86	40.61	0.60	7.5
10000					10.44	48.05	0.60	
12500					12.31	56.86	0.56	
16000					14.81	70.32	0.54	
20000	17.51	82.78	0.54	8.0				

Note 1: Outline dimension is designed according to requirements

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	HV Tap Range (%)	LV (kV)					
630	35	± 5	3.15	Yd11	0.83	7.87	1.10	6.5
800					0.98	9.41	1.00	
1000					1.15	11.54	1.00	
1250					1.41	13.94	0.90	
1600					1.70	16.67	0.80	
2000			2.18		18.38	0.70		
2500			2.56		19.67	0.60		
3150			3.04		23.09	0.56		
4000			3.62		27.36	0.56		
5000			4.32		31.38	0.48		
6300	35~38.5	± 5	10.5	Yd11	5.25	35.06	0.48	7.0
8000					7.20	38.48	0.42	
10000					8.70	45.32	0.42	
12500					10.08	53.87	0.40	
16000					12.16	65.84	0.40	
20000					14.40	79.52	0.40	
25000	17.02	94.05	0.32	8.0				
31500	20.22	112.86	0.32					

SZ 11 series 35kV power transformer

2000kVA~20000kVA 3-phase duplex winding on-load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	No-load loss (kW)	Load loss (kW)	No-load current (%)	Short-circuit impedance voltage (%)
	HV (kV)	HV Tap Range (%)	LV (kV)					
2000	35	± 3 × 2.5	6.3	Yd11	2.30	19.24	0.80	6.5
2500			10.5		2.72	20.64	0.80	
3150	35~38.5	± 3 × 2.5	6.3	Yd11	3.23	24.71	0.72	7.0
4000					3.87	29.16	0.72	
5000					4.64	34.20	0.68	
6300					5.63	36.77	0.68	
8000	35~38.5	± 3 × 2.5	6.3	YNd11	7.87	40.61	0.60	7.5
10000					9.28	48.05	0.60	
12500					10.94	56.86	0.56	
16000					13.17	70.32	0.54	
20000	15.57	82.78	0.54	8.0				

110kV power transformer

110kV, 220kV EHV transformer

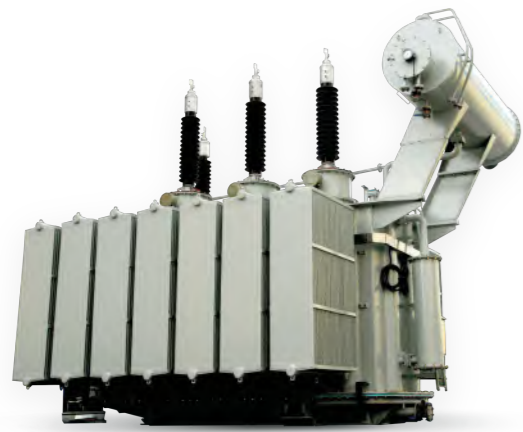
Amorphous metal
transformer

Oil-immersion transformer

Resin insulation transformer

Environmental protection
transformer

Reactors



General description

The 110kv level Oil Immersed On-load Regulation Power Transformer has a series of big change in material, technical and construction with the characters of small size, light weight, high efficiency with low loss and low noise, stable operation which cutting down large number of loss from Energy GRID and operation charge, improving the industrial economic benefit. It is used in power plant, transformer substation, big-sized and chemistry factory and etc.

This product is according to National Standard: GB1094.1-1996 "Power transformer General Principle Part 1", In GB1094.2-1996 "Power Transformer Part 2: Temperature Rise", GB1094.3-2003 "Power Transformer Part 3: Insulation Level, Insulation Test and exterior air gap clearance", GB1094.5-2003 "Power Transformer Part 5: Ability to withstand short circuit.", GB/t6451-2008 "Three phase Oil Immersed Power Transformer Technical Data Requirement."

