Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

MT-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-CZ-1ZZ-M1

50KVA Station Service Voltage Transformer, 138000Y/80500 Grounded Wye Primary, 250/125V Secondary, Oil-filled, Copper, Tap Changer

Product ID: 337762



Image: MT-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-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-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-CZ-1ZZ-M1 Station Service Voltage Transformer

Transformer Type: Station Service Voltage Transformer, Conventional Type
Transformer Configuration: Liquid Filled
Transformer Polarity Type: Subtractive
Phase: Single Phase
Capacity: 50 KVA
Primary Voltage: 138000Y/80500
Primary Phasor: Grounded Wye
Primary BIL: 650 kV
Secondary Voltage: 250/125 V (L-L-N)
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Dual Winding Single Phase
Secondary BIL: 30 KV
Frequency: 60 Hz
Metering Accuracy Class: 0.3 W, X, Y, Z, ZZ
Min. Thermal Rating: 5 kVA (@ 55°C rise above a 30°C ambient temperature)
Temperature Rise: 55°C
Insulation Rating: Class E Insulation - 120°C, 248°F
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: 4.0-7.0% Typical
Primary Connection Type: Live Bushing Lug

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
Lifting Lugs Included
Complies with ASTM D3487
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

Note: Losses offered are typical only, not guaranteed

Primary Termination: Porcelain High Voltage Bushing, w/ NEMA 4-inch, 4-hole copper pad terminal
Primary Connection Qty: (1)
Secondary Connection Type: Live Bushing Lug
Secondary Connections: Live Bushing Lugs
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: (2) NEMA 2-hole copper ground pads, w/ threaded holes for 1/2-13 UNC bolts
Transformer Protection: N/A
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: Mineral Oil
Fluid Capacity*: -
Fluid Weight*: 584.22 Lbs
Level Indicator: Included, Oil Gauge
Temperature Indicator: N/A
Pressure/Vacuum Indicator: N/A
Pressure Relief Device: Included, Automatic Action
Fault Indicator: N/A
Fill Valve: 1/2" NPT Port w/ Removable Bolt
Drain Valve: 1/2" NPT Port w/ Removable Bolt
Winding Material: Copper
Ambient Temperature Rating: -30°C to 38°C
Sound Level: 51 dBA
Elevation Level: 3300ft (1000 meters) Above Sea Level
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: Munsell Notation 5BG 7.0/0.4, ANSI No. 70 Light Gray
Mounting: Double Hanger Bracket
Mounting: Pole Mount via Hangar Brackets
Lifting Lugs: Included
Tank Diameter*: 24" OD
Dimensions*: 56.30"D x 46.26"W x 117.32"H
Dry Weight*: -
Total Weight (Liquid Filled)*: 4,188.78 Lbs
*Please note that numbers are approximate and subject to change

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-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-CZ-1ZZ-M1 Station Service Voltage 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 50 kVA, the industrial transformer features a primary voltage of 138000Y/80500 Grounded Wye and a secondary voltage of

single-phase 250/125V (L-L-N). This transformer connects to a three phase electrical grid system to provide single phase low voltage power for indoor distribution. This voltage transformer features porcelain high-voltage, single bushings on the primary side and three bushings on the secondary side. Equipped with copper windings and a grain oriented steel core, this voltage transformer consists of one coil and two core loops

The MT-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-CZ-1ZZ-M1 is air cooled and does not have fans or mounting provisions for fans. This unit features a 55°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-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-CZ-1ZZ-M1 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 arrestor on the H1 and H2 primary terminal are included for installing arresters in-field.

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

Benefits: The MT-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-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.

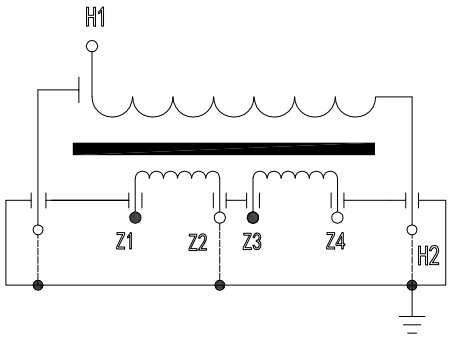
Applications: General purposes, industrial sites, electrical rooms, public locations, manufacturing facilities, steel plants, offshore, commercial, military, processing plants, electric power distribution, utilities, public locations and more.

