



# OIL IMMERSION TRANSFORMER

油浸式变压器



PROFESSIONAL · PRODUCE

### 产品特点

#### Features of Products

我公司生产的三相油浸式配电变压器，器身采用了新型绝缘结构，提高了抗短路能力；铁芯由高质量冷轧硅钢片制成；高压绕组均选用优质无氧铜线为材料，并采用多层圆筒式结构；所有紧固件均采用特殊防松处理。

产品具有高效率，低损耗的特点，可节省大量的电耗和运行费用，社会效益显著，是国家推广的高新技术产品。

The three-phase oil-immersed distributing transformer applies new type insulating structure and makes short-circuit resistance strong. The iron core is made of high-quality cold-rolled silicon-steel plate. High-voltage winding group is made up of high-quality oxygen-free copper lines and it adopts multilayered drum type structure. All fasteners have been processed with special treatment to prevent them from loosening.

As high-tech product that promoted by the country, the product has many advantages such as high efficiency, low loss. Its social benefits are remarkable that it will save much of electricity consumption and operating cost.



### 可靠的结构

#### Reliable Structure

我公司在传统结构和成熟的技术基础上，做了许多改进，如采用了：

带纵向油道的螺旋式线圈，内部散热更好；

改进了线圈端面的有效支撑，抗短路电流能力更强；

采用了新的吊装结构和器身定位结构，保证在长途运输和运行中更为可靠；

我们还有很多独特而可靠的结构，为您服务；

选用更高性能水平的变压器，将具有更高水平的技术含量。

With the fundament of traditional frames and proved techniques, our company made a great improvement, for instance: we employ spiral loops with longitudinal oil path to produce a better interior cooling effect; we improve the effectual support of the loop's terminal face to strengthen the anti-short circuit electricity capability; we employ new suspending structure and instrument-positioning frames to guarantee that the long distance transport and movement will be more reliable.

In addition to those above, we have lots of novel and dependable frames that wait to serve you.

We are sure that, when you choose more advanced transformers, you will enjoy greater technique intensity.

### 优质的材料

#### Excellent Materials

选用电阻率更低的无氧铜线，并经过系列附加的表面处理，更光滑，无毛刺尖角，使变压器的负载损耗更低，电气性能更为可靠。

选用优质的硅钢片，随着性能水平的提升，采用单位损耗更低的硅钢片，使变压器空载损耗更低。

选用优质层压木绝缘件，绝不开裂，即使在短路电流作用下，也纹丝不动。

选用经过深层过滤的变压器油，更低的含水，含气、含杂质水平，变压器工作更加可靠。

选用优质橡胶密封材料，有效防老化，杜绝渗漏。

所有原材料经过的质检，所有原材料厂家均经过按照国家标准ISO9000的严格审查。

Because we use oxygen-free copper lines of lower resistivity, which will become smoother and burr-free after series of additional surface treatment, so the load loss of our transformer is lower and the electric performance is better.

We use high-quality silicon-steel plates which are of lower unit loss, and the no-load of the transformers is lower.

We use high quality wooden laminating insulation pieces, which won't split or move even under the influence of short circuit.

We use thoroughly filtrated transformer oil containing less water, gas and impurities, which makes our transformers work better.

We use high quality rubber sealing material, which can prevent the transformers from aging or leakage.

All raw materials has passed the quality testing, and all the raw material factories has pass through the national standard ISO9000 inspection.

## 技术经济性能好

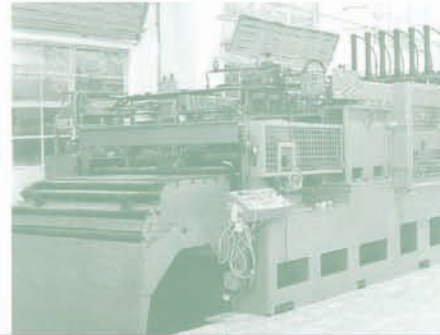
### Good Technology And Economic Performance

S9系列产品降低了空载损耗、负载损耗、空载电流，与S7系列相比分别下降了10%、24%、46%，因而使运行成本降低了19%。

S11系列产品在S9系列的基础上，空载损耗平均降低了30%；空载电流比S9下降70-85%；平均温升降低10K，产品使用寿命增加一倍多，即使在超负载20%的条件下仍可长期运行；产品运行噪音平均降低2-4分贝。

Compare with S7 series product, S9 series product reduces the no-load loss by 10%, load loss by 24% and no-load electric current by 46%; as a result, the operating cost will drop by 19%.

