

10KV Oil-immersed Transformer



POWER TRANSMISSION AND
DISTRIBUTION PRODUCT SELECTION

PROFESSIONAL MANUFACTURER OF
HIGH AND LOW VOLTAGE PRODUCTS

CNC
ELECTRIC

10KV Oil-immersed Transformer **S□-M Series** Oil-immersed Fully Sealed

- ❖ The S□-M series three-phase oil-immersed transformer adopts a fully oil-filled, sealed corrugated oil tank. and the oil tank shell adapts to the expansion performance of the oil with its own elasticity and meets the heat dissipation requirements. It has the characteristics of high efficiency and low loss, which can save a lot of power consumption and operating costs, and is widely used in power plants, substations, industrial and mining enterprises, ports, airports and other environmental protection places.
- ❖ Standard: IEC60076-1, IEC60076-2, IEC60076-3, IEC60076-5, IEC60076-10.

General

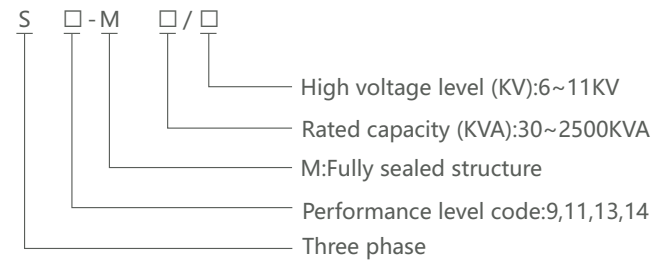


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S□-M Series Oil-immersed Fully Sealed

Selection



Operating conditions

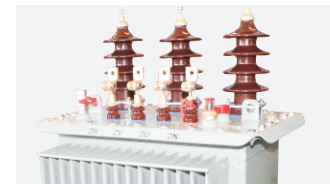
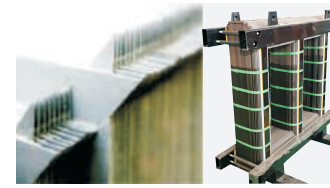
1. Ambient temperature: maximum temperature: +40°C, minimum temperature: -25°C.
2. Average temperature of the hottest month:+30°C, average temperature in the hottest year: +20°C.
3. Altitude not exceeding 1000m.
4. The waveform of the power supply voltage is similar to a sine wave.
5. The three-phase supply voltage should be approximately symmetrical.
6. The total harmonic content of the load current shall not exceed 5% of the rated current.
7. Where to use: indoors or outdoors.

Features

1. The product has the characteristics of high efficiency, low loss, low noise, etc.
2. High mechanical strength, balanced ampere-turn distribution, and strong short-circuit resistance.
3. Low no-load and load loss.
4. Small size, reliable operation, long service life, and maintenance free.

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Structure

- Iron core:
 - The iron core is made of high-quality, high-performance, high-permeability silicon steel sheet, with low no-load loss.
- High/low voltage winding:
 - The low-voltage winding of 500KVA and below is a layer type, and the new spiral type is used for 630KVA and above.
 - It has the characteristics of high mechanical strength, balanced ampere turn distribution, and strong short-circuit resistance.
- Fully sealed structure:
 - The product is a fully sealed structure. The vacuum oil filling process is used for the transformer packaging, which completely removes the moisture of the transformer, ensures the isolation of the transformer oil from the outside air, prevents the aging of the oil, and improves the operation reliability of the transformer.
- Positioning structure:
 - The product body has added a positioning structure to prevent displacement during transportation, and all fasteners are equipped with fastening nuts to ensure that the fasteners do not loosen during long-term operation of the product.
- Oil tank:
 - The oil tank adopts a corrugated oil tank.Simple process, high mechanical strength,good welding effect,not easy to leak,due to the strong fluidity of the oil, the heat dissipation capacity of the product is improved.
- Other configuration:
 - Equipped with pressure relief valve, signal thermometer, ensures the safe operation of the transformer.

