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-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2

50 KVA Vacuum Pressure Impregnated Grounding Transformer, 22860Y/13200 Grounded Wye Primary, 500V 1Ph Secondary, ANN, Class F, W/O Fans, VPI, W/ Neutral Grounding Resistor, W/ SEL Protection Relay

Product ID: 325207

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



Image: MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-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-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 Vacuum Pressure Impregnated Grounding Transformer

Transformer Type: Vacuum Pressure Impregnated (VPI) Transformer
Transformer Configuration: Dry Type Grounding Transformer, w/ Neutral Grounding Resistor
Phase: Single Phase
Capacity: 50 KVA
Vector Group: II6
Primary Voltage: 22860Y/13200
Primary Voltage Class: 17.5 kV Class
Primary Phasor: Grounded Wye
Primary Applied Voltage: 38 kV
Primary BIL: 95 KV
Secondary Voltage: 500V
Secondary Voltage Class: 1.2 kV
Secondary Phasor: Single Phase
Secondary BIL: 30 kV
Short-time duration power (1min) : 235 kVA
Frequency: 60 Hz
Temperature Rise: 115°C

Ratings

NRTL Listed for United States and Canada
Complies with ANSI / IEEE C57.12.00
Complies with ANSI / IEEE C57.12.01
Complies with ANSI / IEEE C57 12.35
Complies with ANSI / IEEE C57.12.59
Complies with ANSI / IEEE C57.12.70
Meets/Exceeds DOE 2016 Efficiency Ratings
Meets/Exceeds CSA Efficiency Ratings
Meets or Exceeds NEMA ST-20 Standards
NEMA 3R Indoor/Outdoor Steel Enclosure
Seismic Qualified for Earthquake Loads
RoHS Certified
CE Certified

Efficiency %: 99.00%

Cooling: ANN

Forced Air (Fans): None
Insulation Class: Class F (155°C)
Tap Changer: 5-Position Tap Changer
Tap Qty: (2) FCAN Above Taps, (2) FCBN Below Taps
Tap %: 2.5%
Tap Changer Switch Location: HV Side

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

Load Losses at 145°C Reference Temp.
No Load Loss (in watts): +/- 700W
Full Load Loss (in watts): +/- 2,900W
Total Load Loss (in watts): +/- 3,600W
Note: *Losses offered are typical only, not guaranteed*

Neutral Grounding Resistor:

Resistance at 77°F | 25ºC: 0.78 Ω
TAP step: 0.05 Ω
Short-Term Current (1 min): 425 A
Permanent current: 20 A
Operation Voltage: 340 V
Voltage class : 600 V
Max temp. During fault: 740°C
Material: Stainless Steel

Primary Connection Type: Bus Studs For Bottom Or Side Cable Entry
Primary Surge Arrestors: N/A
Primary Surge Arrestor Voltage Rating: N/A
Primary Surge Arrestor MCOV Rating: N/A
Primary Overcurrent Protection (OCP): N/A
Primary Overcurrent Protection Method: N/A
Primary Grounding Provisions: N/A
Primary Neutral Current Transformer: N/A
Secondary Connection Type: N/A
Secondary Over Current Protection (OCP): N/A
Secondary Grounding Provisions: Included, Throught NGR
Metering Current Transformer (CT): N/A
Metering Panel: N/A
Auxiliary Control Panel: N/A
Load Break Switch: N/A
Load Break Switch Qty: N/A
Load Break Switch Location: N/A
Protection Relay: Included, SEL Protection IED for 64S100 Protection Functions, Included in a LV Compartment
Efficiency Standard(s): DOE 2016, IEEE, ANSI
K-Factor Rating (Harmonic Mitigation): K-1 (Standard)
Temperature Sensors in Coil: Included
Temperature Gauge: Included
Seismic Bracing: Included
Weather Shield: N/A
Space Heaters: N/A
Winding Material: Copper
Ambient Temperature Rating: 40°C
Sound Level: 55 dBA
Elevation (Altitude) Rating: 3300ft (1000 meters) Above Sea Level
Nameplate Material: Anodized Aluminum
Enclosure Material: Mild Steel
Enclosure Rating: NEMA 3R Weatherproof
Enclosure Access: Bolted Removable Panels
Paint Type: Epoxy Paint
Finish: ANSI 61 Grey
Anchoring: Suitable For Solid Anchoring
Mounting: Pad Mount / Floor Mount

