



PRODUCT CATALOG

JIANGSU LIHE ELECTRICAL EQUIPMENT

OIL IMMERSSED TRANSEORMER



JIANGSU LIHE ELECTRICAL EQUIPMENT CO., LTD

Smart Electric Global Service provider
Make life better!

www.jslhtf.com

CATALOGUE

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© ABOUT LIHE ELECTRICAL EQUIPMENT

LIHE ELECTRICAL EQUIPMENT, is an electrical enterprise with transmission and distribution industry as its main business, integrating product research and development, manufacturing and trade. Designated suppliers for the world's top 500 enterprises. Its main products include power transformers, medium and low voltage switchgear, distribution panel, circuit breakers, transmission tower, Cable and other power distribution equipment. The group has five departments: Transformer department, Panel department, power transmission tower department, cable department and electrical engineering department. LIHE ELECTRICAL EQUIPMENT has been working hard to provide the best transmission, distribution solutions for users all over the world.

Power distribution solutions that drive the global energy transition

With energy demand expanding in both developed and emerging countries, the challenge for LIHE ELECTRICAL EQUIPMENT is to connect energy with people. The group's teams work as closely as possible with projects and decision makers and design and propose technical and process solutions based on global user needs.

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QUALIFICATION CERTIFICATION



🔄 PRODUCT OVERVIEW

- The actual measurement of the product is superior to GB and IEC standards, CB CCC KEMA SASO certification, etc
- The high reliability of operation verification in more than 50 countries and regions around the world has been sold to Iraq, Kuwait, the United Arab Emirates, Libya, Zimbabwe, South Africa, Uganda, Rwanda, Ethiopia, Ghana, Uzbekistan, Kazakhstan, Pakistan, Vietnam, Nepal, Bangladesh, Indonesia and other countries, with a cumulative export of 12598 sets
- It is mainly used in urban distribution network below 35KV, power supply and distribution system of industrial and mining enterprises and civil buildings
- Executive Standards: IEC 60076 Series, IEC 6013, IEC 60214-1, IEC 60296; GB 1094-1996, GB / T 6451-2008, GB / TT7597-2007, etc



Oil Immersed Transformer



◎ PRODUCT ADVANTAGE

Leading technology

- High voltage copper tape winding technology to improve lightning resistance
- Low voltage copper foil winding technology, high quality A grade insulation material insulation
- Small magnetic leakage, high mechanical strength, short circuit resistance
- Core 45° fully inclined joint step laminated structure



OLTC Transformer

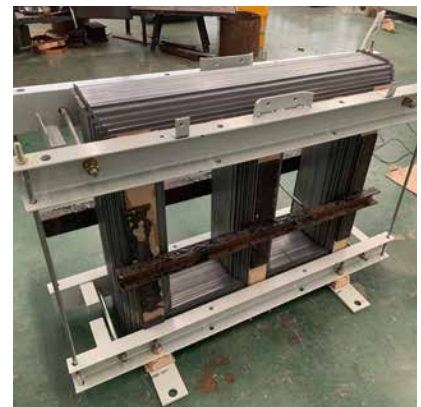
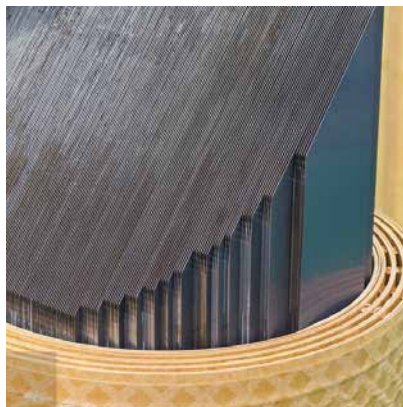
The shell

ABB robot automatic welding, laser detection, avoid leakage, pass rate of 99.99998%
Electrostatic spray treatment, 50 years without removing paint (coating corrosion resistance within 100h, hardness ≥ 0.4)
Fully sealed structure, maintenance free, normal operation service life of more than 30 years

The iron core

The iron core is made of high quality cold-rolled grain oriented silicon steel sheet with mineral oxide insulation (from Baosteel and WISCO of China).

