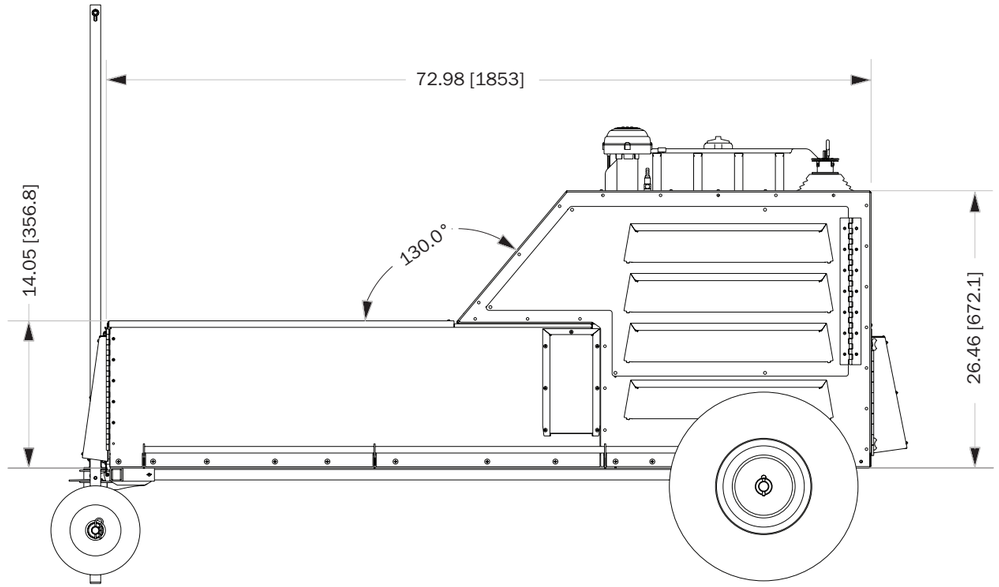
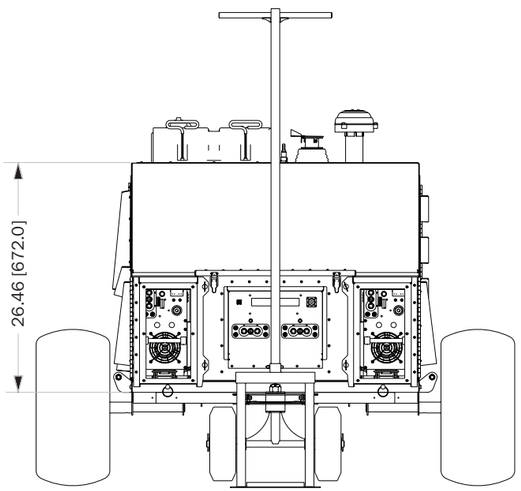
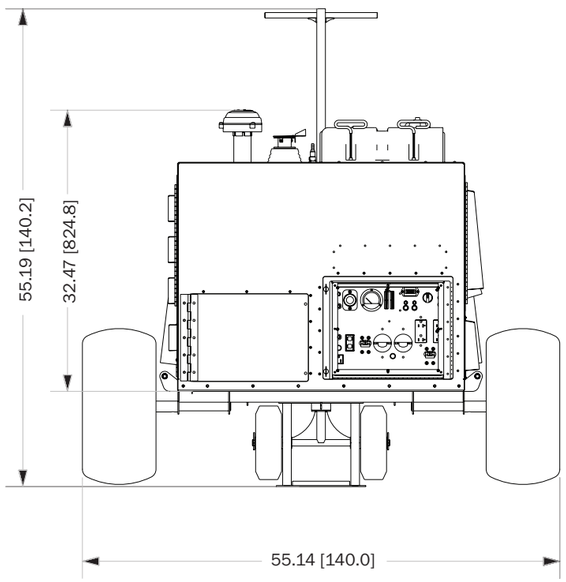
Dimensions and Technical Specifications



Shown with optional wheel base





* All dimensions are in inches [millimeters]

TI10 Hybrid GPU

Power Anytime, Anywhere

The Tesla™ TI10 Hybrid Ground Power Unit is the perfect combination of ultra-high current output with power generation. The TI10 incorporates a 10 horsepower engine and 6000 watt generator with two Tesla™ TI3750 GPUs. The result is a hybrid that will handle all of your power needs from 28.5 VDC to 240 VAC. Water-tight gaskets and extensive weatherproofing (sand separator, exhaust fans, etc.) allow the TI10 Hybrid to withstand the harshest battlefield conditions and other extreme environments. With state-of-the-art electronic control and monitoring circuitry, the TI10 Hybrid provides safe and efficient power transfer of up to 6000 peak amps and 150 continuous amps -- plus 20 amps at 240 VAC.

