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MT-UPM-R11-1P-GMR-50KVA-SLR-LT-LF-A6-BF-CZ-2ZZ-M1

50 KVA Overhead Distribution Transformer, Pole Mount, 12470Y/7200V Wye Pri., 480Y/277V Sec., FR3 Oil, Copper, KNAN, Tap Changer

Product ID: 297336



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-R11-1P-GMR-50KVA-SLR-LT-LF-A6-BF-CZ-2ZZ-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: 50 KVA
Primary Voltage: 12470Y/7200V
Primary Voltage Switch: N/A
Primary Voltage Class: 25 kV Class
Primary Phasor: Wye
Primary BIL: 95 kV
Secondary Voltage: 480Y/277V
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: 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
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: Middle of Tank Body, Left of Mounting Provisions
Impedance: 1.5-6.0% Typical
Primary Connection Type: Live Bushing Lug
Primary Termination: Porcelain High Voltage Bushing

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings
Complies with ANSI / IEEE #C57.12.00
Complies with ANSI / IEEE #C57.12.20
Complies with ANSI / IEEE #C57.12.28
Complies with ANSI / IEEE #C57.12.31
Complies with ANSI / IEEE C57.12.70
Complies with ANSI / IEEE C57.12.80
Complies with ASTM D3487
Non-PCB Insulating Fluid
Lifting Lugs Included

Efficiency: 99.20%
Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.
No Load Loss (in watts): +/- 910W
Full Load Loss (in watts): +/- 3,656W
Total Load Loss (in watts): +/- 4,566W

Note: Losses offered are typical only, not guaranteed

Primary Connection Qty: (2)
Primary Lightning Arrestors: (1) High Voltage Elbow Surge Arrestors, Included
Primary Lightning Mounting Provision: Mounting Provisions for Installing Lightning Arrestor on H1 Primary Terminal
Primary Lightning Arrestors Voltage Rating: 36 kV
Primary Lightning Arrestors MCOV Rating: 29 kV
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: Secondary Circuit Breaker w/ External Operating Handle
Load Break Switch: N/A
Efficiency Standard(s): Meets DOE 2016 Standards, Meets ANSI/IEEE Standards
K-Factor Rating (Harmonic Mitigation): K-1 (Standard)
Pulse Drive Rating: N/A
Insulation Fluid: FR3 Oil
Fluid Capacity*: 73.33 Gallons
Fluid Weight*: 661.38 lbs
Liquid Level Indicator: Internal In-Tank Oil Level Line
Temperature Indicator: N/A
Pressure/Vacuum Indicator: N/A
Pressure Relief Device: "IFD™ device or approved equivalent instead of a traditional pressure relief valve. The IFD™ device is a hot stick operable dual purpose pressure relief valve and internal fault sensor"
Fault Indicator: 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
Sound Level: 56 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: White
Mounting: Double Hanger Bracket
Mounting: Pole Mount via Hangar Brackets
Lifting Lugs: Included
Dimensions*: 36.5" x 26.5" x 25.8"
Tank Diameter*: N/A
Dry Weight*: 672 lbs
Total Weight (Liquid Filled)*: N/A
*Please note that numbers are approximate and subject to change

Special Orders - Requirements
Contact us for special requirements
Toll Free:1-800-369-6671
Intl:1-214-616-6180
Fax:1-903-498-3364
E-mail:sales@larsonelectronics.com

The MT-UPM-R11-1P-GMR-50KVA-SLR-LT-LF-A6-BF-CZ-2ZZ-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 makes 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 50 kVA, the industrial transformer features a primary voltage of 12470Y/7200V Wye and a secondary voltage of single-phase 480Y/277V. This pole mount transformer features porcelain high-voltage, dual bushings on the primary side and three bushings on the secondary side. This transformer features a 5-position tap changer with two, +/- 2.5% taps above and two, +/- 2.5% taps below to allow small changes for

voltage. 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 side accepts copper or aluminum connections.

