



The Standard

APU OFF



GUINAULT-LEBRUN

Mobile Air Conditioning Units for Aircraft Codes B to F

GF (diesel) / CF (electric) RANGE

As experts in industrial refrigeration for over 130 years, GUINAULT-LEBRUN design cost-effective, reliable, and powerful machines providing a real substitution to the on-ground use of the APU.

GUINAULT-LEBRUN units incorporate the latest industrial cooling technology and provide the greatest reliability available.

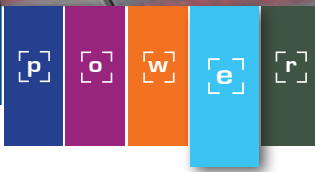
GUINAULT-LEBRUN is now the undisputed leader in aircraft air conditioning.



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Proven Solutions



GF / CF RANGE Mobile Air Conditioning Units

GUINAULT-LEBRUN air conditioning units are designed to replace an aircraft's APU and maintain the correct temperature in the cockpit and cabin during pre-flight operations, boarding and maintenance periods. The five models of the GF/CF range make it possible to meet the needs and requirements of all types of civil aircraft in continental, tropical or desert climates.

- Objectives**
- ⊕ Limit emissions of direct pollutants on the ground
- Generating Value**
- ⊕ Significant reduction of noise level on the ground
 - ⊕ Generate new revenue for the airport by offering an added-value service to airlines
 - ⊕ Significant savings in kerosene consumption and APU maintenance for airline companies
 - ⊕ Improve comfort and air quality on board
- Advantages**
- ⊕ Performance and efficiency under extreme conditions (- 40°C /+50°C)
 - ⊕ Robust and reliable
 - ⊕ Simple operation
 - ⊕ Remote monitoring and maintenance
 - ⊕ Optimized maintenance access, due to modular construction





Proven Solutions



Performance and efficiency



The GUINAULT-LEBRUN ACUs offer unrivalled performance and the highest available coefficient of performance (COP) thanks to their integrated technology and their automatic adaptation to the prevailing conditions. The special position of the condenser generates a 30% reduction of energy consumption compared to all other ACUs of equivalent power and the coefficient of performance (COP) is constant over the entire range of use.

Versatility



The GUINAULT-LEBRUN ACU can run (DUAL MODE option) equally either on its diesel engine or electrically from its 50-60Hz power supply. This DUAL MODE makes complete sense when considering the evolution of airport electrical distribution networks as 50-60Hz connection plugs are installed. The aircraft maintenance company can use the machine both inside the hangar and on the outdoor parking area.

Robust and reliable



All components are designed and manufactured in Europe. The exchangers are protected to withstand the harshest environments, such as air polluted by kerosene fumes, sea spray (iodine-loaded air), de-icing fluids, etc

Comfort of the crew and passengers



Lowering or raising the temperature in the cabin is extremely rapid with the BOOST function, allowing for a fast turnaround time between flights (common for Code C aircraft). For added comfort, a wireless sensor (available as an option) regulates the temperature inside the aircraft. Two filtration systems improve the on board air quality.

Ease of use



The on-ground operation of the machine by the agent is extremely easy via a touch screen. Flow, pressure and temperature settings for each type of aircraft are included in the controls of the ACU. The operator simply selects the aircraft type and presses the on/off button.

Reduced maintenance



Maintenance operations are limited to cleaning/replacement of air filters, cleaning the condenser (1x/yr), visual inspections according to F-gas legislation (2x/yr/PCA) and preventive maintenance of the diesel engine. Easy access to major components is facilitated, and each component can be removed and replaced without major difficulty.

Remote access and monitoring



The interface allows for reading and setting the technical data of the ACU via the menus on the touch screen. Fault diagnosis is facilitated by a step-by-step questions and answers list directly accessible from the screen. Communication with a remote monitoring system via Wifi or GPRS is available as an option.

Secure remote access can be configured as well as the automatic sending of e-mails on predefined events (start-up, shutting down, fault, etc.).



Specifications



	GF 15	GF 30	GF 40	GF 65	
Diesel Engine (GF only)	DEUTZ	TCD2013L04-2V	TCD2013L06-2V	-	
	JOHN DEERE	4045HFU82	6068HFU82	-	
	IVECO	-	-	CURSOR 13TE2	
Minimum air flow	0,8kg/sec	1,5kg/sec	1,5kg/sec	1,5kg/sec	
Maximum air flow	2,6kg/sec	4,2kg/sec	5kg/sec	6,5kg/sec	
Number of air outlets	1	2	2 or 3 (optional)	2 or 3 (optional)	
Air outlet temperature (at conditions 30°C/50%RH)	+2°C	+2°C	+2°C	+2°C	
Electrical Power Requirement (for CF & GF with Dual Mode)	< 125A	< 200A	< 250A	< 400A	
Dimensions	Weight / Kg	5.300	8.500	10.100	18.000*
	Length / mm	5.300	6.290	6.295	10.680*
	Width / mm	2.350	2.530	2.660	2.720*
	Height / mm	2.450	2.820	3.000	3.750*

* Data including the hydrostatic truck - machine only available on low profile truck

Cooling system	Input power source	Electrical supply from integrated diesel genset (or from the 50/60Hz main supply as an option)
	Compressor	Semi-hermetic compact screw compressor (no maintenance)
	Refrigerant	R134a
	Condenser	Top-mounted condenser made with copper tubes and aluminium fins. Variable speed fans (VFD controlled). Quantity: 4 for GF15/GF30, 6 for GF40 and 8 for GF65
	Expansion	Electronically regulated expansion valves
	Evaporator	Copper tubes and aluminium fins with automatic defrosting system
	Main blower	Centrifugal high-pressure blower with double-mounted filters on the air intake Variable speed (VFD controlled)

Safety features*	Engine safety	Cooling system safety
	<ul style="list-style-type: none"> • Low oil pressure • High temperature • Clogged air filter • Battery charge failure • Overspeed 	<ul style="list-style-type: none"> • High/low pressure refrigerant • Compressor overheating (KRIWAN) • Oil level/temperature • Air outlet overpressure

- Construction**
- Touch screen panel for easy intuitive operation and troubleshooting
 - High-capacity fuel tank (240 to 700 liters offering 10 to 20 hours of continuous operation)
 - Compartment for hose storage
 - Front axle with 5th wheel design (turn-table)
 - Batteries: 2 x 12V-125Ah (24VDC)
 - Brakes applied when tow-bar is raised or lowered
 - Galvanized or painted chassis provides excellent protection against corrosion

- Options**
- Heating mode
 - Dual power mode: 50/60Hz mains power input
 - Wireless sensor placed in the aircraft, attached to the passenger bridge
 - Remote communication and troubleshooting (Wifi or GPRS)
 - Truck-mounted or hydrostatic-carrier-mounted ACU (height reduction for passenger-bridge clearance)
 - Cold temperature kit, including engine pre-heating supplied by 50/60Hz mains, for start-up in extreme low temperature (<-25°C)
 - Extra sound insulation

* Features are subject to modification without prior notice_15
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