

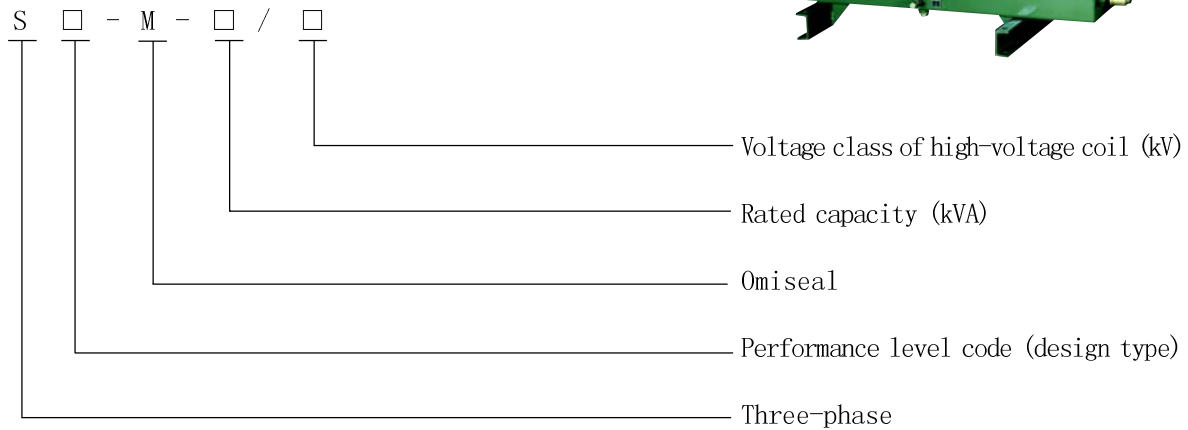
S9 S11 Omniseal oil-immersed distributing transformer

1. Overview

Omnisealed Transformer adopts oil-extended sealing type. The casing of corrugated tank is permanently sealing oil-tank depending on its own elasticity to suit for oil's expansion. The tank has been widely used in different distributing equipments.



2. Description of product type



3. Normal service conditions

1. Elevation can not be over 1000m;
2. Highest ambient temperature +40°C;
3. Highest annual average temperature +20°C;
4. Indoor or outdoor
5. Highest daily average temperature +30°C;
6. Lowest temperature -25°C;

We can provide transformer operated in special conditions according to the requirements of users.

4. Executive standard

1. GB1094.1~2-1996, GB1094.3, 5-1985 power transformer
2. GB/T6451-1999 technical parameters and requirements of three-phase oil-immersed power transformer.

5. Performance characteristics

1. The iron core adopts imported high-permeance cold-rolled grain-oriented silicon-steel plate whose thickness $\leq 0.3\text{mm}$ and applies 45° fully-inclined echelon form iterative accumulation. The surface of iron core was covered by protective resin to prevent moisture and rusting.

2. Low-voltage winding generally adopts drum type structure winded by copper foil except for low-voltage winding of small capacity which adopts copper conducting wire; High-voltage winding adopts multilayered drum type structure which makes ampere-turn of winding distribute evenly, magnetic leakage low, mechanical strength high and short-circuit resistance strong.

3. Iron core and winding respectively adopts fastening precautions. Fastening parts such as machine body and high or low-voltage conducting wire all have self-lock and loose-proof nuts adopting non suspension-core structure which can bear jolt during delivery.

4. Iron core and winding apply vacuum drying. Transformer oil applies vacuum filter liquor and fuel-injection processes which make moisture inside transformer down to lowest level.

5. Oil tank applies corrugated sheet whose breathing function can compensate changing volume of oil caused by temperature variation, so there is no oil conservator in this product and the height of transformer is obviously reduced.

6. Transformer oil is separated from outside because of corrugated sheet replacing oil conservator. Thus oxygen and moisture will be effectively prevented from entering which will cause insulating ability to drop.

7. It is not necessary for you to change oil during normal transformer's operation according to above 6 performances. Thus we greatly reduce maintenance cost of transformer and at the same time prolong life time of transformer.

8. Protective equipment

Pressure-release valve——When the pressure inside transformer reaches 35kpa because of transformer's failure, pressure-release valve will open and release pressure or give an alarm. When pressure reduces to normal value, pressure-release valve will restore to the former state to ensure the transformer to go on running.

Temperature measuring equipment——800kVA and above 800kVA transformers are configured by signaling thermometer and gas relay. When reaching an certain temperature, the equipment will trip or alarm and light or heavy gas will alarm.

9. S9 No-load loss has an average 10% decrease comparing with that of GB/T6451 group.

Load loss has an average 10% decrease comparing with that of GB/T6451 group.

S11 No-load loss has an average 30% decrease comparing with that of GB/T6451 group.

Load loss has an average 15% decrease comparing with that of GB/T6451 group.

