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9419 E US HWY 175, Kemp, TX 75143
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MT-UPM-R7-1P-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2

100 KVA Overhead Distribution Transformer, Pole Mount, 34500Y/19920 Grounded Wye Primary, 120/240V Secondary, Mineral Oil/ONAN, Aluminum, Light Grey

Product ID: 331482



Image: MT-UPM-R7-1P-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2

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-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2 Pole Mount Overhead Transformer

Transformer Type: Overhead Distribution Transformer, Conventional Type
Transformer Configuration: Liquid Filled Pole Mounted
Transformer Polarity Type: -
Phase: Single Phase
Capacity: 100 KVA
Primary Voltage: 34500Y/19920
Primary Voltage Switch: N/A
Primary Voltage Class: 35 kV Class
Primary Phasor: Grounded Wye
Primary BIL: 200 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: ONAN; Self-Cooled
Tap Changer: 5-Position No-Load 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% 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 12.10
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 CSA C2.2:06
Complies with CAN / CSA C50
Complies with CAN / CSA C233.1-87
Complies with NEMA TP-1 2002
Complies with CAN / CSA C802.1-13

Features:

Non-PCB Insulating Fluid
Lifting Lugs Included

Primary Connection Type: Live Bushing Lug
Primary Termination: Porcelain Bushing, w/ Tin-plated NEMA 4-hole terminals
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: 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*: 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: Aluminum
Ambient Temperature Rating: 50°C
Ambient Operating Temperature Range: -50°C to +50°C
Sound Level: 51 dBA
Elevation Level: < 3,280ft Above Sea Level
Seismic Rating: IEEE 693, Low
Relative Humidity: 10-100%
Average Annual Rainfall: 4 inches
Maximum Frost Depth: 6 inches
Core Material: Cold Rolled Grain Oriented Steel
Tank Type: Welded
Tank Material: Coated Steel
Housing Material: Coated Steel w/ Corrosion Resistant Cover Band, Removable Top Cover
Hardware Material: Stainless Steel Hardware
Gasket Material: Nitrile Rubber
Paint Type: Weatherproof and UV Resistant Epoxy Coating and Undercoating
Finish Color: ANSI 61 Grey
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
Tank Diameter*: 24" OD
Dry Weight*: 485.01 Lbs
Total Weight (Liquid Filled)*: 968 lbs
*Please note that numbers are approximate and subject to change

Corrosion Resistant Cover Band
2-Year Warranty
Efficiency: 98.90%
Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.
No Load Loss (in watts): +/- 176W
Full Load Loss (in watts): +/- 650W
Total Load Loss (in watts): +/- 826W
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
Polarity Test
Excitation Current 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
Intl: 1-903-270-1187
Fax: 1-903-765-7664
E-mail: sales@larsonelectronics.com

The MT-UPM-R7-1P-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2 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 34500Y/19920 Grounded Wye 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 aluminum 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-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2 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-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2 features mineral oil 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 arrestors on the H1 and H2 primary terminals are included for installing arresters in-field.

Valves: The MT-UPM-R7-1P-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2 is not equipped with fill or drain valves. The transformer can be filled via removing the top lid. A drain port w/ 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.