Tesla™ Industries, Inc.
www.teslaind.com
Email: tesla1@teslaind.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

The POWER of RED™

MADE IN USA

Technical Specifications

Features

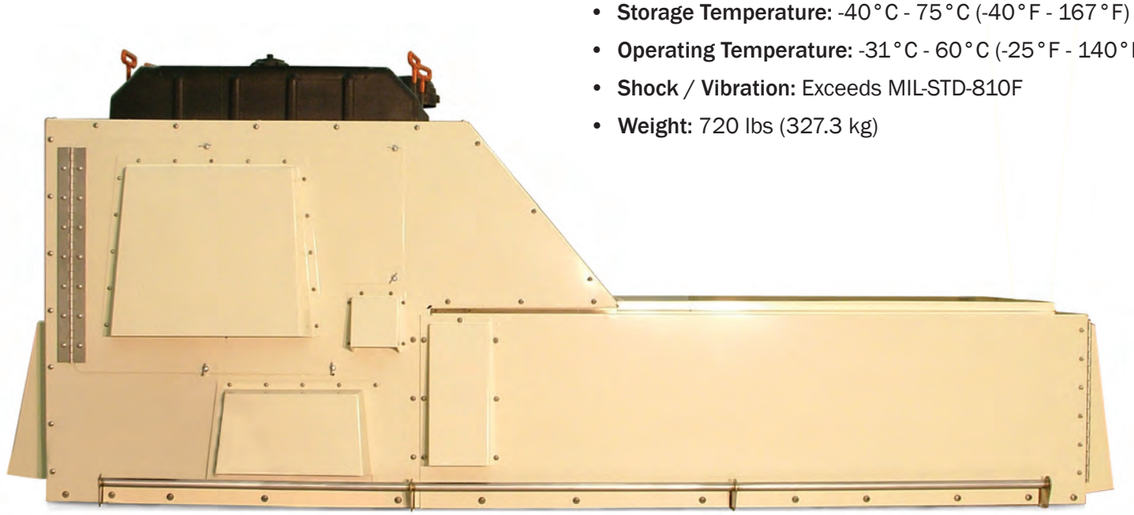
- 10 horsepower, air-cooled, OHV engine
- Plug-in power anytime, anywhere
- Heavy duty, tubular stainless steel frame
- Low oil shut off control
- Isolated motor mounts to minimize noise and vibration
- Optional wheel base with handle for easy transport
- Two GFCI protected 120 VAC outlets
- Two 240 VAC twist lock outlets
- One 120 VAC accessory outlet
- Electric starter with 12 V / 10 Ah battery
- Utilizes NSN stocked fuel, oil and air filters
- Two removable TI3750 ground power units for independent use
- 2-year warranty (3 years optional)

Electrical

- **Continuous AC Output Power:** 4,950 watts
- **Peak AC Output Power:** 6,000 watts
- **DC Voltage Output:**
  28.6 VDC @ 150 A continuous (6000 A surge @ 15 s)
  48.2 VDC @ 75 A continuous (3000 A surge @ 15 s)
  26 VDC @ 250 A intermittent for 1 hr (60% duty cycle)
  24 VDC @ 96 A for 1 hr non-engine silent operation
  12 VDC regulated / isolated @ 10 A continuous
- **AC Voltage Output:** 240 VAC @ 20 A,
  120 VAC @ 40 A, 120 VAC @ 1 A
- **Recharge Time:** 30 minutes