By controlling the cutting and stacking process of silicon steel sheet, the loss level, no-load current and noise can be minimized
The iron core is specially reinforced to ensure the structure of the transformer is firm during normal operation and transportation

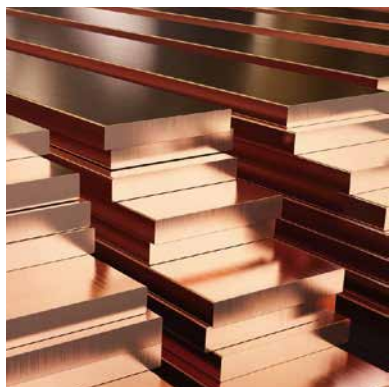
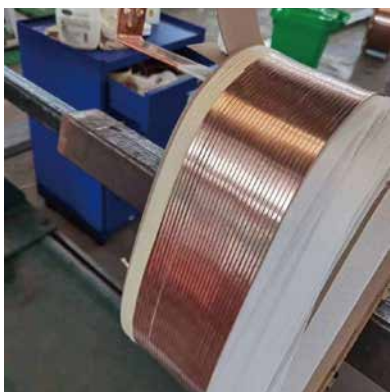


◎ PRODUCT ADVANTAGE

Winding

The low voltage winding is made of high quality copper foil with excellent insulation resistance

High voltage winding is usually made of insulated copper wire, using electric patented technology



High quality material

Baosteel and WISCO produce silicon steel sheets

China's high quality oxygen free copper

CNPC (Kunlun Petroleum) High quality transformer oil (25#)

Patent technology

Thanks to hengfengyou Electric "ultra-low loss energy-saving power transformer" patent technology, can achieve 5% material savings, transformer loss than similar products in the market reduced 10-20%, more energy saving and environmental protection.



Other instructions

The low-voltage outlet terminal is a tin-plated copper bar

High voltage outlet terminals are tin-plated ring bolts

Default no-load voltage regulation (can be customized) tap switch 5 or 7 gear adjustment

Transformer above 630KVA is equipped with gas relay protection.

OUR FACTORY

Production equipment

The company mainly produces more than 300 sets of equipment, and the key equipment includes the full-automatic vacuum resin casting equipment of Hubers company, 400 / 600mm core automatic cross cutting machine, foil winding machine, the most advanced transformer kerosene vapor phase drying equipment in China, large-scale core stacking turnover platform, large scale assembly platform, etc



Silicon steel sheet crosscutting machine

Operating from a 50,000 sqm state-of-the-art manufacturing plant, we deliver a monthly production capacity of 2,000 single-phase transformers. Full compliance with international market access standards has been certified by accredited bodies, including ISO 9001 (Quality Management), ISO 14001 (Environmental Management), SA8000 (Social Accountability), and BSCI (Business Social Compliance Initiative).



FLUID FILLED DISTRIBUTION TRANSFORMER

Type of transformer	Hermetically seal liquid fille (optional conservator)
Style of transformer	Ground Mounted - Cable or busbar Connected
Choice of dielectric fluid	Mineral oil to IEC60296 (KUNLUN25#)
Ratings	25kVA up to 5000kVA (Over 5MVA, see also brochure)
Voltages	Up to 36kV (6/10/35kv 6.6/11/33kv 20/22kv 15/30kv)
Losses	GB 20052-2020 (Officially implemented on June 1, 2021)
Availability	Fast Transformer STOCK (choice of aluminium or copper windings) manufacture – 7 weeks

Standard Tank Fittings	Optional Tank Fittings
Oil level indicator	Fluid-filled conservator
Rating and diagram plate	Gas & fluid actuated relay
Off circuit tap changer	Pressure relief device
pressure relief valve	Dehydrating breather
Dial thermometer	Liquid temperature indicator
Earth terminal	Winding temperature indicator
Filling valve	Marshalling box
Drain valve	Vacuum / pressure gauge
Lifting lugs	Plain rollers and axles
Earthing terminals	

CUSTOMER-ORIENTED CREATE VALUE FOR CUSTOMERS
 MAKEFRIENDS ALL OVER THE WORLD

TECHNICAL PARAMETERS

S9 6KV/6.6KV/10KV/11KV Oil-immersed Transformer

Rating (kva)	High voltage (kV)	High voltage tap range (%)	Low voltage (kV)	connection symbol	No-Load Loss	Load Loss (w)	No-Load current(%)	Short current impedance(%)
30	6 6.6 10 11	$\pm 5\%$ $\pm 2 \times 2.5\%$	0.4 0.415 0.420 0.44	Dyn11 Yyn0	130	630/600	2.3	4
50					170	910/870	2	4
63					200	1090/1040	1.9	4
80					250	1310/1250	1.9	4
100					290	1580/1500	1.8	4
125					340	1890/1800	1.7	4
160					400	2310/2200	1.6	4
200					480	2730/2600	1.5	4
250					560	3200/3050	1.4	4
315					670	3830/3650	1.4	4
400					800	4520/4300	1.3	4
500					960	5410/5150	1.2	4
630					1200	6200	1.1	4.5
800					1400	7500	1	4.5
1000					1700	10300	1	4.5
1250					1950	12000	0.9	4.5
1600					2400	14500	0.8	4.5
2000					2840	18300	0.75	5.5
2500					3360	21200	0.7	5.5

