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MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1

167 KVA Pad Mount Transformer - 12470Y/7200 Grounded Wye Primary - 120/240V Secondary, 304 Stainless Steel, Copper, ONAN/Bell Green

Product ID: 321357



Image: MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-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-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 1PH Pad Mount Transformer

Transformer Type: Pad Mounted, Compartmental-Type I
Transformer Configuration: Liquid Filled Pad Mounted
Transformer Feed Type: Loop Feed
Operation: Step-Down Operation (Not Approved for Step-Up)
Phase: Single Phase
Capacity: 167 KVA
Vector Group: II6
Primary Voltage: 12470Y/7200
Primary Voltage Switch: N/A
Primary Voltage Class: 15 kV Class
Primary Phasor: Grounded Wye
Primary BIL: 95 KV
Secondary Voltage: 120/240V
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Dual Windings, Single Phase
Secondary BIL: 30 KV
Frequency: 60 Hz
Temperature Rise: 65°C
Insulation Rating: Class E Insulation - 120°C, 248°F
Cooling Class: ONAN; Self-Cooled
Forced Air (Fans): None
Tap Changer: N/A
Tap Qty: N/A
Tap %: N/A

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings
Meets/Exceeds CSA Efficiency Ratings
Complies with ANSI / IEEE C57.12.00
Complies with ANSI / IEEE C57 12.28
Complies with ANSI / IEEE C57 12.29
Complies with ANSI / IEEE C57 12.34
Complies with ANSI / IEEE C57 12.35
Complies with ANSI / IEEE C57.12.70
Complies with ANSI / IEEE C57.12.110
Complies with ANSI / IEEE C57.12.131
Complies with ANSI / IEEE C62.11
Complies with ANSI / IEEE C62.22
Complies with ANSI / IEEE 386
Complies with ANSI / IEEE C2
Complies with ANSI / IEEE C37.47
Complies with ANSI Z535.4
Complies with ASTM D3487
Complies with ASTM D6871
Complies with NEMA 260-1996
Complies with 10 CFR Part 431
Complies with CSA C2.1-06
Complies with CSA C50
Complies with CSA C88
Complies with CSA C88.1

Tap Changer Switch Rating: N/A
Tap Changer Switch Location: N/A
Impedance: 1.0-4.5% Typical
Primary Connection Type: Dead Front
Primary Termination: Universal Bushing Wells, w/ Removable Studs
Primary Connection Qty: (2)
Primary Parking Stand Qty: (2) Welded Brackets for Installing Accessory Parking Stand Bushings
Primary Bushing Rating: 15 kV Class, 95 kV BIL, 200A, Load Break, IEEE 386 Color Red
Primary Neutral Connection: Primary H0 Neutral Internally Bonded to Tank
Primary Surge Arrestors: Included, (2) Distribution Class; metal-oxide-varistor type, fully shielded, separable-elbow type
Primary Surge Arrestor Voltage Rating: 15 kV Class Elbow Arrestor
Primary Surge Arrestor MCOV Rating: 12.7 kVrms
Primary Overcurrent Protection (OCP): Bayonet Expulsion Drawout Fuses
Primary Overcurrent Protection Method: Fused, Oil-Immersed
Primary Overcurrent Protection Holder: Bayonet Fuse Holder w/ Flapper Valve and External Drip Shield
Primary Grounding Provisions: (1) NEMA Ground Bar attached to tank via (2) Welded Ground Bungs in HV Cabinet
Secondary Connection Type: Live Front
Secondary Connections: Threaded In-line Copper Stud Terminals, w/ Jamnuts
Secondary Connection Qty: (3)
Secondary Connection Supports: N/A
Secondary Overcurrent Protection (OCP): N/A
Secondary Neutral Connection: Secondary X2 Neutral Grounded to Tank via 1/2"-13 UNC Tapped Hole, 7/16" Deep Bung & Copper Ground Strap
Secondary Grounding Provisions: (1) Grounding lug, accepts #2 copper
Metering Current Transformer (CT): N/A
Metering Panel: N/A
Auxiliary Control Panel: N/A
Load Break Switch: 2-Position Load Break Switch
Load Break Switch Qty: (3)
Load Break Switch Rating: 300-Amp, 15 kV, 12 ka Make-and-Latch Rating
Load Break Switch Location: High Voltage (HV) Front Compartment
Efficiency Standard(s): Meets DOE 2016 Standards, Meets CSA Standards 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 (Oil) Capacity*: 80.67 Gallons
Fluid (Oil) Weight*: 727.51 lbs
Liquid Level Indicator: Analog Dial Gauge
Temperature Indicator: Analog Dial Gauge
Pressure/Vacuum Indicator: Analog Dial Gauge
Pressure Relief Device: Included, Automatic Action
Sudden Pressure Relay: Included
Communication Network: Support serial MS/TP and Ethernet IP communications and able to communicate directly via RS-485 serial networks and Ethernet 10Base-T networks as native device
Gas Sampler Valve: Included, Schrader Valve
Fill Valve: 1" NPT Port w/ Removable Bolt Plug
Fill Valve Location: Front Compartment
Drain Valve: 1" NPT Port w/ 5/8" NPT Sampler Valve
Drain Valve Location: Front Compartment
Winding Material: Copper
Ambient Temperature Rating: 40°C
Ambient Operating Temperature Range: -40°C to +40°C (-50°F to +104°F)
Sound Level: 55 dBA, Complies with NEMA TR-1
Elevation (Altitude): 3300ft (1000 meters) Above Sea Level
Core Material: Grain Oriented Steel