Special Orders - Special Requirements
Contact us for special requirements
Toll Free: 1-800-369-6671

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

Dimensions: 51.18"L x 43.30"W x 51.18"H
Weight: 2,072 lbs
*Please note that numbers are approximate and subject to change

Intl: 1-903-270-1187
Fax: 1-903-765-7664
E-mail: sales@larsonelectronics.com

The MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 Vacuum Pressure Impregnated Grounding Transformer from Larson Electronics is powerful, reliable, and designed with the environment in mind. Suitable for both indoor and outdoor applications, the MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 provides increased reliability and protection against critical equipment failures. The lower operating costs, lower heat emissions, and lower cost of ownership make this transformer ideal for a wide range of applications and businesses.

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 MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 grounding transformer limits fault current (resistance grounding). This NGR-Combined transformer is a single-phase unit with a primary voltage of 22860Y/13200 Grounded Wye and also has a secondary voltage of single-phase 500V. Featuring robust construction, this unit's cores are manufactured with non-aging, cold-rolled silicon steel laminations using state of the art technology.

The MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 does not have fans or mounting provisions for fans.

Transformer Efficiency: The Class F transformer meets standard efficiency requirements. 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.

Temperature Sensor: The MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 is equipped with temperature sensors inside the system for controls and monitoring. A monitoring service is not included with the transformer.

Temperature Gauge: This transformer comes with a temperature gauge.

Load Break Switch: This VPI grounding transformer does not include a load break switch. We can add a load break switch at an additional cost.

Surge Arresters: This transformer does not include surge arresters. Designed for over-voltage and transient voltage protection, the components prevent damage caused by lightning, internal switching or voltage surges. We can offer models without surge arresters that have mounting provisions for customer-provided surge arresters.

Control Transformer: This VPI grounding transformer does not include a control transformer. We can add a control transformer for operating equipment at an additional cost.

Seismic Bracing: This system does not include seismic bracing. We can add seismic bracing for added protection in areas prone to earthquakes at an additional cost.

Weather Shield: This transformer does not include a weather shield. We can add a weather shield for protection in outdoor areas, humid environments and rodents at an additional cost.

Space Heaters: This system does not include a space heater. We can add a space heater for preventing condensation during extended shutdown at an additional cost.

Enclosure Design: This VPI grounding transformer is protected by a steel housing. The enclosure carries a NEMA 3R rating for protection from exposure to moisture, rain, dust and debris.

Mount: The power distribution unit is mounted atop a skid plate base that allows this transformer to easily be moved from one location to another using a forklift. The skid platform is designed for serious use and is ruggedly constructed to withstand demanding conditions and heavy duty industrial applications. The industrial grade skid platform can be modified to meet the needs of job-site requirements.

Benefits: The MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2 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: Grounding purposes.

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.

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

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



Image: MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2

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



Image: MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2

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



Image: MT-PDT-VPM-NGR-R7-1P-GNN-50KVA-SMX-A6-FZ-CZ-1Z-ZZ-Z-N3R-M2

Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **HigResPic1**(https://www.larsonelectronics.com/images/product/HigResPic1/325207.JPG)
- **HigResPic2**(https://www.larsonelectronics.com/images/product/HigResPic2/325207.JPG)
- **HigResPic3**(https://www.larsonelectronics.com/images/product/HigResPic3/325207.JPG)
- **HigResPic4**(https://www.larsonelectronics.com/images/product/HigResPic4/325207.JPG)
- **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)