Larson Electronics LLC
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MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1

90 kVA 3PH Inverter Transformer for Ground Power Units, 400V Delta Primary, 200/115V Wye Secondary, 260-A, Aluminum, NEMA 3R, 400 Hz

Product ID: 321292

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



Image: MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1

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-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1 Inverter Transformer for Ground Power Units

Transformer Type: Inverter Transformer
Transformer Configuration: Dry Type
Phase: Three Phase
Frequency: 400 Hz
Primary Voltage: 400V AC, 3-phase, 125A
Primary Connection: Delta
Capacity: 90 KVA Continuous
Secondary Voltage: 200/115V AC
Secondary Connection: Wye + N
Unregulated Output: 28V DC Module
Bypass Operation: Supports External Ground Power Input
Auxiliary Utility Outlet: 120V AC, 10A, 60 Hz
Vector Group: DDDyn1
No-load Transformer Tolerance: +/- 0.5%
Short Circuit Impedance: 1.20 +/- 10% base 106KVA
Battery Type: Lithium-ion (8 Packs)
Usable Capacity: ~176 kWh
Protection:
FCAN (Above) Taps: 2

Approvals/Ratings

NRTL Listed for United States
NRTL Listed for Canada
NEMA 3R Indoor/Outdoor Steel Enclosure
Meets or Exceeds NEMA ST-20 Standards
Isolation Transformer
Distribution Type Transformer
Built to UL-50 Standards
Seismic Qualified for Earthquake Loads
RoHS
CE Certified
STANAG 4101 Tow Eye Compliant

FCAN (Below) Taps: 4
Tap %: 2.5%
Impedance: 2.5-6.5% Typical
Efficiency @ 35% Load: ~98%
Chassis Material: Galvanized Steel
Access Door: Aluminum
Canopy: Fiberglass (UV/Corrosion Resistant)
Tow Eye: 76.2 mm (3") ID, NATO Standard
Indicators: Flashing Amber (Active), Flashing Red (Low Battery)
Core Material: Grain Oriented
Winding Material: Aluminum
Input Cable: 15 m, 4C × 35 mm², 5-Pole, 6H Red Plug
Output Cable: 15 m, 4C × 70 mm², PAGE-Type Aircraft Connector (400 Hz)
Charging Capability: External Power or Battery Charging Mode
DC Bus Voltage (Est.): ~700 VDC Internal Battery Voltage
Protection of Windings: Resin Impregnation & Final Black Paint Coating
Primary Termination (Std): Bus Bars, (3 x 3) AL Busbars 15x3 mm with 1 hole 7mm
Secondary Termination (Std): Bus Bars, (3+1) AL Busbars 25x5 with 1 hole 9mm
Termination Access: Front Access Cover
Mounting: Mobile Towable Configuration
Cooling: Passive Airflow, Enclosed
Insulation: 220°C
Temperature Rise: 150°C
Operating Temperature: –15 °C to +55 °C (5 °F to 131 °F)
Sound Level: □ 60dB,at 1m
Enclosure Material: NEMA Type 3R Heavy Duty Ventilated - Steel
Finish: Industrial-Grade Weatherproof Coating
Dimensions: 116.82"-L x 73.34"-W x 64.36"-H
Weight: 3,300 kg (7,275 lb)
Shipping Method: Pallet Freight - LTL
Shipping Weight: 1080 lb
Shipping Dimensions: 48"-L x 60"-W x 50"-H

Special Orders - Special Requirements
Contact us for special requirements
Toll Free: 1-800-369-6671
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The MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1 90 KVA Battery-Powered Ground Power Unit from Larson Electronics is a fully self-contained mobile GPU designed to deliver clean, reliable 400 Hz, 3-phase AC power to aircraft systems. Engineered for continuous-duty flightline and hangar support operations, this GPU integrates lithium battery technology, automatic line-drop compensation, and military-style safety interlocks into a corrosion-resistant chassis that is mission-ready out of the box.

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

Transformer Features: The MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1 is a battery-powered, three-phase, 400 Hz mobile GPU rated at 90 KVA continuous output with 200/115V AC output voltage. Designed for use at military and civilian airfields, this GPU includes eight (8) high-capacity lithium battery packs with ~176 kWh usable energy storage. The system features an external AC input rated at 400V AC, 3-phase, 125A for optional bypass operation or battery charging from shore power. Output power is delivered through a PAGE-type aircraft connector, while the unit also offers an unregulated 28V DC module for aircraft subsystems.

Automatic line-drop compensation ensures consistent voltage at the aircraft plug, while integrated safety features like a military-style power interlock and dual visual warning beacons improve operational safety. Built with a galvanized steel chassis, aluminum doors, and a

fiberglass canopy, the unit is highly resistant to corrosion and extreme weather conditions.

Benefits: The MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1 lithium-powered GPU eliminates the need for diesel engines, reducing noise, emissions, and maintenance costs. The high-capacity battery system allows multiple turnarounds between charges and makes this unit ideal for flightline environments where clean, quiet operation is critical. With rapid plug-and-play capability, it can be deployed immediately upon delivery with no commissioning required.

Key operational advantages include low total cost of ownership, simplified logistics (no fuel), reduced environmental footprint, and full compliance with U.S. military standards, including STANAG 4101 towing compatibility.

The MT-ISX series of isolation transformers from Larson Electronics meet or exceed efficiency standards for United States and Canada. This results is overall lower cost of ownership throughout the life of the transformer.

Safety: The MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1 is an isolation transformer which means that it provides operators with an increased level of protection against electric shock and injury. An isolation transformer can also suppress electrical noise in sensitive devices and transfer power between two circuits which must not be connected. The MT-GPU-3P-400D-90KVA-200Y.115-N3R-AL-M1 achieves these safety features by separating or "isolating" the powered device from the power source and insulation between the primary and secondary power sources.

Applications: Ideal for powering fixed- and rotary-wing aircraft on the ground, including hangar servicing, avionics testing, and ground maintenance activities. Suitable for commercial and defense use in airbases, hangars, tarmacs, or forward-deployed locations where fuel-free, silent, mobile ground power is essential.

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

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Warranty: 6 Months.

Export Control Classification Number (ECCN): EAR99

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