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

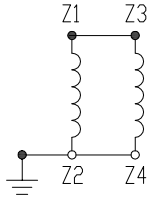
prebuilt units. If this model does not meet your needs, please contact us at 1-800-369-6671 or sales@larsonelectronics.com to discuss your specific requirements.

ELECTRICAL SCHEMATIC DIAGRAM DRAWING OF 138kV STATION SERVICE VOLTAGE TRANSFORMER, OIL FILLED
POWER BURDEN: 50kVA

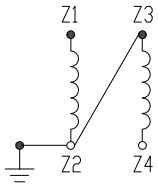
ELECTRICAL SCHEMATIC DIAGRAM



125V PARALLEL CONNECTION



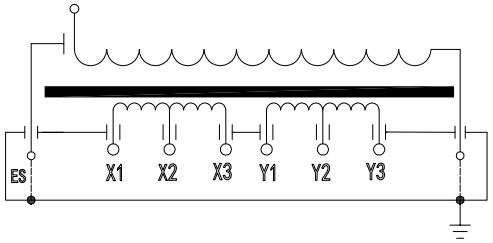
250V SERIES CONNECTION



ELECTRICAL SCHEMATIC FOR POWER WINDING

TERMINAL	SEC. VOL(V)	CLASS	BURDEN
Z1-Z2|Z3-Z4	125	——	50kVA
Z1-Z4	250	——	50kVA
X1-X3	115	0.3WXYZ,ZZ	400VA
X2-X3	67.08		
Y1-Y3	115	0.3WXYZ,ZZ	400VA
Y2-Y3	67.08		

H1 ELECTRICAL SCHEMATIC DIAGRAM



ELECTRICAL SCHEMATIC FOR METERING WINDING

TITLE:	ELECTRICAL SCHEMATIC DIAGRAM DRAWING	138kV STATION SERVICE VOLTAGE TRANSFORMER, OIL FILLED				
PROJECT:		TYPE	SSVT			
CUSTOMER:		QUANTITY				
PO NO:		COMBINED		NAME	SIGN	DATE
ALL DIMENSIONS IN MM [INCHES]		SCALE: 1:1	DRN	SD	SD	18.06.2026
LARSON MAGNETICS			CHD	RD	RD	18.06.2026
			APPD	RB	RB	18.06.2026
LARSON MAGNETICS LLC						

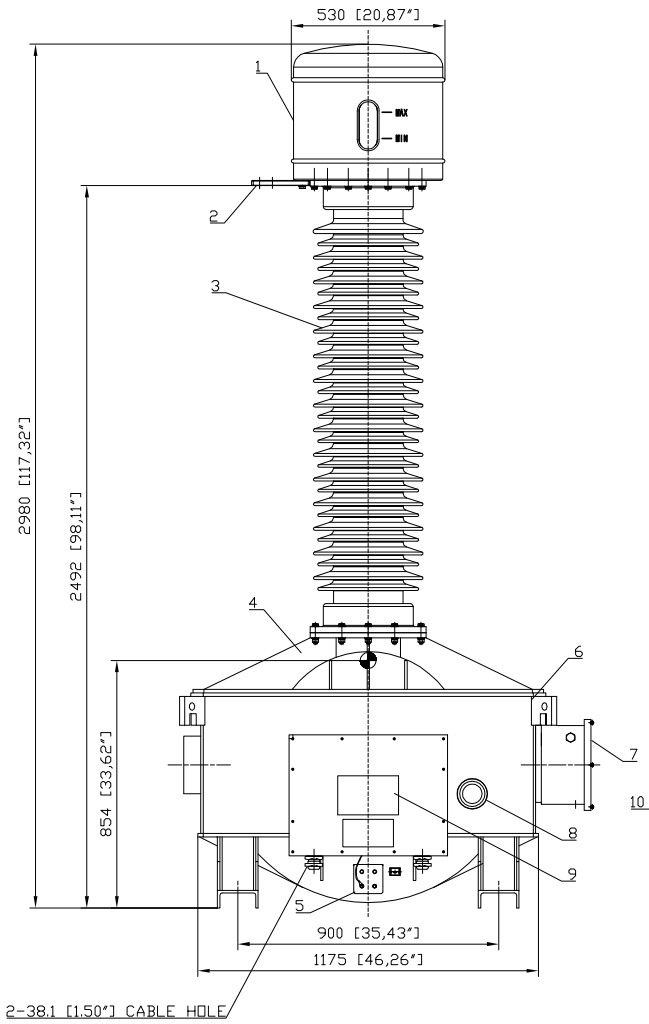
THE COPYRIGHT OF THESE DRAWINGS AND OF ALL ANNEXES WHICH ARE ENTRUSTED TO A PERSON'S CARE ALWAYS REMAIN THE PROPERTY OF OUR FIRM. THIS MUST NOT BE COPIED OR DUPLICATED AND SHOWN TO OR PLACED AT THE DISPOSAL OF THE THIRD PERSONS WITHOUT OUR WRITTEN CONSENT