The MT-UPM-R11-1P-GMR-50KVA-SLR-LT-LF-A6-BF-CZ-2ZZ-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 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 unit features FR-3 oil insulation fluid. Internal marking is available for proper oil level monitoring. We offer transformers with mineral 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 Arrestors: This system is equipped with lightning arrestors on the primary side. Mounting provisions for installing customer provided lightning arrestor on the H1 primary terminal are included for installing arrestors in-field.

Valves: The unit is not equipped with a fill valve. The transformer can be filled via removing the top lid. A drain port w/ bolt plug is equipped.

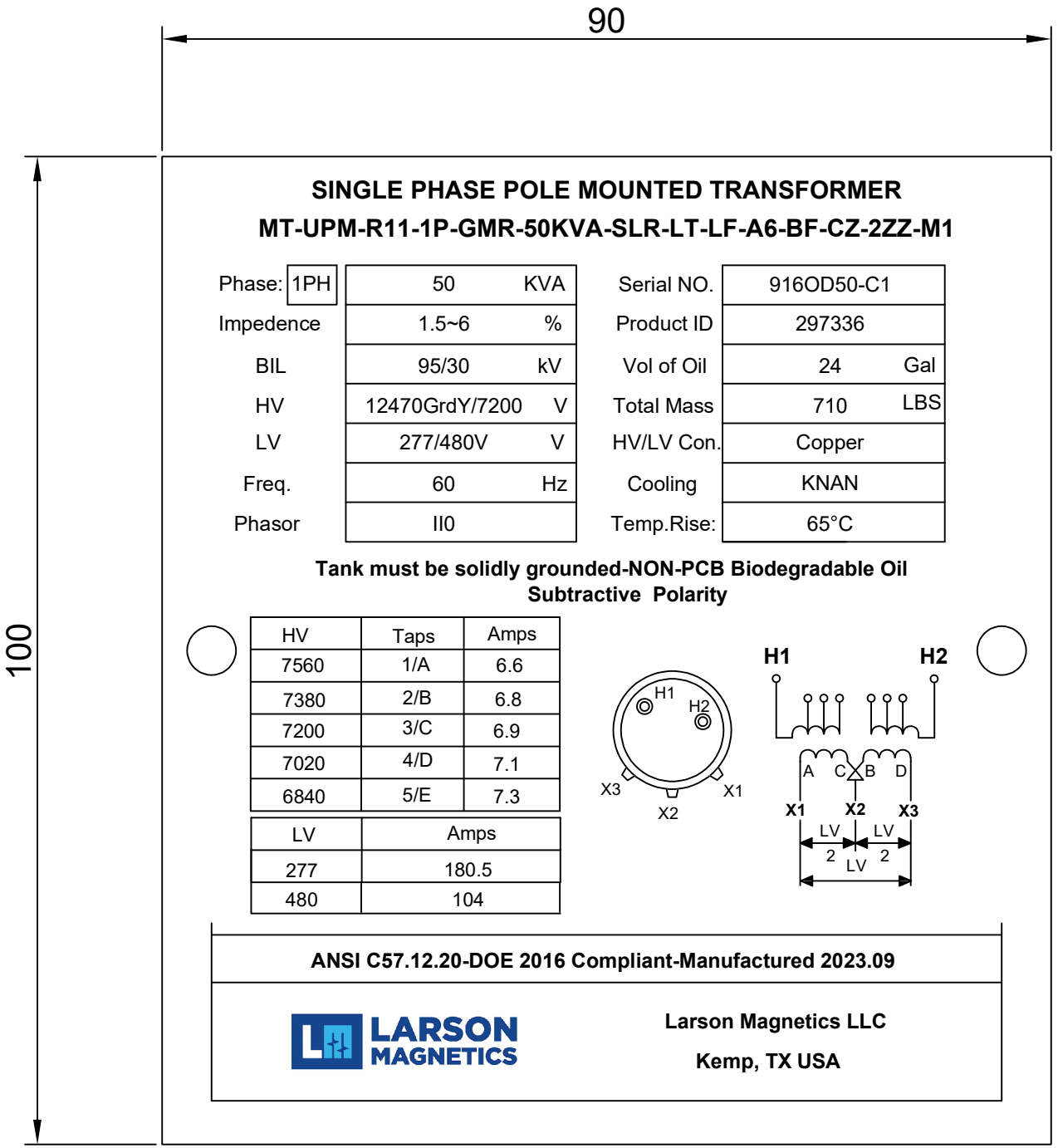
Protection Fuses: This transformer features circuit breaker protection the secondary side. For units without protection fuses, up stream protection is provided. We recommend provisions for protection fuses when possible, as blown fuses may require more frequent oil changes.