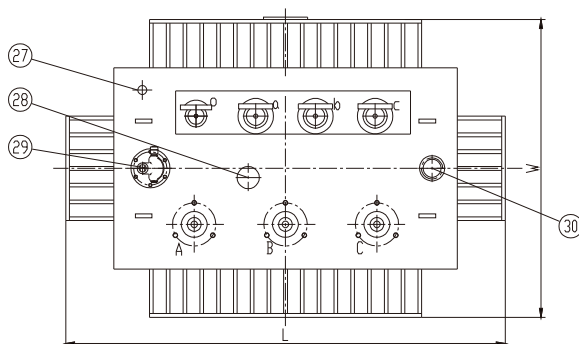
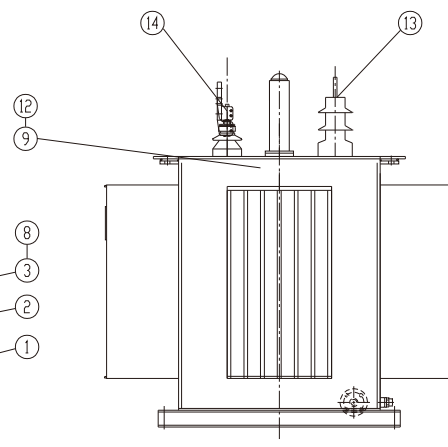
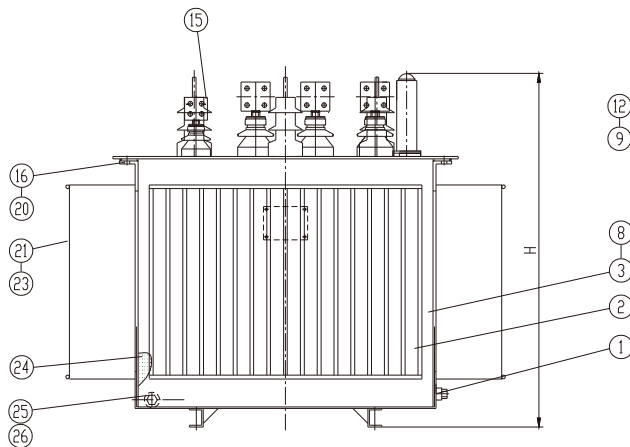
S11 6KV/6.6KV/10KV/11KV Oil-immersed Transformer

Rating (kva)	High voltage (kV)	High voltage tap range (%)	Low voltage (kV)	connection symbol	No-Load Loss	Load Loss (w)	No-Load current(%)	Short current impedance(%)
30	6 6.6 10 11	$\pm 5\%$ $\pm 2 \times 2.5\%$	0.4 0.415 0.420 0.44	Dyn11 Yyn0	100	630/600	1.5	4
50					130	910/870	1.3	4
63					150	1090/1040	1.2	4
80					180	1310/1250	1.2	4
100					200	1580/1500	1.1	4
125					240	1890/1800	1.1	4
160					280	2310/2200	1	4
200					340	2730/2600	1	4
250					400	3200/3050	0.9	4
315					480	3830/3650	0.9	4
400					570	4520/4300	0.8	4
500					680	5410/5150	0.8	4
630					810	6200	0.6	4.5
800					980	7500	0.6	4.5
1000					1150	10300	0.6	4.5
1250					1360	12000	0.5	4.5
1600					1640	14500	0.5	4.5
2000					1940	18300	0.4	5
2500					2290	21200	0.4	5

