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Product ID: 305808

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



Image:

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-PSTC-R7-3P-DMF.MH-15MVA-YNF-HNS-LNS-A6-AFF-CZ-2ZZ-M1 Conservator Substation Transformer

Phase: Three Phase
Capacity (w/o fans): 15 MVA (15,000 KVA)
Capacity (w/ fans): 20 MVA (20,000 KVA)
Primary Voltage: 24,940V - 21,600V
Primary Voltage Class: 25 KV - 25 KV
Primary BIL: 150 KV - 150 KV
Primary Phasor: Delta - Delta
Secondary Voltage: 4160Y/2400 Wye-N
Secondary Voltage Class: 5 KV
Secondary BIL: 75 KV
Secondary Phasor: Wye-N
Vector Group: Dyn11
Frequency: 60 Hz
Temperature Rise: 55°C
Forced Air (Fans): Included, 120V, 1-Ph
Tap Changer: (2) 5-Position Off-Load Tap Changer, One For Each Primary Voltage
Tap Qty: (2) FCAN Above Taps, (2) FCBN Below Taps
Tap %: 2.5% Taps
Tap Changer Switch Rating: 25 kV, Off-Load Rated
Tap Changer Switch Location: High Voltage (HV) [Left Side]
Primary Bushing: Enclosed, Side Mounted, Porcelain, 25 KV Class

Ratings

Listed for United States and Canada

Primary Bushing CT: Included, 800:5 ratio, MR, C200 Accuracy Class
Secondary Bushing: Enclosed, Side Mounted, Porcelain, 5 KV Class
Secondary Bushing CT: Included, 3500:5 ratio, MR, C200 Accuracy Class
Secondary Neutral Bushing: Open, Top Mounted, Porcelain, 5 KV Class
Secondary Neutral Bushing CT: Included, 600:5 ratio, MR, C200 Accuracy Class
Insulation Fluid: FR-3 Insulation Fluid, Non-PCB Fluid
Fluid Capacity: TBD
Cooling Class: KNAN/KNAF
Oil Preservation System: Included, Inert Gas Pressure system
Liquid Level Indicator: Analog Dial Gauge
Temperature Indicator: Analog Dial Gauge
Pressure/Vacuum Indicator: Analog Dial Gauge
Fault Pressure Device: None
Pressure Relief Device: Included, Automatic Action
Fill Valve: Included
Drain Valve w/ Sampler Port: Included
Sudden Pressure Relay: Included, 125 VDC
Primary Surge Arrestors: Included, (3) on Primary Side, ATC Mounted, Station Class
Primary Surge Arrestor Voltage Rating: 26 KV
Primary Surge Arrestor MCOV Rating: 26 KV rms
Protection Fuses: N/A
Load Break Switch: N/A
Front: -
Feed: -
Primary and Secondary Terminations: Fluke IR windows
Winding Material: Copper
No Load Loss: 12,000W
Full Load Loss: 99,000W
Impedance: 7.5%
Operation Temperature Range: -17.8 ~ 45ºC
Elevation (Altitude): 3300ft (1000 meters) Above Sea Level
Sound Level: -
Cabinet Type: No Doors
Paint Type: Grey
Mounting: -
Primary Enclosure Entrance: Side Entry, Bottom And Lower Front, Suitable For (1) 750/Ph Cable Size
Secondary Enclosure Entrance: Side Entry, Bottom And Lower Front, Suitable For (8) 750 /Ph Cable Size
Dimensions: TBD
Weight: TBD

Special Orders - Special Requirements
Contact us for special requirements

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The MT-PSTC-R7-3P-DMF.MH-15MVA-YNF-HNS-LNS-A6-AFF-CZ-2ZZ-M1 Conservator Substation Transformer from Larson Electronics offers powerful, reliable and efficient power distribution in outdoor locations. The low operating costs, low heat emissions and low cost of ownership makes this transformer ideal for a wide range of applications and businesses. This transformer ensures extra space for storing oil and is equipped with breathers to facilitate air flow. The conservator transformer should be installed on supporting structures.