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

Benefits: The MT-UPM-R11-1P-GMR-50KVA-SLR-LT-LF-A6-BF-CZ-2ZZ-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.



SINGLE PHASE POLE MOUNTED TRANSFORMER

MT-UPM-R11-1P-GMR-50KVA-SLR-LT-LF-A6-BF-CZ-2ZZ-M1

Phase:	1PH	50 KVA	Serial NO.	916OD50-C1	
Impedence		1.5~6 %	Product ID	297336	
BIL		95/30 kV	Vol of Oil	24	Gal
HV		12470GrdY/7200 V	Total Mass	710	LBS
LV		277/480V V	HV/LV Con.	Copper	
Freq.		60 Hz	Cooling	KNAN	
Phasor		II0	Temp.Rise:	65°C	

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

HV	Taps	Amps
7560	1/A	6.6
7380	2/B	6.8
7200	3/C	6.9
7020	4/D	7.1
6840	5/E	7.3

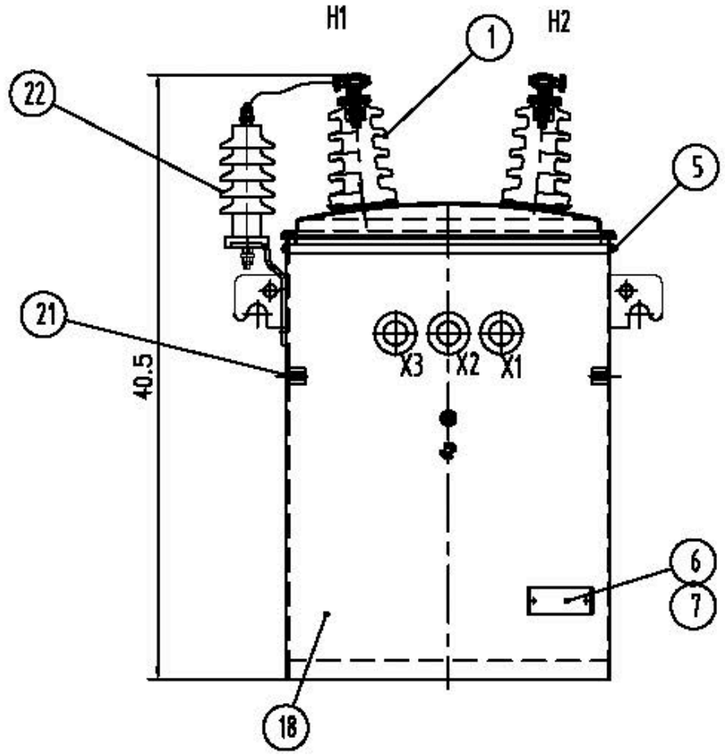
LV	Amps
277	180.5
480	104

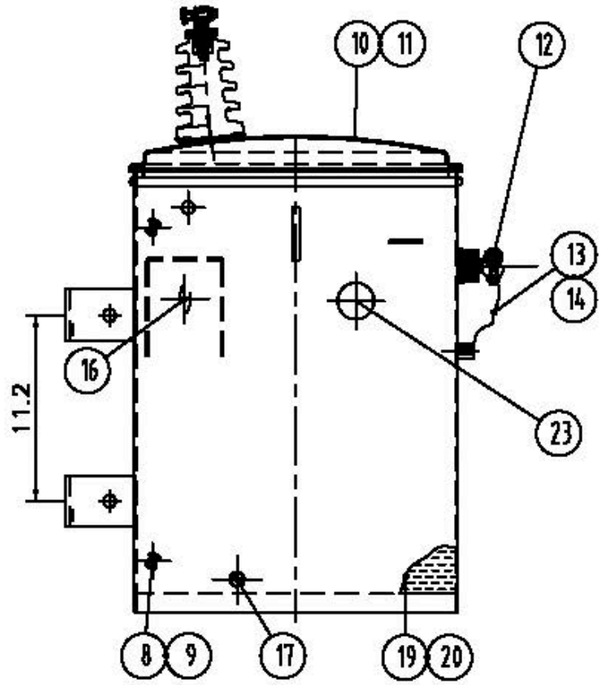
ANSI C57.12.20-DOE 2016 Compliant-Manufactured 2023.09

LARSON MAGNETICS

Larson Magnetics LLC

Kemp, TX USA

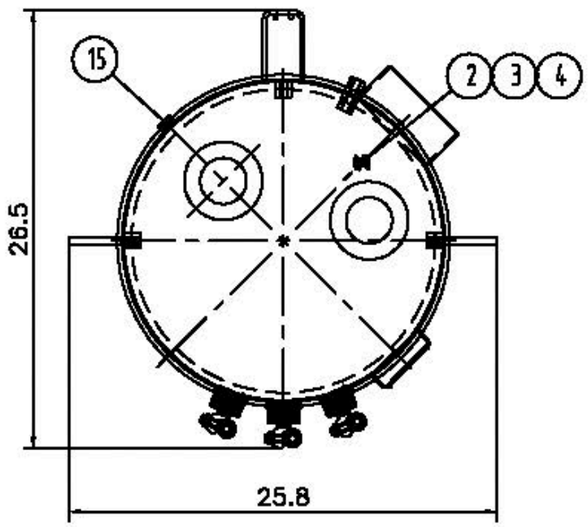




