

Pole - Mounted Transformer Single-Phase Transformer

Logo & Packaging
Customization

Parameter & Drawing Design
Customization



OPTIMIZED
PERFORMANCE



HIGH
EFFICIENCY



SUPERIOR
SAFETY



ECO
FRIENDLY



MAINTENANCE
FREE



Overview

High efficiency & economy: The no-load current is optimized for low-density distribution, reducing energy losses by 20% - 30% on average. Advanced core winding technology ensures

Weatherproof & Durable: The fully sealed tank structure prevents oil oxidation by completely isolating it from the ambient air. Specialized anti-corrosive coatings provide long-term protection against UV rays and high humidity, extending the maintenance-free service life in harsh outdoor environments.

Superior Operational Reliability: Equipped with high-grade porcelain bushings and reinforced seal components to increase system stability. Rigorous pressure testing and vacuum oil filling processes ensure the integrity of the tank, preventing any potential leaks during extreme temperature fluctuations.

Compact & Lightweight: Specifically designed for easy pole-top installation, the streamlined cylindrical profile minimizes pole load and wind resistance. Its compact footprint is ideal for space-constrained residential areas, offering a clean appearance and simplified mounting access.

Application



Rural Electrification
Cost-effective power supply for remote farms and low-density areas.



Suburban Residential
Compact for quiet neighborhoods and narrow streets.

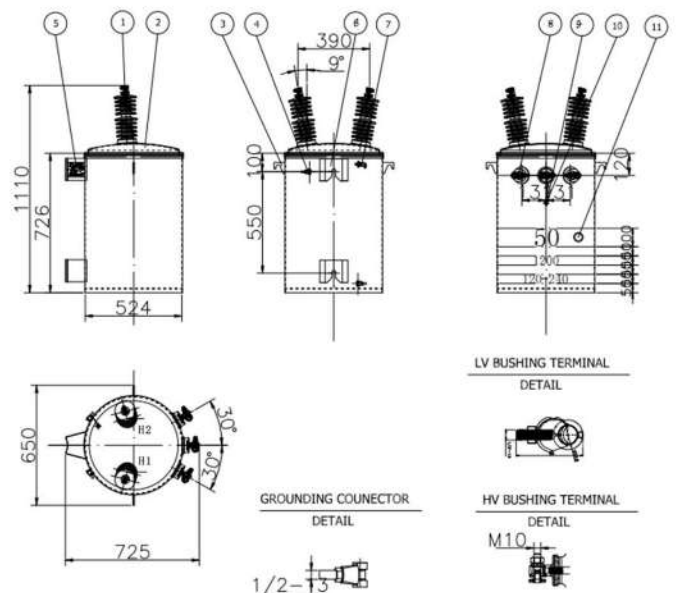


Agricultural Irrigation
Robust and reliable energy for water pumps and farming machinery.



Public Infrastructure
Dedicated power for street lighting, traffic signals, and telecom towers.

Outline Drawing



ITEM	PARTS LIST	QTY
1	HV BUSHING (25KV-25A)	2
2	TANK COVER	1
3	LIFTING LUG	2
4	GROUNDING CONNECTOR	2
5	NAMEPLATE	1
6	BOTTOM BRACKET	2
7	PRESSURE RELIEF VALVE	1
8	LV BUSHING (L2KV 1/2)	3
9	COPPER STRIP	2
10	GROUND STEEL PADS (1TC2)	4
11	POB	1

TECHNICAL DATA	
RATING	50KVA
PRIMARY VOLTAGE(V)	12000
SECONDARY VOLTAGE(V)	120-240
INSULATION LEVEL(KV) LV BIL	25
INSULATION LEVEL(KV) LV BIL	30
FREQUENCY	60Hz
VECTOR GROUP	10
CONDUCTOR	AL
INSULATING OIL	#13
TEMPERATURE RISE	65°C
EFFICIENCY	99.11%
LOAD LOSS AT RATED VOLTAGE	620W
NO LOAD LOSSES	120W
IMPEDANCE	±2.5%
ALTITUDE	≤1000m
COLOR	ANSI 70