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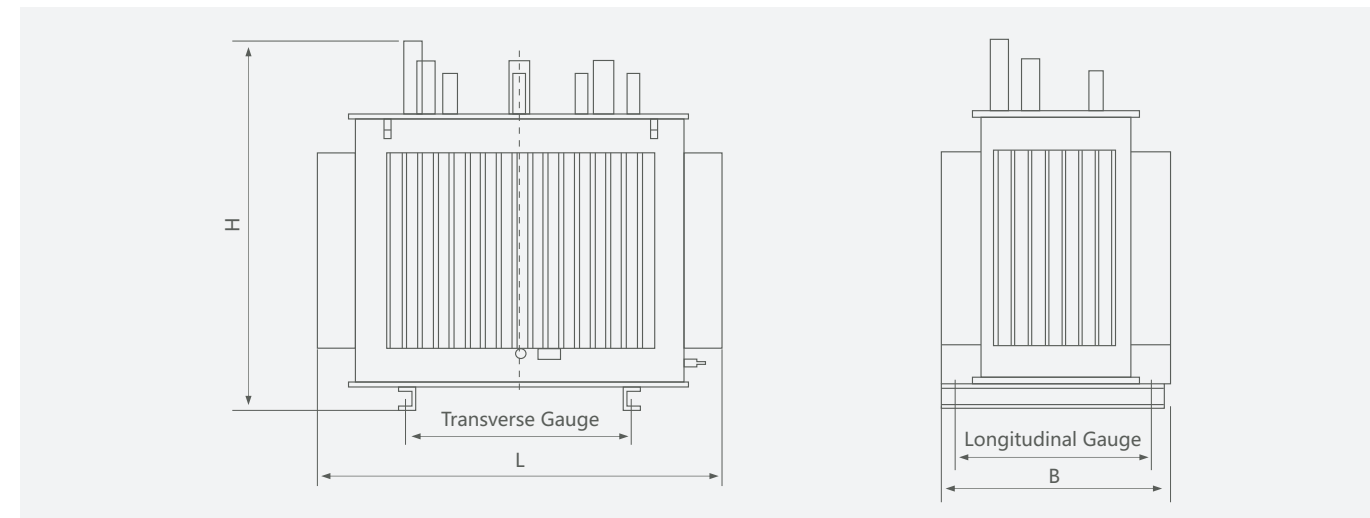
S9-M 30~2500/10KV technical data

Rated capacity (KVA)	Voltage combination			Connection group label	No-load loss(W)	Load loss(W)	No-load current (%)	Short circuit impedance (%)	Dimensions			Total weight (kg)			
	High voltage (KV)	Tapping range	Low voltage (KV)						L	W	H				
30	6 6.3 10 10.5 11	±5 ±2×2.5	0.4	Dyn11 Yyn0 Yzn11	130	630/600	2.3	4.0	745	530	890	280			
50					170	910/870	2.0		790	560	940	365			
63					200	1090/1040	1.9		820	570	950	425			
80					250	1310/1250	1.9		850	580	1000	485			
100					290	1580/1500	1.8		900	620	1010	540			
125					340	1890/1800	1.7		880	630	1050	610			
160					400	2310/2200	1.6		950	690	1120	710			
200					480	2730/2600	1.5		990	730	1200	835			
250					560	3200/3050	1.4		1180	700	1200	970			
315					670	3830/3650	1.4		1230	760	1250	1125			
400				800	4520/4300	1.3	1260	800	1300	1310					
500				960	5410/5150	1.2	1400	900	1320	1530					
630				1200	6200	1.1	1530	940	1350	1890					
800				1400	7500	1.0	1580	1000	1420	2185					
1000				1700	10300	1.0	1770	1180	1450	2480					
1250				1950	12000	0.9	1920	1290	1430	3020					
1600				2400	14500	0.8	1990	1340	1620	3550					
2000				3000	17100	0.7	1950	1680	2100	4530					
2500				3300	23200	0.7	2020	1710	2100	5030					
							Dyn11 Yyn0	1200	6200	1.1	4.5	1530	940	1350	1890
								1400	7500	1.0		1580	1000	1420	2185
								1700	10300	1.0		1770	1180	1450	2480
								1950	12000	0.9		1920	1290	1430	3020
								2400	14500	0.8		1990	1340	1620	3550
								3000	17100	0.7	5.0	1950	1680	2100	4530
					3300	23200	0.7	2020	1710	2100		5030			

Note 1:for transformers with rated capacity of 500kVA and below, the load loss values above the diagonal line in the table are applicable to the Dyn11 or Yzn11 coupling group,and the load loss values below the diagonal line are applicable to the Yyn0 coupling group.

Note 2:when the average annual load rate of the transformer is between 35% and 40%, the maximum operating efficiency can be obtained by using the loss value in the table.

Overall and mounting dimensions(mm)



Note:The dimensions and weights provided are only for reference in design and selection.The final size and weight are subject to our product drawings.

