

# TI5400 400Hz GPU-24 UAV ACDC

## NSN:6130-01-572-4833



Power Anytime, Anywhere

The Tesla™ TI5400 400Hz GPU-24 UAV ACDC is expertly engineered as a single source of power for the Global Hawk UAV and other UAV systems. Using a 30kVA 3-phase 400 Hz generator, the TI5400 400Hz GPU-24 UAV ACDC provides reliable ground power and filtered 400 Hz power for UAV aircraft. Additionally, a Pure Sine Wave Inverter with a 60 Hz 120 VAC outlet allows you to conveniently plug in laptops, cell phone chargers, and other electronic equipment. As always, the TI5400 400Hz GPU-24 UAV ACDC is backed by a Tesla™ 2-year warranty, a trained military support team, and an experienced staff of customer service professionals.

### Features:

- 3000 peak starting amps
- 30.25 VDC 400 amps max. continuous power
- 10.4 kVA 30 amp 200Y/115 VAC 400 Hz AC filtering produces “clean” power to test avionics and weapons systems
- 12.1 kVA 30 amp 200Y/115 VAC 400 Hz AC filtering produces “clean” power to test avionics and weapons systems
- 1800 watt 15 Amp-24 Amp Surge AC Inverter with 60 Hz 120 VAC dual GFI power outlet
- Meets or exceeds Global Hawk aircraft system requirements
- Non-hazardous, dry-cell technology
- Exceeds MIL-STD-810F/MIL-STD-461



Tesla™ Industries, Inc.

[www.teslainsd.com](http://www.teslainsd.com)

Email: [tesla1@teslainsd.com](mailto:tesla1@teslainsd.com)

**Headquarters:** (302) 324-8910

109 Centerpoint Blvd. New Castle, DE 19720 USA

**Western Regional Office:** (775) 622-8801

9475 Double R Blvd. Suite 2, Reno, NV 89521 USA



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# Features and Benefits

## 3-phase 400 Hz Power

The TI5400 400Hz GPU-24 UAV ACDC comes equipped with a 3-phase 200Y/115 VAC 400 Hz Input under a weatherproof cover (shown in *Figure 1*). This input receives a 400 Hz cable assembly that will connect to any standard 3-phase 200Y/115 VAC 400 Hz receptacle.

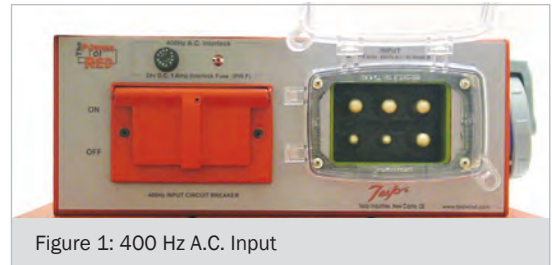


Figure 1: 400 Hz A.C. Input

## EMC Filter/AC Filter

The 400 Hz 208Y/120 VAC Output (shown in *Figure 2*) provides filtered 400 Hz 208Y/120 VAC at 30 amps for powering aircraft systems. Connected directly to the 400 Hz AC Input, the filter eliminates potentially harmful surges and high frequency noise and harmonics.

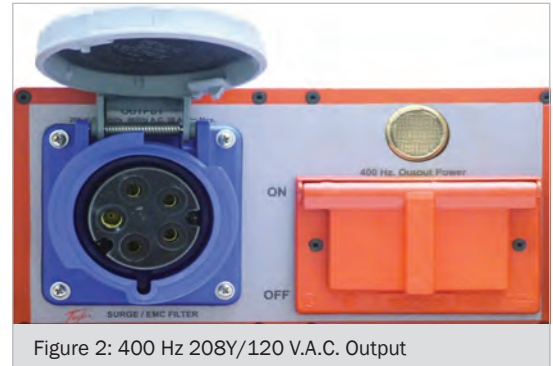


Figure 2: 400 Hz 208Y/120 V.A.C. Output

## Pure Sine Wave Inverter with Power Outlet

Another standard feature is the 1,000 Watt AC uninterruptible pure sine wave inverter with 60 Hz 120V power outlet (shown in *Figure 3*.) The outlet makes it convenient to plug in laptops, test instruments, cell phone chargers, and other electronic devices without using an alternate power source.