Complies with CSA C88-16
Complies with CSA C227.4
Complies with CSA C227.5
Complies with CSA C802-3
Complies with CSA C802.1
Complies with FM Global Class No. 3990 & UL1562

Features

Penta-head Bolt Entry Assembly
High-Fire Point Insulating Fluid
Non-PCB Insulating Fluid
Hinged Front Compartment Doors, Pad Lockable
NEMA 3R Wiring Compartment
Hot Stick Included, HV Door Mount
Tamper Proof Housing

Efficiency %: 99.10%

Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.
No Load Loss (in watts): +/- 455W
Full Load Loss (in watts) at 100%: +/- 1,833W
Total Load Loss (in watts) at 100%: +/- 2,288W

Labeling:

Externally Stencilled (Painted) KVA Rating
Externally Stencilled (Painted) Voltage Rating
External Non-PCB Label
External Warning & Danger Label
External Barcode Label
Internal Busing & Accessory Labeling
Stainless Steel Riveted Nameplate

Factory Tests:

Winding Resistance Test
Insulation Resistance Test
Voltage Ratio Error Test
Short-circuit Impedance Test
No-load Loss (Wattage) Test
Separate Source Voltage Withstand Test
Load Loss (Wattage) Test
Induced Voltage Withstand Test
Pressure Integrity Test

Shipping:

Shipped on pallet on open flatbed
Palletized on Wooden Pallet w/ Skid Pockets
Pallet Skid Facing Outward Sides of Truck
Note: *Crated shipping in lieu of palletizing can be done upon request for an additional fee*

Tank Material: 304 Stainless Steel
Cabinet Material: 304 Stainless Steel
Base Platform Material: 304 Stainless Steel
Portability: Lifting lugs, provisions for jacking under base, w/ base construction suitable for using rollers or skidding
Housing Type: Compartmental Air-Filled Cabinet w/ Locking Doors, HV Compartment Left, LV Compartment Right, Steel Barrier Separation, HV Door Spring-Loaded Release Pin in LV Compartment
Enclosure Rating: NEMA 3R Weatherproof Wiring Cabinet, Sealed Tank
Seismic Rating: Yes
Paint Type: Weatherproof and UV Resistant Epoxy Coating and Undercoating
Finish Color: Munsell™ 7.0 GY 3.29/1.5 Bell Green
Mounting: Pad Mounted
Conduit Opening: Bottom Feed Underground Entry/Exit
Compartment Base Wireway Dimensions: 34"-L x 21"-D
Cabinet Depth: 19"
Dimensions*: 34"-W x 38"-D x 29.53"-H
Dry Weight (w/o Oil)*: 1256.61 lbs
Total Weight (Liquid Filled)*: 2976.19 lbs
*Please note that numbers are approximate and subject to change

Special Orders - Special Requirements
Contact us for special requirements
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The MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 Industrial Pad Mount Transformer from Larson Electronics offers powerful, reliable and efficient power distribution in indoor, outdoor and public 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. An enclosed design caters to installations on concrete pads without protective fencing.

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

Transformer Features: With a transformer rating of 167 kVA, the industrial transformer features a primary voltage of single-phase 12470Y/7200 Grounded Wye and a secondary voltage of single-phase 120/240V (L-N-L). The unit has a primary loop feed and dead-front primary connections. We also offer systems with radial feed and live front primary/live front secondary connections. This transformer features a 5-position tap changer with (2) +2.5% taps above and (2) -2.5% taps below to allow small changes in voltage. This pad mount transformer features primary well bushings and standard spade connectors on the secondary side. Equipped with copper windings, this transformer consists of one coil and two core loops.

The MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 is air cooled and does not have fans or mounting provisions for fans. This unit features a 65°C temperature rise for reduced heat waste, increased reliability and longer life. The transformer meets DOE 2016 efficiency standards. 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-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 features mineral oil cooling fluid (ONAN). We offer transformers with biodegradable or FR-3 oil fluids, if needed.