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

Transformer Features: The industrial transformer features a primary voltage of three-phase 24,940V - 21,600V Dual Delta and a secondary voltage of three-phase 4160Y/2400 Wye-N.

This system is rated for 15 MVA (15,000 KVA) [Natural-Cooled] / 20 MVA (20,000 KVA) [Fan-Cooled]. We offer systems with loop or radial feed, as well as dead front or live front primary connections. This transformer features two 5-position tap changers with two, +/- 2.5% taps above and two, +/- 2.5% taps below to allow small changes for voltage for each primary voltage. There are no protection fuses present on the system.

The system features copper windings for high strength and thermal/electrical conductivity. This transformer consists of rectangular coil and five-legged wound core design with three coils and four core loops (this is for three-phase transformers only; single-phase units have one coil and two core loops).

The MT-PSTC-R7-3P-DMF.MH-15MVA-YNF-HNS-LNS-A6-AFF-CZ-2ZZ-M1 has fans for forced air cooling. This non-sealed system features breathers for cooling when operating temperatures increase.

Temperature Rise: This unit features 55°C temperature rise for reduced heat waste, increased reliability and longer life. At 55°C temperature rise, the transformer offers 15 MVA (15,000 KVA) [Natural-Cooled] / 20 MVA (20,000 KVA) [Fan-Cooled]. The transformer meets standard efficiency requirements. 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-PSTC-R7-3P-DMF.MH-15MVA-YNF-HNS-LNS-A6-AFF-CZ-2ZZ-M1 features FR-3 fluid (KNAN/KNAF). We offer transformers with biodegradable fluid, if needed.

Biodegradable Fluid: Biodegradable cooling fluid (vegetable oil) has a higher heat capacity compared to mineral oil, making the liquid safer to use and more reliable during operations. Vegetable oil has a higher flash point and fire point than mineral oil, hydrocarbon oil, silicone oil and synthetic ester. This cooling fluid is also non-toxic and can tolerate higher breakdown voltages than mineral oil. When operating at high temperatures, biodegradable cooling liquid sustains up to 120% loan conditions, which helps preserve the transformer's lifespan and performance.

Gauges: The following gauges are included with the system: liquid level, temperature and pressure/vacuum gauges. Standard liquid level, temperature and pressure/vacuum gauges are analog, manual reading types.

Fault Pressure Devices: There are no fault pressure devices on the unit. Fault pressure devices are used to detect high rates of pressure rise within the tank.

Rapid Rise Relay: There is a rapid rise relay 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 comes with 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.

Load Breaker Switch: The transformer is not equipped with load breaker switches.

Valves: The MT-PSTC-R7-3P-DMF.MH-15MVA-YNF-HNS-LNS-A6-AFF-CZ-2ZZ-M1 is equipped with a pressure relief valve, fill valve and drain valve with sampler port.

Protection Fuses: This transformer does not have bayonet protection fuses on the primary side. For units without protection fuses, up stream protection is provided. We recommend provisions for protection fuses when possible, as blown fuses may require more frequent oil changes.

Mount: This conservator substation should be installed on supporting structures, such as the roof of the transformer main tank.

Benefits: The MT-PSTC-R7-3P-DMF.MH-15MVA-YNF-HNS-LNS-A6-AFF-CZ-2ZZ-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 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

Product ID: 305808

Warranty: 24 Months.

Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **Operations Manual**(https://www.larsonelectronics.com//images/product/Manual/305808.PDF)
- **HigResPic1**(https://www.larsonelectronics.com//images/product/HigResPic1/305808.JPG)
- **Video1**(https://www.youtube.com/watch?v=4-JEyYeYcn8)
- **Video6**(https://www.youtube.com/watch?v=olihKUo24KU)
- **Video7**(https://www.youtube.com/watch?v=Yez7eCilgDE)
- **Video8**(https://www.youtube.com/watch?v=Ac5BDPSy964)
- **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)