TECHNICAL PARAMETERS

S13 6KV/6.6KV/10KV/11KV Oil-immersed Transformer

Rating (kva)	High voltage (kV)	High voltage tap range (%)	Low voltage (kV)	connection symbol	No-Load Loss	Load Loss (w)	No-Load current(%)	Short current impedance(%)
30	6 6.6 10 11	$\pm 5\%$ $\pm 2 \times 2.5\%$	0.4 0.415 0.420 0.44	Dyn11 Yyn0	80	630/600	1.3	4
50					100	910/870	1.1	4
63					110	1090/1040	1.1	4
80					130	1310/1250	1	4
100					150	1580/1500	1	4
125					170	1890/1800	0.95	4
160					200	2310/2200	0.95	4
200					240	2730/2600	0.85	4
250					290	3200/3050	0.85	4
315					340	3830/3650	0.65	4
400					410	4520/4300	0.65	4
500					480	5410/5150	0.65	4
630					570	6200	0.6	4.5
800					700	7500	0.6	4.5
1000					830	10300	0.55	4.5
1250					970	12000	0.55	4.5
1600					1170	14500	0.5	4.5
2000					1550	18300	0.4	5
2500					1830	21200	0.4	5



1.oil valvove	13.High pressure casing	27.Thermometer stand
2.Corrugated tank	14.Low pressure casing	28.Off-load tap-changer
3.Core Assembly	15.Neutral casing	29.Gas relay
4.High Voltage Coil	16-20.Bolt nut	30 Multifunction oil level gauge
5.Low Voltage Coil	21.Nameplate	
6.High Voltage lead	22-23.Bolt nut	
7.Low Voltage lead	24.Dll	
8.Body insulation	25.Earthing Bolt	
9-12.Hoisting fitting	26.Earthing plate	

	Model	6.6 11KV	Design	
			Version	
			Data	
			Date	

TECHNICAL PARAMETERS

S9 30KV/33KV/35KV Oil-immersed Transformer

Rating (kva)	High voltage (kV)	High voltage tap range (%)	Low voltage (kV)	connection symbol	No-Load Loss	Load Loss (w)	No-Load current(%)	Short current impedance(%)
50	30 33 35	$\pm 5\%$ $\pm 2 \times 2.5\%$	0.4 0.415 0.420 0.44	Dyn11 Yyn0	210	1270/1210	2.0	6.5
100					290	2120/2020	1.8	6.5
125					340	2500/2380	1.7	6.5
160					360	2970/2380	1.6	6.5
200					430	3500/3330	1.5	6.5
250					510	4160/3960	1.4	6.5
315					610	5010/4770	1.4	6.5
400					730	5050/5760	1.3	6.5
500					860	7280/6930	1.2	6.5
630					1040	8280	1.1	6.5
800					1230	9900	1.0	6.5
1000					1440	12150	1.0	6.5
1250					1760	14670	0.9	6.5
1600					2120	17550	0.8	6.5
2000					2490	20740	0.8	6.5
2500					2950	24420	0.8	6.5
3150					3510	29050	0.7	6.5
4000					4200	34940	0.7	6.5
5000					4960	41160	0.7	6.5

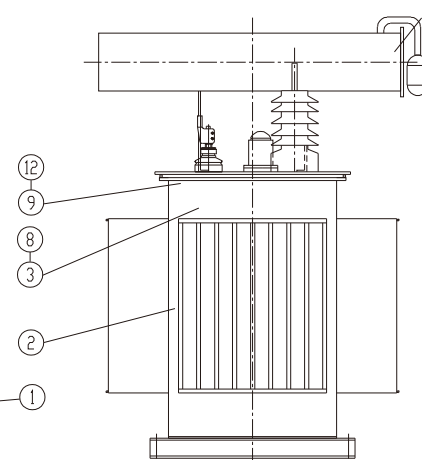
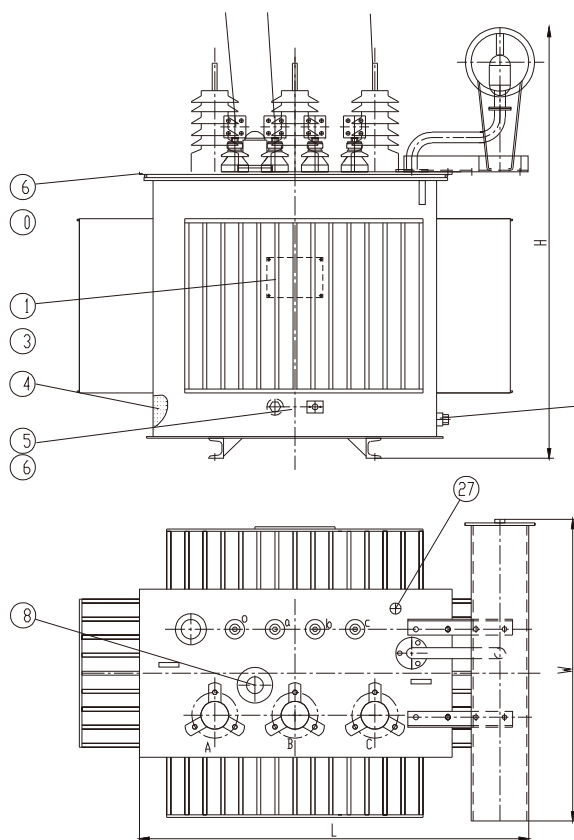
S11 30KV/33KV/35KV Oil-immersed Transformer