10KV Oil-immersed Transformer S□-M Series Oil-immersed Fully Sealed

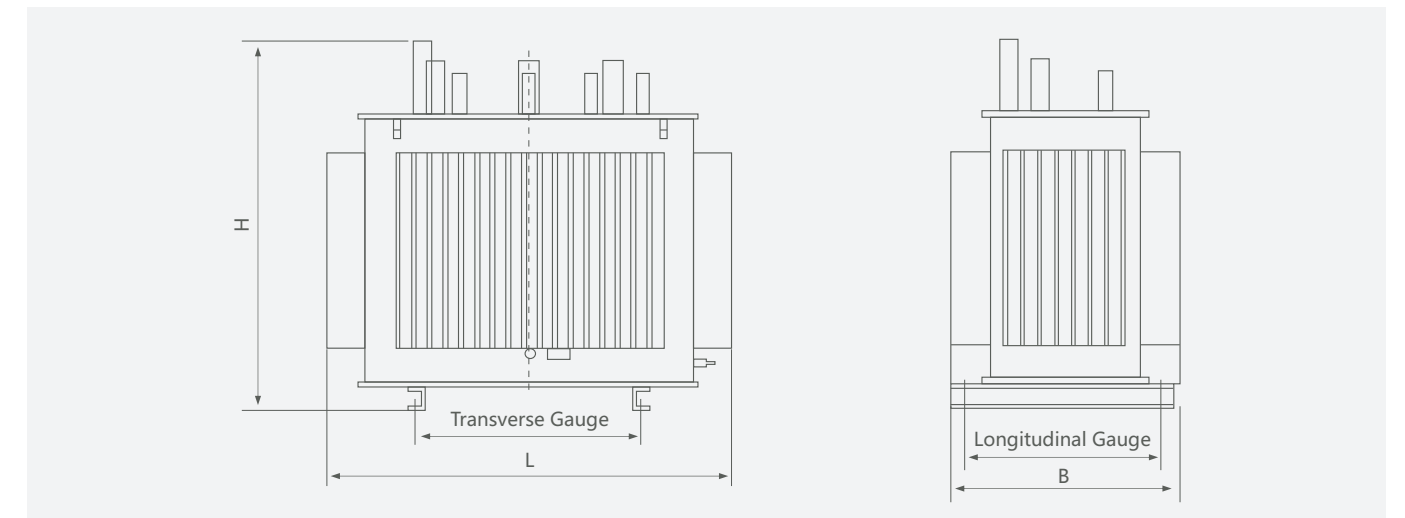
S11-M 30~2500 /10KV technical data

Rated capacity (KVA)	Voltage combination			Connection group label	No-load loss(W)	Load loss(W)	No-load current (%)	Short circuit impedance (%)	Dimensions			Total weight (kg)			
	High voltage (KV)	Tapping range	Low voltage (KV)						L	W	H				
30	6 6.3 6.6 10 10.5 11	±5 ±2×2.5	0.4	Dyn11 Yyn0 Yzn11	100	630/600	1.5	4.0	690	510	920	275			
50					130	910/870	1.3		730	510	960	340			
63					150	1090/1040	1.2		750	550	1000	385			
80					180	1310/1250	1.2		790	620	1020	450			
100					200	1580/1500	1.1		790	700	1040	520			
125					240	1890/1800	1.1		840	800	1070	625			
160					280	2310/2200	1.0		1070	670	1130	695			
200					340	2730/2600	1.0		1140	750	1140	795			
250					400	3200/3050	0.9		1200	800	1190	955			
315					480	3830/3650	0.9		1300	860	1210	1085			
400				570	4520/4300	0.8	1380	900	1240	1290					
500				680	5410/5100	0.8	1450	950	1300	1590					
630				810	6200	0.6	1500	970	1360	1850					
800				980	7500	0.6	1660	1140	1400	2210					
1000				1150	10300	0.6	1690	1190	1530	2570					
1250				1360	12000	0.5	1760	1230	1600	3115					
1600				1640	14500	0.5	1800	1250	1660	3520					
2000				1940	18300	0.4	1930	1360	1490	4060					
2500				2290	21200	0.4	2080	1360	1570	5105					
							Dyn11 Yyn0	810	6200	0.6	4.5	1500	970	1360	1850
								980	7500	0.6		1660	1140	1400	2210
								1150	10300	0.6		1690	1190	1530	2570
								1360	12000	0.5		1760	1230	1600	3115
								1640	14500	0.5		1800	1250	1660	3520
								1940	18300	0.4	5.0	1930	1360	1490	4060
					2290	21200	0.4	2080	1360	1570		5105			

Note 1:for transformers with rated capacity of 500kVA and below, the load loss values above the diagonal line in the table are applicable to the Dyn11 or Yzn11 coupling group,and the load loss values below the diagonal line are applicable to the Yyn0 coupling group.