6. Notes for placing order

Transformer type:		rated capacity	kVA		
Voltage:	high voltage	kV/low voltage	kV		
Tapping range:	$\pm 2 \times 2.5\%$ <input type="checkbox"/>	$\pm 5\%$ <input type="checkbox"/>	other <input type="checkbox"/>		
Number of phases:	three-phase <input type="checkbox"/>	single-phase <input type="checkbox"/>			
Frequency:	50HZ <input type="checkbox"/>	60HZ <input type="checkbox"/>			
Connection group:	Yyn0 <input type="checkbox"/>	Dyn11 <input type="checkbox"/>	other <input type="checkbox"/>		
Impedance voltage:	normal <input type="checkbox"/>		other <input type="checkbox"/>		

Main technical parameters of S9-M-30~2500/10 series omniseal distributing transformer

Rated capacity	Voltage combination			Combination group label	No-load loss (W) 130 170	Load loss (W) (75°C)	Short-circuit resistance (%)	No-load current (%)	Weight (kg)			Outline dimensions (mm) L x W x H	Track gage (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Weight of equipment	Oil weight	Total weight		
30					130	600		2.1	185	80	330	750×530×820	400×400
50					170	870		2.0	245	90	390	830×630×970	400×400
63					200	1040		1.9	235	170	490	860×670×1000	400×400
80					240	1250		1.8	295	115	520	890×680×1025	550×550
100					290	1500		1.6	325	140	590	930×690×1060	550×550
125					340	1800		1.5	380	150	730	950×720×1090	550×550
160					400	2200	4.0	1.4	470	170	770	970×740×1180	550×550
200	6				480	2600		1.3	550	205	930	1070×805×1150	550×550
250	6.3	±5	0.4	Yyn0	560	3050		1.2	635	225	1060	1410×820×1210	550×550
315	10	±2×2.5			670	3650		1.1	825	240	1255	1455×830×1260	660×660
400					800	4300		1.0	965	280	1525	1530×840×1300	660×660
500					960	5100		1.0	1150	305	1710	1630×930×1390	660×660
630					1200	6200		0.9	1360	420	2225	1710×960×1445	820×820
800					1400	7500		0.8	1560	470	2565	1780×1020×1475	820×820
1000					1700	10300	4.5	0.7	1900	540	3070	1850×1130×1600	820×820
1250					1950	12000		0.6	2160	615	3415	1900×1170×1660	820×820
1600					2400	14500		0.6	2575	770	4155	2085×1240×1700	1070×1070
2000					2850	18500	5.5	0.5	2840	815	4690	2120×1260×1790	1070×1070
2500					3000	20700		0.5	3500	1240	6085	2260×1360×1900	1070×1070

Main technical parameters of S10-M-30~2500/10 series omniseal distributing transformer

Rated capacity	Voltage combination			Combination group label	No-load loss (W) 130 170	Load loss (W) (75°C)	Short-circuit resistance (%)	No-load current (%)	Weight (kg)			Outline dimensions (mm) L x W x H	Track gage (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Weight of equipment	Oil weight	Total weight		
30					115	600		2.1	185	80	330	750×530×820	400×400
50					150	870		2.0	245	90	390	830×630×970	400×400
63					180	1040		1.9	235	170	490	860×670×1000	400×400
80					215	1250		1.8	295	115	520	890×680×1025	550×550
100					260	1500		1.6	325	140	590	930×690×1060	550×550
125					300	1800		1.5	380	150	730	950×720×1090	550×550
160					355	2200	4.0	1.4	470	170	770	970×740×1180	550×550
200		±5			425	2600		1.3	550	205	930	1070×805×1150	550×550
250	6		0.4	Yyn0	500	3050		1.2	635	225	1060	1410×820×1210	550×550
315	6.3				595	3650		1.1	825	240	1255	1455×830×1260	660×660
400	10				710	4300		1.0	965	280	1525	1530×840×1300	660×660
500		±2×2.5			850	5100		1.0	1150	305	710	1630×930×1390	660×660
630					1060	6200		0.9	1360	420	2225	1710×960×1445	820×820
800					1240	7500		0.8	1560	470	2565	1780×1020×1475	820×820
1000					1500	10300	4.5	0.7	1900	540	3070	1850×1130×1600	820×820
1250					1730	12000		0.6	2160	615	3415	1900×1170×1660	820×820
1600					2200	14500		0.6	2575	770	4155	2085×1240×1700	1070×1070
2000					2530	18500	5.5	0.5	2840	815	4690	2120×1260×1790	1070×1070
2500					2670	20700	5.5	0.5	3500	1240	6085	2260×1360×1900	1070×1070

Main technical parameters of S11-M-30~2000/10 series omniseal distributing transformer

