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MT-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1

5 KVA Cathodic Protection Transformer Rectifier Unit- 3PH - 415V Delta Primary, 50Vdc Secondary - Mineral Oil Fluid /ONAN

Product ID: 317312

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-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1 Pad Mount Transformer

Transformer Type: Cathodic Protection Transformer Rectifier Unit
Transformer Configuration: Liquid Filled Pad Mounted
Transformer Feed Type: Radial Feed
Phase: Three Phase
Capacity: 5 KVA
Vector Group: -
Primary Voltage: 415V +/- 10%
Short Circuit Capacity: 50 KA For 1 min.
Primary Voltage Class: 1.2 kV Class
Primary Phasor: Delta
Primary BIL: 30 KV
Secondary Rating Voltage/Current: 50Vdc/25A, Three Channels, Each is Completed with Monitoring, Measuring, and Alarms

Secondary Phasor: DC

Secondary BIL: 2 KV For 1 min.

Frequency: 50 Hz +/- 5%

Power Factor: 0.8

Temperature Rise: 115°C
Cooling Class: ONAN; Self-Cooled
Forced Air (Fans): None
Tap Changer: N/A

Ratings

Meets/Exceeds DOE 2016 Efficiency Ratings
Complies with ANSI / IEEE #C57.12.00
Complies with ANSI / IEEE #C57.12.25
Complies with ANSI / IEEE C57 12.28
Complies with ANSI / IEEE C57 12.38
Complies with ANSI / IEEE C57.12.70
Complies with ASTM D3487
Penta-head Entry Assembly
Mineral Oil Insulating Fluid
Non-PCB Insulating Fluid
Tamper Proof Housing
Lift Up Pad lockable Lid

Hazardous Area classification:
The CP equipment and materials satisfies the requirements of hazardous classification of the areas in which they will be installed.
Protection Transformer Rectifier Unit (CPTRU) design is suitable for Hazardous area classification Class 1 Div 2, Group D accordingly to NEC Std

Efficiency: 98.30%
Based on transformer operating at 50% of nameplate base kVA.

Load Losses Based on 85°C Reference Temp.
No Load Loss (in watts)*: +/- 25W
Load Loss (in watts)*: +/- 98W

Tap Qty: N/A
Tap %: N/A
Rectification: Silicon Diodes/SCRs
Impedance: 1.4-2.4% Typical
Primary Connection Type: Dead Front
Primary Termination: Standoff Well Bushings w/ Removable Studs, 200A Load Break Elbows w/ Inserts. Size for 4/0 AWG Cable
Primary Connection Qty: (3) Primary Connections w/ (3) Standoff Brackets for Parked Elbows
Primary Surge Arrestors: Included, (2) High Voltage Elbow Surge Arrestors
Primary Surge Arrestor Voltage Rating: 1 kV
Primary Over Current Protection (OCP): N/A
Primary Over Current Protection Method: N/A
Primary Over Current Protection Holder: N/A
Primary Grounding Provisions: (1) Grounding lug, accepts #2 copper
Secondary Connection Type: Live Font
Secondary Connections: 5/8" x 11" One-Piece Epoxy Bushings w/ 1-1/2" Long Copper Threaded Studs, Externally Clamped, w/ NEMA Spade Terminals, 4-Hole Spade, Externally Clamped, Accepts up to (4) Single Lug connections with (4) cables per side of Spade connector
Secondary Over Current Protection (OCP): N/A
Secondary Connection Qty: (3), Type 2 Arrangement
Secondary Grounding Provisions: (1) Grounding lug, accepts #2 copper
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): Meets DOE 2016 Standards, Meets ANSI/IEEE Standards
K-Factor Rating (Harmonic Mitigation): K-1 (Standard)
Insulation: Class F (155°C)
Insulation Fluid: Mineral Oil, Non-PCB Fluid
Fluid Capacity*: 68 Gallons
Liquid Level Indicator: Included, An oil sight gauge comprising of glass window with white background through which oil is viewed
Temperature Indicator: Included, A Dial type thermometer with dial graduated in degree Celsius with one red mark on the scale at the maximum oil temperature
Pressure/Vacuum Indicator: Analog Gauge
Pressure Relief Device: Included, Automatic Action
Fill Valve: Removable Bolt, In Front Compartment
Silica Gel Breather: Included, for oil protection from moisture
Drain Valve: Included, w/ Sampler
Drain Valve Location: Front Compartment
Winding Material: High purity, Electrolytic Grade Copper
Ambient Temperature Rating: 55°C
Sound Level: 48 dBA
Elevation (Altitude): 3300ft (1000 meters) Above Sea Level
Core Material: Steel
Tank Material: Coated Steel
Cabinet Material/Rating: Coated Steel (2.5mm/3.0mm CRCA sheet), IP56
Base Platform Material: Coated Steel
Housing Type: Tamper Resistant w/ Pad-lockable Lift-up Lid
Paint Type: Baked epoxy paint/Powder coating, 2mm (min.) thick MS
Finish Color: RAL 7032
Mounting: Pad Mount
Conduit Opening: Bottom Feed Underground Entry/Exit
Dimensions*: 33"-W x 29"-D x 24"-H
Weight*: 700 lbs
*Please note that numbers are approximate and subject to change