Environment conditions

Mounting Type: Outdoor

Ambient temperature: Highest air temperature +40°C; lowest air temperature -25°C; highest monthly average air temperature +30°C, highest annual average air temperature +20°C; water temperature at the water inlet of the water cooler is +25°C

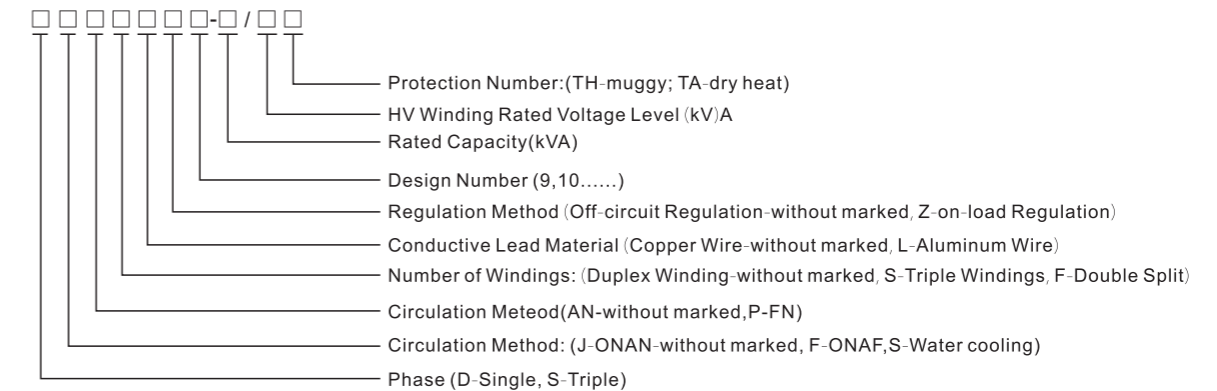
Altitude: ≤ 1000m (altitude > 1000m, the temperature rise will be different as normal)

Relative humidity: ≤ 90%(25°C)

Requirement of Mounting Place: where without corrosive gas and obvious dust etc.

When inquiring or ordering, additional details are required for special service conditions

Product type and meaning



110kV Series power transformer

110kV Series power transformer

S10 series 110kV power transformer

SZ 10 series 110kV power transformer

6300kVA-180000kVA 3-phase duplex winding non-excited tap-changing power transformer

6300kVA-63000kVA 3-phase duplex winding on-load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	S9		S10		No-load current (%)	Short-circuit impedance voltage (%)
	HV(kV)	LV(kV)		No-load loss(kW)	Load loss(kW)	No-load loss(kW)	Load loss(kW)		
6300	110 ± 2 × 2.5% 121 ± 2 × 2.5%	6.3 6.6 10.5 11	Ynd11	9.3	36	8.37	34.20	0.77	10.5
8000				11.2	45	10.08	42.75	0.77	
10000				13.2	53	11.88	50.35	0.72	
12500				15.6	63	14.04	59.85	0.72	
16000				18.8	77	16.92	73.15	0.67	
20000				22.0	93	19.80	88.35	0.67	
25000				26.0	110	23.40	104.50	0.62	
31500				30.8	133	27.72	126.35	0.60	
40000				36.8	156	33.12	148.20	0.56	
50000				44.0	194	39.60	184.30	0.52	
63000				52.0	234	46.80	222.30	0.48	
75000				59.0	278	53.10	264.10	0.42	
90000				68.0	320	61.20	304.00	0.38	
120000				84.8	397	76.32	377.15	0.34	
150000	100.2	472	90.18	448.40	0.30				
180000	112.5	532	101.25	505.40	0.25				

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	SZ 9		SZ 10		No-load current (%)	Short-circuit impedance voltage (%)
	HV(kV)	LV(kV)		No-load loss(kW)	Load loss(kW)	No-load loss(kW)	Load loss(kW)		
6300	110 ± 8 × 1.25 %	6.3 6.6 10.5 11	Ynd11	10.0	36	9.00	34.20	0.80	10.5
8000				12.0	45	10.80	42.75	0.80	
10000				14.2	53	12.78	50.35	0.74	
12500				16.8	63	15.12	59.85	0.74	
16000				20.2	77	18.18	73.15	0.69	
20000				24.0	93	21.60	88.35	0.69	
25000				28.4	110	25.56	104.50	0.64	
31500				33.8	133	30.42	126.35	0.64	
40000				40.4	156	36.36	148.20	0.58	
50000				47.8	194	43.02	184.30	0.58	
63000				56.8	234	51.12	222.30	0.52	

Note 1: -5% tap position the maximum current tap.

