

S9/S11(10kV)

系列油浸式变压器

Series Oil immersed transformer

吾心求索·通享未来

得益于多年的电气产品研发和制造经验，索通电气为您提供结合了先进技术和卓越工程设计的高压开关设备；系列产品符合智能化、安全性和可靠性要求最严苛的标准。该系列能为公共配电、工业和楼宇领域提供极具成本效益的解决方案，提高竞争力。



S9、S11-M-10KV级系列全密封油浸变压器



节能型
Energy Saving



智能化
Intellectualization



易维护
Easy Maintenance



安全性
Safety

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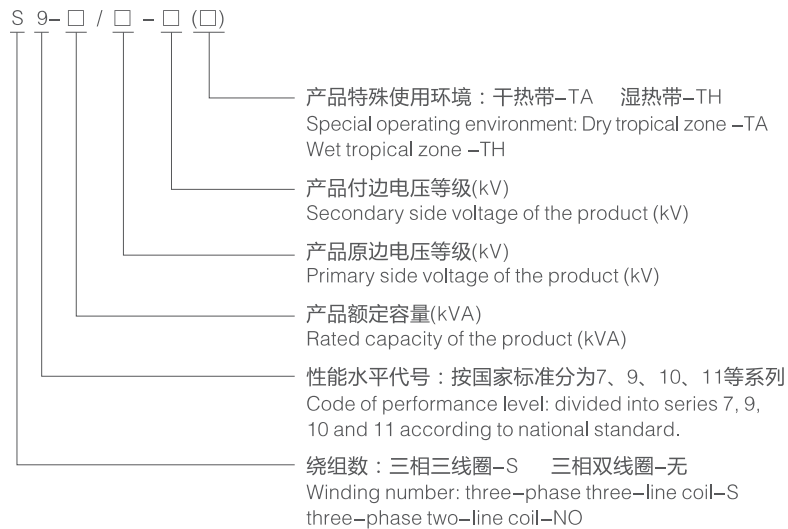
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产品概述 General

- 本部分产品适用于三相、50Hz、35kV级及以下的电力系统中，是中小型变电站的主要变电设备，供工农业配电、动力和照明用。
- 本公司吸取国内外先进技术，采用新材料，优化设计，使产品的结构更趋合理，产品的电气强度、机械强度、散热能力等得到明显提高。S9系列产品通过了武汉高压研究所的突发短路实验和国家变压器质量监督检验中心试验。
- This kind of product is applied to power system of three-phase, 50Hz as well as 35kV and below, it is the main transformer equipment of medium and small-sized transformer substation, supplies power distribution, power and illumination for the industry and agriculture.
- The company introduces in domestic and overseas advanced technique, adopts the latest material and optimizes design, which enables the product structure more reasonable, and greatly improves the product electric strength, mechanical strength and heat-sinking capability. S9 series product has passed the short-circuit test prepared by Wuhan High Voltage Research Institute and also the test prepared by National Center for Quality Supervision & Test of Transformer.

型号及含义 Model and meaning



使用环境 Service Environment

- 环境温度：上限+40℃，下限-15℃(特殊工艺下，可达-45℃)；
- 海拔高度不超过2500m(特殊工艺下，可达4000m)；
- 安装环境：安装地点倾斜度<3°，无明显污秽和腐蚀、可燃性气体。
- 注：超出上述正常使用条件时，用户可与制造厂协商确定。
- Ambient air temperature:
Maximum air temperature: +40℃,
Minimum air temperature: -15℃ (Under a special process, up to -45℃);
- Altitude: ≤ 2500m(Under a special process, up to 4000m);
- Installation environment inclination of installation lace<3° ,no obvious dirt and corrosive or flammable gas.
- Notes: If the operating conditions exceed the normal conditions, please contact our technical department.