Rating (kva)	High voltage (kV)	High voltage tap range (%)	Low voltage (kV)	connection symbol	No-Load Loss	Load Loss (w)	No-Load current(%)	Short current impedance(%)
50	30 33 35	$\pm 5\%$ $\pm 2 \times 2.5\%$	0.4 0.415 0.420 0.44	Dyn11 Yyn0	160	1200/1140	1.3	6.5
100					230	2010/1910	1.1	6.5
125					270	2370/2260	1.1	6.5
160					280	2820/2680	1.0	6.5
200					340	3320/3160	1.0	6.5
250					400	3950/3760	0.95	6.5
315					480	4750/4530	0.95	6.5
400					580	5740/5470	0.85	6.5
500					680	6910/6580	0.85	6.5
630					830	7860	0.65	6.5
800					980	9400	0.65	6.5
1000					1150	11500	0.65	6.5
1250					1400	13900	0.6	6.5
1600					1690	16600	0.6	6.5
2000					1990	19700	0.55	6.5
2500					2360	23200	0.55	6.5
3150					2810	27600	0.5	6.5
4000					3360	33000	0.5	6.5
5000					3970	39100	0.5	6.5


TECHNICAL PARAMETERS

S13 30KV/33KV/35KV Oil-immersed Transformer

Rating (kva)	High voltage (kV)	High voltage tap range (%)	Low voltage (kV)	connection symbol	No-Load Loss	Load Loss (w)	No-Load current(%)	Short current impedance(%)
50	30 33 35	$\pm 5\%$ $\pm 2 \times 2.5\%$	0.4 0.415 0.420 0.44	Dyn11 Yyn0	130	1200/1140	1.3	6.5
100					185	2010/1910	1.1	6.5
125					215	2370/2260	1.1	6.5
160					225	2820/2680	1.0	6.5
200					270	3320/3160	1.0	6.5
250					320	3950/3760	0.95	6.5
315					385	4750/4530	0.95	6.5
400					465	5740/5470	0.85	6.5
500					545	6910/6580	0.85	6.5
630					665	7860	0.65	6.5
800					785	9400	0.65	6.5
1000					920	11500	0.65	6.5
1250					1120	13900	0.6	6.5
1600					1350	16600	0.6	6.5
2000					1590	19700	0.55	6.5
2500					1890	23200	0.55	6.5
3150					2250	27600	0.5	6.5
4000					2690	33000	0.5	6.5
5000					3180	39100	0.5	6.5

