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MT-SSVT-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-1ZZ-M1

100 KVA Station Service Voltage Transformer, 115000Y/60375 Grounded Wye Primary, 120/240V Secondary, Oil-filled, Copper, Tap Changer, Pad Mount

Product ID: 335600

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



Image: MT-SSVT-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-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-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-1ZZ-M1 Station Service Voltage Transformer

Transformer Type: Station Service Voltage Transformer
Transformer Configuration: Liquid Filled
Transformer Polarity Type: Subtractive
Phase: Single Phase
Capacity: 100 KVA
Primary Voltage: 115000Y/60375
Primary Phasor: Grounded Wye
Primary Lightning Impulse Withstand Voltage, Full Wave (kV peak): 550 KV
Primary Lightning Impulse Withstand Voltage, Chopped Wave (kV peak): 630 KV
Primary Power Frequency Withstand Voltage (1-minute, dry L-G kV rms): 230 KV
Primary Power Frequency Withstand Voltage (10 seconds, wet, L-G kV rms): 230 KV
Secondary Voltage: 120/240 V (L-N-L)
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Dual Windings, Single Phase
Secondary BIL: 30 KV
Secondary Windings to Ground and to Other Windings (1 minute kV rms): 3.5

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

KV
Frequency: 60 Hz
Temperature Rise: 65°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, < 6% Target
Primary Connection Type: Live Bushing Lug
Primary Termination: Porcelain High Voltage Bushing, ANSI 70 Light Grey, w/ NEMA 4-hole Terminal Pad
Primary Connection Qty: (1)
Primary External Terminal Load: 1.0 kN Horizontal (in any direction), 0.5 kN Vertical
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: (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 ANSI/IEEE Standards
Partial Discharge Test Level (L-G): 185 KV
Maximum partial discharge level at test voltage: 10 pC
Minimum Insulator Creepage Distance: 114.96 inches
Insulator Contamination Level (L-G): 44 mm/kV
RIV Test Voltage (L-G): 71 KV rms
Maximum RIV (@ Test Voltage): 200 µV
K-Factor Rating (Harmonic Mitigation): K-1 (Standard)
Grounding Conductor Clamp Size: 4/0 AWG Cu
Insulation Fluid: Mineral Oil
Fluid Capacity*: 22.98 Gallons
Fluid Weight*: 207.23 lbs
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: -5°C to +40°C
Sound Level: 51 dBA
Wind Load: 160 mph (with an overload factor of 1.1)
Seismic Qualification: High, per the IEEE-693 std
Elevation Level: 3300ft (1000 meters) Above Sea Level
Core Material: Grain Oriented Steel
Tank Material: 304 Stainless Steel
Housing Material: 304 Stainless 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: ANSI 70 Light Grey
Mounting: Pad Mounted

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*

Factory Tests:

Turns Ratio Test
Resistance Test
Impedance Test
Lightning impulse voltage test on the primary winding
Radio influence voltage (RIV) test
Power frequency voltage withstand test – wet
Power frequency voltage withstand / partial discharge test – dry
Temperature rise test
Short-time mechanical and thermal rating test
Creepage distance measurement
Seismic test
Tests on insulating oil (DGA and water content analysis)

Special Orders - Special Requirements

Lifting Lugs: Included
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

Contact us for special requirements
Toll Free: 1-800-369-6671
Intl: 1-903-270-1187
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The MT-SSVT-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-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 pad 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 115000Y/60375 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 voltage transformer features porcelain high-voltage, single bushing 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-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-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-SSVT-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-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.

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-R106-1P-GXF-100KVA-SLZ-AZ-A6-BM-CS-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.

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Frequently Asked Questions (FAQ)

There are no Faqs

Export Control Classification Number (ECCN): EAR99

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Links (Click on the below items to view):

- **HigResPic1**(https://www.larsonelectronics.com/images/product/HigResPic1/335600.JPG)
- **Video1**(https://www.youtube.com/watch?v=rrNaoWova7o)
- **Video2**(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)
- **Shipping Time Map**(https://www.larsonelectronics.com/images/product/ShippingTimeMap/ShippingTimeMap.pdf)