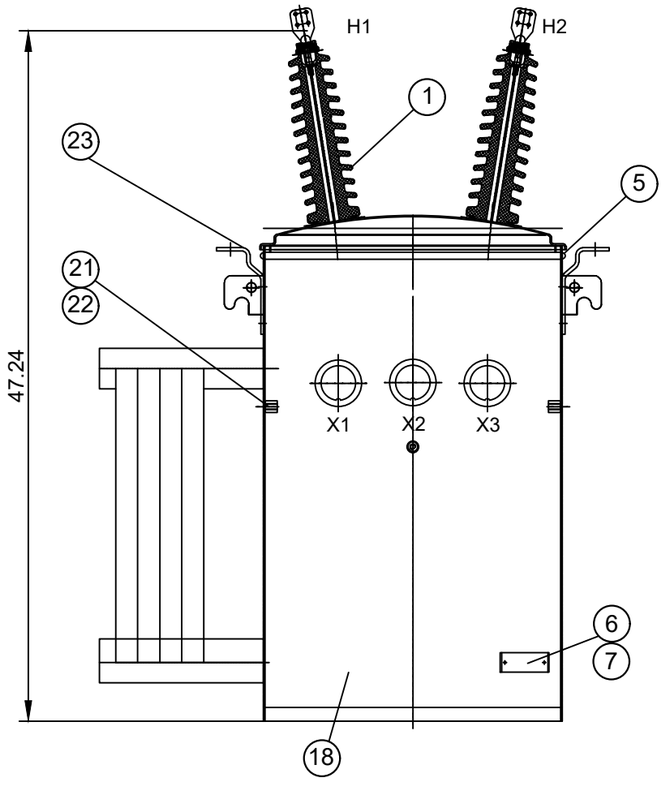
Mount: The heavy-duty enclosure makes the unit suitable for outdoor applications. Equipped with hanger brackets and lifting lugs, this overhead power distribution system can be mounted on poles.

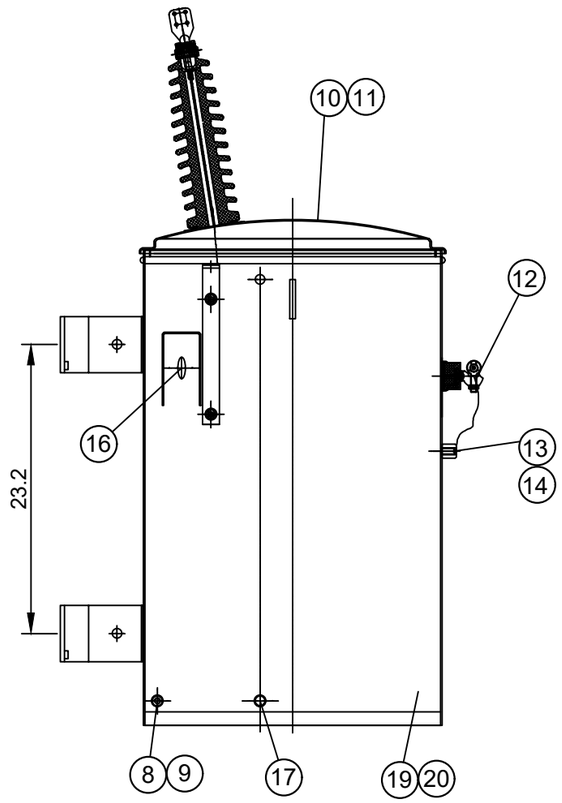
Benefits: The MT-UPM-R7-1P-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2 heavy-duty transformer offers many benefits to consumers. This transformer provides owners with significant energy savings, as well as offering environmental benefits. Higher efficiency not only extends the life of the transformer, but also turns into cost savings for owners in the form of lower energy bills and decreased cost of ownership.

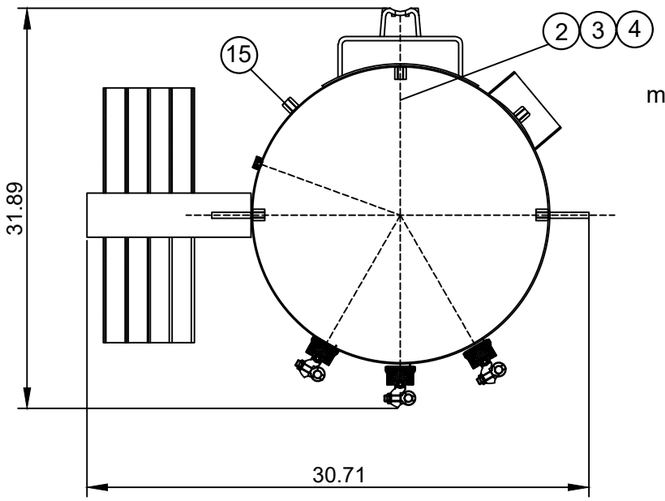
We offer completely self protected (CSP) pole mount overhead transformers at an additional cost.

