

Single-Phase Pad-Mounted Transformer

Distribution transformer

Logo & Packaging Customization

Parameter & Drawing Design Customization



OPTIMIZED
PERFORMANCE



HIGH
EFFICIENCY



SUPERIOR
SAFETY



ECO
FRIENDLY



MAINTENANCE
FREE



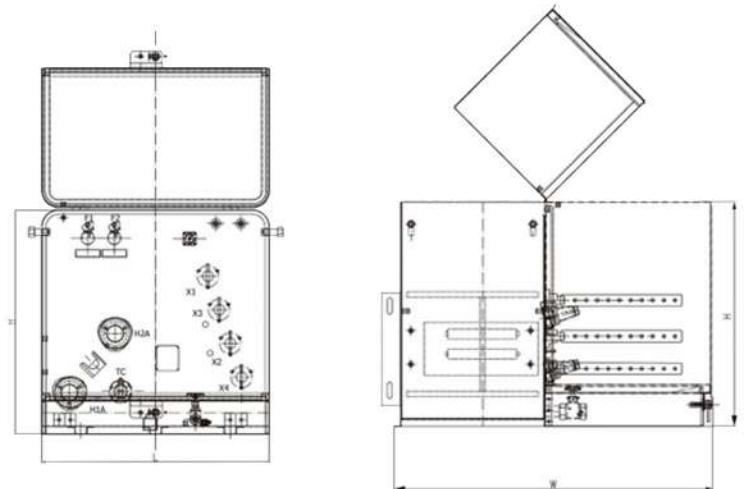
Overview

Low-Profile Space-Saving Design: The transformer core and high-voltage protection are integrated into an ultra-compact, hermetically sealed tank. Optimized for residential underground distribution, its low-profile footprint allows for seamless, unobtrusive installation in neighborhood landscapes and confined urban areas.

Tamper-Proof Dead-Front Safety: Engineered with a "dead front" configuration, this unit features no exposed live parts and utilizes fully insulated elbow connectors. The enclosure includes a robust, tamper-resistant locking system, ensuring the highest level of protection for the public and maintenance crews in residential zones.

Versatile & Simplified Installation: Designed for maximum efficiency, it significantly reduces civil engineering requirements and installation time. The unit is easily adaptable for both Loop Feed and Radial Feed configurations, providing a highly flexible and cost-effective solution for diverse power grid layouts.

Outline Drawing



Application

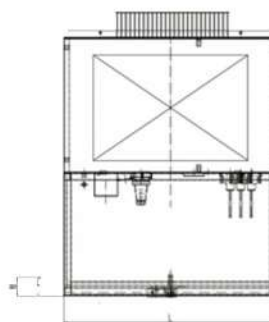


Suburban & Residential Areas
Low-Profile & Tamper-Resistant Safety

Urban Parks & Street Lighting
Space-Saving & Ultra-Quiet Operation



Small Commercial & Remote Utilities
Cost-Effective & Simplified Installation



Engineered with a classic clamshell design, this compact pad-mounted unit features a fully enclosed dead-front panel. All high and low voltage cable entries are routed strictly underground, guaranteeing zero exposed wiring for a highly secure, tamper-proof industrial installation.

Accessories / Components



Bushing Well & Insert



Low Voltage Spade
Terminals



Externally Operable No-Load
Tap Changer Assembly

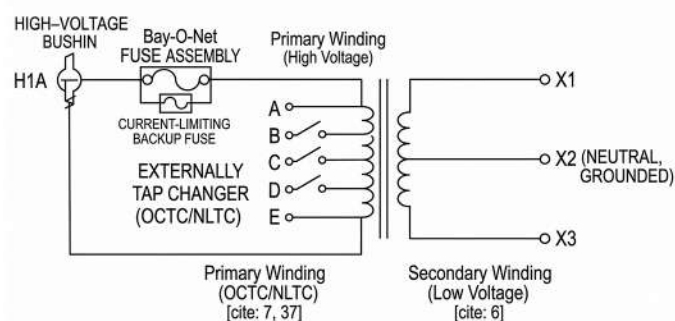
Technical Parameters

The single-phase pad-mounted transformer is rated at 15-250kVA. Single-phase pad-mounted transformer is generally used in places where single-phase power supply is needed for civil use, such as household appliances, etc., and its capacity is smaller than that of three-phase pad-mounted transformers.

(kVA) Rated capacity	Rated voltage and tapping range		Efficiency	
	HV	LV	DOE(2016)	CSA(2023)
15	34.5kV/19.92kV 13.8kV/7.9kV 13.2kV/7.6kV 12.47kV/7.2kV or others	120-240V 240-480V 347V 600V or others	98.82	98.73
25			98.95	98.87
37.5			99.05	98.97
50			99.11	99.04
75			99.19	99.13
100			99.25	99.19
167			99.33	99.28

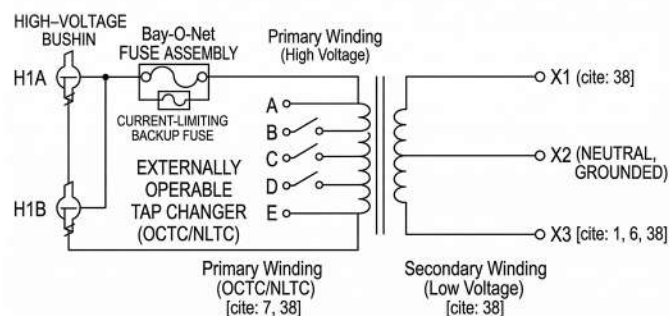
Radial Feed Configuration (Terminal)

SINGLE-PHASE RADIAL FEED SCHEMATIC (CAD STYLE)



Loop Feed Configuration (Ring Main)

SINGLE-PHASE LOOP FEED SCHEMATIC (CAD STYLE)



ENCLOSURE & FINISH

1. Tank Construction: Fully sealed, heavily welded tank utilizing high-quality cold-rolled steel to prevent moisture ingress and oil leakage.
2. Tamper-Resistant: Penta-head locking mechanism coordinated with padlock provisions to defeat unauthorized entry into the cabinet.

3. Surface Finish: Advanced multi-stage electrostatic powder coating process. Finished in standard utility Olive Green (Munsell 7GY 3.29 /1.5) exceeding IEEE C57.12.28 enclosure integrity requirements.

STANDARD & OPTIONAL FEATURES

• Standard Features:

1. Complies with all applicable ANSI/IEEE C57.12.00 and C57.12.38 standards.
2. Dead-front, clamshell enclosure design for optimal safety and full accessibility.
3. High-voltage Bay-O-Net expulsion fuse with isolation link.
4. Automatic pressure relief valve and oil fill/drain provisions.
5. Externally operable 5-position no-load tap changer.

• Optional Accessories:

1. Current-limiting backup fuse for enhanced fault protection.
2. Stainless steel (Grade 304 or 316) enclosure and hardware for highly corrosive environments.
3. Liquid level gauge, dial-type thermometer, and pressure/vacuum gauge.

FACTORY ROUTINE TESTS

- All single-phase pad-mounted transformers undergo rigorous testing in accordance with IEEE C57.12.90 standard requirements prior to shipment:
 1. Resistance measurements of all windings.
 2. Ratio tests on the rated voltage connection and all tap connections.
 3. Polarity and phase relation tests.
 4. No-load loss at rated voltage and rated frequency.
 5. Excitation current at rated voltage and rated frequency.
 6. Impedance voltage and load loss tests.
 7. Applied voltage and induced voltage dielectric tests.
 8. Production line leak testing of the fully assembled tank.

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