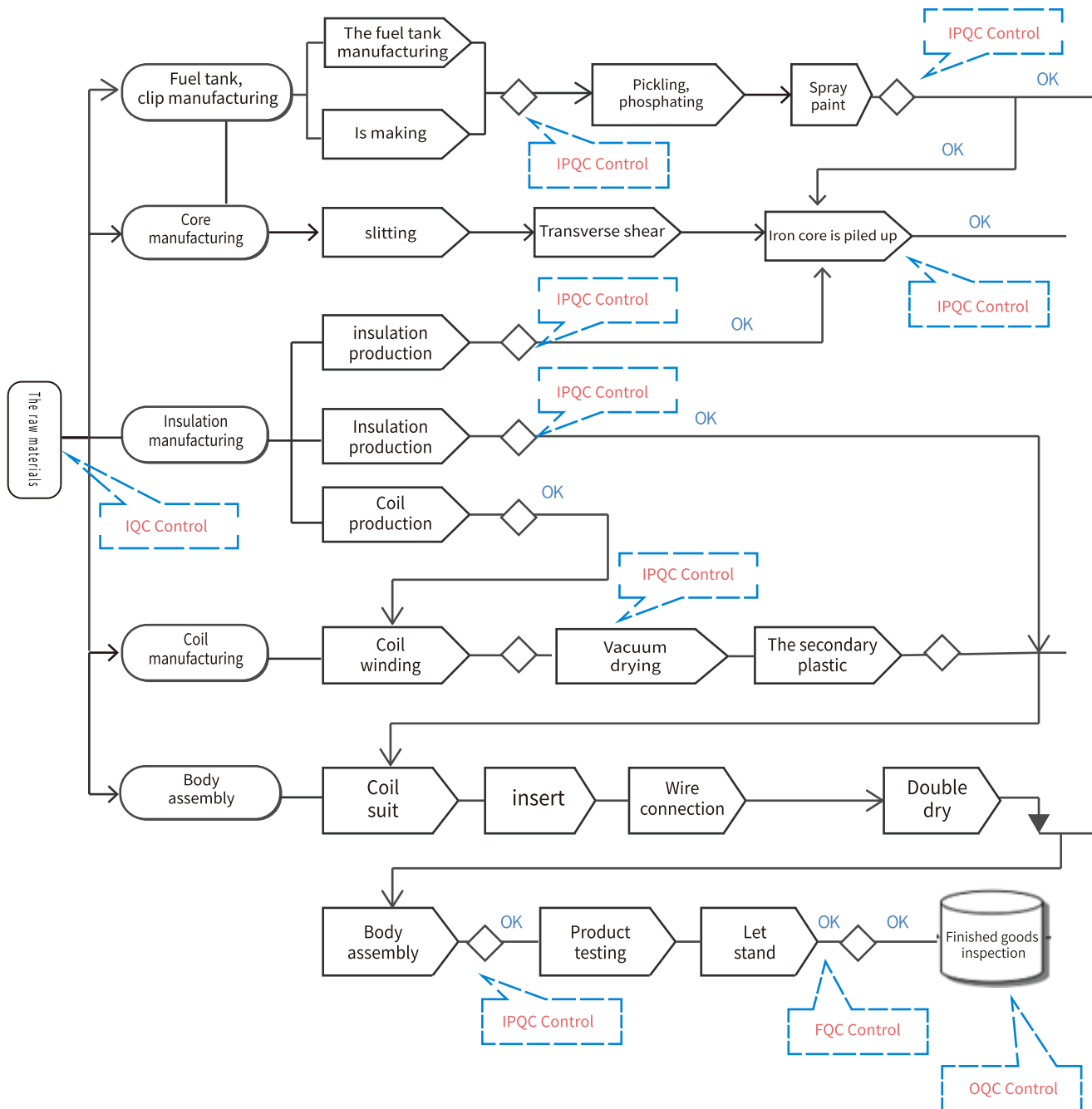


1.Oil valve	13.High pressure casing	28.Off-load tap-changer
2.Corrugated tank	14.Low pressure casing	29.Oil Storage tank
3.Core Assembly	15.Neutral casing	
4.High Voltage Coil	16-20.Bolt nut	
5.Low Voltage Coil	21-23.Nameplate	
6.High Voltage lead	24.Oil	
7.Low Voltage lead	25.Earthing Bolt	
8.Body insulation	26.Earthing plate	
9-12.Hoisting fitting	27.Thermometer stand	

	33KV	Design	
		Version	
		Date	

QUALITY CONTROL:

We have established strict SQA working procedures and ISO standards in the development, production, sales and after-sales of electrical products, so as to provide customers with first-class products and the best service.



SQA MANAGEMENT OF OIL IMMERSSED TRANSFORMER



Comprehensive experimental platform for power transformer

Delivery test (or routine test)

These tests verify the electrical performance specified in the contract. And submit a formal test report.

characteristic measurement

- Winding resistance;
- Transformation ratio and vector group;
- Impedance voltage;
- Load loss;
- No load loss and no-load current.

insulation test:

- Power frequency withstand voltage test- Inductive voltage withstand test.
- Partial discharge measurement ensures that the expected service life of transformer less than 5pc is closely related to the initial partial discharge level measured during manufacturing.

Special test

These tests will be arranged at customer's request at customer's expense.

Short circuit test

These tests were carried out on a special test bench in accordance with IEC 60076-5.

A total of three tests were performed on each transformer column, each lasting 0.5 seconds.

Noise level measurement

- Noise level measurement is part of a special test.
- Transformer noise is mainly caused by magnetic

restriction of magnetic circuit.