Note 2: For step-up transformer, non-tap structure is suitable. According to requirements, taps can be set.

Note 1: For on-load tap-changing transformers, now only step-down structure products are provide.

Note 2: According to requirements, other voltage combination can be provided.

Note 3: -10% tap position is the maximum current tap.

6300kVA-180000kVA 3-phase 3-winding non-excited tap-changing power transformer

6300kVA-63000kVA 3-phase 3-winding on-load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	S9		S10		No-load current (%)	Short-circuit impedance voltage (%)	
	HV(kV)	MV(kV)	LV(kV)		No-load loss(kW)	Load loss(kW)	No-load loss(kW)	Load loss(kW)		Step up	Step down
6300	110 ± 2 × 2.5% 121 ± 2 × 2.5%	35 37 38.5	6.3 6.6 10.5 11	YNynod11	11.2	47	10.08	44.65	0.82	17.5~18.5	10.5
8000					13.3	56	11.97	53.20	0.78		
10000					15.8	66	14.22	62.70	0.74		
12500					18.4	78	16.56	74.10	0.70		
16000					22.4	95	20.16	90.25	0.66		
20000					26.4	112	23.76	106.40	0.65		
25000					30.8	133	27.72	126.35	0.60		
31500					36.8	157	33.12	149.15	0.60		
40000					43.6	189	39.24	179.55	0.55		
50000					52.0	225	46.80	213.75	0.55		
63000					61.6	270	55.44	256.50	0.50		

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	S9		S10		No-load current (%)	Short-circuit impedance voltage (%)	
	HV(kV)	MV(kV)	LV(kV)		No-load loss(kW)	Load loss(kW)	No-load loss(kW)	Load loss(kW)			
6300	110 ± 8 × 1.25%	35 37 38.5	6.3 6.6 10.5 11	YNynod11	12.0	47	10.80	44.65	0.95	17.5~18.5	10.5
8000					14.4	56	12.96	53.20	0.95		
10000					17.1	66	15.39	62.70	0.89		
12500					20.2	78	18.18	74.10	0.89		
16000					24.2	95	21.78	90.25	0.84		
20000					28.6	112	25.74	106.40	0.84		
25000					33.8	133	30.42	126.35	0.78		
31500					40.2	157	36.18	149.15	0.78		
40000					48.2	189	43.38	179.55	0.73		
50000					56.9	225	51.21	213.75	0.73		
63000					67.7	270	60.93	256.50	0.67		

Note 1: High, medium and low voltage winding capacity distribution (100/100/100)%;

Note 2: According to requirements, the vector group can be Ynd11y10;

Note 3: According to requirements, medium voltage can choose different voltage from the value listed in the table or set taps;

Note 4: -5% tap position is the maximum current tap;

Note 5: For step-up transformers, non-tap structure is suitable. According to requirements, taps can be set.

Note 1: For on-load tap-changing transformers, now only step-down structure products are provide.

Note 2: High, medium, and low voltage winding capacity distribution (100/100/100)%.

Note 3: According to requirements, the vector group can be Ynd11y10;

Note 4: -10% tap position is the maximum current tap.

Note 5: According to requirements, medium voltage can choose different voltage the value listed or set taps.

110kV Series power transformer

China YIFA Holding Group Co., Ltd.