Improved from S9 series product, S11 series product reduces the no-load loss by 30%; no-load electric current by 70-85%; average temperature by 10K; noise level by 2-4 db; and double the products' service life. Even under 20% overloads, it can also work for a long period of time.



## 全密封 (M)

### Sealed Tank (M)

选S11(M)R-中的M表示油箱采用全密封结构，全密封式配电变压器与普通油浸式变压器相比，取消了储油柜，油箱的波翅代替油管作为冷却散热元件，波纹油箱由优质冷轧薄板在专用生产线上制造，波翅可以随变压器油体积的涨缩而涨缩，从而使变压器与大气隔绝，防止和减缓油劣化和绝缘受潮，增强运行可靠性，正常运行免维护。

波纹油箱表面经去油、去锈、磷化处理后用三防漆涂装，适合在冶金、石化、矿山等环境下使用。

The "M" in S11 (M) R- stands for omniseal structure that the oil tank employed. Compared with common oil-immersed transformer, omniseal oil-immersed transformer taking off oil storage cabinet adopts wing-like corrugation for replacing oil tube as component of heat dispersion. The corrugated oil tank which is made up of high-quality cool-rolled plates is produced on the special produce lines. The wing-like corrugation will expand and compress as that the volume of transformer dose, so that the transformer is separated from the atmosphere and can prevent or slower deterioration of oil and breathing of insulation. All these ensure the reliability of operation and without maintenance.

After the treatment of deoiling, derusting and parkerizing, the surface of corrugated oil tank is coated with paint which can provide rain-proofing, damp-proofing and salt haze-proofing. It is suitable for the use in the environment, such as metallurgy, petrochemical industry and mining, etc.

## 卷铁心 (R)

### Core-rolled (R)

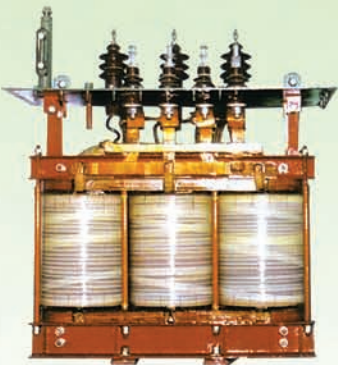
选S11(M)R-中的R表示铁心采用卷铁心，采用优质低损耗冷轧硅钢片，无需冲剪，冲孔，消除了传统铁心的横向、纵向接缝。

从而获得更低的空载电流，使变压器的无功损耗水平更低。

从而获得更低的噪声水平，让变压器更加环保。

整体式铁心，夹件主要是夹紧线圈，从而进一步加强了线圈的抗短路电流能力。

The "R" in S11 (M) R- stands for ribbon-wound core. It applies low-loss cold-steel plate of high-quality. It has high degree of mechanization and it is not necessary to shear and punch which eliminate horizontal and longitudinal power connection of traditional iron core. So it secures lower no-load current to make the level of transformer's reactive-power loss and noise lower which can conform to environmental requirements. With monolithic type iron core and compact coil, it has further short-circuit resistance.





### 变压器产品标准

#### Transformer Standards

GB 1094.1-1996	GB 1094.2-1996	JB/T10088-2004
GB 1094.3-2003	GB 1094.5-2003	GB/T 10237-1988
GB/T 6451-1999	GB/T 7595-1987	JB/T 3837-1998



### 变压器正常使用条件

#### Transformer Service Condition

海拔高度不超过1000m;

环境温度:

最高气温+40℃;

最热月平均气温+30℃;

最高年平均气温+20℃;

户外最低气温-25℃。

The height above sea level is below 1000m;

Ambient temperature:

Highest air temperature +40℃;

Highest daily average air temperature+30℃;

Highest annual average air temperature+20℃;

Lowest outdoor air temperature-25℃.

### 变压器特殊使用条件

#### Transformer special service Condition

海拔高度超过1000m;

环境温度:

最高气温+40℃;

最低气温-45℃;

(订货时详细说明)

The height above sea level is above 1000m;

Ambient temperature:

Highest air temperature +40℃;

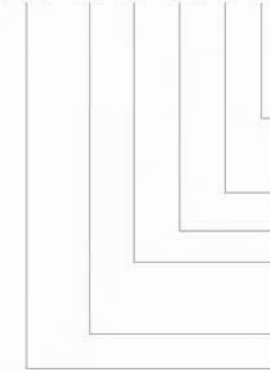
Lowest air temperature -45℃;

( defines in detail when placing an order )

### 变压器型号含义

#### Transformer Type Meaning

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特殊使用环境代号(GY-高原、WF-防腐  
蚀、TA-干热带、TH湿热带)

电压等级kV

额定容量kVA

特殊用途或特殊结构代号(M-全密封、  
R-卷铁心)