- Noise levels can be expressed in two ways:

Sound pressure level L_p , measured in accordance with IEC 551 at 1m from the transformer in no-load operation

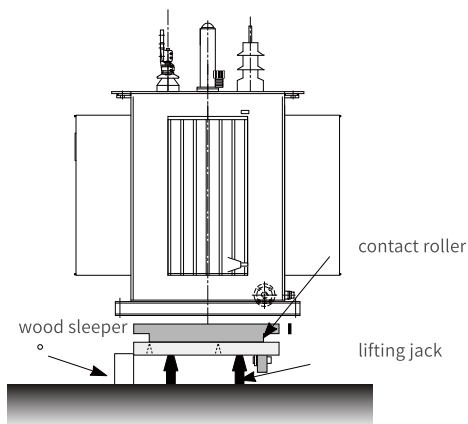
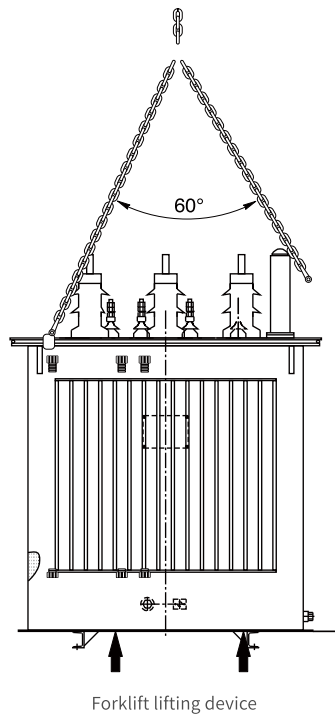


Noise testing chamber



Transformer test

INSTALLATION



carry

Use the 4 lifting lugs of the transformer (it must be lifted vertically, not obliquely); For the transformer with 2 lifting lugs in the center of the top of the shell, use 2 lifting lugs. The included angle formed by the sling shall not be greater than 60°.

First, check the forklift's forking capacity. If appropriate, the fork arm shall be inserted into the base channel after removing the roller.

The transformer with or without enclosure shall be hauled from the base. For this purpose, holes with a diameter of 27mm are opened on each side of the base. It can be dragged from two directions: the axial direction of the base and the direction perpendicular to this axis.

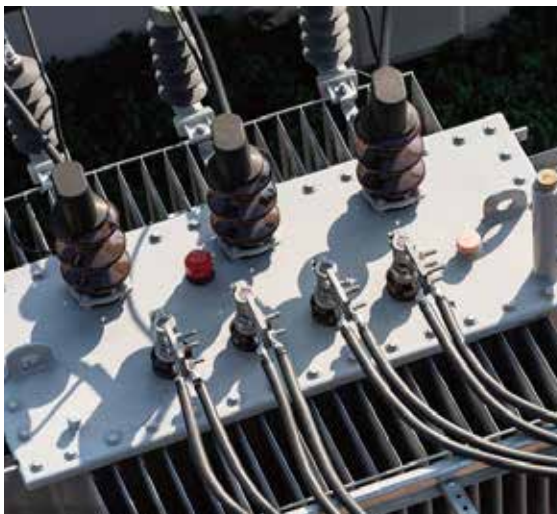
storage

Transformers must be protected from contamination by dripping water and sand dust (e.g., from masonry work or sandblasting) during storage. When provided with a plastic protective cover, it shall remain installed throughout storage. Ambient storage temperatures must be maintained between -25°C and +50°C. Storage areas must be free from gases/conductive dust that compromise insulation integrity, explosive hazards, and substances corrosive to electrical components.

LOGISTICS SHIPMENT



© INSTALLATION



INSTALLATION SITE

·The transformer shall be installed in a dry, flat place where water is not easy to enter. The installation site shall have sufficient ventilation to ensure that all heat of the transformer can be dissipated

·No load shall be supported anywhere on the enclosure except the power supply cable of the transformer. In addition to correctly installing the connecting cable according to the relevant drawings, facilities or accessories not supplied by the manufacturer or without permission are not allowed to be installed in the shell, otherwise, the user shall bear the risk. For the transformation, connection and installation of any accessories, please consult our technicians.

·The embedded parts, reserved holes, etc. have been cleaned and adjusted to meet the design requirements.

