

GPU Lite 250



Energy that makes you fly



GPU Lite 250



IMPORTANT NOTE

All users must read this entire guide before initiating operations with the GPU Lite 250

Thank you and congratulations for the purchase of your new GPU Lite!

This GPU Lite unit provides 28.5 ± 0.5 VDC and is used as an external continuous energy source, mainly for aircraft maintenance and operational purposes.



GPU Lite 250

Following the right procedures, and being aware of the limitations and best practices for the GPU Lite units, will ensure their operating efficiency and will maximize operational capabilities and the final life of the equipment.

This User Manual contains the operating instructions and procedures for the GPU Lite 250, needed to safely and efficiently operate these units.



Remember that you can combine our GPU Lite units with our Dual Connector if more power is needed!

**Enjoy the freedom of working
without limitations!**

1. INTRODUCTION

The GPU Lite 250 is a maintenance-free and sealed unit. No repairs by the User are authorized. Warranty will be voided if the unit is tampered in any way, or if unauthorized repairs are made. For technical support please contact:

eduardo.urquizu@enercraft.eu

Cell – Eduardo (Spanish): +54 9 (385) 503 2170
South America

alberto.jurjo@enercraft.eu

Cell – Alberto (Spanish/English/Portuguese): +34 722 24 12 10
Worldwide



CAUTION

SHOCK HAZARD POTENTIAL

Improper use or failure to follow instructions contained in this User Manual can result in the unit damage and/or injury or death by electrical shock.

Any attempts to open or examine the inside of the GPU Lite 70 via any tool or any device (borescope, probe, etc...) can result in the unit failure and/or injury by electrical shock. These GPUs are maintenance free and should not be opened or disassembled for any reason.

Always protect the units from short circuit.

Shipping Hazards: none.

2. BASIC PRODUCT DESCRIPTION

The GPU Lite Family are devices developed by **ENERCRAFT** to allow energy supply for a long time, mainly for aircraft maintenance or operational purposes, working as a continuous energy source. The equipment must be plugged in (AC cable) to a properly grounded outlet, and connected to the aircraft through the external DC power connector.

All of the **ENERCRAFT** GPUs Lite are equipped with Switching Power Supplies, which feature higher efficiencies, lighter weight, longer hold up times, and the ability to handle wider input voltage ranges.

3. MAIN FEATURES

1 Incorporates the latest technology



ENERCRAFT innovative design
The most disruptive Ground Power Unit
Clean energy. Free of noise (ripple)
Accurate diagnosis
The most reliable components
Overvoltage, Overtemperature and Overload protections
Compact and portable

2 Full data display



Voltage
Output current

3 Protective Case



Reliable waterproofing (IP67 & IEC 60529)
NANUK®'s latching system (MIL-STD-810F)
Impact resistant (ATA Specification 300)
Robust (ASTM D4169 DC-18)

4 Portable equipment



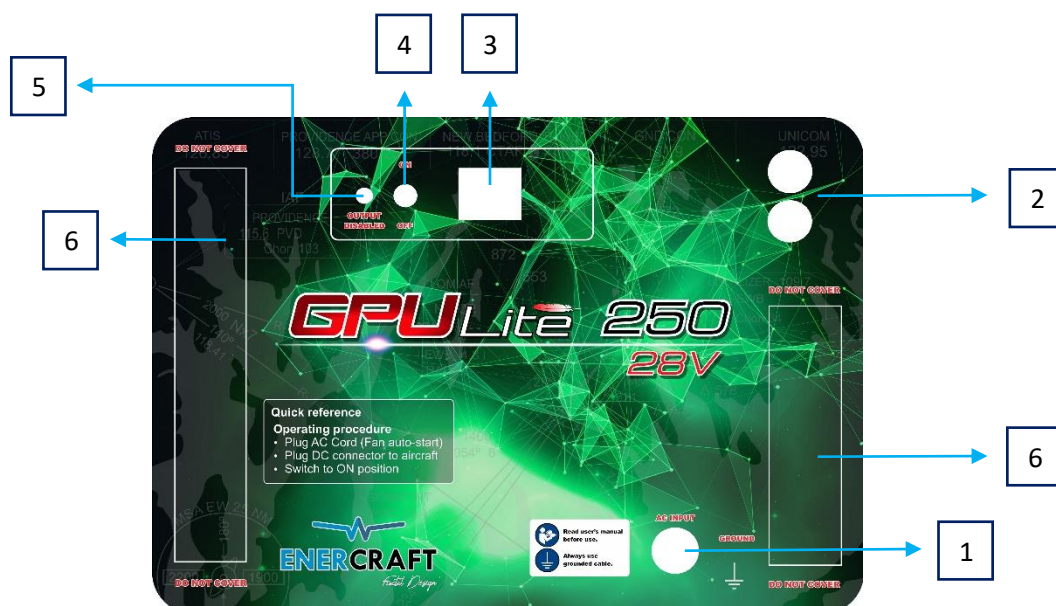
Lightweight unit
One-handed operation
Spring loaded handle
Reinforced metal padlock holes