Total Load Loss (in watts)*: +/- 123W

Note: Losses offered are typical only, not guaranteed

Special Orders - Special Requirements
Contact us for special requirements

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The MT-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1 Cathodic Protection Transformer Rectifier Unit from Larson Electronics offers powerful, reliable and efficient power distribution in indoor, outdoor and public locations. The low operating costs, low heat emissions and low cost of ownership make this transformer ideal for a wide range of applications and businesses. An enclosed design caters to installations on concrete

pads without protective fencing.

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

Transformer Features: With a transformer rating of 5 KVA, the industrial transformer features a primary voltage of Three-phase 415V Delta and a secondary voltage of 50Vdc. The unit has a primary radial feed and dead-front primary connections. We also offer systems with loop feed and live front primary/live front secondary connections. This transformer doesn't have tap changers.

The MT-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1 is air cooled and does not have fans or mounting provision for fans. This unit features a 115°C temperature rise for reduced heat waste, increased reliability and longer life. The transformer meets DOE 2016 efficiency standards. 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-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1 features mineral oil insulation fluid. We offer transformers with FR-3 oil fluid, if needed.

Gauges: The following gauges are included with the system: liquid level, temperature and pressure/vacuum indicators. Standard liquid level, temperature and pressure/vacuum indicators are analog, manual reading types. These indicators do not have auxiliary contacts.

Fault Pressure Devices: This transformer features an automatic action fault pressure device. Fault pressure devices are used to detect high rates of pressure rise within the tank.

Rapid Rise Relay: There are no rapid rise relays 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 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.

Load Break Switch: The transformer does not contain load break switches.

Valves: The MT-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1 is equipped with a fill valve and drain valve with sampler port.

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

Mount: The heavy-duty enclosure makes the unit suitable for both indoor and outdoor applications. This power distribution system can be pad mounted on concrete pads.

Benefits: The MT-PML-CPR-R7-3P-DJ-5KVA-SLK-RT-DF-Z5-FM-CZ-2ZZ-M1 pad mount 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.