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.

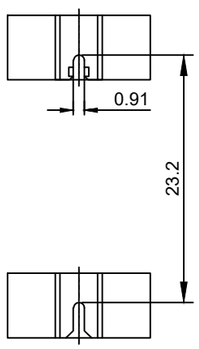
Larson Electronics is a manufacturer and as such can build stationary and portable transformer systems to your specifications. Although we carry several models of power distribution transformer systems, we can deliver custom ordered units almost as quickly as our prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.



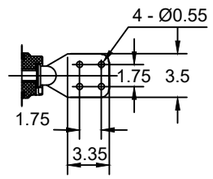




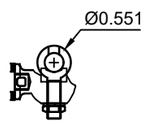
mounting position



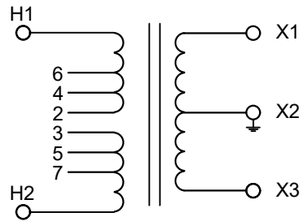
HV terminal



LV terminal



WIRING DIAGRAM



Approx. weight LBS

Untanked	Oil	Total
485	207	968

No.	Code	Name	QTY	Material	Unit Weight	Total Weight	Remark
23		arrester bracket	2				
22		Washer 12	4				black coated
21		Bolt M12x35	2				black coated
20		Tank Assembly	1				
19		Insulation Oil	1				
18		Tank	1				
17		Oil Drain Valve	1				
16		Tap changer	1				
15		Pressure Relief Valve	1				
14		Washer 12	5				galvanized
13		Bolt M12x25	1				galvanized
12		LV Bushing	3				
11		Sealing Gasket	1				
10		Cover	1				
9		Washer 12	2				galvanized
8		Bolt M12x30	1				galvanized
7		Screw M4x6	2				
6		Nameplate	1				
5		Hold Down Gear	1				
4		Ground Strap	1	0.3 copper belt			inner tank
3		Washer 12	2				black coated
2		Bolt M12x20	2				black coated
1		HV Bushing	2				4-hole

LARSON MAGNETICS

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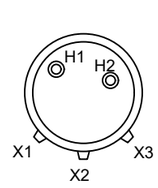
SINGLE PHASE POLE MOUNTED TRANSFORMER
MT-UPM-R7-1P-GMA-100KVA-SLZ-BB-A6-BM-AZ-1ZZ-M2

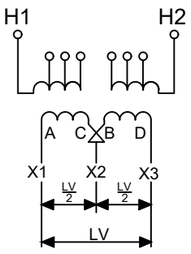
Phase:	1PH	100 KVA	Serial NO.		
Impedence		1.0~4.5 %	Product ID	331482	
BIL		200/30 kV	Vol of Oil	22.98	Gal
HV		34500GrdY/19920 V	Total Mass	968	LBS
LV		120/240 V	HV/LV Con.	Aluminum	
Freq.		60 Hz	Cooling	ONAN	
Phasor		Ii0	Temp.Rise:	65°C	

Tank must be solidly grounded-NON-PCB Mineral Oil
Subtractive Polarity

HV	Taps	Amps
20928	1/A	4.8
20418	2/B	4.9
19920	3/C	5.0
19422	4/D	5.1
18936	5/E	5.3

