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MT-PDT-VPM-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2

622 KVA Vacuum Pressure Impregnated Transformer, 13800Y/7968 Wye Primary, 300V Delta Secondary, ANN, Class H, W/O Fans, VPI, Rectifier Duty Rated, Busbar Connections

Product ID: 299131

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



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-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2 Vacuum Pressure Impregnated Transformer

Transformer Type: Vacuum Pressure Impregnated (VPI) Transformer
Transformer Configuration: Dry Type, Ventilated
Phase: Three Phase
Capacity: 622 KVA
Vector Group: YnD1
Primary Voltage: 13800Y/7968V AC
Primary Voltage Class: 15 kV Class
Primary Phasor: Wye
Primary BIL: 110 KV
Secondary Voltage: 300V AC
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Delta
Secondary BIL: 30 KV
Frequency: 60 Hz
Rectifier Duty Rated: Yes, Approved for Use with Rectifier and Pulse Drive Devices
Temperature Rise: 115°C

Cooling: ANN

Forced Air (Fans): Provisions for Adding Fans and Fan Controller
Insulation Class: Class H
Tap Changer: N/A
Tap Qty: (5) 2.5% Taps - (2) FCAN Above, (2) FCBN Below
Tap %: 2.5%

Tap Changer Switch Location: N/A

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

Load Losses at 145°C Reference Temp.
No Load Loss (in watts): +/- 1,500W
Full Load Loss(in watts): +/- 9,300W
Total Load Loss (in watts): +/- 10,800W

Impedance (at 120°C): 6%
Primary Connection Type: Busbar
Primary Surge Arrestors: N/A
Primary Surge Arrestor Voltage Rating: N/A
Primary Surge Arrestor MCOV Rating: N/A
Primary Over Current Protection (OCP): N/A
Primary Over Current Protection Method: N/A
Primary Grounding Provisions: N/A
Secondary Connection Type: Busbar
Secondary Over Current Protection (OCP): N/A
Secondary Grounding Provisions: Lugs
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
Efficiency Standard(s): DOE 2016, IEEE, ANSI
K-Factor Rating (Harmonic Mitigation): K-13 Designed for Harmonic-Producing Equipment Representing <75%
Temperature Sensors in Coil: Included
Temperature Gauge: Included
Seismic Bracing: N/A
Weather Shield: N/A
Space Heaters: N/A
Winding Material: Copper
Ambient Temperature Rating: 0°C to 40°C
Humidity Rating: 5-95% Relative Humidity Non-Condensing
Sound Level: 58 dBA
Elevation (Altitude) Rating: 5000ft (1524 meters) Above Sea Level
Enclosure Material: Coated Steel
Enclosure Rating: NEMA 3R Weatherproof
System Form Factor: N/A
Paint Type: Epoxy Paint
Finish: ANSI 61 Grey Finish
Mount: Skid Mounted
Dimensions: 62.99"-L x 55.11"-W x 70.86"-H
Weight: 4,365 lb
*Please note that numbers are approximate and subject to change

Note: ***Losses offered are typical only, not guaranteed***

Special Orders - Special Requirements
Contact us for special requirements

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The MT-PDT-VPM-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2 Vacuum Pressure Impregnated Transformer from Larson Electronics converts three-phase 13800V Delta electrical current to three-phase 13800Y/7968V AC Wye. This power distribution unit provides operators the ability to safely tap into and distribute 13800Y/7968V AC Wye power from a variety of sources, such as direct grid power. The entire system is secured to a skid mount platform. The MT-PDT-VPM-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2 is rectifier duty rated and features busbar connections for both input and output connections.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS*

Transformer Features: With a transformer rating of 622 KVA, the industrial dry type transformer features a primary voltage of three-phase 13800Y/7968V AC Wye and a secondary voltage of three-phase 300V AC Delta. This transformer is equipped with a 5-position tap changer with five, +/- 2.5% taps (two FCAN above and two FCBN below) to allow small changes for voltage. The system has copper windings for high strength and electrical conductivity. This VPI transformer features minimized air gaps and voids in the insulation, leading to increased durability and thermal stability.

Rectifier Duty Rated: The MT-PDT-VPM-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2 is approved for use with rectifier and pulse drive devices.

A rectifier transformer is designed to partner with rectifiers, converting high-voltage alternating current (AC) from the grid into the necessary voltage for

rectifiers to transform it into direct current (DC). These transformers are crucial in industries requiring DC power, like steel manufacturing and HVDC systems, managing harmonics and inrush currents associated with rectifier operations. Their design varies based on application needs, accommodating diverse voltages, power ratings, and rectifier technologies (e.g., diode or thyristor rectifiers), facilitating efficient and reliable AC to DC power conversion in industrial processes.
The MT-PDT-VPM-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2 is equipped with provisions for adding fans and fan controller.
Transformer Efficiency: The Class H 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-DR-YMP-622KVA-DZF-A6-FP-CZ-1Z-ZZ-Z-N3R-M2 is equipped with temperature sensors inside the system for controls and monitoring. The temperature sensors are preinstalled in the coil. A monitoring service is not included with the transformer.
Temperature Gauge: This transformer comes with a temperature gauge.
Load Break Switch: This VPI 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 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 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-DR-YMP-622KVA-DZF-A6-FP-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: General purposes, industrial sites, electrical rooms, underground vaults, 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)

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Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **Electrical Nameplate Diagram**
- **HigResPic1**
- **HigResPic2**
- **HigResPic3**
- **HigResPic4**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**