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MT-PML-R117-3P-GMP.NF-500KVA-YT-LT-DF-X6-BM-CZ-1CZ-M1

500 KVA Pad Mount Transformer - 13800Y/7970 x 4160Y/2400 Grounded Wye Primary, 208Y/120 Wye-N Secondary - Copper, ONAN/Bell Green, w/ Tap Chager, National Grid ID 9301212

Product ID: 312586



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-R117-3P-GMP.NF-500KVA-YT-LT-DF-X6-BM-CZ-1CZ-M1 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: 500 KVA
Vector Group: YNyn0
Primary Voltage: 13800Y/7970 x 4160GrdY/2400
Primary Voltage Switch: **Included, Dual Voltage Switch**
Primary Voltage Class: 15 kV Class
Primary Phasor: Grounded Wye
Primary BIL: 95 KV
Secondary Voltage: 208Y/120
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Wye-N

Secondary BIL: 30 KV

Frequency: 60 Hz
Temperature Rise: 65°C
Cooling Class: ONAN; Self-Cooled
Forced Air (Fans): None
Tap Changer: 5-Position Off-load Tap Changer
Tap Qty: (1) FCAN Above Taps, (3) FCBN Below Taps, 14100V/13800/13500/13200/12900
Tap %: 2.18%
Tap Changer Switch Location: H.V Side, Side Mounted
Impedance (Typical): 1.2-6.0% Typical
Primary Connection Type: Dead Front

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
Penta-head Entry Assembly
High-Fire Point Natural Ester Insulating Fluid
Non-PCB Insulating Fluid
Tamper Proof Housing
Hinged Front Compartment Doors, Pad Lockable

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%: +/- 1,164W

Note: Losses offered are typical only, not guaranteed

Primary Termination Arrangement: V Terminal Arrangement

Primary Termination: Externally Clamped Well Bushings w/ Removable Studs, 200A Load Break Elbows w/ Inserts (Cooper LBI 215)

Primary Connection Qty: (6) Primary Connections for use w/ Elbow Connectors

Primary Parking Stand Qty: (6) 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 HO Neutral Internally Bonded to Tank and tied to X0

Primary Surge Arrestors: N/A

Primary Surge Arrestor Voltage Rating: N/A

Primary Surge Arrestor MCOV Rating: N/A

Primary Over Current Protection (OCP): Bayonet Expulsion Fuse in series w/ Partial-Range Current-Limiting Fuse and w/ Expulsion Link (353C10)

Primary Over Current Protection Method: Fused, Oil-Immersed

Primary Over Current Protection Holder: Bayonet Fuse Holder w/ Drip Shield

Primary Over Current 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 Font

Secondary Termination Arrangement: Staggered Terminal Arrangement, constructed to allow mounting of bushing type meter class current transformer

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) Externally Clamped One-Piece Epoxy Bushings Copper Threaded Studs

Secondary Connection Supports: N/A

Secondary Over Current Protection (OCP): N/A

Secondary Neutral Connection: Fully Insulated Bushing with H0X0 Neutral brought out as Bushing in the Secondary Compartment, w/ Copper Ground Strap

Secondary Grounding Provisions: (1) Clamp Type attached to tank via (2) Welded Ground Bungs in LV Cabinet

Metering Current Transformer (CT): N/A

Metering Panel: N/A

Auxiliary Control Panel: N/A

Load Break Switch: N/A

Load Break Switch Qty: N/A

Load Break Switch Location: N/A

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: 133 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: (2) 1" NPT Removable Bolts

Fill Valve Location: (1) Front Compartment, (1) Aux Control Panel

Drain Valve: (2) 1" NPT w/ 5/8" NPT Sampler Valve

Drain Valve Location: (1) Front Compartment, (1) Aux Control Panel

Winding Material: Copper

Ambient Temperature Rating: 40°C

Sound Level: 55 dBA

Elevation Rating: 10,50ft (3200 meters) Above Sea Level

Core Material: Grain Oriented Steel

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: Munsell™ 7.0 GY 3.29/1.5 Bell Green

Mounting: Pad Mounted

Conduit Opening: Bottom Feed Underground Entry/Exit

Dimensions: 41.5"-W x 54"-D x 69"-H

Weight: 3637 lbs

Labeling:

Externally Stencilled (Painted) KVA Rating

Externally Stencilled (Painted) Voltage Rating

External Non-PCB Label (placed near nameplate)

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

Turns Ratio Test

Special Orders - Special Requirements

Contact us for special requirements

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*Please note that numbers are approximate and subject to change

The MT-PML-R117-3P-GMP.NF-500KVA-YT-LT-DF-X6-BM-CZ-1CZ-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 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 500 KVA, the industrial transformer features a primary voltage of three-phase 13800Y/7970 x 4160Y/2400 Grounded Wye and a secondary voltage of three-phase 208Y/120 Wye-N. The unit has a primary loop feed for dual installations and dead-front primary connections. We also offer systems with loop feed and live front primary connections. The transformer features a 5-position off-load tap changer with 1, +/- 2.18% taps above and three, +/- 2.18% taps below to allow small changes for voltage. There is a rapid rise relay present on the system.

The system features copper windings for high strength and thermal/electrical conductivity. 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-R117-3P-GMP.NF-500KVA-YT-LT-DF-X6-BM-CZ-1CZ-M1 is air cooled and does not have fans or mounting provision for fans.

Temperature Rise: This unit features 65°C temperature rise for reduced heat waste, increased reliability and longer life. At 65°C temperature rise, the transformer offers 500 KVA. The transformer meets standard 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: This transformer features non-PCB mineral oil insulation fluid. We offer transformers with biodegradable cooling 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 does not come with high elbow surge arresters on the primary side.

Load Breaker Switch: The transformer is not equipped with a load break switch.

Valves: The MT-PML-R117-3P-GMP.NF-500KVA-YT-LT-DF-X6-BM-CZ-1CZ-M1 is equipped with a pressure relief valve, fill valve and drain valve with sampler port.

Protection Fuses: This transformer contains bayonet protection fuses with expulsion link and current limiting fuse on the primary side. 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. This power distribution system can be pad mounted on concrete pads.

Benefits: The MT-PML-R117-3P-GMP.NF-500KVA-YT-LT-DF-X6-BM-CZ-1CZ-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)