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MT-PML-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-M1

100 KVA Pad Mount Solar Step-Up Transformer - 600V Delta Primary, 771 x 2671V Delta/Wye Secondary - Aluminum, Mineral Oil Fluid /ONAN - Bell Green

Product ID: 342071



Image: MT-PML-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-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-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-M1 Pad Mount Transformer

Transformer Type: Pad Mounted, Compartmental-Type
Transformer Configuration: Liquid Filled Pad Mounted
Transformer Feed Type: Loop Feed
Operation: Step-Down Operation (Not Approved for Step-Up)
Phase: Three Phase
Capacity: 100 KVA
Vector Group: Dd0/Yd1
Primary Voltage: 600V
Primary Voltage Switch: N/A
Primary Voltage Class: 1.2 kV Class
Primary Phasor: Delta
Primary BIL: 30 KV
Secondary Voltage: 771 x 2671V
Secondary Connection Switching: Via Jumber Cables
Secondary Voltage Class: 5 kV Class
Secondary Phasor: Delta/Wye
Secondary BIL: 60 KV
Frequency: 60 Hz
Temperature Rise: 65°C
Insulation Rating: Class A Insulation - 105°C
Cooling Class: ONAN; Self-Cooled
Forced Air (Fans): None
Tap Changer: 5-Position De-energized Tap Changer
Tap Qty: (2) FCAN Above Taps, (2) FCBN Below Taps

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings
Meets/Exceeds CSA Efficiency Ratings
Complies with ANSI / IEEE C57.12.00
Complies with ANSI / IEEE C57 12.28
Complies with ANSI / IEEE C57 12.29
Complies with ANSI / IEEE C57 12.34
Complies with ANSI / IEEE C57 12.35
Complies with ANSI / IEEE C57.12.70
Complies with ANSI / IEEE C57.12.110
Complies with ANSI / IEEE C57.12.131
Complies with ANSI / IEEE C62.11
Complies with ANSI / IEEE C62.22
Complies with ANSI / IEEE 386
Complies with CSA C2.1-06
Complies with ANSI / IEEE C2
Complies with ANSI / IEEE C37.47
Complies with ANSI Z535.4
Complies with ASTM D3487
Complies with ASTM D6871
Complies with NEMA 260-1996
Complies with 10 CFR Part 431
Complies with CSA C50
cUL Approved
Complies with CSA C88

Tap %: 2.5%
Tap Changer Switch Rating: 5 kV
Tap Changer Switch Location: HV Side
Impedance: 1.2-6.0% Typical, Target 3.00-5.00%
Primary Connection Type: Live Front
Primary Termination Arrangement: Staggered Terminal Arrangement
Primary Connections: NEMA Spade Terminals, 6-Hole Spade, Externally Clamped, Accepts up to (6) Double Lug connections with (3) cables per side of Spade connector
Primary Connection Qty: (3) Externally Clamped One-Piece Epoxy Bushings Copper Threaded Studs
Primary Connection Supports: N/A
Primary Overcurrent Protection (OCP): Included, ATQR1/2 Fuses, 600V AC, 1/10 to 30A
Primary Current Transformers: Included, (3) 100:5 SR, 600V Rated
Primary Neutral Connection: N/A
Primary Grounding Provisions: (1) NEMA Ground Bar attached to tank via (2) Welded Ground Bungs in LV Cabinet
Secondary Connection Type: Dead Front
Secondary Termination Arrangement: V Terminal Arrangement
Secondary Termination: Externally Clamped Well Bushings w/ Removable Studs, 200A Load Break Elbows w/ Inserts
Secondary Connection Qty: (6) Secondary Connections for use w/ Elbow Connectors
Secondary Parking Stand Qty: (6) Welded Brackets for Installing Accessory Parking Stand Bushings
Secondary Bushing Rating: 5 kV Class, 60 kV BIL, 200A, Load Break, IEEE 386 Color Red
Secondary Neutral Connection: N/A
Secondary Surge Arrestors: Included, (3) High Voltage Elbow Surge Arrestors
Secondary Surge Arrestor Voltage Rating: 6 kV
Secondary Surge Arrestor MCOV Rating: 5.1 kV
Secondary Overcurrent Protection (OCP): Bayonet Expulsion Fuses
Secondary Overcurrent Protection Method: Fused, Oil-Immersed
Secondary Overcurrent Protection Holder: Bayonet Fuse Holder w/ Flapper Valve and External Drip Shield
Secondary Grounding Provisions: (1) NEMA Ground Bar attached to tank via (2) Welded Ground Bungs in HV Cabinet
Potential Transformers (PT): Included, (4) 4200:120V
Metering Panel: N/A
Auxiliary Control Panel: N/A
Load Break Switch: 4-Position Load Break Switch
Load Break Switch Qty: (1)
Load Break Switch Rating: 200-Amp, 5 kV
Load Break Switch Location: High Voltage (HV) 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 Insulating Fluid, Non-PCB Fluid
Fluid (Oil) Capacity*: 91 Gallons
Fluid (Oil) Weight*: 710 Lbs
Liquid Level Indicator: Analog Dial Gauge
Temperature Indicator: Analog Dial Gauge
Pressure/Vacuum Indicator: Analog Dial Gauge
Pressure Relief Device: Included, Automatic Action
Pressure Relief Valve: Included, 10 PSI
Gas Sampler Valve: Included, Schrader Valve
Fill Valve: 1" NPT Port w/ Removable Bolt Plug
Fill Valve Location: Front Compartment
Drain Valve: 1" NPT Port w/ 5/8" NPT Sampler Valve
Drain Valve Location: Front Compartment
Winding Material: Aluminum
Ambient Temperature Rating: 40°C
Ambient Operating Temperature Range: -40°C to +40°C (-50°F to +104°F)

