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MT-PML-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-M1-I

2.5 MVA Pad Mount Transformer - 415Y/240 Wye-N Primary, 13800V Delta Secondary - ONAN/Bell Green

Product ID: 311389



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-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-M1 Pad Mount Transformer

Phase: Three Phase
Capacity: 2.5 MVA (2500 kVA)
Primary Voltage: 415Y/240 Wye-N
Primary Voltage Class: 1.2 KV
Primary BIL: 30 kV
Primary Connection Type: Live Front
Secondary Voltage: 13800V Delta
Secondary Connection Type: Dead Front
Frequency: 60 Hz
Temperature Rise: 65°C
Capacity 65°C Temperature Rise: 2.5 MVA (2500 kVA)
Metering Current Transformer (CT): Included, (1) Set, C200 MR
Forced Air (Fans): None
Tap Changer: 5-Position De-Energized Tap Changer (DETC)
Tap Qty: (2) FCAN Above Taps, (2) FCBN Below Taps
Tap %: 2.5%
Tap Changer Switch Location: Secondary (Medium Voltage) Side
Efficiency Standard(s): Meets DOE 2016 Standards, Meets ANSI/IEEE Standards
Insulation Fluid: Mineral Oil Cooling Fluid, Non-PCB
Fluid Capacity: 310 Gallons
Cooling Class: ONAN; Self-Cooled
Liquid Level Gauge: Analog
Temperature Gauge: Analog
Pressure/Vacuum Gauge: Analog
Fault Pressure Device: None
Pressure Relief Valve: Included
Fill Valve: Included
Drain Valve w/ Sampler Port: Included

Ratings

NRTL Listed for United States and Canada
Conforms to NEMA, ANSI C57.12 Standards
Sealed Tank Construction w/ Welded On Cover
Padlockable Doors

Rapid Rise Relay: None
Surge Arrestors: High Voltage Elbow Surge Arrestors Included on Secondary Side
Protection Fuses: None
Load Break Switch: None
Feed: Loop
Winding Material: Copper
Ambient Temperature Rating: 50°C
Sound Level: 62 db(A)
Elevation (Altitude): 3300ft (1000 meters) Above Sea Level
Core Material: Grain Oriented Steel
Tank Material: Coated Steel
Cabinet Material: Coated Steel
Base Platform Material: Coated 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
Cabinet Type: Tamperproof
Enclosure Rating: NEMA 3R Weatherproof
Paint Type: Munsell 7.0 GY 3.29/1.5 Bell Green
Mounting: Pad Mount
Conduit Opening: -
Dimensions: 75"-W x 75"-D x 73"-H
Weight: +/- 11,534 lbs

Special Orders - Special Requirements
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The MT-PML-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-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. The MT-PML-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-M1 is designed to step up power fed to it from renewable energy sources and feed that current to the grid.

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

Transformer Features: With a transformer rating of 2.5 MVA (2500 kVA), the industrial transformer features a primary voltage of three-phase 415Y/240 Wye-N and a secondary voltage of three-phase 13800V Delta. This transformer is designed for reverse feed applications, including stepping up low voltage output from solar inverters for feeding to the local utility grid. The MT-PML-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-M1 is ideal for use in renewable energy systems. It is designed to take power fed to it from customer provided solar inverters that are part of renewable energy systems, such as solar panel fields, step up that current, and feed it into the electrical grid.

The unit has a primary loop feed for single installations and dead-front primary connections. We also offer systems with loop feed and dead front primary connections. This transformer features a 5-position tap changer on the secondary side with two, +/- 2.5% taps above and two, +/- 2.5% taps below to allow small changes for voltage. There are no load break switches, rapid rise relays, or protection fuses present on the system.

Copper transformer winding material helps improve performance, reduce weight and lower cost. Compared to aluminum, copper windings have lower eddy losses due to higher resistivity. 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-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-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 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 steel barrier between the compartments. A removable steel plate at the base of the HV and LV compartments prevents rodents and other intrusions from entering the enclosure once installed. This 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 65°C temperature rise for reduced heat waste, increased reliability, and longer life. At 65°C temperature rise, the transformer offers 2.5 MVA (2500 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: The MT-PML-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-M1 features mineral oil cooling fluid (ONAN) with a capacity of 310 gallons. We offer transformers with biodegradable or FR-3 oil fluids, if needed.

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 secondary (medium voltage) 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.

Valves: The MT-PML-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-M1 is equipped with a pressure relief valve, fill valve, and drain valve with sampler port.

Protection Fuses: This transformer does not contain protection fuses. 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-R4-3P-YJ-2.5MVA-DMP-LT-DF-A6-BM-CZ-2ZZ-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)