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MT-PDT-VPM-R41-3P-DMP.NF-500KVA-YE-A6-BZ-CS-2A-ZZ-Z-N3R-M1

500 KVA Vacuum Pressure Impregnated Transformer, 13800V X 4160V Delta Primary, 480Y/277 Wye-N Secondary, ANN, Class H, W/O Fans, VPI

Product ID: 308954

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-R41-3P-DMP.NF-500KVA-YE-A6-BZ-CS-2A-ZZ-Z-N3R-M1 Vacuum Pressure Impregnated Transformer

Transformer Type: Vacuum Pressure Impregnated (VPI) Transformer
Transformer Configuration: Dry Type, Ventilated
Phase: Three Phase
Capacity: 500 KVA
Vector Group: Dyn1
Primary Voltage: 13800V X 4160V
Primary Voltage Switch: Dual Voltage Selector Switch
Primary Voltage Class: 15 kV Class
Primary Phasor: Delta
Primary BIL: 95 KV
Secondary Voltage: 480Y/277 AC
Secondary Voltage Class: 1.2 kV Class
Secondary Phasor: Wye-N
Secondary BIL: 30 KV
Frequency: 60 Hz
Temperature Rise: 65°C

Cooling: ANN

Forced Air (Fans): None
Insulation Class: Class H
Tap Changer: 5-Position Tap changer
Tap Qty: (2) FCAN Above, (2) FCBN Below
Tap %: 2.5%
Tap Changer Switch Location: HV Compartment

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
NEMA 3R Indoor/Outdoor Steel Enclosure
Meets/Exceeds CSA Efficiency Ratings
Meets or Exceeds NEMA ST-20 Standards
Seismic Qualified for Earthquake Loads
RoHS Certified
CE Certified
FM Approved

Efficiency %: 99.10%
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): +/- 5,000W
Total Load Loss (in watts): +/- 5,700W

Impedance (at 120°C): 5.0-7.5% Typical, 5.3% Target
Primary Bushing Style: 15kV, 200A Load-break, bushing wells w/ bushing well inserts installed, bushings removable & to be supplied with removable stud
Primary Bushings Qty: (6) HV bushings
Primary Surge Arrestors: Included, (3) High Voltage Elbow Surge Arrestors
Primary Surge Arrestor Voltage Rating: 10 kV Class Elbow Arrestor
Primary Surge Arrestor MCOV Rating: 8.4 kVrms
Primary Over Current Protection (OCP): Bayonet Expulsion Fuse in series w/ Partial-Range Current-Limiting Fuse
Primary Over Current Protection Method: Fused
Primary Over Current Protection Holder: Bayonet Fuse Holder w/ Flapper Valve and External Drip Shield
Primary Grounding Provisions: N/A
Secondary Connection Type: NEMA 4-Hole Spade Terminals
Secondary Connection Arrangement: Staggered and arrangement for vertical take-off
Secondary Over Current Protection (OCP): N/A
Secondary Grounding Provisions: Lugs
Grounding Provisions: 2-Hole Grounding Pads
Metering Current Transformer (CT): N/A
Metering Panel: N/A
Auxiliary Control Panel : N/A
Load Break Switch: 2-Position Load Break Switch
Load Break Switch Qty: (3)
Load Break Switch Location: High Voltage (HV) Front 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: 40.6°C
Ambient Operating Temperature Range: -23.9°C to +40.6°C
Average Humidity (Summer/Winter): 92% / 55%
Sound Level: 51 dBA
Elevation (Altitude) Rating: 3300ft (1000 meters) Above Sea Level
Enclosure Material: 304 Stainless Steel
Enclosure Rating: NEMA 3R Weatherproof
System Form Factor: N/A
Paint Type: Epoxy Paint
Finish: Munsell™ 5BG 7.0/0.4 Light Grey (ANSI #70)
Mount: Pad Mount / Floor Mount
Dimensions: 63” x 33.46” x 78.74”
Weight: 3,747.8 Lbs
*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-R41-3P-DMP.NF-500KVA-YE-A6-BZ-CS-2A-ZZ-Z-N3R-M1 Vacuum Pressure Impregnated Transformer from Larson Electronics converts three-phase 13800V x 4160V Delta to three-phase 208Y/120 Wye-N. This power distribution unit provides operators the ability to safely tap into and distribute 500 KVA AC power from a variety of sources, such as direct grid power. The entire system is secured to a skid mount platform.
PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO POWER DISTRIBUTION PANELS, TRANSFORMERS, OR SUBSTATIONS*
Transformer Features: With a transformer rating of 500 KVA, the industrial dry type transformer features a primary voltage of three-phase 13800V x 4160V AC Delta and a secondary voltage of three-phase 480Y/277 AC Wye-N. 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. The MT-PDT-VPM-R41-3P-DMP.NF-500KVA-YE-A6-BZ-CS-2A-ZZ-Z-N3R-M1 does not have fans or mounting provision for fans.
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-R41-3P-DMP.NF-500KVA-YE-A6-BZ-CS-2A-ZZ-Z-N3R-M1 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 transformer is equipped with three independently operated 2-position load break switches. One is for the transformer, one is for the Primary A lines, and one is for the Primary B lines.
Surge arresters: This system comes with high elbow surge arresters on the primary side. 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 high elbow 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 stainless 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-R41-3P-DMP.NF-500KVA-YE-A6-BZ-CS-2A-ZZ-Z-N3R-M1 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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- **HigResPic2**
- **HigResPic3**
- **HigResPic4**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**