



COMPACT MOBILE GROUND POWER UNIT GENERAL AVIATION, REGIONAL AIRCRAFT

APU OFF

GA, GB & GC

Specially designed at conception for military use, the GUINAULT GA45, GB45/20 and GC20 Ground Power Units are the perfect solution for providing 400 Hz or 28 Vdc electrical power for regional aircraft.

Their compactness is unrivalled in the market (being only 1.1 m high), which significantly reduces the risk of accidents on the tarmac.

The strong performance of the dual voltage GUINAULT alternator makes it possible to use an oil cooled DEUTZ COMPACT engine, without water cooling. Maintenance and fuel consumption are reduced. The 9-phase GUINAULT alternator provides a high quality direct current (18 pulses).

A Low-Cost market-leading airline (being highly cost sensitive) selected the GUINAULT compact generator based on a comparative analysis of existing products available on the market.

The choice of the GUINAULT product was made, based upon the following criteria:

- Low maintenance cost
- The lowest fuel consumption
- Ease of manoeuvre of the GPUs (1200 kg / 2060 x 1430 x 1120 mm)

Specifications

		GA45	GB45/20	GC20
AC OUTPUT <i>(for GA/GB only)</i>	Power	45 kVA	45 kVA	-
	Power Factor	0.8	0.8	-
	Voltage	115/ 200 VAC (3 phase + N)	115 / 200 VAC (3 phase + N)	-
	Frequency	400 Hz	400 Hz	-
DC OUTPUT <i>(for GB/GC only)</i>	Voltage	-	28.5 Vdc	28.5 Vdc
	Permanent current	-	714 A	714 A
	Peak current	-	2000 A (during 3S)	2000 A (during 3S)
	Peak voltage	-	As per MIL - STD - 704 F	-
ENGINE	Brand/Type	Deutz TD2011L04i		
	Cooling	Oil cooled (integrated cooler)		
	Acceptable fuel	Diesel and jet fuel		
	Emissions	STAGE 3A		
ALTERNATOR	Model	GUINAULT AS180	GUINAULT AB180	GUINAULT AB180
	Number of Poles	18 poles	18 poles	18 poles
	Voltage Regulation	± 1%	± 1%	± 1%
	Voltage Regulator	Electronic	Electronic	Electronic
	Transient Voltage	± 3V < 200 ms, charged	± 3V < 200 ms, charged	-
	Frequency Regulation	± 1 Hz	± 1 Hz	-
	Transient Frequency	± 15 Hz < 2s, charged	± 15 Hz < 2s, charged	-
	28 Vdc rectifying	18 pulses	18 pulses	18 pulses
BATTERIES		2 x 12 V - 50 Ah total in 24 Vdc		
OUTPUT		1 AC output 115 V-400 Hz, I	1 AC output 115 V-400 Hz, 1 DC output 28 Vdc, (length 10 m. + plug ISO 461 each)	1 DC output 28 Vdc
DIMENSIONS AND WEIGHTS	Weight (Kg)	1100	1260	1200
	L x W x H (mm)	2060 x 1430 x 1120	2060 x 1430 x 1120	2060 x 1430 x 1120

SAFETY FEATURES

Engine

- Overheat
- Low oil pressure
- Battery charge failure
- Overspeed
- Clogged air filter

Generation 115 V / 400 Hz

- Over-voltage
- Under-voltage
- Over-frequency
- Under-frequency
- Overload

Generation 28 Vdc

- Over-voltage
- Undervoltage
- Overload

MAIN COMPONENTS

- Braking when tow-bar is raised or lowered
- Polyester tip-over hooding with easy access for maintenance, corrosion resistant hot dip galvanized chassis
- Lateral side cable trays
- Front axle with turnable steering
- Tyres 16.5 x 6.5-8
- 85 litres Fuel Tank

OPTIONS

- Anti-towing alarm
- Extrem cold kit for start-up at low temperatures