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Overall and mounting dimensions(mm)



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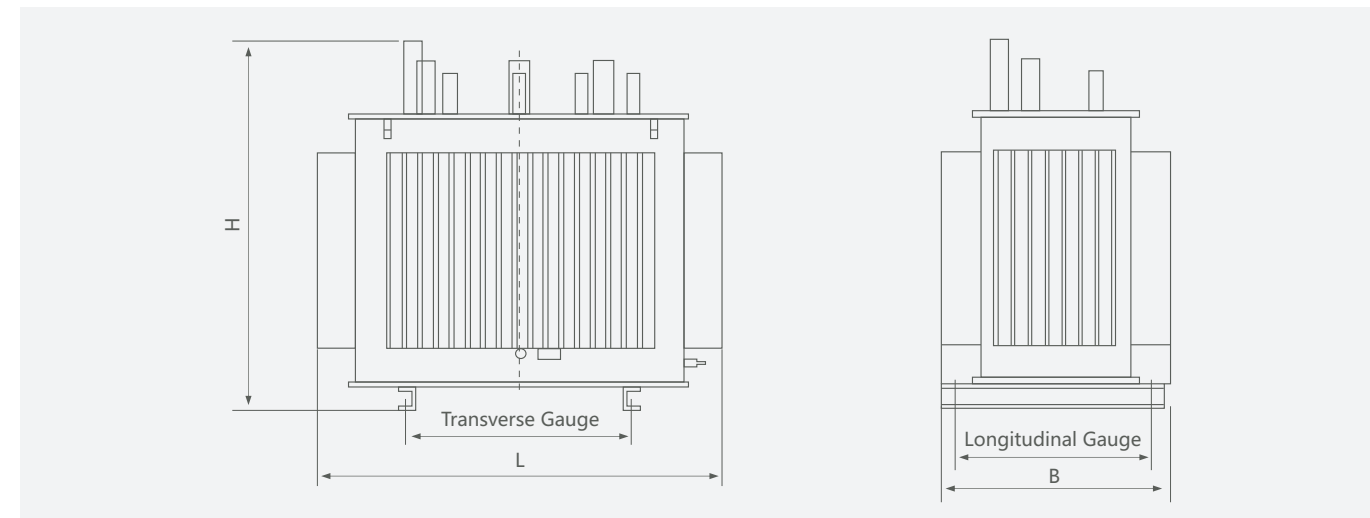
S13-M 30~2500 /10KV technical data

Rated capacity (KVA)	Voltage combination			Connection group label	No-load loss(W)	Load loss(W)	No-load current (%)	Short circuit impedance (%)	Dimensions			Total weight (kg)	
	High voltage (KV)	Tapping range	Low voltage (KV)						L	W	H		
30	6	±5	0.4	Dyn11 Yyn0 Yzn11	80	630/600	1.5	4.0	685	490	860	260	
50					100	910/870	1.3		725	520	955	365	
63					110	1090/1040	1.2		750	535	970	415	
80					130	1310/1250	1.2		770	565	985	465	
100					150	1580/1500	1.2		800	595	1000	545	
125					170	1890/1800	1.1		815	670	1010	585	
160					200	2310/2200	1.1		1015	645	1055	695	
200					240	2730/2600	1.0		1020	650	1115	810	
250					290	3200/3050	1.0		1140	730	1120	930	
315					340	3830/3650	0.9		1195	785	1175	1075	
400				410	4520/4300	0.9	1265	855	1195	1255			
500				480	5410/5100	0.8	1325	915	1240	1435			
630				570	6200	0.8	1465	960	1295	1880			
800				700	7500	0.6	1515	995	1340	2145			
1000				830	10300	0.6	1605	1095	1460	2455			
1250				970	12000	0.5	1685	1145	1485	2840			
1600				1170	14500	0.5	1775	1225	1580	3310			
2000				1550	18300	0.4	1855	1265	1600	3960			
2500				1830	21200	0.4	1885	1305	1780	4980			
							Dyn11 Yyn0				4.5		
								5.0					

Note 1:for transformers with rated capacity of 500kVA and below, the load loss values above the diagonal line in the table are applicable to the Dyn11 or Yzn11 coupling group,and the load loss values below the diagonal line are applicable to the Yyn0 coupling group.