Figure 3: Pure Sine Wave Inverter Control with 60 Hz A.C. Power Outlet

## DC Output with “Push to Test” Button and LED Charge Status Meter

The DC Output Receptacle is an aviation battery style receptacle and will provide regulated 28.5 VDC at up to 400 amps when the unit is plugged into 3-phase power. Up to 3000 peak amps are available from the internal cells. The built-in Charge Status Meter serves as a recharge state indicator for the DC output.

## Includes Tesla™ Custom Cables and Connectors

The GPU comes ready for use with a Tesla™ approved 400 Hz aircraft power cable, a 25 ft. DC aircraft cable with DC plug, and a 60 Hz extension cable (shown in *cover photo*). Additionally the TI5400 400Hz GPU-24 UAV ACDC includes a TI3100A DVAM (Digital Volt/Amp Meter). This allows the user to measure the voltage and current at the DC Output Receptacle.



Figure 4: Tesla™ Digital Volt /Amp Meterz

## Digital Volt / Amp Meter (TI3100A DVAM)

The Tesla™ Digital Volt /Amp Meter (shown in *Figure 4*) is a high powered measuring solution. The TI3100A DVAM provides measurements for DC voltage from 12 to 32 V and DC current up to 2000 amps for Aircraft and vehicle. Integrated with the Tesla™ Turbo Start™ GPU power supply, the DVAM is a valuable tool for troubleshooting and conducting systems checks.

