

MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1

250 KVA Hermetically Sealed Substation Transformer - 2400V Delta Primary, 120/240V Secondary - ONAN

Product ID: 321763

Please see last page for supporting documentation for this product (certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Image: MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1 3PH Substation Transformer

Transformer Type: Substation Power Transformer, Hermetically Sealed

Transformer Configuration: Liquid Filled Substation

Transformer Feed Type: Radial Feed

Phase: Single Phase

Capacity: 250 KVA

Vector Group: II6

Primary Voltage: 2400V Delta

Primary Voltage Class: 2.5 kV Class

Primary Phasor: Delta

Primary BIL: 45 KV

Secondary Voltage: 120/240V

Secondary Voltage Class: 1.2 kV

Secondary Phasor: Dual Windings, Single Phase

Secondary BIL: 30 kV

Frequency: 60 Hz

Temperature Rise: 65°C

Cooling Class: ONAN; Self-Cooled

Forced Air (Fans): None

Tap Changer: 5-position Tap Changer, Manual Off

Ratings

Meets/Exceeds IEC 60076 Ratings

Non-PCB Insulating Fluid

Tamper Proof Housing

Class A Insulation

No Power Factor Efficiency @ 100% Load: 98.89%

No Power Factor Efficiency @ 75% Load: 99.12%

No Power Factor Efficiency @ 50% Load: 99.33%

No Power Factor Efficiency @ 25% Load: 99.43%

0.8 Power Factor Efficiency @ 100% Load: 98.61%

0.8 Power Factor Efficiency @ 75% Load: 98.90%

0.8 Power Factor Efficiency @ 50% Load: 99.16%

0.8 Power Factor Efficiency @ 25% Load: 99.29%

No Load Loss: 0.77 KW

Tap Qty: (2) FCAN Above Taps, (2) FCBN Below Taps
Tap %: 2.5%
Tap Changer Switch Location: High Voltage (HV) Front Compartment
Impedance (Typical): 6%
Primary Connection Type: Live Front
Primary Termination: Porcelain Bushings, Top Mounted
Primary Connection Qty: (2)
Primary Surge Arrestors: N/A
Primary Surge Arrestor Voltage Rating: N/A
Primary Surge Arrestor MCOV Rating: N/A
Primary Overcurrent Protection (OCP): N/A
Primary Overcurrent Protection Method: N/A
Primary Overcurrent Protection Holder: N/A
Secondary Connection Type: Live Front
Secondary Connections: Porcelain Bushings, Side Mounted
Secondary Connection Qty: (3)
Secondary Overcurrent Protection (OCP): Included, Circuit Breaker, 200 Ampere, 2 Pole, 240 Volt, Plug-in, 22k Ampere Interrupting Capacity, Thermal Magnetic Trip Type, w/ Lever Actuator
Grounding Provisions: (1) Grounding lug, accepts #2 copper
Metering Current Transformer (CT): N/A
Metering Panel: N/A
Control Panel: Buchholz Relay (alarm and trip), Pressure Relief Device (alarm and trip), Oil Level Indicator (alarm and trip), Dehydrating Breather, Oil Temp (alarm and trip), Coil Winding Temp (alarm and trip)
Load Break Switch: N/A
Load Break Switch Qty: N/A
Load Break Switch Location: N/A
Efficiency Standard(s): Meets ANSI/IEEE Standards
K-Factor Rating (Harmonic Mitigation): K-1 (Standard)
Pulse Drive Rating: N/A
Insulation Fluid: Mineral Oil Insulating Fluid, Non-PCB Fluid
Fluid Capacity: N/A
Liquid Level Indicator: Analog Dial Gauge
Temperature Indicator: Analog Dial Gauge - Measuring Oil and Coil Temperature
Pressure/Vacuum Indicator: Analog Dial Gauge
Pressure Relief Device: Included, Automatic Action
Fill Valve: Removable Bolt
Fill Valve Location: Front Compartment
Drain Valve: Included, w/ Sampler
Drain Valve Location: Front Compartment
Winding Material: Copper
Ambient Temperature Rating: 55°C
Sound Level: N/A
Elevation Rating: 3300ft (1000 meters) Above Sea Level
Core Material: Iron
Tank Material: Coated Steel
Cabinet Material: Coated Steel
Base Platform Material: Coated Steel
Housing Type: Compartmental Cabinet w/ Doors, HV Compartment Left, LV Compartment Right
Paint Type: Weatherproof and UV Resistant Epoxy Coating and Undercoating
Finish Color: Grey
Mounting: Supporting Structures
Conduit Opening: N/A
Dimensions: 73"-W x 71"-D x 73"-H
Total Weight: 8,327 Lbs

*Please note that numbers are approximate and subject to change

Full Load Loss: 10.50 KW

Note: Losses offered are typical only, not guaranteed

Special Orders - Special Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671

Intl: 1-903-270-1187

Fax: 1-903-498-3364

E-mail:

The MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1 Hermetically Sealed Substation Transformer from Larson Electronics offers powerful, reliable and efficient power distribution in outdoor locations. The low operating costs, low heat emissions and low cost of ownership make this transformer ideal for a wide range of applications and businesses. This transformer ensures extra space for storing oil and is equipped with breathers to facilitate air flow. The conservator transformer should be installed on supporting structures.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS

Transformer Features: The industrial transformer features a primary voltage of 2400V Delta and a secondary voltage of single-phase 120/240V (L-N-L). This system is rated for 250 KVA. This transformer features a 5-position tap changer with two +2.5% taps above and two -2.5% taps below to allow small changes in voltage. We offer systems with loop or radial feed, as well as dead front or live front primary connections.