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遵循标准 Complied standards

- GB1094.1-1996
- GB1094.2-1996
- GB1094.3-2005
- GB1094.5-2003
- GB/T6451-1999
- GB/T10237-1988
- JB/T10088-2004
- GB311.1-1997
- IEC60076-1:2011

结构特征 Structural Features

- 铁芯

斜多阶梯铁芯片选用优质取向冷轧硅钢片，铁芯采用全接缝、无冲孔、卷铁芯等各种型式，紧固采用不锈钢拉板和环氧玻璃丝拉带的夹紧方式。

- 线圈

导线选用优质无氧铜制造的漆包线或纸包扁铜线，线圈采用圆筒式、螺旋式、改进螺旋式、连续式、纠结式等型式。

- 油箱

油箱采用桶式或罩式的型式，散热元件采用波纹片或片式散热器等组件。

变压器一般不供给小车，但箱底焊有符合国家标准轨距的底座，便于用户安装。

- 安全保护装置

按照国家标准及用户要求，变压器能配置：压力释放阀、气体继电器、讯号温度计、净油器、储油柜、油样活门等安全保护装置。

- Iron core

The iron core is made of high quality cold rolled silicon steel sheet, adopts the kinds of types like full-bias multi-step seam, no punched hole, winding iron core, etc., besides, both stainless steel stay plate and epoxy glass belt are for clamping it.

- Coil

High quality enameled wire that is made of oxygen free copper or paper wrapped flat copper wire is used as conductor, the coils is provided kinds of types such as drum type, spiral type, improved spiral type, continuous type and interleaved type.

- Oil tank

The oil tank is of barrel type or shield type, the heat-sinking element is provided with corrugated plate or plated radiator.

The transformer has not been equipped with trolley, but there is a base that accords with national standard rail gauge welded at the bottom of box for your convenience.

- Safety protection device

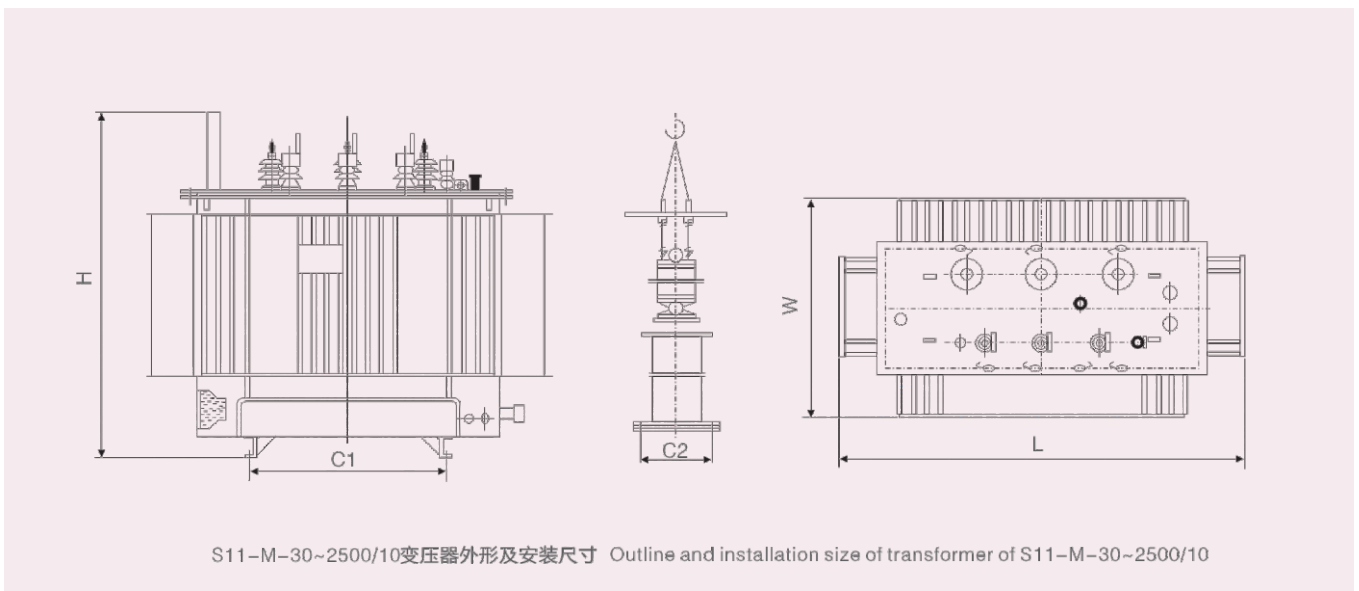
According to national standard and users' requirements, the transformer may be equipped with following safety protection devices: pressure relief valve, gas relay, signal thermometer, oil purifier, oil conservator, oil sampling valve, etc.