LV	Amps
240	416.7
120	833.3





ANSI C57.12.20-DOE 2016 Compliant-Manufactured 2026.03

LARSON MAGNETICS

Larson Magnetics LLC
Kemp, TX USA

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KEMP, TX 75143

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	2 OF 2	102

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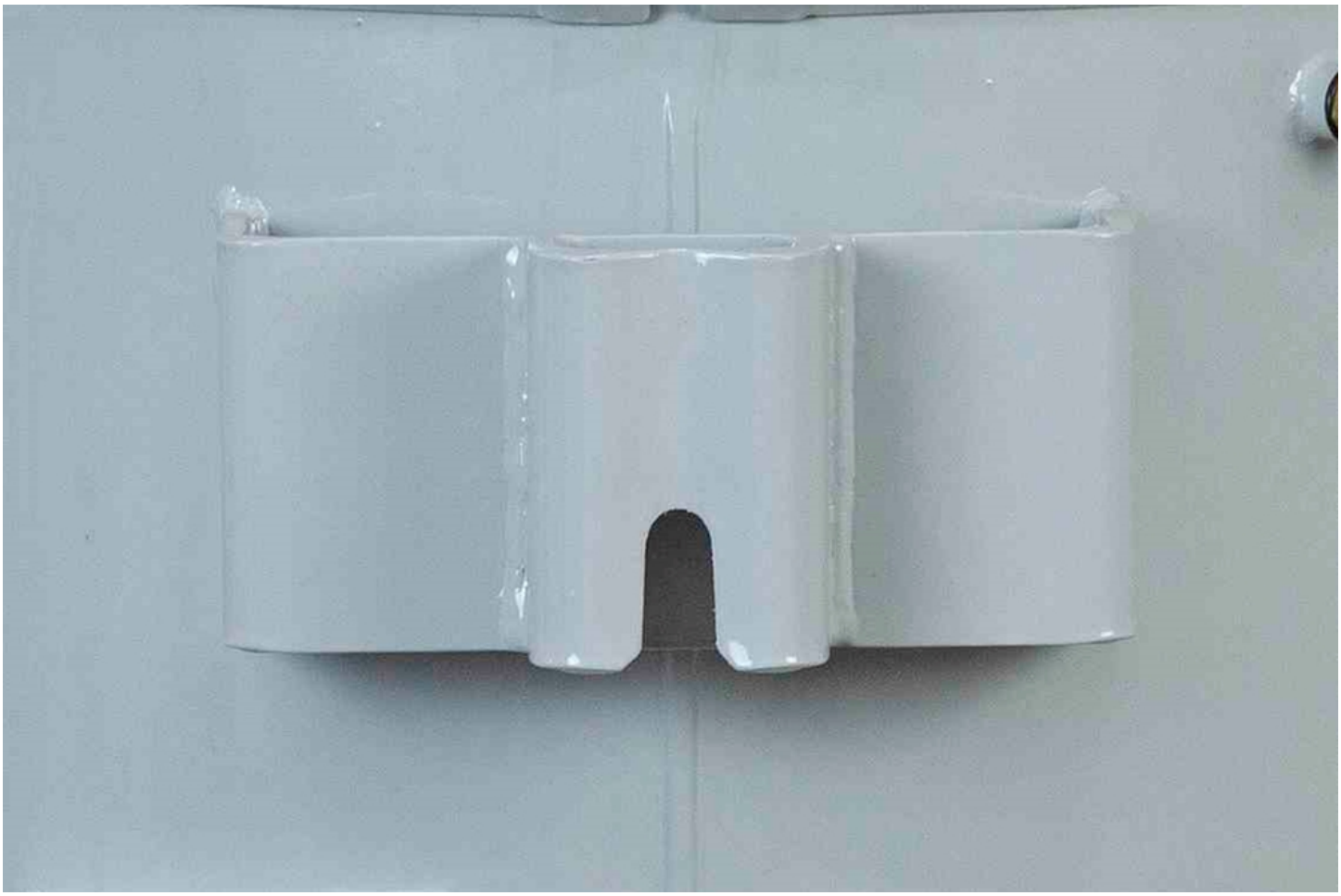
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Frequently Asked Questions (FAQ)

There are no Faqs