Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

MT-PML-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-M1

167 KVA Pad Mount Transformer, 4160Y/2400 Grounded Wye Primary, 120/240V Secondary, Copper, ONAN, Bell Green - Stainless Steel - Two Door Design [Separate Primary and Secondary Compartments]

Product ID: 339129



Image: MT-PML-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-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-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-M1 Pad Mount Transformer	Ratings
Transformer Type: Pad Mounted, Compartmental-Type, Two-Door Design	Meets/Exceeds DOE 2016 Efficiency Ratings
Transformer Configuration: Liquid Filled Pad Mounted	Meets/Exceeds CSA Efficiency Ratings
Transformer Feed Type: Loop Feed	Complies with ANSI / IEEE C57.12.00
Polarity: Additive	Complies with ANSI / IEEE C57.12.21
Phase: Single Phase (Connects to 3-Phase electrical grid)	Complies with ANSI / IEEE C57.12.25
Capacity: 167 KVA	Complies with ANSI / IEEE C57 12.28
Vector Group: II6	Complies with ANSI / IEEE C57 12.29
Primary Voltage: 4160Y/2400	Complies with ANSI / IEEE C57 12.35
Primary Voltage Switch: N/A	Complies with ANSI / IEEE C57 12.38
Primary Voltage Class: 5 kV Class	Complies with ANSI / IEEE C57.12.70
Primary Phasor: Grounded Wye	Complies with ANSI / IEEE C57.12.110
Primary BIL: 60 KV	Complies with ANSI / IEEE C57.12.131
Secondary Voltage: 120/240V (L-N-L)	Complies with ANSI / IEEE C62.11
Secondary Voltage Class: 1.2 kV Class	Complies with ANSI / IEEE C62.22
Secondary Phasor: Dual Windings, Single Phase	Complies with ANSI / IEEE 386
Secondary BIL: 30 KV	Complies with ANSI / IEEE C2
Frequency: 60 Hz	Complies with ANSI / IEEE C37.47
Temperature Rise: 65°C	Complies with ANSI Z535.4
Insulation Rating: Class E Insulation - 120°C, 248°F	Complies with ASTM D3487
Cooling Class: ONAN; Self-Cooled	Complies with ASTM D6871
Forced Air (Fans): None	Complies with NEMA 260-1996
Tap Changer: 5-Position Tap Changer	Complies with 10 CFR Part 431
Tap Qty: (2) FCAN Above, (2) FCBN Below	Complies with CSA C2.1-06
Tap %: 2.5%	Complies with CSA C50

Tap Changer Switch Rating: 5 kV Class, 60 kV BIL
Tap Changer Switch Location: HV Compartment
Impedance: 1.0-4.5% Typical, 2.2% Target
Primary Connection Type: Dead Front
Primary Termination Arrangement: ANSI Type II Arrangement
Primary Termination: Externally Clamped Well Bushings w/ Removable Studs, 200A Load Break Elbows w/ Inserts. Size for 4/0 AWG Cable
Primary Connection Qty: (4) Primary Connections for use w/ Elbow Connectors
Primary Parking Stand Qty: (4) Welded Bracket for Installing Accessory Parking Stand Bushings
Primary Bushing Rating: 5 kV Class, 60 kV BIL, 200A, Load Break, IEEE 386 Color Red
Primary Surge Arresters: Included, (2) High Voltage Elbow Surge Arrestors
Primary Surge Arrester Voltage Rating: 6 kV Class Elbow Arrestor
Primary Surge Arrester MCOV Rating: 5.1 kVrms
Primary Overcurrent Protection (OCP): C09 Curve, 25A Rated, Current Sensing Dual Element Bayonet Fuse in series w/ A05 Current Curve Isolation Link
Primary Overcurrent Protection Method: Fused, Oil-Immersed & In-Tank
Primary Overcurrent Protection Holder: Bayonet Fuse Holder w/ Flapper Valve and External Drip Shield
Primary Neutral Connection: Primary H0 Neutral Internally Bonded to Tank
Primary Grounding Provisions: (1) Welded Ground Bung, 1/2”-13 UNC Tapped Hole, 7/16” Deep Bung, w/ Grounding Terminal Clamp for 2/0-8 AWG Stranded Wire