性能水平代号(9、10、11、12)

产品型号字母(D-单相、S-三相、F-风冷、  
Z-有载调压)

Code of special working environment (GY-plateau,  
WF-antisepsis, TA- dry tropics, TH- humid tropics)

voltage class (kV)

rated capacity (kVA)

code of special usage or special structure (M-  
omniseal, R-ribbon-wound core)

Code of performance (9、10、11、12)

Letter of type (D-single phase, S-three-phase,  
F-cool air, Z-voltage adjustment with



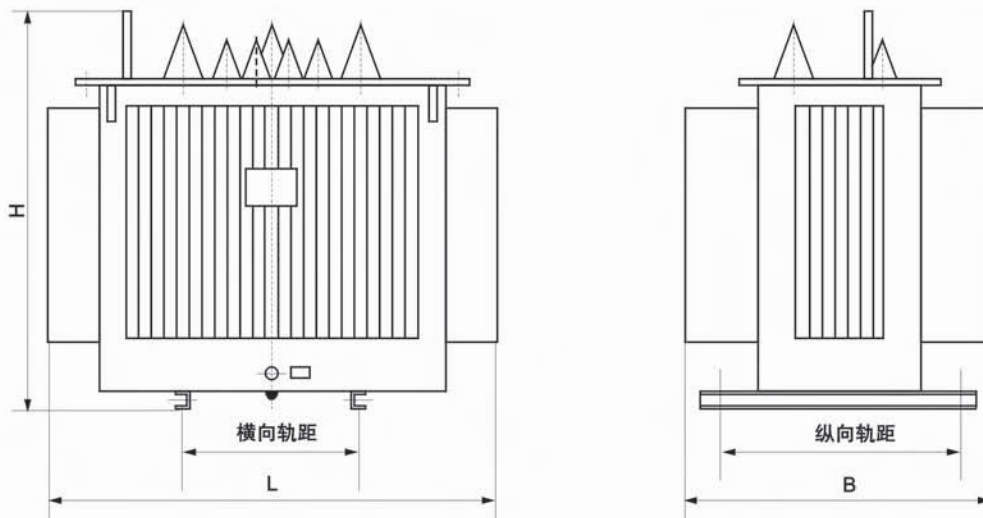
10kV级D9系列油浸式配电变压器技术参数  
Tech data of 10kV D9 series distribution transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight		
5	11 10.5 10 6.3 6	0.22/ 0.24	II0 或 II6	35	145	4	3.5	50	40	130	530×400×860	350/200
10				55	260	3.5		65	40	150	550×480×900	400/300
16				65	365	3.2		80	40	180	580×480×950	400/300
20				80	430	3.0		100	50	205	600×480×970	400/300
30				100	625	2.8		115	50	225	600×480×1020	400/300
40				125	775	2.5		150	55	270	620×500×1050	400/300
50				150	950	2.3		175	70	310	630×510×1070	400/300
63				180	1135	2.1		190	80	340	650×520×1090	400/300
80				200	1400	2.0		240	100	420	680×540×1100	400/400
100				240	1650	1.9		295	100	490	700×550×1120	400/400
125				285	1950	1.8		370	110	560	730×580×1150	400/400
160				365	2365	1.7		430	130	650	780×600×1160	400/400

注(note): 高压分接范围(tapping range of high-voltage): ±5%或±2×2.5%; 频率(frequency): 50Hz;