Complies with CSA C88.1
Complies with CSA C88-16
Complies with CSA C227.4
Complies with CSA C227.5
Complies with CSA C802-3
Complies with CSA C802.1

Features

Penta-head Bolt Entry Assembly
High-Fire Point Insulating Fluid
Non-PCB Insulating Fluid
Tamper Proof Housing
Hinged Front Compartment Doors, Pad Lockable
NEMA 3R Wiring Compartment
Hot Stick Included, HV Door Mount

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
Anodized Aluminum Nameplate
Lamacoid Tag

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

Sound Level: 51 dBA

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
Enclosure Rating: NEMA 3R Weatherproof Wiring Cabinet, Sealed Tank
Seismic Rating: Yes
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
HV Compartment Base Wireway Dimensions*: 20"-W x 5"-D
LV Compartment Base Wireway Dimensions*: 16"-W x 5"-D
MV/LV Compartment Cabinet Depth*: 20"-D
Tank Cover Access Handhole: N/A
Dimensions*: 61"-W x 44"-D x 69"-H
Dry Weight (w/o Oil)*: 920 Lbs
Total Weight (Liquid Filled)*: 2,510 Lbs
*Please note that numbers are approximate and subject to change

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

Efficiency %: 98.80%
Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.

No Load Loss (in watts): +/- 260W

Full Load Loss (in watts) at 100%: +/- 1,300W

Total Load Loss (in watts) at 100%: +/- 1,560W
Total Losses at 55°C LL Temp.& 20°C NL Temp.
Total Load Loss (in watts) at 50%: +/- 562W
Note: *Losses offered are typical only, not guaranteed*

Special Orders - Requirements
Contact us for special requirements
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The MT-PML-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-M1 Industrial Pad Mount Solar Step-Up 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 100 kVA, the industrial transformer features a primary voltage of three-phase 600V Deltaand a secondary voltage of 771 x 2671V Delta/Wye. The unit has a secondary loop feed and dead-front 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 aluminum windings, this transformer consists of one coil and two core loops.

The MT-PML-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-M1 is air cooled and does not have fans or mounting provision 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-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-M1 features mineral oil cooling fluid (ONAN). We offer transformers with biodegradable or FR-

3 fluids, 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 secondary 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 Break Switch: This transformer is equipped with a load break switch. This switch has four positions: A side on + transformer on, B side on + transformer on, A and B sides + transformer on, and A and B sides + transformer off.

Valves: The MT-PML-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-M1 is equipped with a fill valve and drain valve with a sampler port.