The distribution transformer is equipped with a rigid tank with a level indicator and a rubber bag inside the unit. An accessible IP54 rated weatherproof junction box with glands for single core cables from HV and LV connection is available.

The system features copper windings for high strength and thermal/electrical conductivity. This transformer consists of one coil and two core loops (this is for single-phase transformers only; three-phase units have a rectangular coil and a five-legged wound core design with three coils and four core loops).

The MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1 is completely sealed and features air tight construction. Designed for long-term performance, the transformer is maintenance free.

Temperature Rise: This unit features 65°C temperature rise for reduced heat waste, increased reliability and longer life. The transformer meets standard ANSI/IEEE efficiency requirements. The combination of low temperature rise and high efficiency makes this unit suitable for use in electrical rooms, air conditioned spaces in buildings, underground vaults and similar locations, in addition to outdoor areas.

Insulation Fluid: The MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1 features mineral oil fluid (ONAN). We offer transformers with biodegradable or FR-3 fluids, if needed.

Biodegradable Fluid: Biodegradable cooling fluid (vegetable oil) has a higher heat capacity compared to mineral oil, making the liquid safer to use and more reliable during operations. Vegetable oil has a higher flash point and fire point than mineral oil, hydrocarbon oil, silicone oil and synthetic ester. This cooling fluid is also non-toxic and can tolerate higher breakdown voltages than mineral oil. When operating at high temperatures, biodegradable cooling liquid sustains up to 120% load conditions, which helps preserve the transformer's lifespan and performance.

Gauges: The following gauges are included with the system: liquid level, temperature and

pressure/vacuum gauges. Standard liquid level, temperature and pressure/vacuum gauges are analog, manual reading types.

Fault Pressure Devices: There are no fault pressure devices on the unit. Fault pressure devices are used to detect high rates of pressure rise within the tank.

Rapid Rise Relay: There are no rapid rise relays on the unit. This safety component is designed for protection when a rapid increase in tank pressure occurs. The relay is suitable for detecting sudden pressure fluctuations above predetermined safe limits.

Surge arresters: This system does not come with surge arresters on the primary side. Designed for over-voltage and transient voltage protection, the components prevent damage caused by lightning, internal switching or voltage surges. We can offer models without high elbow surge arresters that have mounting provisions for customer-provided surge arresters.

Load Breaker Switch: The transformer does not have a load break switch.

Valves: The MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1 is equipped with a pressure relief valve, fill valve and drain valve with sampler port.

Protection Fuses: This transformer does not have bayonet protection fuses on the primary side. For units without protection fuses, upstream protection is provided. We recommend provisions for protection fuses when possible, as blown fuses may require more frequent oil changes.

Mount: This hermetically sealed transformer is equipped with a skid type base with lifting lugs.

Benefits: The MT-PSTH-R7-1P-DNH-250KVA-SLZ-HT-LS-A6-BM-CZ-1PZ-M1 transformer offers many benefits to consumers. This transformer provides owners with significant energy savings, as well as offering environmental benefits. Higher efficiency not only extends the life of the transformer, but also turns into cost savings for owners in the form of lower energy bills and decreased cost of ownership.

Applications: General purposes, industrial sites, electrical rooms, underground vaults, manufacturing facilities, steel plants, offshore, commercial, military, processing plants, electric power distribution, utilities and more.

Larson Electronics is a manufacturer and as such can build stationary and portable transformer systems to your specifications. Although we carry several models of power distribution transformer systems, we can deliver custom ordered units almost as quickly as our prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.



Frequently Asked Questions (FAQ)

There are no Fags



Warranty: 24 Months.

Export Control Classification Number (ECCN): EAR99



Links (Click on the below items to view):

- **HigResPic1**(<https://www.larsonelectronics.com/images/product/HigResPic1/321763.JPG>)
- **Video1**(<https://www.youtube.com/watch?v=4-JEyYeYcn8>)
- **ISO 9001 Certification**(<http://larsonelectronics.com/images/pdfdocs/ISO9001.PDF>)
- **Business Certificate**(<https://www.larsonelectronics.com/images/pdfdocs/w9.PDF>)
- **Shipping Time Map**(<https://www.larsonelectronics.com/images/product/ShippingTimeMap/ShippingTimeMap.pdf>)