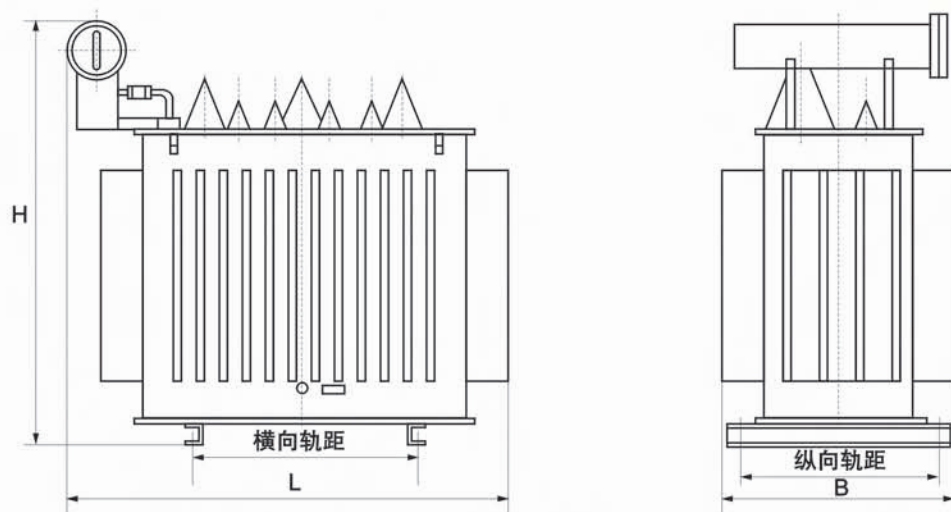
外形尺寸及安装尺寸

Transformer special service conditions



全密封变压器  
Omniseal type transformer

**油浸式变压器**  
**OIL IMMERSION TRANSFORMER**



非全密封变压器  
Un-omniseal type transformer

**10kV级S9、S9-M 系列油浸式配电变压器技术参数**  
Tech data of 10kV S9、S9-M series distribution transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) dissipation		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			S9外形尺寸(mm) (长L×宽B×高H) outline dimension		轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight	全密封 omniseal	非全密封 un-omniseal	
5	11 10.5 10 6.3 6	0.4	Yyno 或 Dyn11	0.05	0.2	4	4	50	45	145	650×450×850	950×450×920	350/400
10				0.07	0.33	3		70	45	170	650×450×880	950×450×950	350/400
20				0.10	0.48	3		115	55	230	720×490×950	1020×490×1020	350/400
30				0.13	0.60	2.1		170	55	260	670×560×870	1070×560×950	450/340
50				0.17	0.87	2.0		230	65	340	750×600×920	1150×600×1000	450/380
63				0.20	1.04	1.9		260	70	400	710×620×970	1110×620×1050	450/380
80				0.25	1.25	1.8		310	85	460	770×640×1010	1170×640×1090	450/430
100				0.29	1.50	1.6		360	90	525	955×620×1020	1255×620×1100	550/450
125				0.34	1.80	1.5		425	95	600	1035×675×1040	1340×675×1120	550/470
160				0.40	2.20	1.4		480	115	705	1105×730×1065	1410×730×1145	550/520
200				0.48	2.60	1.3		580	135	830	1170×765×1115	1460×765×1235	550/520
250				0.56	3.05	1.2		670	145	960	1225×820×1140	1510×820×1260	650/550
315				0.67	3.65	1.1		775	190	1135	1345×890×1205	1590×890×1330	650/550
400				0.80	4.30	1.0		940	220	1365	1450×935×1240	1620×900×1380	600/600
500				0.96	5.10	1.0		1155	240	1595	1515×970×1280	1785×970×1420	750/600
630				1.20	6.20	0.9		1310	275	1935	1595×1040×1315	1830×1040×1460	850/660
800				1.40	7.5	0.8		1495	355	2345	1765×1170×1350	2130×1170×1570	850/660
1000				1.70	10.30	0.7		1705	400	2620	1855×1255×1490	2160×1250×1770	850/660
1250				1.95	12.80	0.6		1990	460	3050	1885×1270×1590	2170×1280×1875	850/660
1600	2.40	14.50	0.6	2345	660	3690	1905×1280×1735	2200×1280×1965	850/700				
2000	2.80	19.80	0.6	2470	710	4110	—	2170×1630×2220	820/820				
2500	3.30	23.00	0.6	2960	810	4980	—	2200×1740×2250	1070/1070				

注(note): 高压分接范围(tapping range of high-voltage): ±5%或±2×2.5%; 频率(frequency): 50Hz;

### 10kV级SZ9系列有载调压油浸式配电变压器技术参数

Tech data of 10kV SZ9 series on-load regulation distribution transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight		
200	11 10.5 10 6.3 6	0.4	Yyno 或 Dyn11	0.48	2.73	1.3	4	610	180	960	1780×780×1310	550/520
250				0.56	3.20	1.2		705	195	1105	1810×840×1340	650/550
315				0.67	3.85	1.1		815	260	1315	1850×930×1405	650/550
400				0.80	4.50	1.0		990	300	1570	1940×940×1450	650/550
500				0.96	5.40	1.0	1210	325	1835	2030×1000×1510	750/600	
630				1.29	6.50	0.9	4.5	1380	370	2250	2060×1080×1550	850/660
800				1.51	7.90	0.8		1570	480	2745	2240×1160×1640	850/660
1000				1.82	10.80	0.7		1790	540	3065	2260×1250×1820	850/660
1250				2.08	13.40	0.6		2090	620	3570	2260×1300×1840	850/660
1600				2.72	15.20	0.6		2456	890	4320	2320×1320×1990	850/700
2000				3.17	20.80	0.6		2600	960	4810	2600×1320×2260	820/820
2500				3.74	24.20	0.5		3110	1095	5830	2640×1440×2310	1070/1070