Protection Fuses: This transformer contains bayonet protection fuses on the secondary 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-R4-3P-DC-100KVA-D.YLB.LC-LT-DF-A6-BM-AZ-2B4-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.

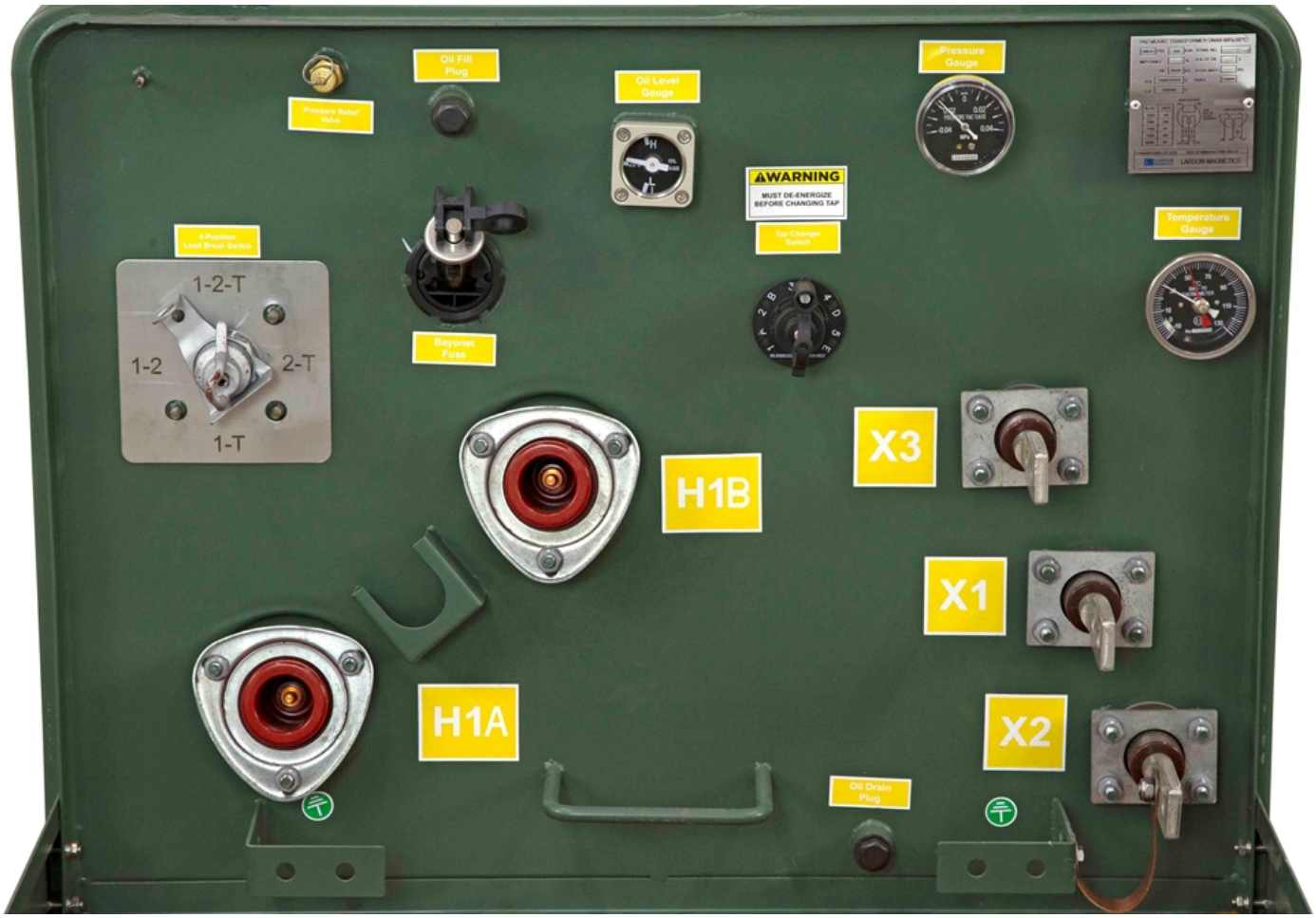
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Frequently Asked Questions (FAQ)

There are no Faqs