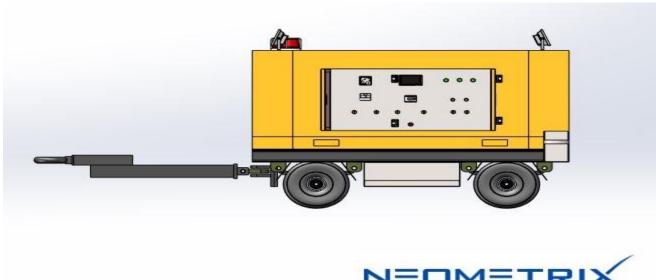


### 45 KVA Ground Power Unit for Raphael

### **About**

Ground Power Unit(GPU) is used to give the power to the aircraft which is in the ground during the maintenance and repair work the GPU is used to power up the system externally, This GPU is having Dual output one is 45Kva AC power that consist of L-L 200V and L-N 115V ,150A and 400HZ four wire system another one will be DC 28.5 V 800A two wire system and it will deliver the two output simultaneously up to maximum range of 45 KVA, the following components are used to design the GPU.





#### Overview:

A diesel engine/electric motor coupled with highly reliable alternator provides a perfect output to your aircrafts. With a touchscreen control panel and interactive GUI, this GPU is easy to operate and effortless to maintain.

Our AC Ground Power Unit can be supplied with additional 28.5V DC module for obtaining commercial power voltage for tools, appliances. etc. during aircraft maintenance.

it is a feature-rich software built for remote operations of GSE with parameter details, fault alarms, alerts and periodic maintenance schedule.



# **Specifications**

ENGINE	Cummins / Deutz or Equivalent diesel engine
ALTERNATOR	Nidec/Sincro brushless, 3 phase, constant voltage alternator with AVR or Equivalent
OPERATING TEMPERATURE	-32 DEG C TO +55 DEG C
OUTPUT CHARACTERISTICS	
AC OUTPUT	45KVA at 0.8 pf lagging (Expendable up to 180 KvA)
POWER	3 phase 4 wire system
VOLTAGE	115V (Line to Neutral) and 200V (Line to Line).
VOLTAGE UNBALANCE	a)1% at balanced load. b) Within 4% with 1/3rd load on one phase with two other phases unloaded.
FREQUENCY	400 Hz

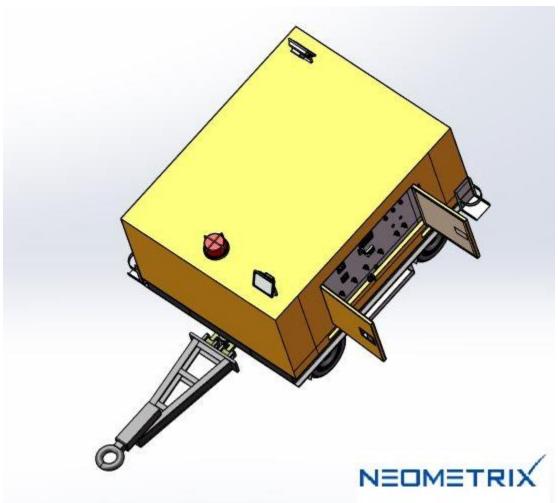


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# **Application**

GPU is used to support the aircrafts in ground to maintain and trouble shoot its basic testing with out start up their engine, This will be designed on the required power of aircraft and this whole system is operated by diesel engine, The system is mounted on the portable moving trolley to provide the easy accessibility all over the ground which is towable with necessary braking system.





# **Key features**

The whole system is controlled and monitored by PLC based system, and GUI is provide its system status is displayed in the GUI screen, and incase of any internal problem occurred the status will be displayed and the following features were available in the System.

#### Monitoring features-

- Engine lube oil pressure
- Engine coolant temperature
- Engine RPM
- Fuel level
- Engine hours run
- Battery voltage
- Output voltage
- Output frequency

#### Protection features-

- Under voltage trip
- Over voltage trip
- Over load trip
- Neutral open trip
- Phase rotation trip
- Under frequency shutdown
- Over frequency shutdown

#### Standards

The GPU is incorporated with the various standards i.e.MIL, JSS55555, ARP, ARAI, CE and various environmental tests.