注：有载调压变压器高压可提供±4×2.5%调压范围

Note: it can supply voltage regulating range of ±4×2.5% for high-voltage of on-load regulation transformer

### 10kV级S9、S9-M系列油浸式电力变压器技术参数

Tech data of 10kV S9、S9-M series power transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) dissipation		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			S9外形尺寸(mm) (长L×宽B×高H) outline dimension		轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight	全密封 omniseal	非全密封 un-omniseal	
200	11 10.5 10 6.3 6	6.3 6 3.15 3	Yd11	0.42	3.15	1.8	4.5	620	150	890	1240×810×1150	1530×810×1270	660/660
250				0.51	3.60	1.7		720	160	1030	1310×880×1170	1595×880×1290	
315				0.61	4.30	1.6		830	210	1225	1410×920×1260	1650×920×1380	
400				0.73	5.20	1.5		1010	245	1480	1440×940×1280	1720×940×1380	
500				0.88	6.20	1.4		1235	265	1725	1590×1010×1310	1860×1010×1450	
630				1.04	7.30	1.3		1400	300	2090	1655×1070×1360	1890×1070×1510	
800				1.26	8.90	1.2	1600	390	2540	1710×1160×1375	2080×1160×1600		
1000				1.49	10.50	1.1	1825	440	2830	1835×1250×1510	2150×1250×1790		
1250				1.76	12.42	1.0	2130	510	3295	1880×1280×1550	2170×1280×1830		
1600				2.10	14.85	0.9	2510	690	3990	1910×1300×1760	2210×1300×1990		
2000				2.52	17.82	0.9	2650	750	4400	-	2210×1650×2230		
2500				3.00	20.70	0.8	3170	880	5330	-	2240×1760×2260		
3150				3.50	24.80	0.8	3680	1270	6560	-	2285×2260×2290		
4000				4.30	28.80	0.7	4375	1580	7520	-	2400×2420×2390		
5000				5.20	33.03	0.7	5280	1830	8975	-	2480×2580×2510		
6300				6.20	36.90	0.6	7065	2310	11930	-	2530×2760×2725		
8000				8.40	40.50	0.55	8370	2525	13980	-	2600×2800×2980		
10000				9.90	47.70	0.55	9970	2860	16150	-	2720×2820×3180		

注(note): 高压分接范围(tapping range of high-voltage): ±5%或±2×2.5%; 频率(frequency): 50Hz;

### 10kV级SZ9系列有载调压油浸式电力变压器技术参数

Tech data of 10kV SZ9 series on-load regulation power transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight		
200	11 10.5 10 6.3 6	6.3 6 3.15 3	Yd11	0.45	3.30	1.8	4.5	650	200	1040	1850×830×1340	660/660
250				0.55	3.80	1.7		760	215	1200	1900×900×1370	
315				0.65	4.52	1.6		870	290	1435	1910×950×1455	
400				0.78	5.46	1.5		1060	330	1730	1990×970×1490	
500				0.94	6.51	1.4		1300	360	2000	2110×1050×1530	
630				1.10	7.67	1.3		1470	405	2420	2130×1100×1580	
800				1.35	9.35	1.2		1680	520	2945	2290×1180×1660	
1000				1.60	11.00	1.1		1920	580	3280	2320×1250×1880	
1250		1.89		13.00	1.0	2240	670	3790	2330×1300×1910	820/820		
1600		2.25		15.60	0.9	2635	900	4590	2370×1320×2050			
2000		2.70		18.70	0.9	2785	960	5050	2610×1650×2270	1070/1070		
2500		3.20		21.70	0.8	3330	1120	6055	2640×1760×2290			
3150		3.75		25.50	0.8	4150	1460	7170	2710×2270×2360			
4000		4.60		30.20	0.7	5030	1820	8685	2800×2460×2470			
5000		5.60		34.70	0.7	6110	1940	10300	3130×2580×2560			
6300		6.60		38.70	0.6	8125	2560	13560	3180×2760×2780			

注：有载调压变压器高压可提供±4×2.5%或±3×2.5%调压范围

Note: it can supply voltage regulating range of ±4×2.5% or ±3×2.5% for high-voltage of on-load regulation transformer