4. SPECIFICATIONS AND PERFORMANCE

MAIN SPECIFICATIONS OF THE GPU Lite 250	
AC INPUT	Single Phase (220V) or Bi Phase (110V) 90-264 Vac. Freq. 47/63 Hz
DC OUTPUT	28.5 ± 0.5 Volts 245 Amp Nominal, 250 Amp Maximum
TEMPERATURE RANGE	- 30° C ↔ 70° C
DIMENSIONS	474 mm x 376 mm x 178 mm
WEIGHT	13 kg (including cable and AN2551)
CABLE	1.5 mts Standard 3 PINS NATO AN2551 (50mm ²)
PROTECTION	Electronic sensors & Fuses
COOLING	Cooling air system integrated into the equipment

5. PANEL OVERVIEW

1. AC connector
2. DC output
3. DISPLAY: Voltage and output current
4. Power switch
5. Electric overload LED indicator
6. Air inlets



6. OPERATING PROCEDURE

6.1 Receiving your GPU Lite 250

This GPU Lite 250 is ready to be used once you receive it, but please check the overall status of the unit to make sure that it hasn't been tampered in any way during the Shipment and/or potential Customs inspections. If you detect anything, please contact us immediately.

6.2 Check cables status

Always check the cables to visually detect any possible cuts or damages.

6.3 Use of the GPU Lite 250

All of the **ENERCRAFT** GPU Lite units are very intuitive and easy to use. Please follow the simple steps below, to provide the required continuous power to your aircraft:

- Plug AC Cord to a properly grounded outlet, and the internal fan will start running.
- Plug DC connector to the aircraft.
- Switch to ON position.



Once you finish using the GPU Lite 250, please follow the three simple steps below:

- Switch to OFF position.
- Unplug DC connector from the aircraft.
- Unplug AC Cord.

6.4 Electric overload

Remember that this unit can deliver up to 250 Amps. Please always check the energy demand of your aircraft, confirming that it will be less than those 250 Amps before connecting this GPU. If, for any reason, the unit is exposed to an electric overload, the internal protections will act immediately, and the LED Indicator will turn ON, disabling the output current. If that happens:

- Please move the Power switch to the OFF position for 5 seconds, and turn it ON again after that. The output current should be reset.

If the electric overload is strong and lasts for more than 10 seconds, the LED indicator will remain ON, and the output current will be disabled so as to protect the internal Power Supply of the unit. If that situation happens, the unit must be reset, by following the instructions below:

- Please move the Power switch to the OFF position,
- Unplug the DC connector from the aircraft, and
- Unplug the AC cord for, at least, 10 seconds.
- After that, restart operations as indicated in section 6.3

Any attempts to open or examine the inside of the GPU Lite 250 and get access to its internal Power Supply can result in the unit failure and/or injury by electrical shock. This GPU is maintenance free and should not be opened or disassembled for any reason.