Mechanical

- **Engine Displacement:** 26.5 cu. in (0.435 L)
- **Engine Oil Capacity:** 2.6 qt (2.5 L)
- **Fuel Tank Capacity:** 8 Gallons (30 L)
- **Fuel Type:** JP-4, JP-5, JP-8
- **Run Time (at 75% max. output):** 18 hours
- **Maximum RPM:** 3800
- **Decibel:** 81 dBA
- **Storage Temperature:** -40°C - 75°C (-40°F - 167°F)
- **Operating Temperature:** -31°C - 60°C (-25°F - 140°F)
- **Shock / Vibration:** Exceeds MIL-STD-810F
- **Weight:** 720 lbs (327.3 kg)



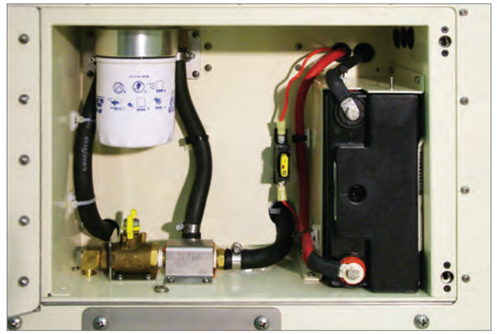


Figure 11: Oil Filter and Battery

Figure 12: Storage Compartment

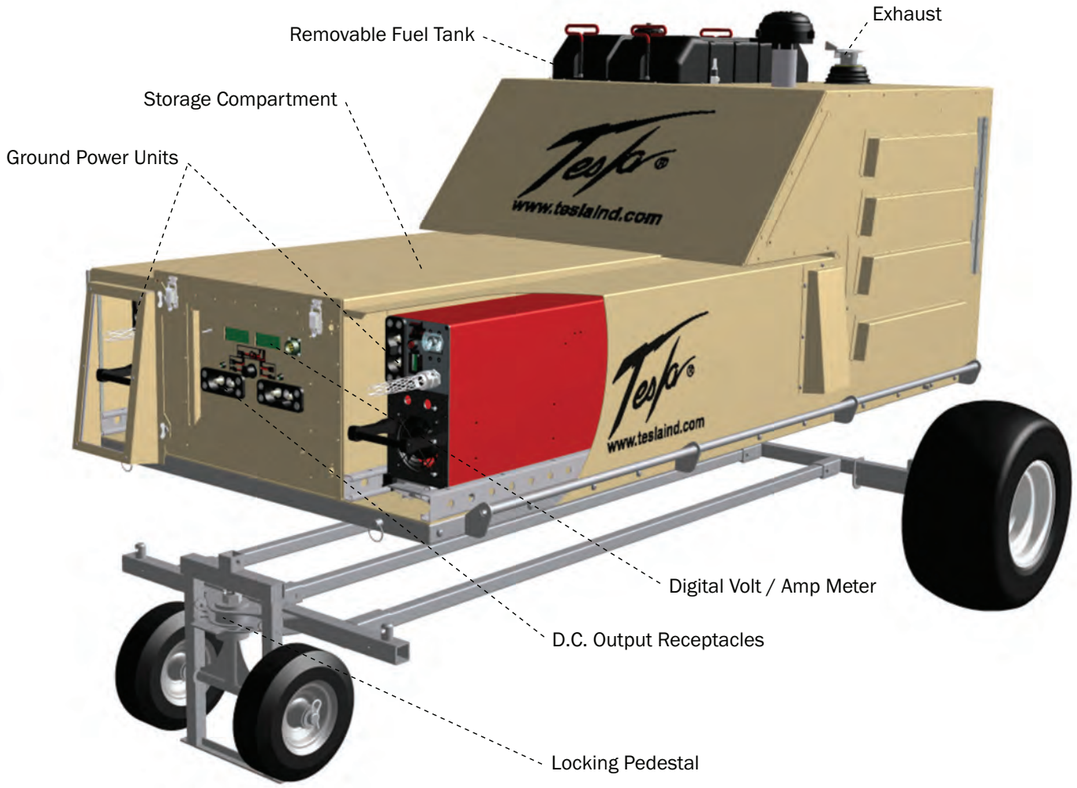
Removable Fuel Tank

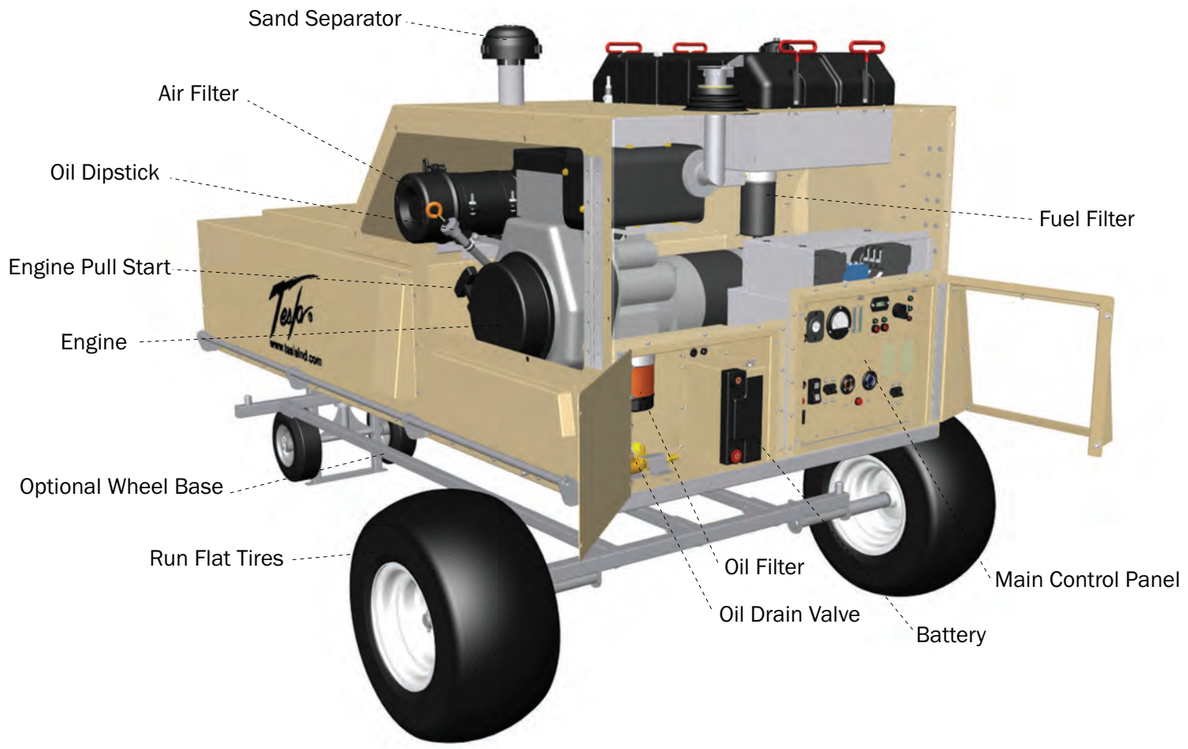
DC Receptacles and Dual Tesla™ TI3750 Ground Power Units

Optional Tow Cart

Optional Wheel Base

