



## MOBILE 400 Hz GROUND POWER UNITS FOR MILITARY AIRCRAFT FROM 90 TO 180 KVA

# GPU

## GA MILITARY MODELS

**GUINAULT has been manufacturing Ground Power Units for the Aviation Industry for more than 70 years (1949). Today, GUINAULT is recognized as a leading solution provider for Military Air Forces especially thanks to its robust GPU fully compliant with all military standards and combining high efficiency and reliability using :**

- Electrical enclosure made of stainless steel as per MIL-STD-461 / 464
- Air transportable reinforced chassis
- The high efficiency GUINAULT Alternator made in FRANCE (optimized for low load operation representing 70 % of the operation of GPU).
- The in-house designed and built Electronic Control System to withstand extreme conditions : (Sandy/dusty wind, humid and corrosive atmosphere.)
- Galvanized chassis, double wall plastic fuel tank, polyester canopy with integrated painting ensure the highest protection against corrosion.
- Great maintenance accessibility and reduced noise level through monoblock mounts flapping polyester canopy.

GUINAULT uses its expertise in electronic and engine control to give a significant product advantage and to design highly reliable solutions for extreme operating conditions. GUINAULT also limits the obsolescence risk as we also manufacture our own electrical/electronics components.

# Specifications

		GA90	GA140	GA180
<b>ENGINE</b>	Brand/Type Engine model Speed Power	DEUTZ Turbo Diesel TCD2013L04-2V 2182 rpm 129 kW	DEUTZ Turbo Diesel TCD2013L06-2V 2182 rpm 200 kW	CUMMINS Turbo Diesel QSL9 2182 rpm 254 kW
<b>115 / 200 V - 400 Hz OUTPUT</b>	Nominal power Overloads Number of outputs	<b>90 kVA</b> 100 kVA - 10 min 112 kVA - 5 min 1 (2 in option)	<b>140 kVA</b> 155 kVA - 10 min 175 kVA - 5 min 2	<b>180 kVA</b> 200 kVA - 10 min 225 kVA - 5 min 2
<b>28 Vdc OUTPUT (OPTION)</b>	Voltage Rated current Peak current	28,5 Vdc ± 0,5 V 800 A 2000 A	28,5 Vdc ± 0,5 V 800 A 2000 A	
<b>OPERATING CONDITIONS</b>	Temperature Elevation Accepted fuels	-30° C to +50° C 1500 m @ +35° C Diesel EN590, Jet fuel F-34, F-35, F-44, F-63		
<b>DIMENSIONS AND WEIGHTS</b>	Weight L x W x H	2150 kg 3200x 1740x 1531 mm	2500 kg 3296x 1840x 1834 mm	2630 kg 3296x 840x 1834 mm
<b>ALTERNATOR</b>	Manufacturer Number of Poles Type Voltage Frequency Voltage Regulator Total Harmonics Distortion Transient performance	GUINAULT - manufactured in France 22/28 poles Brushless - single bearing - self-excited - with integrated fan 115 / 200 V ± 1 % 400 Hz ± 0.5 % GUINAULT RS525 electronic regulator < 3 % MIL-STD-704F / EN2282 standards / ISO 6858 compliant		

## AIRCRAFT COMPATIBILITY

- Air transportable
- AWACS (option)

## SAFETY FEATURES

### Engine

- Low oil pressure
- High temperature
- Clogged Air filter
- Battery charge failure
- Overspeed

### Generation 115V / 400Hz

- Over-voltage
- Under-voltage
- Over-frequency
- Under-frequency
- Overload
- Military Interlock

### Generation 28Vdc

- Over-voltage
- Under-voltage
- Overload

## ASSEMBLY

- Electrical cabinet made of stainless steel to meet MIL-STD-461 / 464.
- Polyester hinged canopy (easy access for maintenance)
- Galvanized frame providing excellent protection against corrosion
- 260 liters fuel tank (8 to 20 hours autonomy)
- Lateral side cable trays
- Stanag 3548 tie down points

- Braking when draw-bar is raised or lowered
- Tyres 600x9
- Leading front axle with ball bearings
- Stanag 4101 towing eye

## OPTIONS

- 270Vdc - 270 A - 72 kW for F-22 and F35 iaw SAE AS 1831
- 230V 50Hz output socket
- 56Vdc Output, 37VAC
- 115V single phase with plug SRA200
- External 28Vdc engine start
- Automatic engine oil refilling system
- Extreme cold kit for start-up at low temperatures (< -30° C) including engine preheating (50/60 Hz heater)
- Anti-towing safety: a sensor detects the movement of the trailer and triggers an audible and visible alarm if all aircraft outlets are not correctly stored to prevent damage to the aircraft socket
- Synchronized GPU for operation on AWACS
- Automatic idling for further fuel savings
- Cable rollers for easy cable handling
- Truck mounted GPU

Data are subject to modification without prior notice.