S10 series 110kV power transformer

6300kVA-63000kVA 3-phase duplex winding LV 35kV non-excited tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	S9		S10		No load current (%)	Short-circuit impedance voltage (%)
	HV(kV)	LV(kV)		No-load loss(kW)	Load loss(kW)	No-load loss(kW)	Load loss(kW)		
6300	110 ± 2 × 2.5% 121 ± 2 × 2.5%	35 37 38.5	Ynd11	10	39	9.00	37.05	0.84	10.5
8000				12	47	10.80	44.65	0.84	
10000				14	55	12.60	52.25	0.78	
12500				16.4	66	14.76	62.70	0.78	
16000				19.6	81	17.64	76.95	0.72	
20000				23.2	99	20.88	94.05	0.72	
25000				27.4	116	24.66	110.20	0.67	
31500				32.4	140	29.16	133.00	0.67	
40000				38.6	164	34.74	155.80	0.61	
50000				46.2	204	41.58	193.80	0.61	
63000				54.6	245	49.14	232.75	0.56	

Note: 1. Products with capacity not included in this form will be also available based on the user, and their performance data will rely on specific requirement.

2. We can provide products with special design according to different operation environment.

3. Customers can suggest their requirement of MV and tap range besides the value in the form and the unsymmetrical tap range are available for HV tap regulation choice.

4. Different Impedance Voltage Value are available for customers choice besides the value in the form.

5. The final dimension will be subject to the drawing which designed after the contract signs.

220kV Power transformer

110kV, 220kV EHV transformer

Amorphous metal transformer

Oil-immersion transformer

Resin insulation transformer

Environmental protection transformer

Reactors



220kV Series power transformer

220kV Series power transformer

S10 series 220kV power transformer

S10 series 220kV power transformer

31500kVA-240000kVA LV66kV-3 phase duplex winding non-excited tap-changing power transformer

31500kVA-240000kVA 3-phase 3-winding non-excited tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	S9		S10		No load current (%)	Short-circuit impedance voltage (%)
	HV(kV)	LV(kV)		No load loss(kW)	Load loss(kW)	No load loss(kW)	Load loss(kW)		
31500	220 ± 2 × 2.5 %	6.3, 6.6, 6.9	Ynd11	38	151	34.20	143.45	0.89	12~14
40000				45	176	40.50	167.20	0.89	
50000				53	211	47.70	200.45	0.82	
63000				63	247	56.70	234.65	0.82	
90000				83	323	74.70	306.85	0.75	
120000				102	387	91.80	367.65	0.75	
150000				122	453	109.80	430.35	0.68	
180000				138	513	124.20	487.35	0.68	
240000				171	635	153.90	603.25	0.61	

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	S9		S10		No load current (%)	S9		S10		No load current (%)	Short-circuit impedance voltage (%)			
	HV(kV)	MV(kV)	LV(kV)		No load loss(kW)	Load loss(kW)	No load loss(kW)	Load loss(kW)		No load loss(kW)	Load loss(kW)	No load loss(kW)	Load loss(kW)		No load loss(kW)	Load loss(kW)	Step up	Step down
40000	29	144	26.10	136.80	0.57	26	121	23.40	114.95	0.50								
50000	34	170	30.60	161.50	0.50	30	144	27.00	136.80	0.43								
63000	40	201	36.00	190.95	0.50	36	171	32.40	162.45	0.43								
90000	50	276	45.00	262.20	0.43	46	234	41.40	222.30	0.36								
120000	62	340	55.80	323.00	0.43	56	288	50.40	273.60	0.36								
150000	73	405	65.70	384.75	0.36	66	342	59.40	324.90	0.33								
180000	84	463	75.60	439.85	0.36	76	387	68.40	367.65	0.33								
240000	99	595	89.10	565.25	0.33	89	504	80.10	478.80	0.25								

- Note: 1. Products with capacity not include in this form will be also available based on the user, and their performance data will rely on specific requirement.
 2. We can provide products with special design according to different operation environment.
 3. Customers can suggest their requirement of MV and tap range besides the value in the form and the unsymmetry tap range are available for HV tap regulation choice.
 4. Different impedance voltage value are available for customers choice besides the value in the form.
 5. The final dimension will be subject to the drawing which designed after the contract signs.

