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Product ID: 341552

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



Image:

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-R7-3P-DMR-750KVA-DLJ-RT-DF-A6-AM-CC-2C2-M1_3PH Pad Mount Transformer

Transformer Type: Pad Mounted, Compartmental-Type
Transformer Configuration: Liquid Filled Pad Mounted
Transformer Feed Type: Radial Feed
Phase: Three Phase
Capacity: 750 KVA
Vector Group: Delta-Delta
Primary Voltage: 12470V
Primary Voltage Class: 15 kV Class
Primary Phasor: Delta
Primary BIL: 95 KV
Secondary Voltage: 450V
Secondary Voltage Class: 600V Class
Secondary Phasor: Delta (3-Wire Ungrounded)
Secondary BIL: 30 KV

Frequency: 60 Hz

Temperature Rise: 55°C
Cooling Class: ONAN; Self-Cooled
Forced Air (Fans): None
Tap Changer: 5-Position, De-Energized Tap Changer
Tap Qty: (2) FCAN / (2) FCBN
Tap %: 2.5%
Tap Changer Switch Location: High Voltage (HV) Front Compartment

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings
Complies with ANSI / IEEE C57.12.00
Complies with ANSI / IEEE C57 12.28
Complies with ANSI / IEEE C57 12.34
Complies with ANSI / IEEE C57.12.70
Complies with ASTM D3487
Type 316 Stainless Steel Construction

Efficiency %: 99.20%
Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.
No Load Loss (in watts): +/- 1,000W
Full Load Loss (in watts) at 100%: +/- 6,500W
Total Load Loss (in watts) at 100%: +/- 7,500W

Total Losses at 55°C LL Temp. & 20°C NL Temp.

Impedance: 1.2-6.0% Typical, 5.75% ± 7.5% Target
Primary Connection Type: Dead Front
Primary Termination: 200A Loadbreak Bushings
Primary Connection Qty: (6) Bushings
Primary Surge Arrestors: Included
Primary Surge Arrestor Voltage Rating: 15 kV Class
Primary Surge Arrestor MCOV Rating: 15.3 kVrms
Primary Overcurrent Protection (OCP): Bayonet with ELSP Backup Fuse
Primary Overcurrent Protection Method: Fused
Primary Overcurrent Protection Holder: Bayonet Fuse Holder
Secondary Connection Type: Spade Terminal
Secondary Connections: NEMA Spade Terminals
Secondary Connection Qty: (3) Phase Connection
Secondary Overcurrent Protection (OCP): N/A
Grounding Provisions: Ground Pad
Metering Current Transformer (CT): N/A
Metering Panel: N/A
Auxiliary Control Panel: N/A
Load Break Switch: 2-Position Under-Oil Load Break Switch
Load Break Switch Qty: (1)
Load Break Switch Location: High Voltage (HV) Front Compartment
Efficiency Standard(s): Meets DOE 2016 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 Capacity: 175 Gallons
Liquid Level Indicator: Analog Dial Gauge
Temperature Indicator: Analog Dial Gauge
Pressure/Vacuum Indicator: Analog Dial Gauge
Pressure Relief Device: Included, Automatic Action, 50 SCFM @ 15 psi, The Operating pressure is 10±1 psi with reseal at 8±1 psi
Internal Fault Detector: Included
Fill Valve: Removable Bolt
Fill Valve Location: Front Compartment
Drain Valve: Included, Drain Valve w/ Sampler
Drain Valve Location: Front Compartment
Winding Material: Copper
Ambient Temperature Rating: 40°C
Sound Level: 58 dBA
Elevation Rating: 3300ft (1000 meters) Above Sea Level
Core Material: Grain Oriented Silicon Steel
Tank Material: Type 316 Stainless Steel
Cabinet Material: Type 316 Stainless Steel
Base Platform Material: Type 316 Stainless Steel
Enclosure Rating: NEMA 4X Weatherproof
Housing Type: Compartmental Pad Mounted, Separate HV/LV Compartments
Paint Type: Marine Duty Epoxy Coating
Finish Color: Marine Duty White
Mounting: Pad Mounted
Conduit Opening: Bottom Feed Underground Entry
Dimensions: TBD
Weight: TBD
*Please note that numbers are approximate and subject to change