ENERCRAFT INNOVATIVE ELECTRIFICATION TECHNOLOGY S.L.
Cambados, Pontevedra – GALICIA, SPAIN / VAT: ESB02707628

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More information: www.enercraft.eu

WIRE CONNECTION INSTRUCTIONS

For the GPU Lite 250

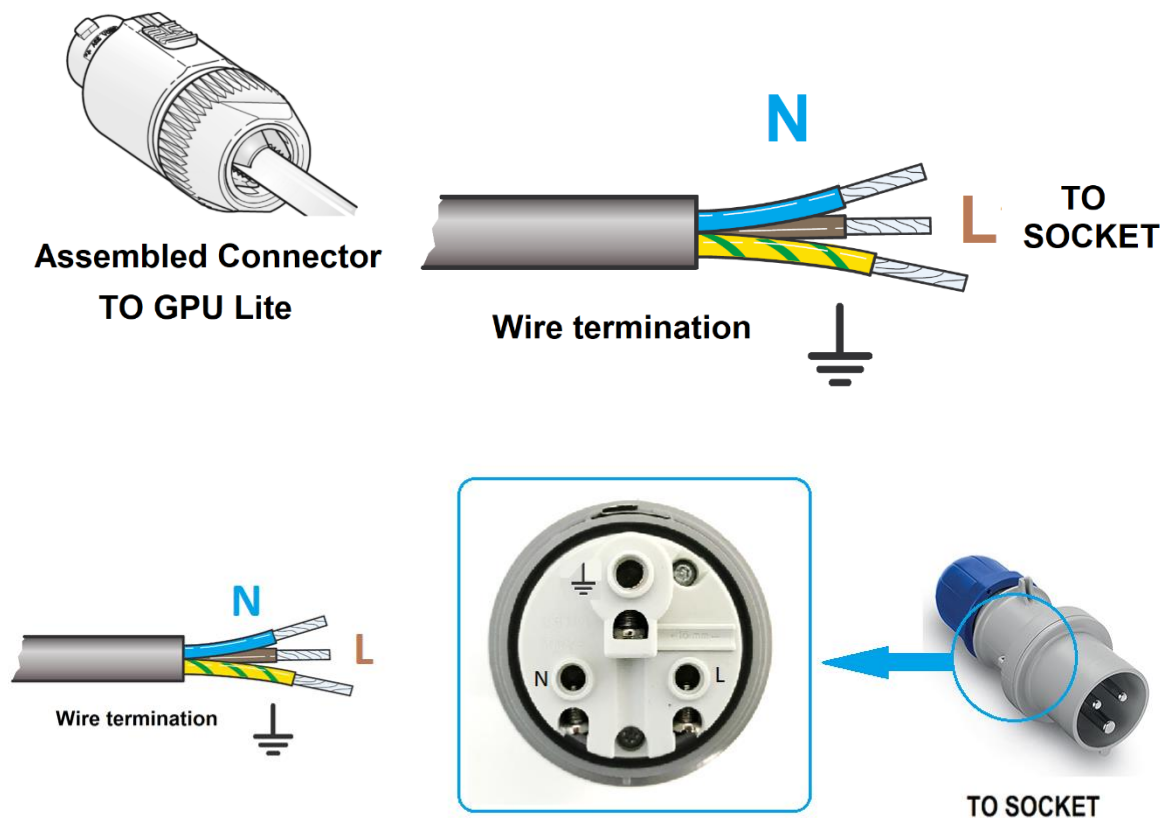


WARNING

**POTENTIAL DAMAGE OF THE EQUIPMENT IF
CONNECTIONS ARE NOT CORRECT**

Please, follow these instructions

PHASE VOLTAGE 220VAC



Frequency Range: 47 ~ 63Hz

WIRE CONNECTION INSTRUCTIONS

For the GPU Lite 250

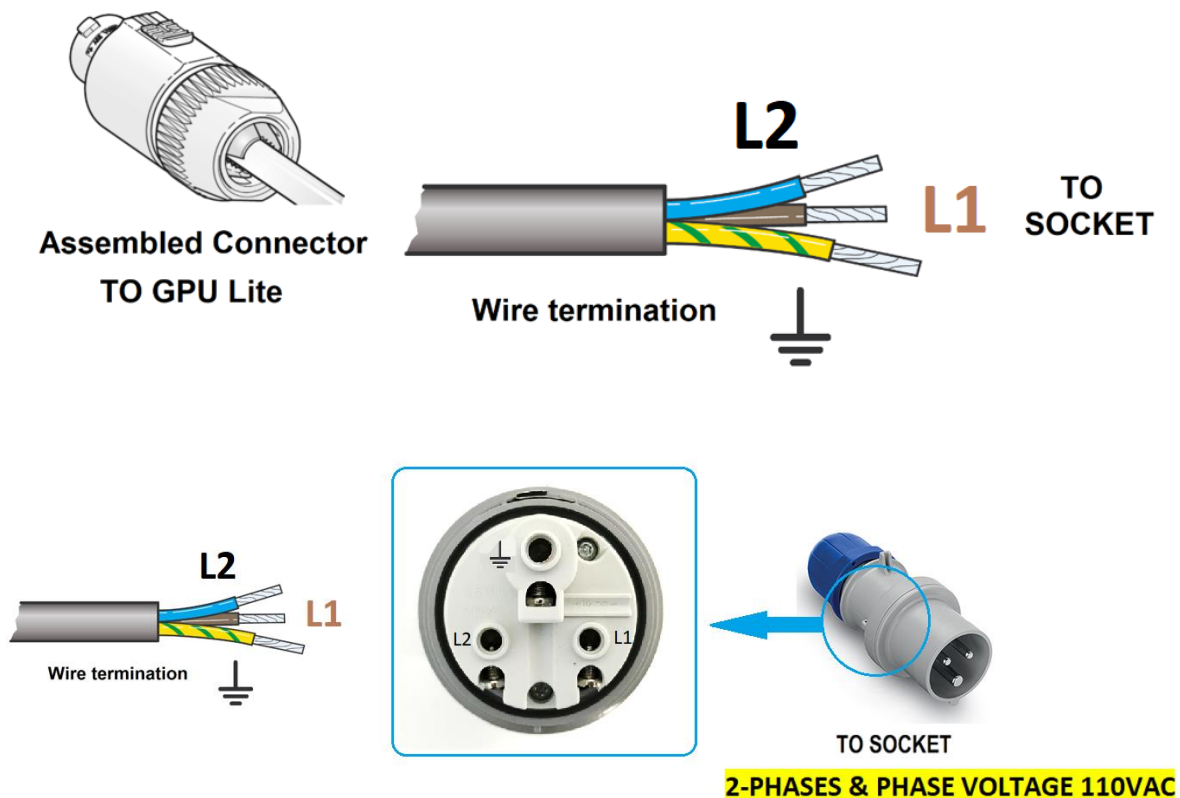


WARNING

**POTENTIAL DAMAGE OF THE EQUIPMENT IF
CONNECTIONS ARE NOT CORRECT**

Please follow these instructions

2-PHASES & PHASE VOLTAGE 110VAC



IMPORTANT NOTE: A Two-phase electrical power is required