Note 2:when the average annual load rate of the transformer is between 35% and 40%, the maximum operating efficiency can be obtained by using the loss value in the table.

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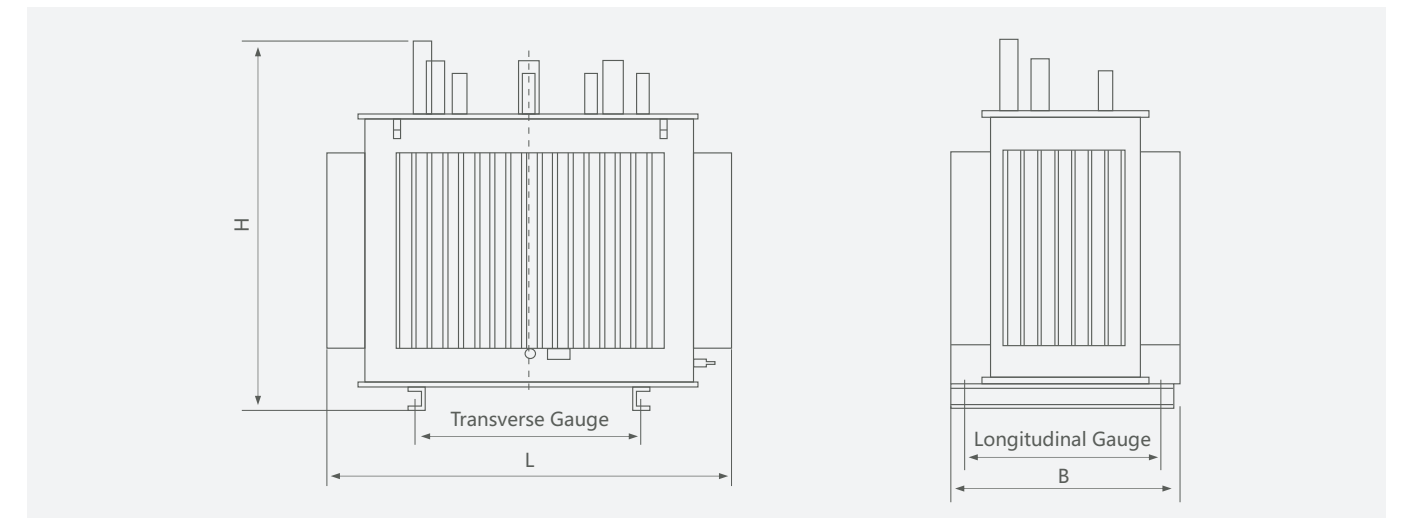
S14-M 30~2500 /10KV technical data

Rated capacity (KVA)	Voltage combination			Connection group label	No-load loss(W)	Load loss(W)	No-load current (%)	Short circuit impedance (%)	Dimensions			Total weight (kg)	
	High voltage (KV)	Tapping range	Low voltage (KV)						L	W	H		
30	6	±5	0.4	Dyn11 Yyn0 Yzn11	80	505/480	1.5	4.0	785	710	880	370	
50					100	730/695	1.3		800	730	940	480	
63					110	870/830	1.2		815	720	970	535	
80					130	1050/1000	1.2		830	740	990	580	
100					150	1260/1200	1.1		875	790	1010	705	
125					170	1510/1440	1.1		875	770	1050	775	
160					200	1850/1760	1.0		935	820	1140	975	
200					240	2180/2080	1.0		995	870	1140	1140	
250					290	2560/2440	0.9		995	900	1180	1240	
315					340	3060/2920	0.9		1030	880	1250	1425	
400				410	3610/3440	0.8	1075	910	1270	1635			
500				480	4330/4120	0.8	1120	930	1320	1950			
630				570	4960	0.6	1165	950	1350	2150			
800				700	6000	0.6	1210	1050	1390	2515			
1000				830	8240	0.6	1520	1020	1450	2635			
1250				970	9600	0.5	1630	1090	1540	3210			
1600				1170	11600	0.5	1680	1150	1600	3905			
2000				1550	14600	0.4	1890	1300	1600	4130			
2500				1830	16900	0.4	1990	1360	1700	5250			
							Dyn11 Yyn0				4.5		
								5.0					

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