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. These gauges do not have auxiliary contacts.

Fault Pressure Devices: This transformer features an automatic action fault pressure device. 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 comes with high elbow 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 MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 is equipped with three 2-position load break switches.

Valves: The MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 is equipped with a fill valve and drain valve with sampler port.

Protection Fuses: This transformer contains 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: The heavy-duty enclosure makes the unit suitable for both indoor and outdoor applications. This power distribution system can be pad mounted on concrete pads.

Benefits: The MT-PML-R113-1P-GMR-167KVA-SLZ-LT-DF-Z6-BM-CS-2B6-M1 pad mount 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, public locations 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.

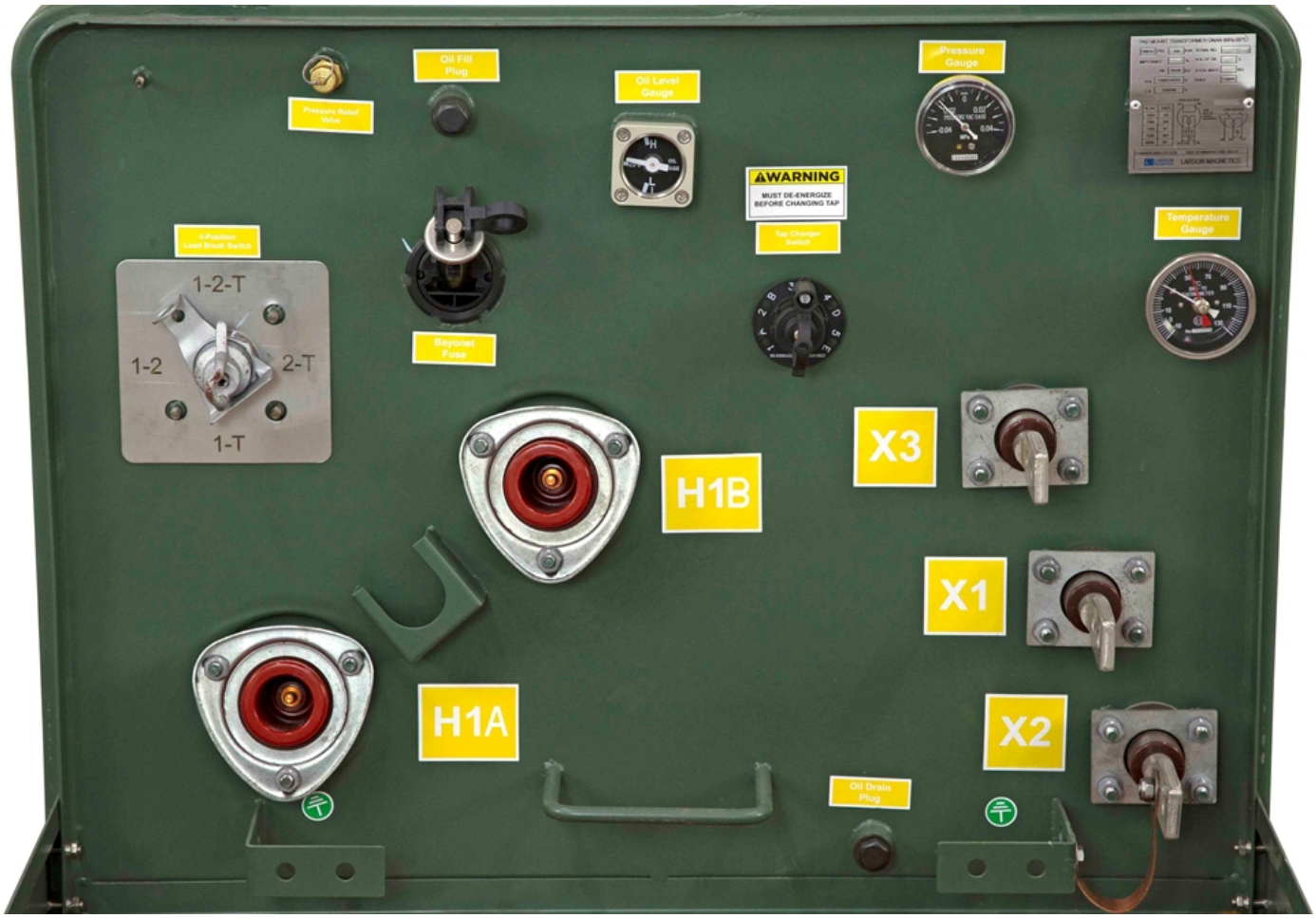
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Frequently Asked Questions (FAQ)

There are no Faqs