### 10kV级S11-M系列油浸式配电变压器技术参数

Tech data of 10kV S11-M series distribution transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight		
30	11 10.5 10 6.3 6	0.4	Yyno 或 Dyn11	0.10	0.60	2.1	4	185	70	325	750×490×970	450/350
50				0.13	0.87	2.0		255	85	420	770×550×1030	450/350
63				0.15	1.04	1.9		280	95	480	800×600×1040	450/380
80				0.18	1.25	1.8		320	100	535	810×680×1060	450/430
100				0.20	1.50	1.6		380	110	615	820×680×1100	550/450
125				0.24	1.80	1.5		440	115	690	1070×700×1150	550/470
160				0.28	2.20	1.4		510	130	800	1120×700×1220	550/500
200				0.34	2.60	1.3		610	150	935	1160×720×1255	550/520
250				0.40	3.05	1.2		720	190	1110	1200×760×1310	650/550
315				0.48	3.65	1.1		835	200	1270	1210×780×1320	650/550
400				0.57	4.30	1.0		1010	240	1540	1340×880×1360	650/550
500				0.68	5.10	1.0		1170	260	1765	1360×890×1430	750/600
630				0.81	6.20	0.9		1375	320	2095	1560×1020×1410	850/660
800				0.98	7.50	0.8		1620	365	2470	1640×1060×1500	850/660
1000				1.15	10.30	0.7		1780	405	2780	1720×1160×1540	850/660
1250		1.36		12.80	0.6	2065	560	3395	1790×1190×1740	850/660		
1600		1.64		14.50	0.6	2470	650	3990	1830×1210×1850	850/700		
2000		1.96		19.80	0.6	2700	695	4460	2190×1900×1950	820/820		
2500		2.31		23.00	0.6	3230	870	5330	2240×1940×1980	1070/1070		

注(note): 高压分接范围(tapping range of high-voltage): ±5%或±2×2.5%; 频率(frequency): 50Hz;

**10kV级S11-M 系列油浸式电力变压器技术参数**

Tech data of 10kV S11-M series power transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight		
200			Yd11	0.34	3.15	1.8	4.5	650	160	1000	1180×740×1270	660/660
250				0.40	3.60	1.7		770	200	1190	1230×780×1340	
315				0.48	4.30	1.6		900	215	1360	1260×810×1370	
400				0.57	5.20	1.5		1080	260	1650	1380×900×1390	
500				0.68	6.20	1.4		1250	280	1890	1400×920×1450	
630				0.81	7.30	1.3		1470	340	2245	1580×1020×1430	
800				0.98	8.90	1.2	1735	385	2645	1665×1070×1520	820/820	
1000	11			1.15	10.50	1.1	1910	430	2980	1740×1160×1550		
1250	10.5	6.3		1.36	12.42	1.0	2210	590	3640	1820×1210×1740		
1600	10	6		1.64	14.85	0.9	2640	680	4270	1840×1240×1860		
2000	6.3	3.15		1.96	17.82	0.9	2890	725	4775	2210×1920×1970		
2500	6			2.31	20.70	0.8	3460	910	5710	2260×1970×1995		
3150				2.73	24.30	0.8	4230	1350	7085	2320×2280×2360	1070/1070	
4000				3.36	28.8	0.7	5025	1675	8150	2460×2480×2475		
5000				3.99	33	0.7	6020	1940	9610	2575×2640×2590		
6300				4.76	36.9	0.6	8125	2550	12660	2640×2820×2810		
8000				6.52	40.5	0.55	9620	2780	15100	2710×2840×3040		
10000				7.70	47.7	0.55	11660	3070	17480	2850×2880×3265		1475/1475

注(note): 高压分接范围(tapping range of high-voltage): ±5%或±2×2.5%; 频率(frequency): 50Hz;