Frequency Range: 47 ~ 63Hz



SAFETY & ASSEMBLY INSTRUCTION

powerCON® HC | Locking 2P+PE AC appliance coupler



IMPORTANT SAFETY INSTRUCTION

Caution: Connector without breaking capacity acc. IEC 61984 - must not be engaged or disengaged when under load or live.

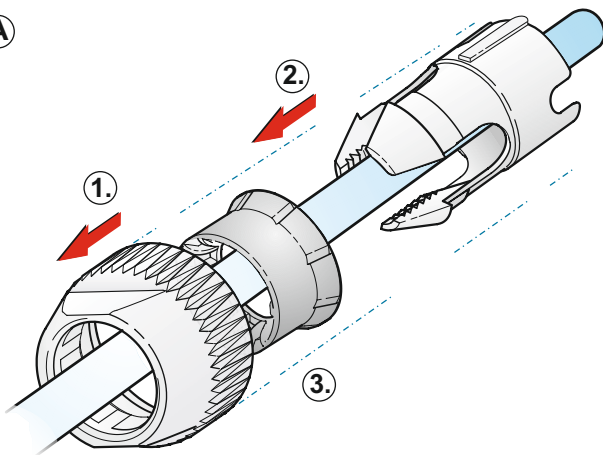
Attention: Ne pas utiliser pour couper le courant.

FEATURES

- 250 Vac, 32 Amp (at ambient temperatures up to 35°C) / 30 Amp for cUR
- Cable O.D. 17 mm (general range: 8.0 to 20.0 mm)
- Wiring: Cable Connector: Screw-type terminals for stranded wires 6.0 mm² (AWG 10)
Chassis Connector: Screw-type terminals for wires 6.0 mm² (AWG 10)

1. ASSEMBLY INSTRUCTIONS | Cable Connector

A



A

Slide bushing (1) and chuck (2) onto the cable end.