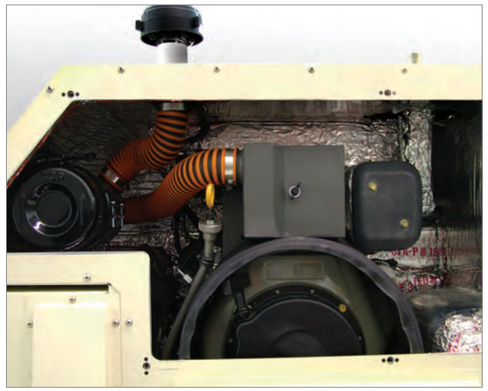
Components - Cutaway View





Main Electrical Control Panel

DC Output Receptacles and D.V.A.M. with Selector Switch



Right Engine Access Panel - Oil Dipstick, Air Filter, Pull Start

Left Engine Access Panel - Fuel Filter, Generator, Oil Cooler

Features and Benefits

Figure 7

Figure 8

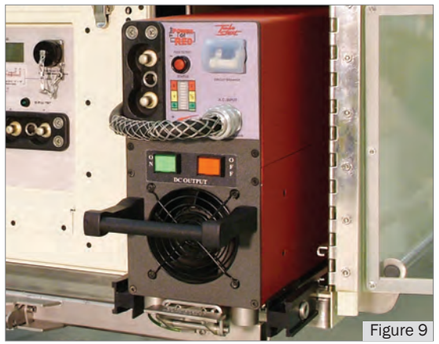


Figure 9

Figure 10

Military Stocked Parts

All of the serviceable components have been chosen directly from NSN stocked parts. That means no more waiting for the parts to arrive from the manufacturer— a critical factor when deployed in the field. The fuel and oil filters (see Figures 7 and 8) can be ordered with NSN # 2910-01-376-5666 and 2940-01-154-5127 respectively, and the Air Filter with NSN # 2940-01-235-3676.