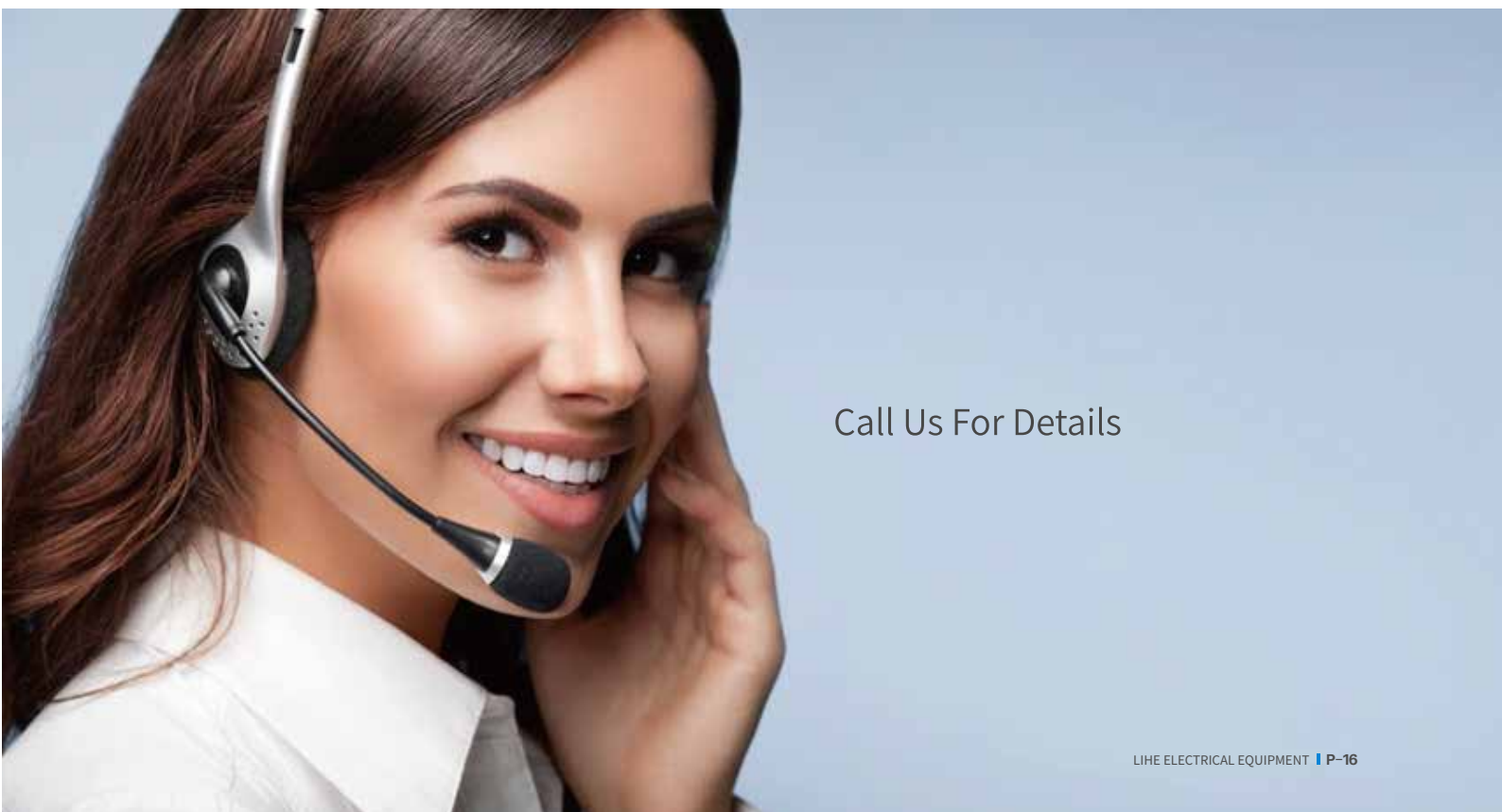
·Protective mesh doors, railings, and other safety facilities are complete, and ventilation and fire protection facilities are installed.

🔄 PRE-SALE SERVICE:

1. ISO certified excellent Manufacturer
2. Third-party authoritative certifications: CE, CB, UL, CSA etc
3. Flexible payment: T/T, LC,
4. Sufficient inventory, fast delivery time and long validity of the price
5. The whole process of picture tracking can be realized in production and transportation
6. Experienced professional sales team and a strong technical team
7. Sincerely invite customers to visit the company for guidance

🔄 AFTER-SALES SERVICE:

1. If there is any quality problem after receiving the goods, you can return the goods free of charge or ship new products
2. We provide our customers with a 1-year product warranty
3. Provide 24-hour, 365-day technical guidance worldwide
4. The VIP customers enjoy our promotional activity
trained by management consultants, is able to provide professional solutions for customers.
4. Our technical team is ready for 24-hour technical support worldwide.
5. Our customer service team ensures on time delivery.



Call Us For Details



SMART ELECTRIC GLOBAL SERVICE PROVIDER,MAKE LIFE BETTER

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