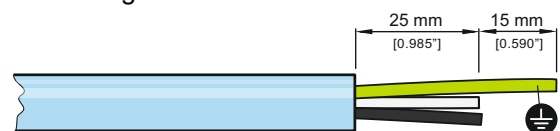
If cable O.D.:

Less 15 mm please use reduction piece (3).

B

Prepare cable as shown.

Consider excessive length of PE conductor for slackening.



Strip the wires.

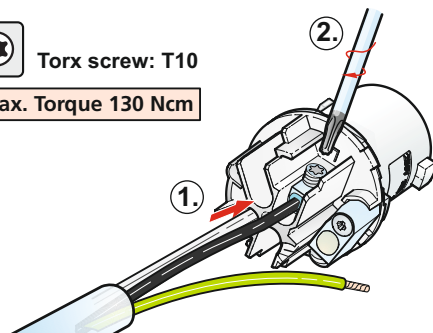


C



Torx screw: T10

Max. Torque 130 Ncm

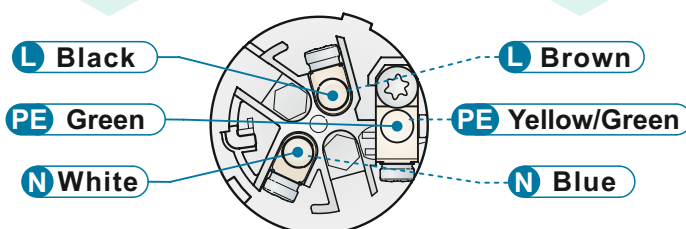


C

Insert wires into terminals L, PE and tighten.

ATTENTION: Max torque 130 Ncm

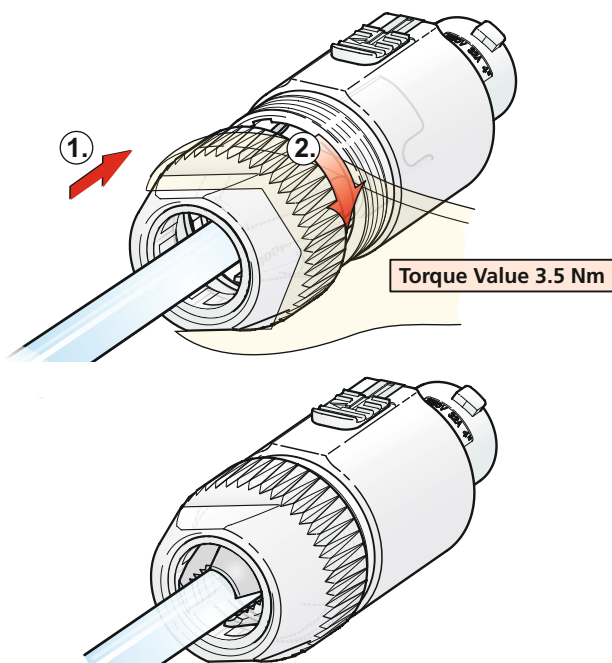
Conductor colors according to color coding of North American cords or rest of the world.



Wiring (left):



D



D 1. Push insert and chuck into housing.

Important: Align the chuck and insert by positioning the nose into keyway.

2. Tighten bushing using open wrench 27 mm, min. torque 3.5 Nm.

Assembled Connector

2. ASSEMBLY INSTRUCTIONS | Receptacle

A

Wiring:

Strip the wires.



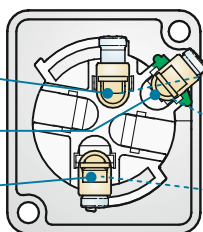
Insert wires to terminals and tighten.

Conductor colors according to color coding of North American cords or rest of the world.

L Black

PE Green

N White

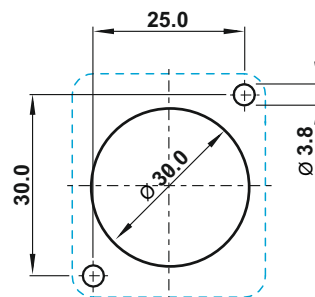


L Brown

PE Yellow/Green

N Blue

B Panel cutout (rear side):



ATTENTION: Max torque 130 Ncm (2.)

