

MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M1

**300 KVA Pad Mount Transformer - 12000V Delta Primary, 208Y/120 Secondary -
KNAN/Biodegradable Cooling Fluid - 304 Stainless**

Product ID: 342118



Image: MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-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-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M2 3PH Pad Mount

Transformer

Transformer Type: Pad Mounted, Compartmental-Type

Transformer Configuration: Liquid Filled Pad Mounted

Transformer Feed Type: Loop Feed

Phase: Three Phase

Capacity: 300 KVA

Vector Group: DYN1

Primary Voltage: 12000V

Primary Voltage Class: 15 kV Class

Primary Phasor: Delta

Primary BIL: 95 KV

Secondary Voltage: 208Y/120

Secondary Voltage Class: 1.2 kV Class

Secondary Phasor: -

Secondary BIL: 30 KV

Frequency: 60 Hz

Temperature Rise: 65°C

Insulation Rating: Class E Insulation - 120°C, 248°F

Cooling Class: KNAN; Self-Cooled

Forced Air (Fans): None

Tap Changer: 5-position Tap Changer

Tap Qty: (2) FCAN Above Taps, (2) FCBN Below Taps

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

Pentahead Entry Assembly

High-Fire Point Natural Ester Insulating Fluid

Non-PCB Insulating Fluid

Tamper Proof Housing

Hinged Front Compartment Doors, Pad Lockable

Hot Stick Included, HV Door Mount

Efficiency %: 99.00%

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

Load Losses Based on 85°C Reference Temp.

No Load Loss (in watts): +/- 500W

Full Load Loss (in watts) at 100%: +/- 3,000W

Total Load Loss (in watts) at 100%: +/- 3,500W

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

Total Load Loss (in watts) at 50%: +/- 12,090W

Impedance (Typical): 1.2-6.0% Typical
Primary Connection Type: Dead Front
Primary Termination: Standoff Well Bushings w/ Removable Studs, 200A Load Break Elbows w/ Inserts
Primary Connection Qty: (6) Primary Connections w/ (6) Standoff Brackets for Parked Elbows
Primary Surge Arrestors: (3) High Voltage Elbow Surge Arrestors, Included
Primary Surge Arrestor Voltage Rating: 18 kV Class
Primary Surge Arrestor MCOV Rating: 15.3 kVrms
Primary Over Current Protection (OCP): Bayonet Fuses, Partial-Range Current-Limiting Fuses
Primary Over Current Protection Method: Fused
Primary Over Current Protection Holder: Bayonet Fuse Holder w/ Drip Shield
Primary Grounding Provisions: (1) Grounding lug bar in HV Cabinet, accepts #2 copper
Secondary Connection Type: Live Front
Secondary Connections: NEMA Spade Terminals, 4-Hole Spade, Externally Clamped, Accepts up to (4) Double Lug connections with (2) cables per side of Spade connector
Secondary Connection Qty: (4), Staggered Terminal Arrangement
Secondary Over Current Protection (OCP): N/A
Secondary Grounding Provisions: (1) Grounding lug bar in LV Cabinet, 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 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: Biodegradable Natural Vegetable Oil Ester Insulating Fluid - Non-PCB Fluid
Fluid Capacity: 160 Gallons
Liquid Level Indicator: Analog Dial Gauge
Temperature Indicator: Analog Dial Gauge
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: 40°C
Sound Level: 55 dBA
Elevation Rating: 3300ft (1000 meters) Above Sea Level
Core Material: Grain Oriented Steel
Tank Material: 304 Stainless Steel
Cabinet Material: 304 Stainless Steel
Base Platform Material: 304 Stainless Steel
Enclosure Rating: NEMA 3R Weatherproof
Housing Type: Compartmental Air-Filled Cabinet w/ Locking Doors, HV Compartment Left, LV Compartment Right, Steel Barrier Separation
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
Dimensions: 72"-W x 51"-D x 50"-H
Weight: 3,650 lb

*Please note that numbers are approximate and subject to change

Note: Losses offered are typical only, not guaranteed

100% Stainless Steel Construction, Corrosion Resistant

Labeling:

Externally Stencilled (Painted) KVA Rating (2.5" Tall min.)

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

Dissolved Gas Analysis Test

Special Orders - Special Requirements

Contact us for special requirements

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The MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M1 Corrosion Resistant Industrial Pad Mount Transformer from Larson Electronics offers powerful, reliable, and

efficient power distribution in indoor, outdoor, and public locations including near the ocean and other high salt exposure locations. Stainless steel enclosure construction as well as corrosion resistant hinges and hardware prevent corrosion buildup and extend the lifespan of the enclosure. The low operating costs, low heat emissions and low cost of ownership makes 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 300 KVA, the industrial transformer features a primary voltage of three-phase 12000V Delta. The secondary voltage is three-phase 208Y/120. This unit has a primary loop and dead-front primary connections. We also offer systems with radial feed and live front primary connections. This transformer features a 5-position tap changer with +/- 2.5% taps to allow small changes for voltage. There are no rapid rise relays on the system.

Equipped with copper windings, this transformer consists of rectangular coil and five-legged wound core design with three coils and four core loops (this is for three-phase transformers only; single-phase units have one coil and two core loops).

The MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M1 is air cooled and does not have fans or mounting provision for fans.

Enclosure Design: This pad mounted transformer is a compartmental design. The tank and housing are fabricated from stainless steel. The front electrical enclosure carries a NEMA 3R rating. The high voltage and low voltage compartments are located in front of the transformer tank, with the high voltage compartment on the left side and low voltage compartment on the right side. The HV and LV compartments are air filled and separated by a full length stainless steel barrier between the compartments. A removable stainless steel plate at the base of the HV and LV compartments prevents rodents and other intrusions from entering the enclosure once installed. This stainless steel plate allows for underground conduit entry into the enclosure compartments. Two hinged exterior doors allows for access into the compartments. A single pad lockable handle on the low voltage compartment door allows for securing the transformer. A spring loaded pin within the low voltage compartment prevents the high voltage door from being opened without pulling the safety pin. A hot stick is included in the high voltage compartment, mounted to the HV door.

Temperature Rise: This unit features a 65°C temperature rise for reduced heat waste, increased reliability and longer life. The transformer conforms to IEEE Std C57.12.34. 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-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M1 features non-PCB biodegradable cooling fluid (KNAN). This non-PCB cooling fluid is a replacement for FR3 cooling fluid.

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. These gauges do not have auxiliary contacts for remote monitoring or alarms.

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 ground pads for elbow arresters (arresters not included). Designed for over-voltage and transient voltage protection, the components prevent damage caused by lightning, internal switching or voltage surges.

Spare Fuses: The MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M1 comes with three spare fuses.

Valves: The MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-CS-2B6-M1 is equipped with a pressure relief valve, fill valve, and drain valve with sampler port.

Protection Fuses: This transformer contains three oil-immersed partial range current limiting bayonet fuses with isolation link. For units without protection fuses, up stream 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. The stainless steel construction and corrosion resistant hinges/hardware make this unit ideal for mounting in areas close to the ocean and other high salt exposure areas. The materials used to construct the enclosure prevent corrosion buildup and extend the lifespan of the unit. The MT-PML-R7-1P-SNL-50KVA-SZ-LT-DF-A-6-BB-CSS-2B4-M2 can still be used in other areas where it enjoys the same lifespan extension of the enclosure over standard steel. This power distribution system can be pad mounted on concrete pads.

Benefits: The MT-PML-R7-3P-DMT-300KVA-YT-LT-DF-A6-BB-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