NO PCBs
LARSONELECTRONICS.COM
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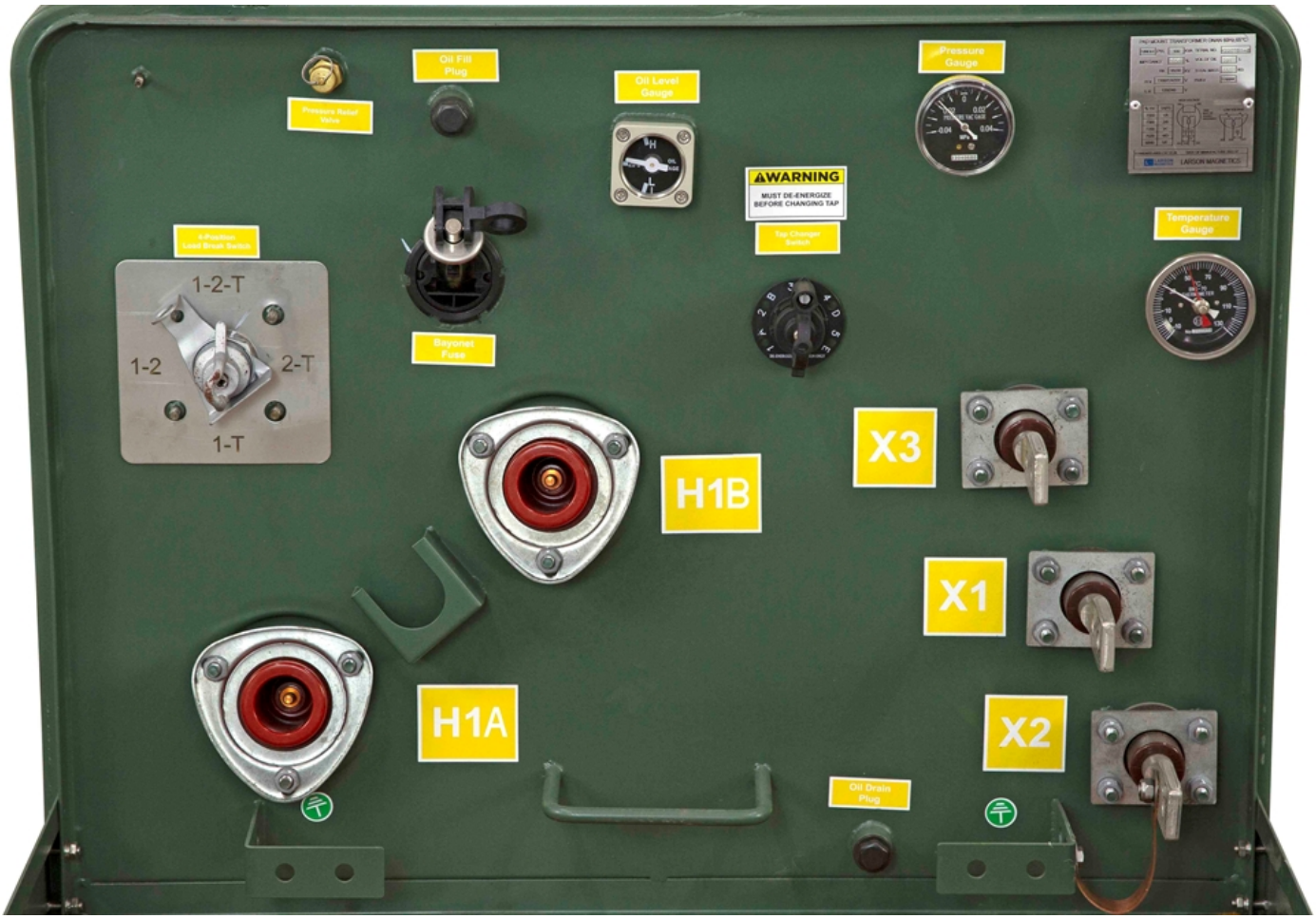
WARNING
HAZARDOUS VOLTAGE INSIDE.
KEEP OUT!
WARNING
NOTICE


Pressure Relief Valve
Oil Fill Plug
Oil Level Gauge
Pressure Gauge
WARNING
MUST DE-ENERGIZE BEFORE CHANGING TAP
Tap Changer Switch
Temperature Gauge
4-Position Load Break Switch
1-2-T
1-2
2-T
1-T
Bayonet Fuse
H1B
X3
X1
H1A
X2
Oil Drain Plug

Frequently Asked Questions (FAQ)