Rated capacity	Voltage combination			Combination group label	No-load loss (W) 130 170	Load loss (W) (75°C)	Short-circuit resistance (%)	No-load current (%)	Weight (kg)			Outline dimensions (mm)	
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Weight of equipment	Oil weight	Total weight	L x W x H	Track gage (mm)
30					90	600		2.1	165	70	300	800×660×940	400×400
50					120	870		2.0	230	80	400	830×690×990	400×400
63					140	1040		1.9	270	90	450	860×690×1020	400×400
80					170	1250		1.8	320	105	520	900×720×1060	550×550
100					200	1500		1.6	365	115	600	940×740×1080	550×550
125					235	1800	4.0	1.5	420	125	700	1220×770×1100	550×550
160					280	2200		1.4	505	140	820	1240×780×1170	550×550
200	6	±5			335	2600		1.3	605	170	980	1390×800×1200	550×550
250	6.3		0.4	Yyn0	390	3050		1.2	700	190	1150	1410×820×1230	550×550
315	10	±2×2.5			465	3650		1.1	810	220	1300	1500×860×1270	660×660
400					560	4300		1.0	950	240	1525	1520×870×1320	660×660
500					670	5100		1.0	1130	270	1780	1600×890×1410	660×660
630					840	6200		0.9	1360	320	2050	1660×950×1460	820×820
800					980	7500		0.8	1660	490	2800	1760×970×1500	820×820
1000					1190	10300	4.5	0.7	1720	570	3030	1800×1090×1620	820×820
1250					1360	12000		0.6	2060	650	3535	1870×1100×1700	820×820
1600					1640	14500		0.6	2340	750	4350	1980×1180×1800	1070×1070
2000					1980	18500	5.5	0.5	2830	950	5040	2090×1280×1930	1070×1070

Main technical parameters of S9-M-50~1600/35 series omniseal distributing transformer

Rated capacity	Voltage combination			Combination group label	No-load loss (W) 130 170	Load loss (W) (75°C)	Short-circuit resistance (%)	No-load current (%)	Weight (kg)			Outline dimensions (mm)		
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Weight of equipment	Oil weight	Total weight	L x W x H		Track gage (mm)
50					210	1250		2.0	220	350	800	1150×720×1200		660×660
100					300	2030		1.80	450	390	1220	1200×740×1300		660×660
125					340	2350		1.75	590	430	1450	1250×780×1380		660×660
160					380	2820		1.65	650	460	1500	1300×800×1400		660×660
200					440	3300		1.55	700	480	1520	1400×840×1500		660×660
250					510	3900		1.40	760	490	1600	1530×860×1580		660×660
315	35	± 5	0.4	Yyn0	610	4700	6.5	1.40	900	530	1780	1600×890×1630		660×660
400					740	5700		1.30	1050	620	2030	1730×950×1700		820×820
500					870	6900		1.30	1310	730	2400	1800×980×1800		820×820
630					1040	8200		1.25	1470	800	2700	1900×1000×1850		820×820
800					1250	10000		1.05	1570	820	3400	1950×1060×1900		820×820
1000					1480	12000		1.00	1710	900	3800	1980×1100×1950		820×820
1250					1760	14000		0.85	2000	1100	4200	2010×1160×1980		1070×1070
1600					2130	17000		0.75	2400	1120	4400	2040×1310×2000		1070×1070

Main technical parameters of S9-M-800~2500/35 series omniseal distributing transformer

Rated capacity	Voltage combination			Combination group label	No-load loss (W) 130 170	Load loss (W) (75°C)	Short-circuit resistance (%)	No-load current (%)	Weight (kg)			Outline dimensions (mm)		Track gage (mm)
	High voltage (kV)	Tapping (%)	Low voltage (kV)						Weight of equipment	Oil weight	Total weight	L x W x H		
800				Yd11	1250	10000	6.5	1.05	1680	910	3680	2000×1100×1950	820×820	
1000			1480		12000	1800		3950	2100×1200×2100	820×820				
1250		3.15	1760		14000	2020		4200	2150×1250×2150	820×820				
1600	35	±5	2130		17000	2350		4300	2200×1340×2180	820×820				
2000		6.3	2720		19000	2800		5400	2250×1380×2210	1070×1070				
2500		10.5	3100		21000	3500		6800	2300×1400×2300	1070×1070				
3150			3800	24500	4100	7300	2480×1900×2450	1070×1070						
4000		3.15	4600	29000	4800	8900	2800×2250×2500	1070×1475						
5000		±5	5500	33000	5600	12000	3000×2370×2800	1070×1475						
6300	35		6600	37000	7100	13200	3200×2520×2900	1070×1475						
8000			8500	42000	8200	14700	3300×2700×3200	1475×1475						
10000	38.5		10000	48300	9300	16580	3400×2800×3400	1475×1475						
12500		±2×2.5%	12000	57300	11000	18800	3500×2930×3500	1475×1475						
16000		6.3	14500	70000	13300	23000	3620×3040×3600	1475×1475						
20000		10.5	15400	86600	15000	25000	3700×3100×3700	1475×1475						