# OIL IMMERSION TRANSFORMER

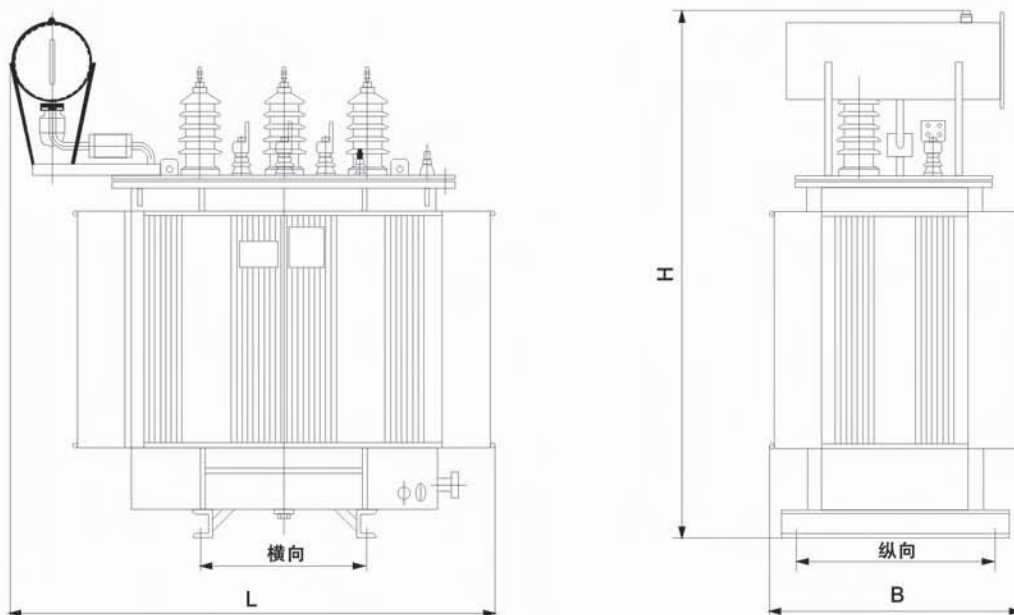
油浸式变压器



PROFESSIONAL · PRODUCE

### 外形尺寸及安装尺寸

Transformer special service conditions



### 35kV级 S9系列油浸式配电变压器技术参数

Tech data of 35kV S9 series distribution transformer

额定容量 rated capacity (kVA)	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L × 宽B × 高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75°C) load			器身重 machine weight	油重 oil weight	总重 gross weight		
30	35 36.5 38.5	0.4	Yyno	0.165	0.90	2.0	6.5	145	205	530	1010 × 1020 × 1425	550/550
50				0.21	1.25	2.0		210	195	585	1010 × 1020 × 1425	
80				0.28	1.80	1.8		285	225	735	1060 × 1125 × 1560	
100				0.31	2.03	1.8		340	255	830	1090 × 1150 × 1600	
125				0.34	2.39	1.7		395	270	950	1120 × 1150 × 1625	660/660
160				0.37	2.85	1.5		475	285	1050	1130 × 1280 × 1680	
200				0.43	3.30	1.5		560	310	1190	1170 × 1300 × 1710	
250				0.52	3.96	1.4		650	350	1355	1250 × 1370 × 1735	
315				0.61	4.77	1.4		760	390	1565	1260 × 1370 × 1780	820/820
400				0.75	5.76	1.3		925	490	1875	1810 × 1250 × 1865	
500	0.87	6.93	1.3	1085	550	2135	1850 × 1360 × 1920					
630	1.05	8.30	1.1	1285	615	2505	1900 × 1380 × 1990					
800	1.25	9.90	1.0	1530	720	2945	2100 × 1400 × 2075	1070/1070				
1000	1.49	12.20	0.7	1845	815	3500	2220 × 1430 × 2245					
1250	1.76	14.70	0.6	1930	935	3975	2260 × 1430 × 2250					
1600	2.15	17.55	0.6	2385	1070	4685	2300 × 1460 × 2470					
2000	2.61	21.50	0.6	2630	1090	4890	2380 × 1740 × 2350	1070/1070				
2500	3.15	23.00	0.6	3135	1145	5740	2570 × 1880 × 2510					

注：高压可提供 ±5% 或 ±2 × 2.5% 调压范围

Note: it can supply voltage regulating range of ±5% or ±2 × 2.5% for high-voltage of transformer