S11-M型6~10kV油浸式配电变压器 S11-M type oil immersed distribution transformer of 6~10kV

额定容量 (kVA) Rated capacity	电压组合 Voltage combination			联结组 标号 Connection symbol	短路阻抗 (%) Short circuit voltage	损耗Loss(kW)		空载 电流(%) No- Load current	重量Weight(kg)			外形尺寸(mm) 长×宽×高 Dimensions L×B×H	轨距(mm) 纵向×横向 Gauge Vertical × horizontal				
	高压 H.V (kV)	分接范围 Tapping range	低压 L.V (kV)			空载 No- load	负载 Load		器身重 Body weight	油重 Oil weight	总重 Overall weight						
30	11	±5%	0.4	Yyno Dyn11	4	0.10	0.6/0.63	1.60	155	78	335	760×550×935	400×400				
50						0.13	0.87/0.91	1.40	175	90	395	790×585×1030	400×400				
63						0.15	1.04/1.09	1.35	205	100	440	795×600×1070	400×400				
80						0.18	1.25/1.31	1.30	240	110	495	820×610×1100	400×400				
100						0.20	1.5/1.58	1.25	295	120	565	835×625×1140	400×400				
125						0.24	1.8/1.89	1.20	330	130	625	880×640×1150	550×550				
160						0.28	2.2/2.31	1.10	370	135	690	1050×650×1170	550×550				
200						0.34	2.6/2.73	1.05	470	155	825	1075×690×1230	550×550				
250						10.5	±2×2.5%	0.4	Yyno Dyn11	4	0.40	3.05/3.2	1.00	550	180	955	1135×725×1280
315					10	0.48					3.65/3.83	1.00	650	200	1100	1220×790×1280	550×550
400					6.3	0.57					4.3/4.52	0.90	785	225	1300	1245×810×1390	550×550
500					6	0.68					5.15/5.41	0.85	880	265	1490	1345×915×1400	660×660
630						0.81					6.89	0.80	1035	310	1770	1385×930×1450	660×660
800						0.98					8.42	0.70	1180	330	1975	1445×970×1480	820×820
1000						1.15					9.86	0.65	1325	370	2235	1545×1050×1520	820×820
1250						1.36					11.73	0.60	1540	4110	2555	1620×1125×1590	820×820
1600						1.64					14.03	0.50	1970	490	3170	1720×1180×1690	820×820
2000						1.94	18.30	0.45	2575	650	4150	1915×1345×1790	820×820				
2500		2.29	21.20	0.40	3160	780	5025	1975×1375×1950	820×820								
					4.5												

注：对于额定容量为500kVA及以上的变压器，表中斜线下方的负载损耗值适用于Dyn11联结组根据使用部门要求可提供低压为0.69kV的变压器，本表之外的规格和特殊要求可联系洽谈。

Note: for the transformer with rated capacity 500KVA and above, the data under the slash is load loss suitable for the distribution transformer with Dyn11 connection symbol, if required, the transformer with low voltage 0.69KV can be provided. The special model, specification or model out of this table can be discussed for supply.



