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MT-PDT-VPM-K4-3P-DMP-500KVA-YE-A6-HA-CZ-4Z-ZZ-Z-N3R-M1

500 KVA Vacuum Pressure Impregnated Transformer, 13800V Delta Primary, 480Y/277 Wye-N Secondary, AA/FA, Class R, W/ Fans, VPI

Product ID: 311684



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-K4-3P-DMP-500KVA-YE-A6-HA-CZ-4Z-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: Dyn11
Primary Voltage: 13800V AC
Primary Voltage Class: 15 kV Class
Primary Phasor: Delta
Primary BIL: 150 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: 150°C

Cooling: AA/FA

Forced Air (Fans): Included

Insulation Class: Class R (220°C)
Tap Changer: 5-Position De-Energized Tap Changer
Tap Qty: (2) FCAN Above, (2) FCBN Below
Tap %: 2.5%

Tap Changer Switch Location: HV Compartment

Impedance (at 120°C): 5.75% ±7.5%
Primary Connection Type: Terminal Lugs, long-barrel copper compression type, with NEMA two-hole tongue

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
UL Listed
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): +/- 1,160W
Full Load Loss(in watts): +/- 6,600W
Total Load Loss (in watts): +/- 7,760W

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

Primary Termination: Left side when facing transformer front, with air terminal chamber and cable support with stress cones.
Primary Surge Arrestors: Included, Metal Oxide, Gapless, Station Class Arrestors
Primary Surge Arrestor Voltage Rating: 15 kV
Primary Surge Arrestor MCOV Rating: 12.7 kV
Primary Over Current Protection (OCP): N/A
Primary Over Current Protection Method: N/A
Primary Grounding Provisions: N/A
Secondary Connection Type: Terminal Lugs, long-barrel copper compression type, with NEMA two-hole tongue
Secondary Termination: Right side when facing transformer front, with air terminal chamber and cable support.
Secondary Surge Arrestors: Included, Metal Oxide, Gapless, Station Class Arrestors
Secondary Surge Arrestor Voltage Rating: 15 kV
Secondary Surge Arrestor MCOV Rating: 12.7 kV
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): Comply with 10 CFR 431, Subpart K
K-Factor Rating (Harmonic Mitigation): K-4
Temperature Sensors in Coil: Included, w/ Contacts
Temperature Gauge: Included, w/ Contacts
Seismic Bracing: Included
Weather Shield: N/A
Space Heaters: N/A
Grounding Resistor: Included
Neutral Grounding Monitor: Included
Winding Material: Copper
Core Material: High-grade, grain-oriented, nonaging silicon steel
Ambient Temperature Rating: 40°C
Sound Level: 56 dBA, Complies to IEEE C57.12.01
Elevation (Altitude) Rating: 3300ft (1000 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
Mount: Pad Mount / Floor Mount
Dimensions: 55.11"L x 51.18"W x 59.05"H
Weight: 2,976 lbs
*Please note that numbers are approximate and subject to change

FAT Tests
Ratio Test
Polarity Test
Phase Rotation Test
No-load loss Test
Excitation current Test
Impedance voltage Test
Load loss Test
Applied potential Test
Temperature Test
Sound Test

Special Orders - Special Requirements
Contact us for special requirements

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The MT-PDT-VPM-K4-3P-DMP-500KVA-YE-A6-HA-CZ-4Z-ZZ-Z-N3R-M1 Vacuum Pressure Impregnated Transformer from Larson Electronics converts three-phase 13800V Delta to three-phase 480Y/277 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 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-K4-3P-DMP-500KVA-YE-A6-HA-CZ-4Z-ZZ-Z-N3R-M1 has fans for forced air cooling.
Transformer Efficiency: The Class R 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-K4-3P-DMP-500KVA-YE-A6-HA-CZ-4Z-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 VPI transformer does not include a load break switch. We can add a load break switch at an additional cost.
Surge Arresters: This transformer 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 includes doesn't include space heaters.
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-K4-3P-DMP-500KVA-YE-A6-HA-CZ-4Z-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)