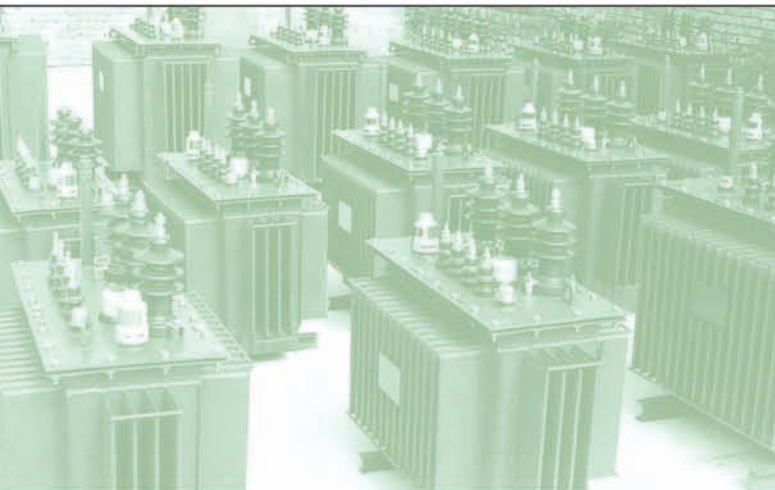
### 35kV级 S9系列油浸式电力变压器技术参数

Tech data of 35kV S9 series power transformer

额定容量 rated capacity kVA	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight		
200	35	10.5 10 6 6.3	Yd11	0.43	3.30	1.55	6.5	610	365	1310	1240×1270×1680	660/660
250				0.52	3.96	1.4		670	370	1405	1290×1280×1680	
315				0.61	4.77	1.4		825	440	1685	1300×1350×1840	
400				0.75	5.76	1.3		920	530	1910	2020×940×1870	
500				0.87	6.93	1.25		1110	610	2235	2150×1000×1920	
630				1.05	8.30	1.05		1215	630	2420	2260×1060×1920	
800				1.25	9.90	1.0		1540	750	3050	2330×1080×2010	
1000				1.49	12.20	0.9		1795	835	3440	2390×1100×2060	
1250				1.76	14.70	0.85		1960	900	3860	2450×1210×2090	
1600				2.15	17.55	0.75		2275	1025	4540	2475×1230×2300	
2000				2.61	19.35	0.75	2560	1050	4960	2380×2010×2300		
2500				3.15	20.70	0.75	3390	1245	5730	2460×2150×2400		
3150				3.87	24.30	0.7	3785	1500	7600	2550×2220×2420		
4000				4.64	28.80	0.6	7	4690	1790	8500	2670×2390×2510	
5000				5.50	33.00	0.6	7.5	5570	2015	9790	2870×2450×2750	
6300				6.60	36.90	0.55	7.5	7380	2460	12620	3100×2580×2950	
8000				9.00	40.50	0.55	7.5	8870	2650	14100	3250×2680×3150	
10000				10.60	47.70	0.5	7.5	10020	2930	16500	3320×2720×3230	
12500				12.60	56.70	0.5	7.5	12880	3710	19780	3410×2950×3410	
16000	15.30	69.30	0.5	7.5	16120	4280	23950	3520×3180×3570				
20000	18.10	83.70	0.5	8	18580	5230	29600	3730×3560×3990				
25000	21.50	99.00	0.4	8	22970	6370	35350	4110×4120×4220				
31500	25.70	119.00	0.4	8	27600	7740	41900	4760×4570×4390				

注：高压可提供±5%或±2×2.5%调压范围

Note: it can supply voltage regulating range of ±5% or ±2×2.5% for high-voltage of transformer





35kV级 SZ9系列有载调压油浸式电力变压器技术参数

Tech data of 35kV SZ9 series on-load regulation power transformer

额定容量 rated capacity kVA	电压组合(kV) voltage group		联结方式 connection method	损耗(kW) Loss		空载电流(%) no-load current	阻抗电压(%) impedance voltage	重量(Kg) weight			外形尺寸(mm) (长L×宽B×高H) outline dimension	轨距 纵向/横向 gauge vertical/ horizontal			
	高压 High-voltage	低压 Low-voltage		空载 no-load	负载(75℃) load			器身重 machine weight	油重 oil weight	总重 gross weight					
800	35	10	Yd11	1.39	10.40	1.0	6.5	1650	945	3450	2790×1220×2070	820/820			
1000				1.65	12.80	1.0		1920	1050	3860	2830×1240×2090				
1250				1.96	15.40	0.9		2085	1100	4360	2870×1310×2150				
1600				2.39	18.40	0.85		2410	1230	4995	2875×1310×2320				
2000				2.89	20.30	0.75		2720	1280	5460	2980×2080×2320				
2500				3.44	21.70	0.75		3630	1500	6420	3060×2190×2430				
3150				4.10	26.00	0.7	4030	1770	8360	3180×2240×2450	1070/1070				
4000				4.95	30.70	0.7	7	4980	2150	9350		3270×2410×2540			
5000				5.85	36.00	0.6	5900	2420	10960	3490×2480×2780					
6300				38.5	6	Ynd11	7.02	38.70	0.6	7.5	7920	2950	14100	3710×2600×2965	1475/1475
8000				9.90	42.80		0.55	9400	3310		15800	3850×2680×3170			
10000				11.68	50.60		0.55	10500	3960		18980	3960×2750×3250			
12500				13.77	59.90		0.5	13590	5010		23140	4035×2980×3470			
16000				16.80	72.80		0.5	16930	5980		27350	4140×3200×3600			
20000				19.80	87.90		0.5	8	19240		7060	35600	4370×3580×4110		
25000				23.50	104.00	0.4	23760	8600	41360	4710×4120×4250	2040/2040				
31500				28.10	125.00	0.4	28400	10500	49100	5360×4570×4390					

注：有载调压变压器高压可提供±3×2.5%或±4×2.5%调压范围

Note: it can supply voltage regulating range of ±3×2.5% or ±4×2.5% for high-voltage of on-load regulation transformer