Modular Design

The TI10 Hybrid has been designed with modularity in mind. Besides having a completely removable wheel base, the TI10 comes with two TI3750 GPUs that easily glide in and out (shown in Figure 9). The user can deploy the entire unit in the field and then use the GPUs independently. The removable tires and DC cables are conveniently stowed in the front storage compartment (shown in Figure 12). When the GPUs have been discharged, return them to the TI10 Hybrid for rapid recharging.

Ease of Maintenance

Maintenance and servicing are a snap with the TI10 Hybrid. Featuring multiple access points to the engine compartment, the layout of the TI10 allows the user to quickly and efficiently check all the major service items. A specially designed oil dipstick has been positioned for easy access (see Figure 10), and the oil filter and battery are located in a separate compartment (see Figure 11). In addition, all the access compartments are secured with butterfly fasteners— no special tools required.

Manual Starting

In the unlikely event that the TI10's starting battery becomes discharged, a manual pull cord (shown in Figure 10) can be used to start the unit. An easily accessible compression release lever is available to make manual starting easier.

Easy Start Engine Control

Starting the TI10 Hybrid is as easy as a flick of the wrist. Simply push the Compression Release button and turn the starter clockwise (see Figure 1). That's all you'll need to start generating 5 kW of continuous power. LEDs on the right side of the Starter switch indicate engine status conditions. The Engine Control panel also includes an Oil Pump Prime switch and an Engine Hours meter for easier maintenance and servicing.

Figure 1

Figure 1: Engine Control Panel - Starter and Indicator LEDs

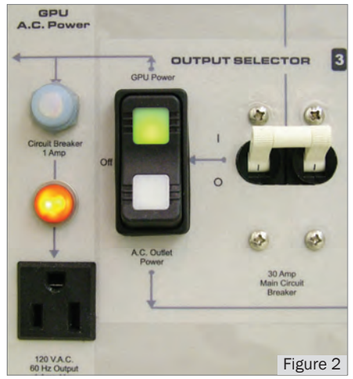


Figure 2

Figure 3

Figure 4

Output Selector Control Panel and Receptacles

Selectable AC Power

Flip the Main Circuit Breaker to "ON" and select your power (see Figure 2). Set the Output Selector switch to "GPU Power" and energize the forward loaded GPUs for up to 150 amps of continuous current at 28.5 VDC. In addition, a 120 VAC 1 amp AC outlet is available for accessories (laptops, test equipment, etc.). Alternatively, set the Output Selector switch to A.C. Outlet Power, and both 120 VAC and 240 VAC are available through four standard outlet receptacles as shown in Figures 3 and 4.

Power Monitoring

The TI10 Hybrid is equipped with power monitoring for both AC and DC outputs. As shown in Figure 5, the generator voltage and current are displayed in an easy to read analog format. The dual current meters display both legs of the AC generator with multi-color bar graphs, while the AC volt meter reads RMS voltage up to 300 V. At the front of the unit, two backlit LCD displays register the output DC voltage and current up to 2000 A (see Figure 6).

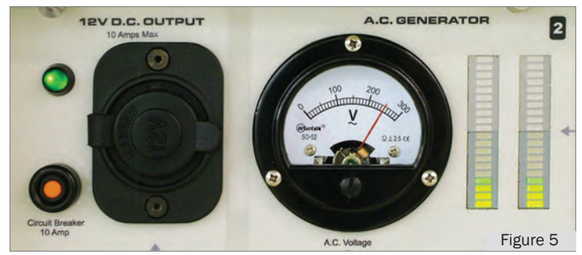


Figure 5

Figure 6

Power Metering for AC and DC Outputs