31500kVA-180000kVA 3-phase duplex winding non-excited tap-changing power transformer

31500kVA-240000kVA 3-phase 3-winding on load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range		Vector group Symbol	S9		S10		No load current (%)	Short-circuit impedance voltage (%)
	HV(kV)	LV(kV)		No load loss(kW)	Load loss(kW)	No load loss(kW)	Load loss(kW)		
31500	220 ± 8 × 1.25 %	6.3, 6.6, 10.5, 11, 35, 37, 38.5	Ynd11	38	135	34.20	128.25	0.70	12~14
40000				45	157	40.50	149.15	0.63	
50000				54	189	48.60	179.55	0.56	
63000				63	220	56.70	209.00	0.56	
90000				80	288	72.00	273.60	0.49	
120000				99	346	89.10	328.70	0.49	
150000				116	405	104.40	384.75	0.42	
180000				135	468	121.50	444.60	0.42	
120000				103	355	91.80	337.25	0.49	
150000				120	415	108.00	394.25	0.42	
180000	140	475	126.00	451.25	0.42				

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	S9		S10		No load current (%)	Capacity allocation	Short-circuit impedance voltage (%)
	HV(kV)	MV(kV)	LV(kV)		No load loss(kW)	Load loss(kW)	No load loss(kW)	Load loss(kW)			
31500	220 ± 8 × 1.25%	115	6.3, 6.6, 10.5, 11, 35, 37, 38.5	Y Nynodll	25	108	22.5	102.60	0.56	100/100/50	高-中 8~10 高-低 28~34 中-低 18~24
40000					30	132	27.00	125.40	0.56		
50000					36	157	32.40	149.15	0.49		
63000					42	189	37.80	179.55	0.49		
90000					51	247	45.90	234.65	0.42		
120000					64	308	57.60	292.60	0.42		
150000					76	365	68.40	346.75	0.35		
180000					85	419	76.50	398.05	0.35		
240000					104	540	93.60	513.00	0.30		

31500kVA-240000kVA 3-phase 3-winding on-load tap-changing power transformer

Rated capacity (kVA)	Voltage Combination and Tap range			Vector group Symbol	S9		S10		No load current (%)	Capacity allocation	Short-circuit impedance voltage (%)
	HV(kV)	MV(kV)	LV(kV)		No load loss(kW)	Load loss(kW)	No load loss(kW)	Load loss(kW)			
31500	220 ± 8 × 1.25%	69	6.3, 6.6, 10.5, 11, 35, 37, 38.5	Y Nynodll	44	162	39.60	154	0.77	100/100/100	12~14
40000					52	189	46.80	150	0.70		
50000					60	225	54.00	214	0.63		
63000					70	261	63.00	248	0.63		
90000					92	351	82.80	333	0.56		
120000					115	432	103.50	410	0.56		
150000					135	513	121.50	487	0.49		
180000					156	630	140.40	596	0.49		
240000					193	780	173.70	741	0.45		