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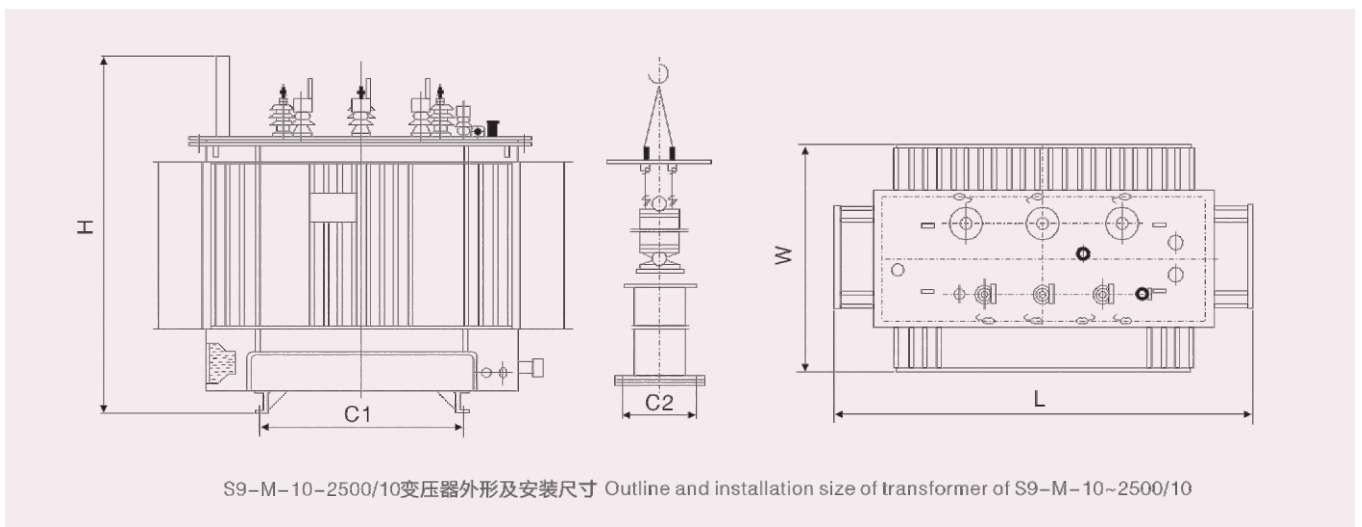


S9-M型6~10kV油浸式配电变压器 S9-M type oil immersed distribution transformer of 6~10kV

额定容量 (kVA) Rated capacity	电压组合 Voltage combination			联结组 标号 Connection symbol	短路阻抗 (%) Short circuit voltage	损耗Loss(kW)		空载 电流(%) No-Load current	重量 Weight(kg)			外形尺寸(mm) 长×宽×高 Dimensions L×B×H	轨距(mm) 纵向×横向 Gauge Vertical × horizontal
	高压 H.V (kV)	分接范围 Tapping range	低压 L.V (kV)			空载 No-load	负载 Load		器身重 Body weight	油重 Oil weight	总重 Overall weight		
10	11 10.5 10 6.3 6	±5% ±2×2.5%	0.4	Yyno Dyn11	4	0.06	0.30	2.65	55	50	185	590x370x890	350x350
20						0.10	0.50	2.6	80	55	225	660x390x910	350x350
30						0.13	0.6/0.63	2.3	115	65	285	750x525x910	400x400
50						0.17	0.87/0.91	2.0	160	80	355	820x615x940	400x400
63						0.20	1.04/1.09	1.9	195	90	410	835x620x990	400x400
80						0.25	1.25/1.31	1.9	225	95	455	850x625x1000	400x400
100						0.29	1.5/1.58	1.8	245	105	490	880x650x1070	550x550
125						0.34	1.8/1.89	1.7	285	115	560	1050x650x1100	550x550
160						0.40	2.2/2.31	1.6	335	125	640	1120x720x1100	550x550
200						0.48	2.6/2.73	1.5	400	140	735	1095x705x1180	550x550
250					0.56	3.05/3.2	1.4	460	150	810	1185x765x1230	550x550	
315					0.67	3.65/3.83	1.4	560	175	975	1280x810x1250	550x550	
400					0.80	4.3/4.52	1.3	675	200	1140	1315x850x1350	660x660	
500					0.96	5.15/5.41	1.2	785	230	1330	1415x925x1390	660x660	
630					1.20	6.89	1.1	920	265	1605	1495x995x1420	820x820	
800					1.40	8.42	1.0	1085	300	1850	1630x1115x1450	820x820	
1000					1.70	9.86	1.0	1205	330	2095	1630x1115x1470	820x820	
1250					1.95	11.73	0.9	1455	385	2415	1775x1235x1600	820x820	
1600					2.40	14.03	0.8	1800	465	2975	1855x1305x1730	820x820	
2000					2.83	18.30	0.8	2240	590	3655	1855x1305x1730	820x820	
2500	3.35	21.20	0.7	2760	710	4470	1935x1335x1870	820x820					

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S9-M-10-2500/10变压器外形及安装尺寸 Outline and installation size of transformer of S9-M-10-2500/10