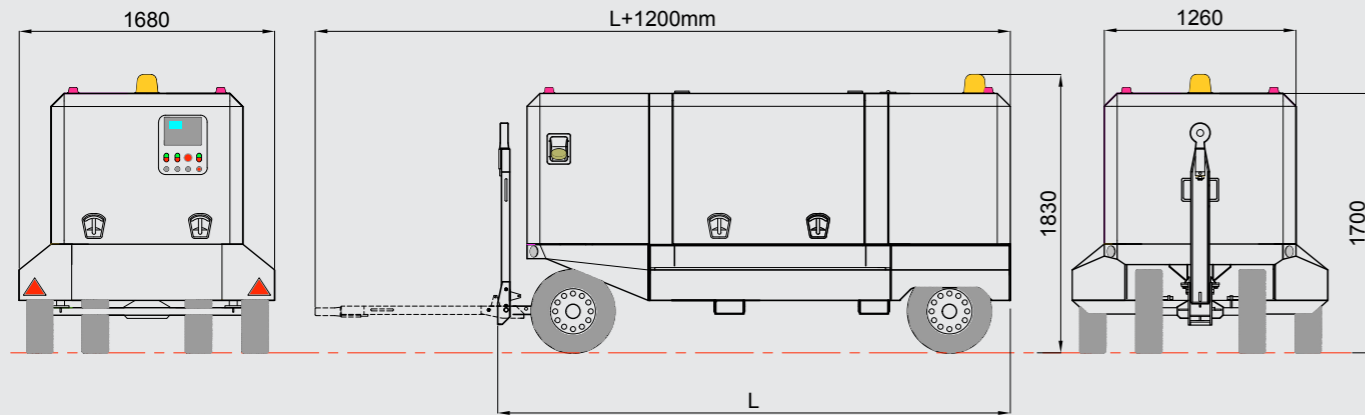


Diesel Engine 1500 RPM with Common Rail system – Stage IIIA

TECHNICAL SPECIFICATIONS

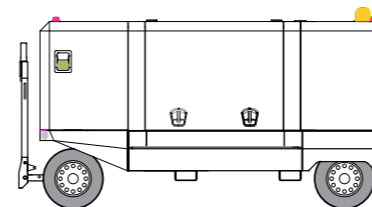
DATA SHEET	FT99.90	FT99.140	FT99.180
Power	90KVA	140KVA	180KVA
Diesel engine, 4 strokes, water cooled	Brand: Deutz Type TCD 2013	Brand: Deutz Type TCD 2013	Brand: Deutz Type TCD 2013
Rated speed	1500 RPM	1500 RPM	1500 RPM
Engine emissions in accordance with regulations	Stage III A	Stage III A	Stage III A
Alternator 115/200Vac 400Hz 1500 RPM	Brand: EFFETI Type: GPA32.90 90KVA	Brand: EFFETI Type: GPA32.140 140KVA	Brand: EFFETI Type: GPA32.180 180KVA
Output available	N. 1 x 115/200Vac 400Hz N. 1 x 28Vdc	N. 2 x 115/200Vac 400Hz N. 1 x 28Vdc	N. 2 x 115/200Vac 400Hz N. 1 x 28Vdc
Cable length Lines 115Vac and 28Vdc	10 m.	10 m.	10 m.
Configuration	Slow towing trailer	Slow towing trailer	Slow towing trailer
Max towing speed	30Km/h	30Km/h	30Km/h
Fuel tank capacity	315 l.	315 l.	315 l.



DIMENSION	FT99.90	FT99.140	FT99.180
Length (L)	3.370 mm	3.670 mm	3.670 mm
Width (W)	1.680 mm	1.680 mm	1.680 mm
Height (H)	1.700 mm	1.700 mm	1.700 mm
Weight	2.800 kg	3.300 kg	3.350 kg



Ground Power Unit **GPU EFFETI - FT99**



EFFETI srl
via Leopardi, 2 - 44042 Cento (FE) - Italy - Ph. +39 051 901616 - Fax +39 051 904437

www.effeti.it - info@effeti.it

ricreativiti

AIRPORT TECHNOLOGY





GPU EFFETI - FT99

The unit has been designed focusing on client real needs and manufactured following EFFETI quality standard, the GPU 400Hz EFFETI serie FT99 is intended for aircraft power supply combining sturdiness, safety and reliability with a neat design that suits perfectly to all your needs. GPU FT99 strong point is the 1500 R.p.m. rating that allows:

- Fuel lower consumption and a lower impact on operation costs and environment
- Reduced operating noise
- Increased reliability
- Less mechanical stress of the main components and consequently a reduced costs for maintenance and repair
- Unit improved efficiency as the diesel engine works at his max. torque.