Secondary Connection Type: Live Font

Secondary Termination Arrangement: ANSI Type II Arrangement
Secondary Overcurrent Protection (OCP): Included, Circuit Breaker
Secondary Connections: Jam Nuts, w/ (1) Jam Nut on X3 and X1, and (2) Jam Nuts on X2
Secondary Connection Qty: (3) Externally Clamped One-Piece Epoxy Bushings w/ 1"-14 x 1-3/4" Long Copper Threaded Studs
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) Welded Ground Bung, 1/2”-13 UNC Tapped Hole, 7/16” Deep Bung, w/ Grounding Terminal Clamp for 2/0-8 AWG Stranded Wire
Metering Current Transformer (CT): N/A
Metering Panel: N/A
Auxiliary Control Panel: N/A
Load Break Switch: 2-Position LBOR, Hot Stick Operable
Load Break Switch Qty: (2)
Load Break Switch Rating: 200-Amp, 5 kV, 10kArms
Load Break Switch Location: 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, Non-PCB Fluid
Fluid (Oil) Capacity*: 80.67 Gallons
Fluid (Oil) Weight*: 727.51 Lbs
Liquid Level Indicator: N/A
Temperature Indicator: N/A
Pressure/Vacuum Indicator: N/A
Pressure Relief Device: Automatic Action, Cracking Pressure @ 10 PSIG, Releasing Pressure @ 8 PSIG, Flow @ 15 PSIG (50 SCFM) @ 14.7 PSGI
Fault Indicator: N/A
Fault Indicator Provisions: (3) 5/16" Dia. Mounting Provisions in Base Sill. (1) on Left Side 3" From Front Edge, (1) on Right Side 3" From Front Edge, (1) on Front Left Side, 3" For Left Edge
Gas Sampler Valve: N/A
Fill Valve: 1/2" NPT w/ Removable Bolt Plug, Fill Plug at 25°C Oil Level
Fill Valve Location: Front Compartment
Drain Valve: 1/2" NPT w/ Removable Bolt Plug, w/o Sampler Valve
Drain Valve Location: Front Compartment
Winding Material: Copper
Ambient Temperature Rating: 40°C

Complies with CSA C88
Complies with CSA C88.1
Complies with CSA C88-16
Complies with CSA C227.3
Complies with CSA C802.1
Complies with CSA C802.2
Complies with CSA C802.3

Features
Penta-head Bolt Entry Assembly
High-Fire Point Insulating Fluid
Non-PCB Insulating Fluid
Tamper Proof Housing
NEMA 3R Wiring Compartment
Lift-Up Padlockable Lid

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
Load Loss (in watts)*: +/- 1,833W
Total Load Loss (in watts)*: +/- 2,288W

Note: *Losses offered are typical only, not guaranteed*

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
Load Loss (Wattage) Test
Induced Voltage Withstand Test
Separate Source 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: *For low quantity purchases, enclosed truck can be*

Ambient Operating Temperature Range: -40°C to +40°C (-50°F to +104°F)

Sound Level: 55 dBA
Elevation (Altitude): 3300ft (1000 meters) Above Sea Level or Below
Core Material: Grain Oriented Steel
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
Paint Type: Weatherproof and UV Resistant Epoxy Coating Top Coat, Heavy Duty Primer Base Coat, Corrosion Resistant Undercoating and 2" Up Sides of Base Sill and Tank
Finish Color: Munsell™ 7.0 GY 3.29/1.5 Bell Green
Mounting: Pad Mount
Conduit Opening: Bottom Feed Underground Entry/Exit
Compartment Base Wireway Dimensions*: 55"-L x 21"-D
Compartment Cabinet Depth: 19"-D
Dimensions*: Accomodate the Conduit Stub up 64"-W x 44"-D x 47"-H
Dry Weight (w/o Oil)*: 1,256.61 Lbs
Total Weight (Liquid Filled)*: 2,976.19 Lbs
*Please note that numbers are approximate and subject to change

requested
Note: *Crated shipping in lieu of palletizing can be done upon request for an additional fee*

Special Orders - Special Requirements
Contact us for special requirements
Toll Free: 1-800-369-6671
Intl: 1-903-270-1187
Fax: 1-903-765-7664
E-mail: sales@larsonelectronics.com

The MT-PML-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-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 4160Y/2400 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 dead front primary/live front secondary connections. 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-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-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-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-M1 features mineral oil insulation fluid. We offer transformers with FR-3 oil fluid, 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-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-M1 is equipped with two separate 2-position load-break switches.

Valves: The MT-PML-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-M1 is equipped with a fill valve and drain valve with a 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-R7-1P-GNF-167KVA-SLZ-LT-DF-A6-BM-CS-2C.P3-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