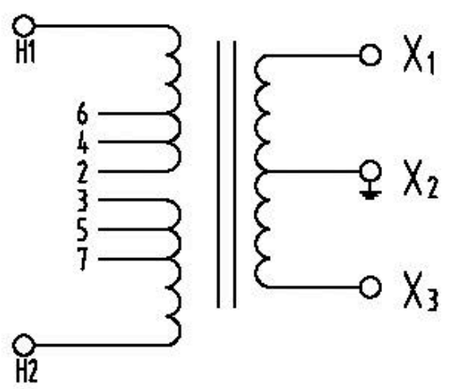
Approx Weight: 672 Lbs

Non-PCB Containing Oil

No.	Name	Remarks
24		
23	Secondary Circuit Breaker - LV MCCB	
22	Arrester	
21	Bolt & washer	
20	Core & coil	
19	Insulation oil	
18	Tank	
17	Drain valve	
16	Tap changer	
15	Pressure fault indicator	
14	Washer 12	
13	Bolt M12x25	
12	LV bushing	
11	Sealing gasket	
10	Cover	
9	Washer 12	
8	Bolt M12x30	
7	Screw M4x6	
6	Nameplate	
5	Hold down gear	
4	Ground strap	
3	Washer 12	
2	Bolt M12 x 20	
1	HV Bushing	



wiring diagram



All dimensions are in inches

For approval / preliminary design only. Not for order build specific

Designed by:	Checked by:	Approved by:	k.V.A:	Votage:	Date:	Scale:	Note! Do not scale copies

LARSON ELECTRONICS

12470GrdY/7200V Pri - 277/480V Sec,
50kVA Pole Mounted Transformer

Drg. No. :	Code:	Paper:	Rev.	Sheet:


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WARNING

Frequently Asked Questions (FAQ)