ITEM	WEIGHT
UNTANK WEIGHT	345 Lbs
TOTAL OIL WEIGHT	245 Lbs
TOTAL WEIGHT	670 Lbs

Accessories / Components



Technical Parameters

Rated Capacity (kVA)	No-load Loss (W)	Load Loss (W)	Total Loss (W)	Impedance (%)
10	45	200	245	1.5% - 2.5%
15	60	280	340	1.5% - 2.5%
25	85	420	505	1.8% - 3.0%
37.5	115	580	695	1.8% - 3.0%
50	140	750	890	2.0% - 3.5%
75	190	1050	1240	2.0% - 3.5%
100	240	1350	1590	2.0% - 3.5%
167	380	2200	2580	2.5% - 4.0%

Note: These values are representative. Specific losses can be optimized to meet DOE (USA), IEC, or localized efficiency requirements.

General Technical Specification

- **Primary Voltage:** 7.2/12.47 kV, 7.62/13.2 kV, 11 kV, 13.8 kV, 19.9/34.5 kV, etc.
- **Secondary Voltage:** 120/240 V, 240/480 V, 277 V, 347 V.
- **Insulation Class:** Class A.
- **Temperature Rise:** 65°C (Average winding temperature rise).
- **Standards:** IEEE C57.12.20, ANSI C57.12.00, IEC 60076.
- **Surface Finish:** Munsell Gray (5BG 7.0/0.4) powder coating.

Standard Equipment & Features

- **Bushings:** High-voltage porcelain bushings and low-voltage molded or porcelain bushings.
- **Pressure Relief Device:** Automatic resealable pressure relief valve for safety.
- **Lifting Lugs:** Heavy-duty lifting lugs for secure installation.
- **Grounding:** Tank grounding connectors provided as standard.
- **Core Material:** High-efficiency, grain-oriented cold-rolled silicon steel.

Key Technical Features

- **Silicon Steel Core:** High-permeability grain-oriented silicon steel reduces no-load loss and noise levels.
- **Winding Material:** High-purity copper or aluminum windings ensure superior thermal stability and short-circuit resistance.
- **Sealing Integrity:** Fully sealed tank with high-quality gaskets prevents oil aging and moisture ingress.
- **Surface Treatment:** Powder coating or hot-dip galvanizing for maximum corrosion resistance in outdoor environments.

1. Internal Structure & Components

- **Precision-Wound Coils:** Computer-controlled tension ensures uniform winding, improving short-circuit withstand capability.
- **High-Grade Insulating Oil:** High dielectric strength and thermal conductivity ensure efficient cooling and long insulation life.
- **Multi-Layer Insulation System:** Uses premium thermally upgraded paper to maintain integrity under extreme electrical stress.

2. Quality Assurance & Testing

Each transformer undergoes rigorous testing before dispatch to ensure full compliance with IEEE/IEC standards.

- **Routine Tests:** Includes voltage ratio, polarity, phase relation, and no-load/load loss measurements.
- **Dielectric Tests:** Applied potential and induced potential tests to verify insulation strength.
- **Leakage Test:** 24-hour pressure test to ensure the absolute integrity of the sealed tank.

3. Installation & Maintenance

- **Plug-and-Play Mounting:** Standardized hanger brackets and lifting lugs simplify pole-top installation.
- **Maintenance-Free Design:** The fully sealed structure eliminates the need for oil sampling or filtration during standard service life.
- **Clear Labeling & Safety:** Durable laser-etched nameplates and safety warning decals for easy identification in the field.

4. Customization & Flexible Design

We understand that different regions have unique grid requirements; therefore, we offer comprehensive customization.

- **Custom Voltage Ratios:** Tailored primary and secondary voltages to match local grid specifications.
- **Eco-Friendly Options:** Available with biodegradable ester oil (FR3) for environmentally sensitive areas.
- **Special Coatings:** Extra-thick coatings or stainless steel tanks for highly corrosive coastal environments.

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