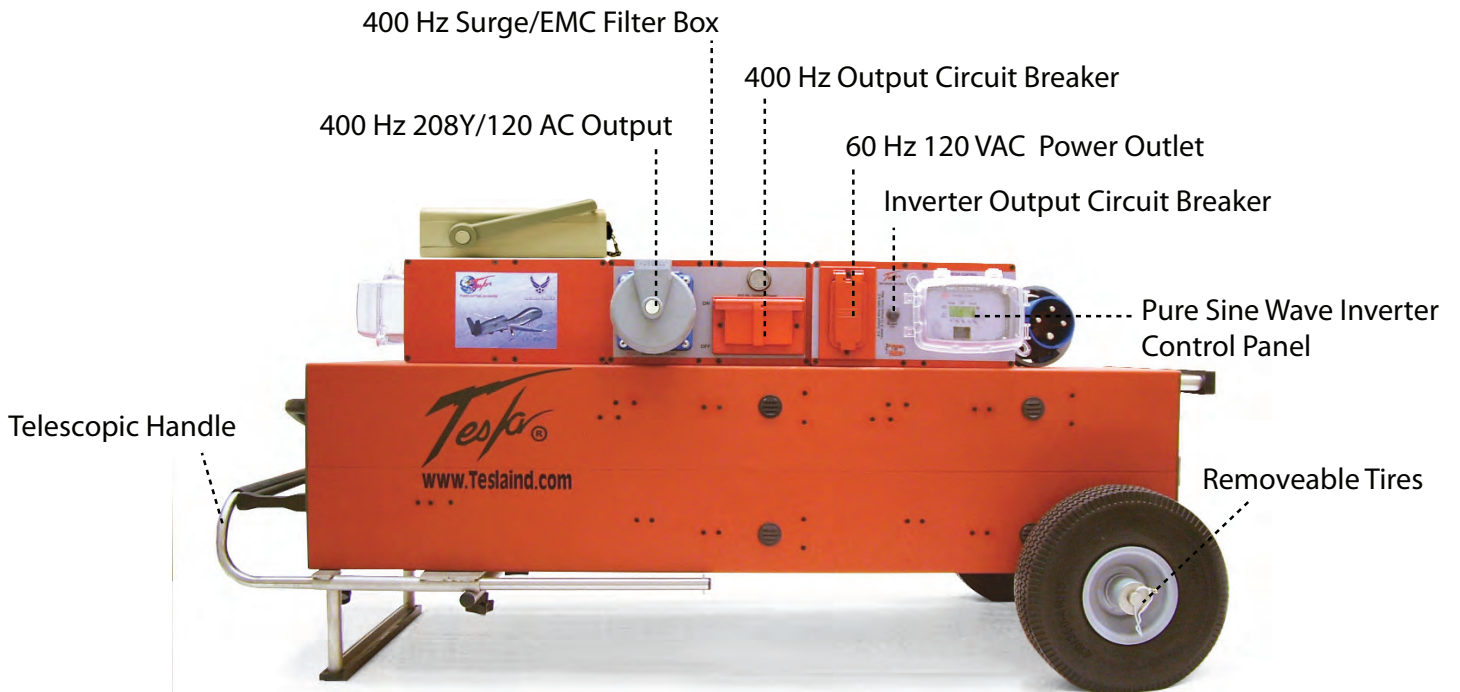
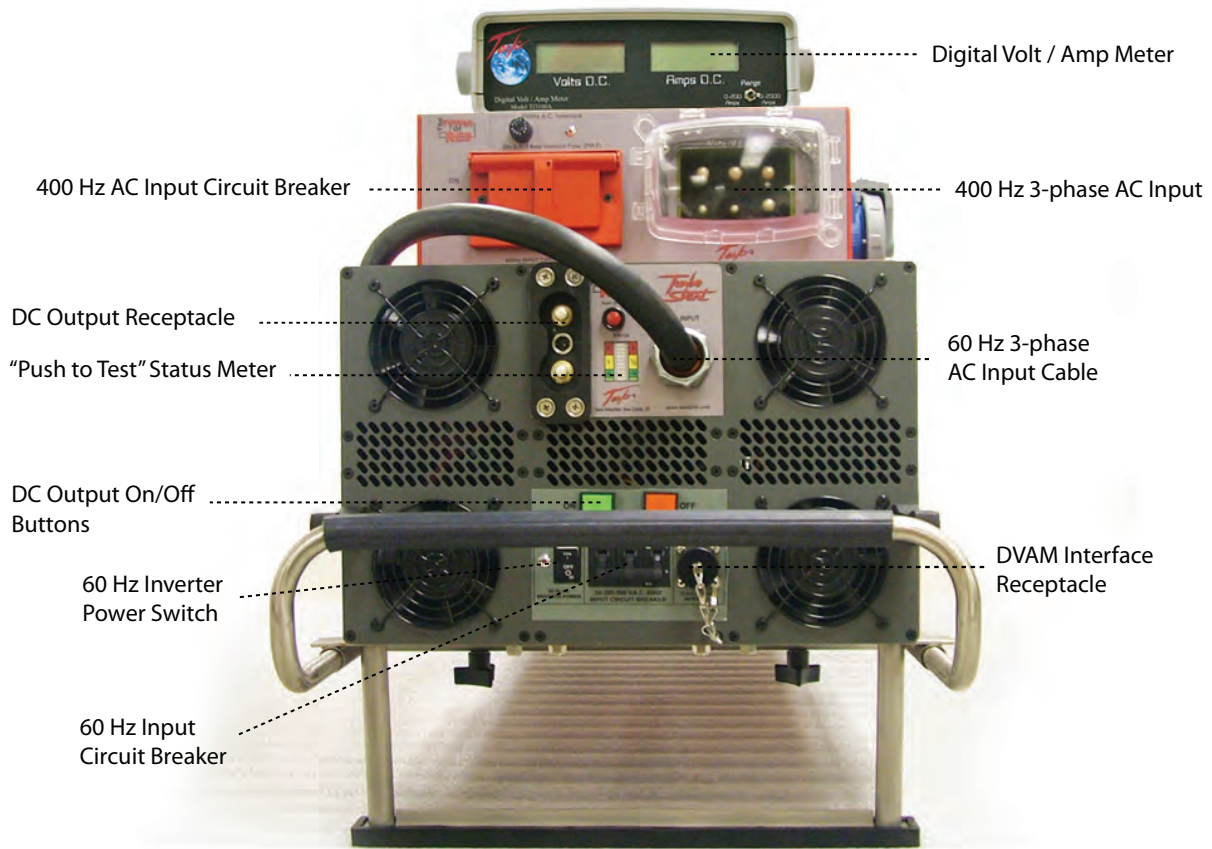
## Optional Transportation Case and Tow Cart