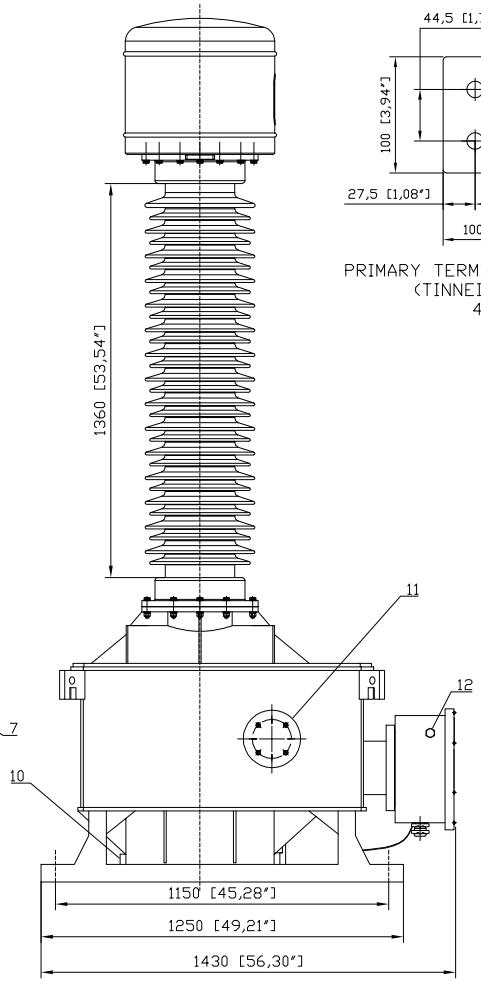
REV	DESCRIPTION	DATE
A		

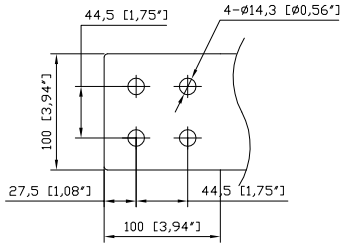
MT-SSVT-R7-1P-GXK-50KVA-SLW-AZ-A6-AM-CZ-1ZZ-M2

LARSON ELECTRONICS®

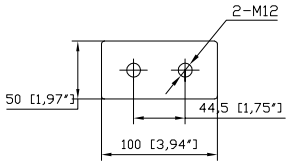
OUTLINE DRAWING OF 138KV POWER VOLTAGE TRANSFORMER, OIL FILLED, POWER BURDEN: 50kVA