Always sensitive to environment preservation and to the necessity to reduce carbon monoxide

emissions we have equipped GPU FT99 at 1500 r.p.m. with a STAGE IIIA certified engine, in accordance with the applicable international regulations in terms of emissions.

Simple and user friendly, thanks to its gull-wing door opening system on three sides, ensures the widest accessibility to all the unit's internal components, always granting simple and most importantly fast and comfortable maintenance operations.



From 90kVA to 180kVA

- ✓ RATED AT 1500 r.p.m.
- ✓ HIGH EFFICIENCY AT IDLE SPEED
- ✓ REDUCED MAINTENANCE COSTS
- ✓ ENVIRONMENT FRIENDLY
- ✓ OPTIONS AVAILABLE
- ✓ EFFECTIVE AFTER SALES SERVICE

ENGINE

- Diesel engine, 4 strokes, water cooled
- Engine speed: 1500 rpm
- Direct injection, turbo charged with Common Rail System
- Engine electronic control with CAN BUS system
- Filters: oil, fuel and air dry type
- Cooling radiator with pushing fan
- 24Vdc Electric system complete with cut-off battery device

400Hz ALTERNATOR

- Double bearing
- The alternator can be extract with a forklift without disassemble the canopy or the control board
- Voltage: 115/200Vac
- Frequency: 400Hz
- Rated speed 1500 r.p.m.
- Self-excited and self-regulated
- Electric features in accordance with MIL-STD-704F (Aircraft Electric Power Characteristic)
- Regulation:
 - Voltage precision: $\pm 1\%$ from 0 to full load (transient)
 - Voltage regulation: $\pm 15V$

PERFORMANCE 28Vdc

- Rectifier Unit 28Vdc/2000A
- 800A continuous
- 1200A for 10 sec
- 2000A for 5 sec

FUEL TANK

- Capacity: 315 liters
- Allocated completely inside the unit structure and protected from bumps and vibrations
- Fuel filler protected from bumps and from contact with electric parts in a proper niche
- Emptying cap
- Easily extractable in case of need

SOUNDPROOF CANOPY

- Sheet steel made canopy with soundproof material
- Gull-wing door opening to grant the maximum accessibility for maintenance of the main components
- N.6 handles for canopy doors open/closing all complete with lockable key
- Noise level at 100% load: 75 Db a 7 Mt.

TRAILER

- Trailer for on-ramp use max speed 30 Km/h complete with:

- N.4 pneumatic wheels with rear spring leaf mounted on axle
- Steering front axle and fixed rear axle
- Foldable towbar complete with towing eye
- Parking brake on the towbar with automatic insertion and disconnection
- Rear and front size lights
- N.2 side trays for cable allocating complete with easy-deploy roll system for an easier extraction

CONTROL BOARD

Command and Control:

- On/Off selector DC circuit
- Engine start button
- Engine stop button
- Idle/run speed selector
- 28 Vdc output On/Off buttons with LED light
- 200/115 Vac buttons with LED light
- Emergency stop button
- Potentiometers for fine regulation of: engine r.p.m.
- Output Voltage 28 Vdc, Voltage 115Vac

Controls and Gauges

- Multi function LCD device with readings:
 - AC line 200/115Vac voltage
 - DC 28Vdc voltage
 - Frequency 400Hz
 - Current provided
 - Power provided
 - Hour meter
 - Fuel level

- Coolant temperature
- Oil pressure
- Engine r.p.m.
- Battery voltage
- Engine fuel consumption (L/h)

Safeties electronically controlled

- Low oil pressure
- High engine temperature
- Overspeed
- Low fuel level
- Voltage on 28 Vdc out of range
- Current on 28 Vdc out of range
- High diodes temperature
- Under frequency
- Over frequency
- Under voltage on 200/115 Vac output
- Over voltage on 200/115 Vac output

FINISHING

- Standard color White RAL 9010
- Other color finishing upon request

OTHER FEATURES

- Exhaust muffler is allocated inside the canopy protected from bumps and accidental contacts complete with internal spark arrestor
- N. 1 fire extinguisher homologated, capacity 6 Kg
- N.1 Service beacon light
- N.4 LED size lights



Quality management system: ISO 9001:2008

ACCESSORIES AVAILABLE

- Protection for AC and DC plug
- Handle for AC and DC plug
- Engine pre-heating system
- Internal fire fighting system
- Internal service lights
- Transmission and data management via MODEM GSM

ENVIRONMENT

- Working temperature: $-30^{\circ}C / + 50^{\circ}C$
- Rel. Hum.: 10-90%
- Altitude: 1000 meters above sea level