The Tesla™ TI2000-155 (shown in *Figure 5*) is a custom stainless steel cart designed especially to hold Tesla's™ TI5400 400Hz GPU-24 UAV ACDC Storage Case (TI7000-129). The case can be secured directly to the cart, making the TI2000-155 the safest way to support and transport any TI5400 model out in the field and through hangars and flight lines. You can operate the TI5400 GPU-24 without ever removing it from the cart – simply remove the lid of the Storage Case for access to the entire unit.

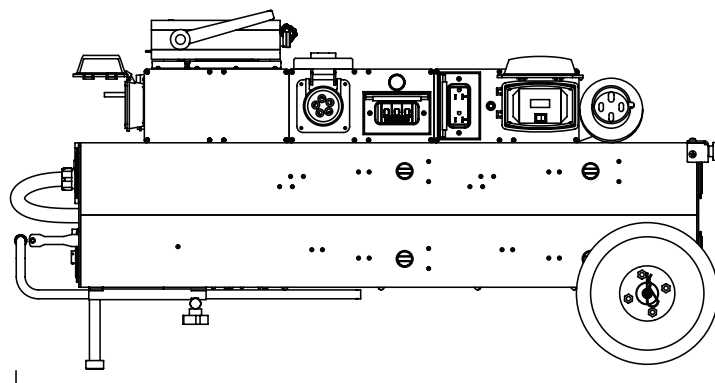
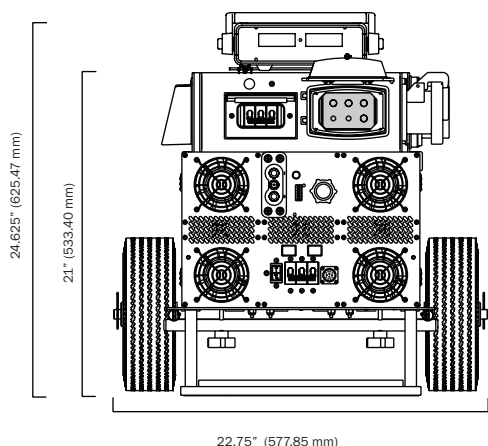


Figure 5: TI2000-155 Tow Cart with TI7000-129 Storage Case attached

# Components - Exploded View



# Dimensions and Technical Specifications



\* All dimensions are in inches [millimeters]

## Technical Specifications:

AC Input Power	Operates and charges from either three phase 200-260 VAC 50/60 Hz or three phase 200Y/115 VAC 400 Hz 40 amps @ 208 VAC 60 Hz 75 amps @ 200 VAC 400 Hz Requires 60 amp service for 50/60 Hz (contact Tesla Industries for receptacle information) Requires 100 amp service for 400 Hz (contact Tesla Industries for receptacle information)
AC Aircraft Power	3-phase 400 Hz 208Y/120 VAC 30.0 amps max.
AC Inverter	1800 watts 120 VAC 60 Hz Pure Sine Wave 15 amps output Surge 2900 watts <3% THD. Dual GFI receptacle
Type of Power Cell	High rate discharge/rechargeable/maintenance-free dry cell
DC Output	30.25 VDC @ 400 amps continuous power 24.0 VDC @ 46 amp hours rechargeable power
Peak Starting Amps	3000 A
Power Output Rate	446 amp hours (12,424 watt hrs) with 200-260 VAC power, 3-phase 46 amp hours (1,024 watt hrs) without 200-260 VAC power, 3-phase 1 hour constant power to 20.0 end VDC
Recharging Rate	12 minutes @ 25 °C from full discharge
Vibration	Exceeds MIL-STD-810F
Storage Temperature	-65 °C to 60 °C (-85 °F to 140 °F)
Operating Temperature w/o AC Power	-40 °C to 60 °C (-40 °F to 140 °F)
Operating Temperature w/ AC Power	-40 °C to 55 °C (-40 °F to 131 °F)
Weight	292 lbs (132.4 kg)
Warranty	2 years (3 years optional)