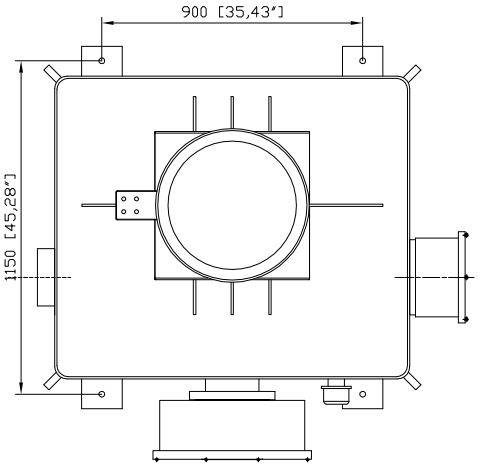




PRIMARY TERMINAL DIMENSIONS
(TINNED COPPER)
4 :1



GROUND PAD DIMENSIONS
(TINNED COPPER)
4:1



MAIN ELECTRICAL CHARACTERISTICS

- STANDARDS: ANSI / IEEE C57.13 &IEEE 63253-5713
- RATED VOLTAGE: 138 kV
- HIGHEST SYSTEM VOLTAGE: 145 kV
- RATED FREQUENCY: 60 Hz
- POWER FREQUENCY TEST VOLTAGE: 275 kV 1min
- LIGHTNING IMPULSE TEST VOLTAGE: 650 kV 1.2/50 μs
- VOLTAGE FACTOR: 1.2, cont.-1.5, 30 s.
- PRIMARY OPERATING VOLTAGE: 80500 kV
- NOMINAL SECONDARY VOLTAGE:
  METERING WINDING 1#& 2#: 115/67.08 V
  POWER WINDING: 125-250 V
- ACCURACY CLASS AND BURDEN
  METERING WINDING 1#& 2#: 0.3 W, X, Y, Z, ZZ 400VA
  POWER WINDING: 50kVA
- POWER RATING: 50kVA
- RATED THERMAL OUTPUT FOR METERING WINDING: 5kVA
- TEMPERATURE RISE: 65℃
- 5-POSITION TAP CHANGER W/ EXTERNAL OPERATING HANDLE
- TAP QTY: (2) FCAN ABOVE, (2) FCBN BELOW
- MINIMUM DEGREE OF PROTECTION: IP55
- ELEVATION LEVEL: 3300FT (1000 METERS) ABOVE SEA LEVEL
- TEMPERATURE RANGE: -30℃~+40℃
- INSULATOR: PORCELAIN, GRAY RAL 7035
- MIN. CREEPAGE DISTANCE : 31 mm/kV, 4495 mm=176.97"
- MIN. ARCING DISTANCE:1360 mm=53.54"
- OIL WEIGHT: 265 kg=584.22 lbs
- TOTAL WEIGHT: 1900 kg=4188.78 lbs

SR. NO.	DESCRIPTION
1	EXPANDER, OIL LEVEL INDICATOR
2	PRIMARY TERMINAL
3	PORCELAIN INSULATOR,GRAY
4	OIL TANK
5	GROUND PAD
6	LIFTING LUGS
7	SEC. TERMINAL BOX-METERING WINDING, NAMEPLATE
8	TAP CHANGER
9	SEC. TERMINAL BOX-POWER WINDING, NAMEPLATE
10	OIL DRAIN VALVE
11	PRESSURE RELIEF DEVICE
12	WATERPROOF AIR VENT PLUG, PA66V0,M2.0X1.5

TITLE:	OUTLINE DRAWING	138kV STATION SERVICE VOLTAGE TRANSFORMER, OIL FILLED				
PROJECT:		TYPE	SSVT			
CUSTOMER:		QUANTITY	1 NOS			
PO NO:		COMBINED		NAME	SIGN	DATE
ALL DIMENSIONS IN MM [INCHES]		SCALE: 1:1	DRN	SD	SD	16.06.2026
LARSON MAGNETICS			CHD	RD	RD	16.06.2026
			APPD	RB	RB	16.06.2026
LARSON MAGNETICS LLC						

THE COPYRIGHT OF THESE DRAWINGS AND OF ALL ANNEXES WHICH ARE ENTRUSTED TO A PERSON'S CARE ALWAYS REMAIN THE PROPERTY OF OUR FIRM. THIS MUST NOT BE COPIED OR DUPLICATED AND SHOWN TO OR PLACED AT THE DISPOSAL OF THE THIRD PERSONS WITHOUT OUR WRITTEN CONSENT

Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.765.7664

Frequently Asked Questions (FAQ)

There are no Faqs