Amorphous metal distribution transformer

110kV,220kV EHV transformer

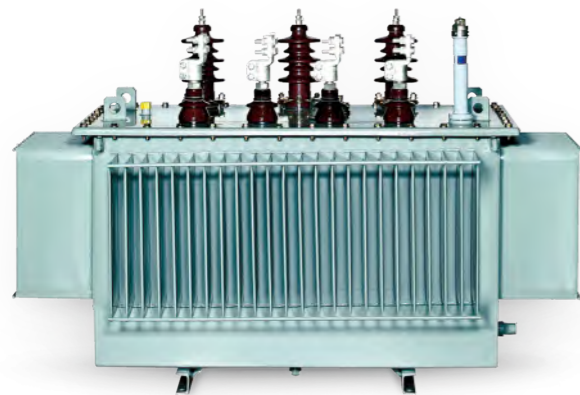
Amorphous metal transformer

Oil-immersion transformer

Resin insulation transformer

Environmental protection transformer

Reactors



Production introduction

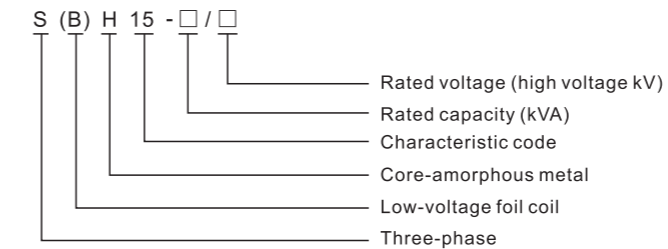
Transformers can transform the voltage of a network into the voltage matching the system or load and fulfill power transferring and distributing. Taking the place of transformers with silicon steel core, AMDT can be widely applied in outdoor power distribution network systems, which is magnificently energy saving and can lessen air pollution. It is especially applicable for areas with insufficient power supply or fluctuating load and where daily maintain is hard.

The hermetically sealed construction of AMDT prevents the oil and insulation material from being polluted, so the unit can serve in a humid environment. AMDTs are the ideal equipment supplying power for distribution network in urban and rural areas.

Features

The core is wound with amorphous alloy ribbons, which possesses a no-load loss as low as about 20% that of a \$9 type transformer (with silicon steel core); The LV coils are wound with copper foil, which reinforces the ability to withstand short circuit for the transformer, ADMT with connection Dyn11 can lighten harmonics impact on the network and improve the quality of the power supplied; The tank and cover are welded together, forming a hermetically sealed construction which lengthens the service life of AMDT and makes it repair free, The vacuum oil filling eliminates all bubbles in the coils to ensure stable characteristics of insulation; Each transformer passes a full-wave lightning impulse test before delivery to ensure its safety operation A peak voltage 25% higher than the value required by state standard is applied during the test.

Product type and meaning



Main technical parameters of 10kV S(B)H15-M series amorphous metal distribution transformer

Rated capacity (kVA)	Voltage Combination		Connection method	Loss (kW)			Impedance voltage	Weight (T)			Boundary dimension (mm) LxWxH	Gauge vertical/horizontal (mm)	
	HV(kV)	LV(kV)		No-load	Load	No-load current (%)		Body	Oil	Total			
30	11	0.4	Dyn11	0.033	0.600	1.7	4	240	80	410	920 × 600 × 980	400/550	
50	10.5			0.043	0.870	1.3		310	110	510	950 × 620 × 1040	400/550	
63	10			0.050	1.040	1.2		350	125	570	990 × 670 × 1040	400/550	
80	6.3			0.060	1.250	1.1		410	135	630	1030 × 720 × 1040	400/660	
100	6			0.075	1.500	1.0		47	150	720	1060 × 770 × 1070	400/660	
125				0.085	1.800	0.9		550	170	830	1060 × 700 × 1070	400/660	
160				0.100	2.200	0.7		630	190	960	1060 × 930 × 1150	400/660	
200				0.120	2.600	0.7		670	210	1040	1110 × 930 × 1170	550/820	
250				0.140	3.050	0.7		750	240	1160	180 × 1010 × 1180	550/820	
315				0.170	0.650	0.5		810	265	1240	1180 × 1010 × 1180	550/820	
400				0.200	4.300	0.5	860	290	1330	1200 × 1010 × 1180	550/820		
500				0.240	5.150	0.5	950	320	1460	1270 × 1160 × 1200	660/1070		
630				0.320	6.200	0.3	4.5	1120	380	1860	1450 × 1240 × 1330	820/1070	
800				0.380	7.500	0.3		1340	410	2230	1520 × 1380 × 1460	820/1070	
1000				0.450	10.30	0.3		1620	540	2700	1720 × 1460 × 1510	820/1070	
1250				0.30	12.00	0.2		1900	640	3180	1780 × 1500 × 1690	820/1070	
1600				0.630	14.50	0.2		2560	680	4240	1880 × 1540 × 1970	820/1070	
2000				0.750	17.40	0.2		5	2900	960	4920	2080 × 1580 × 1970	820/1070
2500				0.900	20.20	0.2			3940	1160	6560	2350 × 1580 × 2020	820/1070

Note: Tapping range of high-voltage: ±5% or ±2x2.5%; Frequency: 50Hz; Insulating level: L175A35/L10AC5