

# GROUND POWER UNITS

HIGH QUALITY AIRPORT TECHNOLOGIES

## GPU 28,5Vdc

Power	23 kVA
Voltage	28,5Vdc
Power Factor	1
Frequency	CC - DC
Output 28,5Vdc	N°1
Current	800A

## MODELS

### FPT (IVECO) ENGINE

Stage 0      20F/23NE @2000rpm

### DEUTZ ENGINE

Stage V/4F      20D/23EV @2000rpm



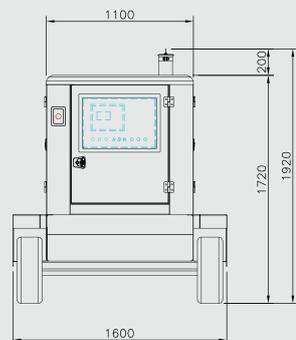
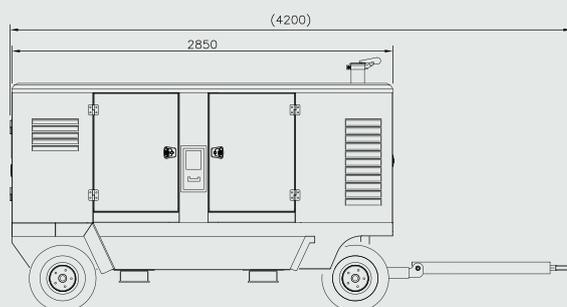
HIGH TECHNOLOGY



CERTIFIED QUALITY



USER FRIENDLY CONTROLS



Dimensions are shown in mm



Pictures may not show the actual product due to presence or absence of items



Bertoli provides robust, easy to use and maintain **400Hz diesel ground power units from 60 to 180kVA**. All models feature a user-friendly electronic device for the GPU management through which operators are able to control engine dynamics (low/rated speed, etc.) and energize the desired output(s).

**Sound-and weatherproof canopies and trailers are designed and manufactured in-house.**

Special care is devoted to quality of materials and processing. Product look sober and are an optimal matching of essentiality and maximum functionality, conceived to facilitate end users in operating the machine and get the best out of their technical mechanical potential.



## ENGINE

<b>FPT (IVECO)</b>	NEF45 - Stage 0 F34 STAGE V
<b>Type</b>	4 stroke, 4 cylinder, turbo with intercooler
<b>Fuel</b>	Diesel
<b>Speed</b>	2000 or 1846 rpm - electronic governor
<b>Cooling</b>	Water cooling with radiator and blower fan
<b>Starting</b>	Electric starting 24Vdc Batteries 2x12Vdc - 100Ah
<b>Sensors</b>	Oil pressure, Water temperature, fuel level, alternator battery charger

## DC OUTPUT

<b>N° of outputs</b>	1
<b>Voltage</b>	28,5 Vdc
<b>Power output</b>	800A continuous 1200A 90 sec 2000A 3 sec
<b>Cables</b>	2x150(mm <sup>2</sup> ), tinned, extra flexible, length 10 meters
<b>Plug</b>	3 poles, standard rubber type

## CONFIGURATION

<b>Chassis</b>	Structural steel base equipped with vibration dampers, lifting facilities fitted..
<b>Trailer</b>	Strong frame in welded steel sections; two axle trailer with steerable front wheels 180°, fix drawbar Parking brake automatically operated when the draw bar is in vertical position Cable storage compartment on both sides of GPU with easy access and appropriate size to cable length
<b>Canopy</b>	Weatherproof Anticorrosive treatment RAL 1004 (other colour on request) Large doors for inspection and maintenance Yellow flashing light on top Size signallers. Adjustable service light Control panel lighting Interior lighting for maintenance Sound level 75 dB(A) @ 7m Fire extinguisher
<b>Fuel tank</b>	Built in the base frame with cap, for 8 hours autonomy
<b>Exhaust silencer</b>	Industrial type

**Max dimensions (mm):** L2850 x W1700 x H1720

**Max weight (kg):** 2200 approx

Please contact our technical dept. after the order for definitive dimensions and weight.

**Specifications ref.:** IATA AHM N0s: 904, 905, 910, 913, 915, 972;  
SAE ARP 5015; ISO 6858:2017; ISO 461-1 and ISO461-2

## ALTERNATOR

<b>Power</b>	23 kVA
<b>Cos phi</b>	1
<b>Authorized overload</b>	110% of rated load for 1 hour in a 6 hours period 200% of rated load for 10sec
<b>Type</b>	brushless
<b>Mechanical protection</b>	IP 23
<b>Insulation</b>	Class H
<b>Voltage regulation</b>	Electronic
<b>Engine coupling</b>	Single bearing

## CONTROL PANEL

<b>Fitting</b>	On the rear side
<b>Protection</b>	IP 54
<b>Electronic device</b>	Programmable electronic device with backlight digital display. All measures are shown by scrolling pages through built-in buttons. Any alarm latched is displayed with description text.
<b>Measure</b>	<b>Engine:</b> oil pressure, water temperature, water level, fuel level, speed, battery voltage, hour counter, alternator battery charger. <b>28Vdc output:</b> voltage, current
<b>Protections: alarms control and automatic shutdown</b>	Pre-configured and editable (through built-in buttons or software) thresholds, each one with its activation delay time: Engine: low oil pressure, high water temperature, low fuel level, overspeed, underspeed, alternator battery charger failure. 28Vdc output: over/under voltage, overcurrent
<b>User switches/ buttons</b>	Power supply ON-OFF. Power output activation/ deactivation (for each output line) Flashing light ON/OFF Potentiometer

## WINTER KIT (ON REQUEST)

<b>Fuel tank</b>	Fuel tank preheating with internal coil for engine water circulator, supplied by 230V, 50Hz external power supply (during storage inside hangars)
<b>Engine</b>	Engine water preheating, supplied by 230V, 50Hz external power supply (during storage inside hangars) Engine air preheating, powered at 24V (during storage inside hangars)
<b>Battery heaters</b>	Battery heater, supplied by 230V, 50Hz external power supply (during storage inside hangars)

## TECHNICAL DOCUMENTS

<b>Engine</b>	Operation and maintenance technical manual
<b>Alternator</b>	Operation and maintenance technical manual
<b>Control panel</b>	Wiring diagram Printed label fixed on rear side (under the control panel) for a quick start & use of GPU
<b>GPU</b>	Operation and maintenance manual