Total Load Loss (in watts) at 50%: +/- 2,567W

Note: Losses offered are typical only, not guaranteed
100% Stainless Steel Construction, Corrosion Resistant

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
Separate Source Voltage Withstand Test
Induced Voltage Withstand Test
Pressure Integrity Test
Certified test report within ninety (90) days of shipment

Special Orders - Special Requirements
Contact us for special requirements
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The MT-PML-R7-3P-DMR-750KVA-DLJ-RT-DF-A6-AM-CC-2C2-M1 Industrial Pad Mount Transformer from Larson Electronics provides reliable and efficient medium-voltage power distribution for industrial, commercial, utility, and government installations.

Designed for outdoor service, this 750 kVA pad-mounted transformer converts 12.47kV Delta primary power to 450V Delta, three-phase, three-wire secondary power for downstream low-voltage distribution equipment. The transformer features a compartmental pad-mounted design housed in a Type 316 stainless steel enclosure with copper windings and ONAN self-cooled operation, making it suitable for demanding marine and corrosive environments.

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

Transformer Features: With a transformer rating of 750 kVA, the industrial transformer features a 12.47kV Delta primary and a 450V Delta, 3-phase, 3-wire ungrounded secondary. The transformer is configured for radial feed installations with dead-front primary terminations. A five-position de-energized tap changer with two +2.5% taps above normal and two -2.5% taps below normal is provided to accommodate minor system voltage adjustments.

The system utilizes copper windings for excellent electrical conductivity, thermal performance, and long service life. The transformer is designed in accordance with applicable ANSI/IEEE distribution transformer standards for dependable operation in medium-voltage distribution systems.

The MT-PML-R7-3P-DMR-750KVA-DLJ-RT-DF-A6-AM-CC-2C2-M1 is air cooled and does not have fans or mounting provisions for fans.

Enclosure Design: The transformer utilizes a compartmental pad-mounted construction fabricated from Type 316 stainless steel for superior corrosion resistance in outdoor and marine environments. The enclosure is rated NEMA 4X and features separate high-voltage and low-voltage compartments with lockable access doors. Underground conduit entry is provided through the base for field cable terminations. The compartmental design isolates the primary and secondary sections to improve operator safety and simplify maintenance.

Temperature Rise: The transformer is designed for 55°C temperature rise under rated load conditions. The combination of efficient cooling and copper winding construction contributes to dependable operation, long insulation life, and reduced operating costs.

Insulation Fluid: The MT-PML-R7-3P-DMR-750KVA-DLJ-RT-DF-A6-AM-CC-2C2-M1 utilizes mineral oil, non-PCB insulating fluid with ONAN cooling. Alternative insulating fluids, including FR-3 natural ester and biodegradable fluids, are available upon request for applications requiring enhanced environmental or fire safety characteristics

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% loan 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. 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 transformer is equipped with a 2-position under-oil load break switch located within the high-voltage compartment for safe manual isolation during maintenance and service operations.

Valves: The MT-PML-R7-3P-DMR-750KVA-DLJ-RT-DF-A6-AM-CC-2C2-M1 is equipped with a pressure relief valve, fill valve and drain valve with a sampler port.

Protection Fuses: Primary overcurrent protection is provided by bayonet fuses with ELSP backup protection, providing dependable transformer fault protection while minimizing equipment damage during abnormal operating conditions.

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-R7-3P-DMR-750KVA-DLJ-RT-DF-A6-AM-CC-2C2-M1 pad-mounted transformer provides dependable medium-voltage power transformation while offering high operating efficiency, low maintenance requirements, corrosion-resistant construction, and long service life. The combination of copper windings, ONAN cooling, and a Type 316 stainless steel enclosure makes the transformer suitable for demanding industrial, marine, and government applications.

Applications: Marine facilities, naval installations, utility distribution systems, industrial plants, manufacturing facilities, wastewater treatment plants, electrical substations, commercial facilities, military bases, ports, shipyards, processing plants, and other outdoor medium-voltage power distribution applications.

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

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