

**MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1**

**22.8 KVA 3PH Solid State Rectifier for Ground Power Units, 460Y/266V AC Wye-N, 50/60 Hz Primary, 28V DC Secondary, NEMA 3**

**Product ID: 321387**

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



Image: MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-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-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1 Solid State Rectifier for Ground Power Units**

**Unit Type:** Solid State Rectifier

**Configuration:** Dry Type

**Input Frequency:** 50/60 Hz  $\pm$  5%

**Input Voltage:** 460Y/266V AC -10/+20%/

**Input Power Factor:**  $\geq$  0.91

**Input Connection:** 3-Phase+N+G

**Capacity:** 22.8 KVA

**Output Frequency:** N/A

**Output Voltage:** 28V DC

**Output Current Rating:** 600A Continuous, 2400A Peak

**Output Connection:** DC, 2-Wire

**Engine Start Capability:** 28V DC @ 2000A

**Inrush Current:** None, soft start

**Efficiency:**  $\geq$  87%

**Stand-by Losses:** 130W

**No-load Losses:** 330W

**Display Mode:** LCD/VFD

**Display Resolution:** Voltage  $\pm$  1% & Ampere  $\pm$  2%

**Approvals/Ratings**

NRTL Listed for United States

NRTL Listed for Canada

NEMA 3 Indoor/Outdoor Steel Enclosure

Meets or Exceeds NEMA ST-20 Standards

Seismic Qualified for Earthquake Loads

Built to UL-50 Standards

CE Certified

RoHS

**Protection function:** Over/under voltage at input/output, Over temperature, Internal voltage error, Short circuit at output, Trip in case that:  $U < 20$  VDC for more than 4 seconds,  $U > 32$  VDC for more than 4 seconds,  $U > 40$  VDC for more than 150 ms

**Modulation:** IGBT SPWM

**Rectification:** 6-Pulse

**Voltage Compensation:** 3 V @ 600 A Manual or voltage feed-back via interlock

**Voltage Ripple:** 250mV (RMS)

**Voltage Stability:**  $\leq 1.0\%$

**Frequency Stability:**  $\pm 0.01\%$

**Overload:** 2400A for 2 sec., 2100A for 5 sec., 1800A for 10 sec., 1200A for 30 sec.

**Display Operation Panel:** Digital Display: Amperes, Voltage, Power & Data settings etc

**Self Diagnose System:** Self diagnose system which would show error code/faulty explanation on the VFD screen

**Communication:** Modbus RS485

**MTBF:** 100,000 hours

**MTTR:** max. 20 minutes

**Output Cable:** N/A

**Termination Access:** Front Access Cover

**Mounting:** Fixed Mount

**Cooling:** Forced air

**Insulation:** 220°C

**Temperature Rise:** 150°C

**Sound Level:**  $\leq 65$  dBA ,at 3.3m

**Ambient Temperature Range:**  $-40^{\circ}\text{C} \sim +56^{\circ}\text{C}$

**Relative Humidity:** 10-100%, Non-Condensating

**Altitude:**  $\leq 9850\text{ft}$

**Enclosure Material:** NEMA Type 3 Heavy Duty Ventilated - Steel

**Finish:** Gray-White (RAL 7035)

**Dimensions:** 31.50" W  $\times$  39.37" D  $\times$  48.43" H

**Weight:** 903.90 lbs

**Shipping Method:** Pallet Freight - LTL

**Shipping Weight:** TBD

**Shipping Dimensions:** TBD

#### **Special Orders - Special Requirements**

Contact us for special requirements

**Toll Free:** 1-800-369-6671

**Intl:** 1-903-270-1187

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**The MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1 Three Phase 460Y/266V AC to 28V DC 22.8 KVA Solid State Rectifier for Ground Power Units from Larson Electronics is powerful, reliable, and designed with the environment in mind. Suitable for both indoor and outdoor applications, the MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1 provides increased reliability and protection against critical equipment failures.**

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

**Transformer Features:** The MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1 Solid-state rectifier transformer is a three phase transformer with a 22.8 KVA capacity rating. This inverter transformer is configured with an input voltage of 460Y/266, 50/60 Hz 3-Phase AC on the primary side and an output voltage of 28V DC on the secondary side. Featuring robust construction, this unit's cores are manufactured with non-aging, cold-rolled silicon steel laminations using state of the art technology.

This unit boasts a low cost of ownership and is highly energy efficient. Lower heat emissions mean less cooling is needed as well. The standard NEMA Type 3 enclosure makes the unit suitable for both indoor and outdoor applications and is designed to be floor mounted. Wall

mount brackets or additional mounting accessories can be purchased separately. This 22.8 KVA distribution transformer features 220°C insulation with a 150°C temperature rise.

**Benefits:** The MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1 460Y/266V AC to 28V DC solid state rectifier offers many benefits to the consumer. Precision cut aluminum transformer winding material helps to improve performance. The close tolerances used during manufacturing also eliminate burrs, which hinder performance. Each core is specially coated to prevent the ingress of moisture and is electrically balanced to minimize axial forces during short-circuit situations.

This rectifier 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. Integrated floor and wall mounting brackets make installation fast and easy and the offset outward facing floor installation holes allow for easy power tool access.

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

**Safety:** The MT-GPU-3P-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-M1 is a solid state rectifier, 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-460Y.266VAC-50.60HZ-22.8KVA-28VDC-N3-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:** Converting 460Y/266V AC local grid power to 28V DC for on-site equipment. This 22.8 KVA power transformer is ideal for sensitive equipment such as CNC equipment, computers, medical devices, ovens, or laboratory instruments.

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](mailto:sales@larsonelectronics.com) to discuss your specific requirements.



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## Frequently Asked Questions (FAQ)

There are no Fags



**Warranty:** 6 Months.

**Export Control Classification Number (ECCN):** EAR99



Links (Click on the below items to view):

- **HigResPic1**( <https://www.larsonelectronics.com/images/product/HigResPic1/321387.JPG> )
- **ISO 9001 Certification**( <http://larsonelectronics.com/images/pdfdocs/ISO9001.PDF> )
- **Business Certificate**( <https://www.larsonelectronics.com/images/pdfdocs/w9.PDF> )
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