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MT-UPM-R7-1P-GMW-100KVA-SZ-AE-A5-BM-CZ-Z-M1

100 KVA Overhead Distribution Transformer, Pole Mount, 23900GrdY/13800 Grounded Wye Pri., 120/240V Sec., Mineral Oil, Copper, ONAN

Product ID: 304610

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



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-UPM-R7-1P-GMW-100KVA-SZ-AE-A5-BM-CZ-Z-M1 Pole Mount Overhead Transformer

Transformer Type: Overhead Distribution Transformer, Conventional Type
Transformer Configuration: Liquid Filled Pole Mounted
Transformer Polarity Type: Subtractive
Phase: Single Phase
Capacity: 100 KVA
Primary Voltage: 23900GrdY/13800
Primary Voltage Switch: N/A
Primary Voltage Class: 25 kV Class
Primary Phasor: Grounded Wye
Primary BIL: 125 kV
Secondary Voltage: 120/240V (L-N-L)
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Dual Winding Single Phase
Secondary BIL: 30 KV
Frequency: 50 HZ
Temperature Rise: 65°C
Insulation Rating: Class E Insulation - 120°C, 248°F
Forced Air (Fans): None
Cooling Class: ONAN; Self-Cooled
Tap Changer: 5-Position Tap Changer w/ External Operating Handle
Tap Qty: (2) FCAN Above, (2) FCBN Below
Tap %: 2.5%
Tap Changer Switch Location: Side of Tank Body
Impedance: 1.0-4.5% Typical

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings
Meets/Exceeds CSA Efficiency Ratings
Complies with ANSI / IEEE C57 12.00
Complies with ANSI / IEEE C57 12.20
Complies with ANSI / IEEE C57 12.30
Complies with ANSI / IEEE C57 12.31
Complies with ANSI / IEEE C57 12.35
Complies with ANSI / IEEE C57.12.70
Complies with ANSI / IEEE C62.11
Complies with ANSI / IEEE C62.22
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 10 CFR Part 431
Complies with CSA C2.2:06
Complies with CAN / CSA C50
Complies with CAN / CSA C233.1-87
Complies with CAN / CSA C802.1-13

Features:

Non-PCB Insulating Fluid
Lifting Lugs Included

Primary Connection Type: Live Bushing Lug
Primary Termination: Porcelain High Voltage Bushing
Primary Connection Qty: (1)

Primary Lightning Arrestors: (1) Externally Mounted Lightning Arrestors, Included

Primary Lightning Mounting Provision: Mounting Provisions for Installing Lightning Arrestor on H1 Primary Terminals
Primary Lightning Arrestors Voltage Rating: 18 kVrms
Primary Lightning Arrestors MCOV Rating: 15.3 kV Class
Secondary Connection Type: Live Bushing Lug
Secondary Connections: Threaded Stud Terminals
Secondary Connection Qty: (3)
Secondary Neutral Connection: Secondary X2 Neutral Grounded to Tank via 1/2"-13 UNC Tapped Hole, 7/16" Deep Bung & Copper Ground Strap
Terminals: Tin Plated Primary and Secondary - Accepts Copper or Aluminum Connections
Grounding Provisions: (1) Lug w/ Grounding Strap, Tank Grounding Lug
Transformer Protection: N/A
Load Break Switch: N/A
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 - Non PCB Fluid
Fluid Capacity*: 33.73 Gallons
Fluid Weight*: 304.23 lb
Liquid Level Indicator: Internal In-Tank Oil Level Line
Temperature Indicator: N/A
Pressure/Vacuum Indicator: N/A
Pressure Relief Device: Included, Automatic Action
Fault Indicator: Non-Resettable Fault Indicator Devices, Included
Oil Level Marking: Internal
Fill Valve: N/A (Tank Filled via Removable Lid)
Drain Valve: 1/2" NPT Port w/ Removable Bolt
Winding Material: Copper
Ambient Temperature Rating: 40°C
Ambient Operating Temperature Range: -40°C to +40°C (-50°F to +104°F)
Sound Level: 55 dBA
Elevation Level: N/A

Core Material: Grain Oriented Steel

Tank Material: Coated Steel

Housing Material: Coated Steel w/ Corrosion Resistant Cover Band, Removable Top Cover
Hardware Material: Stainless Steel Hardware
Paint Type: Weatherproof and UV Resistant Epoxy Coating and Undercoating
Finish Color: Light gray #70, Munsell Notation 5BG.7.0/0.4
Mounting: Double Hanger Bracket
Mounting: Pole Mount via Hangar Brackets
Lifting Lugs: Included
Dimensions*: 43.31"-W x 35.04"-D x 50.5"-H
Tank Diameter*: 24" OD
Dry Weight*: 749.56 lb
Total Weight (Liquid Filled)*: 1,190 lb
*Please note that numbers are approximate and subject to change

Corrosion Resistant Cover Band

Efficiency: 98.10%
Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.
No Load Loss (in watts): +/- 455W
Full Load Loss (in watts): +/- 2288W
Total Load Loss (in watts): +/- 1833W

Note: Losses offered are typical only, not guaranteed

Labeling:
Externally Stencilled (Painted) KVA Rating
Externally Stencilled (Painted) Voltage Rating

External Non-PCB Label

External Barcode Label
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 Test

Shipping:
Shipped on pallet on open flatbed
Palletized on Wooden Pallet w/ Skid Pockets
Pallet Skid Facing Outward Sides of Truck
Note: For low quantity purchases, enclosed truck can be requested
Note: Crated shipping in lieu of palletizing can be done upon request for an additional fee

Special Orders - Special Requirements
Contact us for special requirements
Toll Free: 1-800-369-6671
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The MT-UPM-R7-1P-GMW-100KVA-SZ-AE-A5-BM-CZ-Z-M1 Pole Mount Distribution Transformer from Larson Electronics is powerful and designed with the environment in mind. Suitable for both indoor and outdoor applications, the conventional type transformer provides increased reliability and protection against critical equipment failures.
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 MT-UPM-R7-1P-GMW-100KVA-SZ-AE-A5-BM-CZ-Z-M1 pole mount distribution transformer is a three phase unit with a primary voltage of 23900Y/13800V Grounded Wye (Star). It also provides a secondary voltage of 120/240V 60Hz. Featuring robust

construction, this unit's cores are manufactured with grain oriented steel. The conventional type transformer contains single bushing on the primary side and three bushings on the secondary side. Efficiency at 100% load is 98.95 percent.
The MT-UPM-R7-1P-GMW-100KVA-SZ-AE-A5-BM-CZ-Z-M1 is a grounded wye connection transformer and therefore must be connected phase-to-ground on a grounded wye system.
This unit boasts a low cost of ownership and is highly energy efficient. Lower heat emissions mean less cooling is needed as well. The unit also features mineral oil insulation fluid (oil immersed) and copper windings.
Mount: The MT-UPM-R7-1P-GMW-100KVA-SZ-AE-A5-BM-CZ-Z-M1 is compatible with pole mounting applications.
Applications: General purposes.
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)

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Product ID: 304610

Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **HigResPic1**
- **Video1**
- **Video2**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**