

MT-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1

100 KVA Overhead Distribution Transformer, Pole Mount, 13200V Delta Primary, 120/240V Secondary, Biodegradable/KNAN, Copper, Light Grey

Product ID: 322656

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



Image: MT-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-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-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1 Pole Mount Overhead Transformer

Transformer Type: Overhead Distribution Transformer, Conventional Type

Transformer Configuration: Liquid Filled Pole Mounted

Transformer Polarity Type: Additive

Phase: Single Phase

Capacity: 100 KVA

Primary Voltage: 13200V

Primary Voltage Switch: N/A

Primary Voltage Class: 15 kV Class

Primary Phasor: Delta

Primary BIL: 95 kV

Secondary Voltage: 120/240V (L-N-L)

Secondary Voltage Class: 1.2 kV Class

Secondary Phasor: Dual Windings, Single Phase

Secondary BIL: 30 KV

Frequency: 60 Hz

Temperature Rise: 65°C

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

Forced Air (Fans): None

Cooling Class: KNAN; Self-Cooled

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings

Meets/Exceeds CSA Efficiency Ratings

Complies with ANSI / IEEE C57 12.00

Complies with ANSI / IEEE C57 12.10

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 C57.12.90

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 CAN / CSA C233.1-87

Complies with CAN / CSA C802.1-13

Complies with CSA C2.2:06

Tap Changer: 5-Position De-energized Tap Changer w/ External Operating Handle
Tap Qty: (2) FCAN Above, (2) FCBN Below
Tap %: 2.5%
Tap Changer Switch Location: Middle of Tank Body, Left of Mounting Provisions
Impedance: 1.0-4.5%
Primary Connection Type: Live Bushing Lug
Primary Connection Arrangement: Tank Wall Mounted
Primary Termination: Wet Processed High Voltage Porcelain Bushing, ANSI 70 Light Grey
Primary Connection Qty: (2)
Primary Lightning Arrestors: N/A
Primary Lightning Mounting Provision: Mounting Provisions for Installing Lightning Arrestors on H1 & H2 Primary Terminals
Primary Lightning Arrestors Voltage Rating: N/A
Primary Lightning Arrestors MCOV Rating: N/A
Secondary Connection Type: Live Bushing Lug
Secondary Connections: Lug 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: Biodegradable Natural Vegetable Ester Insulation Fluid, Non-PCB Fluid
Fluid Capacity*: 22.98 Gallons
Fluid Weight*: 207.23 lbs
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: N/A
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: 51 dBA (Complies To NEMA TR-1)
Elevation Level: 3,300ft Above Sea Level (2,000m)
Core Material: Cold Rolled Grain Oriented Silicon Steel
Nameplate Material: Stainless 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: Munsell™ 5BG 7.0/0.4 Light Grey (ANSI #70)
Mounting: Double Hanger Bracket
Mounting: Pole Mount via Hanger Brackets
Lifting Lugs: Included
Dimensions*: 30.71"-W x 31.89"-D x 47.24"-H

Complies with CAN / CSA C50
Complies with NEMA TP-1 2002
UL Listed

Features:

Lifting Lugs Included
Corrosion Resistant Cover Band
Non-PCB Insulating Fluid

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): +/- 273W

Full Load Loss (in watts): +/- 1,105W

Total Load Loss (in watts): +/- 1,378W

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:

Ratio Tests - on all tap connections
Phase Sequence/Polarity Test
Resistance test of all windings
Exciting current test
No-load Loss (Wattage) Test (witnessed by SEPTA)
Impedance and full load loss Test (witnessed by SEPTA)
Insulation resistance test with at least 1 KV megger
Dielectric withstand test (Applied potential - Induced potential), (witnessed by SEPTA)
Impulse Test (witnessed by SEPTA)
Power Factor Test (witnessed by SEPTA)
Temperature Rise Test (witnessed by SEPTA)
Percent regulation at 85%, 90%, and 95% Power Factor
"Gas-in-oil" analysis and "dielectric breakdown voltage" tests

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



Tank Diameter*: 24"

Dry Weight*: 485.01 lbs

Total Weight (Liquid Filled)*: 968 lbs

*Please note that numbers are approximate and subject to change

Toll Free: 1-800-369-6671

Intl: 1-903-270-1187

Fax: 1-903-765-7664

E-mail: sales@larsonelectronics.com

The MT-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1 Overhead Distribution Pole Mounted Transformer from Larson Electronics offers powerful, reliable, and efficient power distribution in 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. This power distribution system is designed for overhead, pole-mount installations and use.

****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 13200V Delta and a secondary voltage of single-phase 120/240V (L-N-L). This transformer connects to a three-phase electrical grid system to provide single-phase low-voltage power for indoor distribution. This pole-mount transformer features porcelain high-voltage, dual bushings on the primary side and three bushings on the secondary side. Equipped with copper windings and a grain-oriented steel core, this overhead distribution transformer consists of one coil and two core loops. Tin-plated terminals on the primary and secondary sides accept copper or aluminum connections.

The MT-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1 is air-cooled and does not have fans or mounting provisions for fans. This unit features a 65°C temperature rise for reduced heat waste, increased reliability, and longer life. 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-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1 features biodegradable insulation fluid. Internal marking is available for proper oil level monitoring. We offer transformers with FR-3 oil fluid, if needed.

Gauges: There are no gauges on this transformer. We can add liquid level, temperature, and pressure/vacuum gauges at an additional cost. Standard liquid level, temperature, and pressure/vacuum gauges are analog, manual reading types.

Pressure Relief Device: An automatic pressure relief device is included with this transformer.

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 is not equipped with lightning arresters. Mounting provisions for installing customer-provided lightning arresters on the H1 and H2 primary terminals are included for installing arresters in the field.

Valves: The MT-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1 is not equipped with fill or drain valves. The transformer can be filled by removing the top lid. A drain port with a bolt plug is equipped.

Protection Fuses: This transformer does not contain fuses or circuit breakers. 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 outdoor applications. Equipped with hanger brackets and lifting lugs, this overhead power distribution system can be mounted on poles.

Benefits: The MT-UPM-R7-1P-DMQ-100KVA-SLZ-BB-A6-BB-CZ-1ZZ-M1 heavy-duty 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.

We offer completely self-protected (CSP) pole-mount overhead transformers at an additional cost.

Applications: general purposes, industrial sites, electrical rooms, public locations, 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.



Frequently Asked Questions (FAQ)

There are no Fags



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Export Control Classification Number (ECCN): EAR99

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- **Video1**(<https://www.youtube.com/watch?v=oZDa7R7XEZ0>)
- **ISO 9001 Certification**(<http://larsonelectronics.com/images/pdfdocs/ISO9001.PDF>)
- **Business Certificate**(<https://www.larsonelectronics.com/images/pdfdocs/w9.PDF>)
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