

 <b>EFFETI</b> <small>GRUPPI ELETTROGENI QUADRI ELETTRICI</small>	<b>GPU GRIFO 400/90</b> <b>1x28Vdc – 1 x200Vac</b> <b>USER'S MANUAL</b>	<b>MAN.G11</b>  Revision 1 Page 5
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## 4. GPU MAIN TECHNICAL FEATURES

GPU ELECTRICAL CHARACTERISTICS	
STARTING	Electric manual
MAX. POWER	90KVA
VAC TENSION	200/115Vac
FREQUENCY	400Hz
BATTERY TENSION	24Vdc
AVAILABLE OUTPUT	N°1 200 Vac 400Hz N° 1 28 Vdc
GPU MECHANICAL CHARACTERISTICS	
LENGTH (TOWBAR UP)	3300 mm
LENGTH (TOWBAR DOWN)	4440 mm
WIDTH	1650 mm
HEIGHT	1750 mm
FRONT TRACK	670 mm
REAR TRACK	1430 mm
LIFTING FORK PITCH	800 mm
WEIGHT	3000 Kg
ENGINE COOLING	Water
FUEL TANK CAPACITY	198 litres
ENGINE FEELING	Diesel
POSITIONING	Slow towing trailer
MAX. SPEED	25 Km/h
PROTECTION	Aluminium canopy 15 mm thickness

## 5. GPU MAIN COMPONENTS TECHNICAL DATA

### 5.1 Alternator

ALTERNATOR MODEL	GTS315
FREQUENCY	400 Hz
R.P.M.	1714 r.p.m.
POWER	90 KVA
POWER FACTOR	0,8
TENSION	200 Vac
CONSTRUCTIVE FORM	B34
PROTECTION	IP 23
OVERSPEED	2400 r.p.m.

Windings and mechanical parts protection : tropicalized alternator with windings impregnated with special in a vacuum system

Wave form : line voltage loadless and with three phase balanced non-deforming load , synusoidal type with an harmonic remainder less than 5%.

Automatic voltage regulation : within 1% with load from 0 to 100% , with speed –2% at +5% and power factor from 0,8 to 1 with balanced load .

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## 5.2 Engine

ENGINE MODEL	VM D706LT
CYCLE	DIESEL FOUR STROKE CYCLE
CYLINDERS	6
BORE	94 mm
STROKE	100 mm
DISPLACEMENT	4164 cm <sup>3</sup>
R.P.M.	1714 giri/min.
OIL PAN CAPACITY	7,5 Kg
DRY WEIGHT	373 Kg
STARTING	ELECTRIC 24Vdc

Rotating : clockwise looking at the engine from the fan side.

Timing system :with rocking lever with distribution camshaft within engine basement and gear controlled.

Air intake : through oil bath filter.

Fuel feeding : with diaphragm pump

Combustion : Direct injection

Cycle : diesel 4 strokes

Cooling: water

Injection pump: rotative external

Lubrication : forced lobe

Starting : electric 24Vdc

## 5.3 Control Board

TENSION POWER CIRCUIT ( PHASE/PHASE)	200Vac
FREQUENCY	400 Hz
TENSION AUXILIARY CIRCUIT	24 Vdc
DIMENSION	( 700 x 500 x 200 ) mm
PROTECTION	IP 55

The control board can be defined as “the brain” of the whole system . It is mounted inside the canopy of the GPU on a proper support and its interior features all the electric and electronic devices that control the unit . Its doors grant an easy accessibility , if necessary for maintenance and control ; it is manufactured according to the current rules in law regarding electric safety.

Through the control board the operator can monitor and command all the main parameters during the GPU functioning . All the components are built according the current rules in law regarding electric safety in terms of insulation and protection

## 5.4 Trailer

FRONT AXLE CARRYING CAPACITY	1800 Kg
REAR AXLE CARRYING CAPACITY	2500 Kg
FRONT AXLE WEIGHT	58 Kg
REAR AXLE WEIGHT	38 Kg
FRONT TRACK	670 mm
REAR TRACK	1430 mm
WHEELS PRESSURE	6 bar
SPRING LEAF SUSPENSION THICKNESS	7 mm
SPRING LEAF SUSPENSION WIDTH	50 mm
CHASSIS	STRUCTURAL STEEL

## 5.5 Fuel Tank

FUEL TYPE	DIESEL
CAPACITY	198 litres

It is placed under the GPU on the rear part of the machine and it is fixed directly on the chassis trailer . It is provided with an external cap easily accessible for refuelling and of a small cap on its bottom for void it.

## 5.6 Canopy

The protection and soundproof canopy , is made in aluminium folded with a 2 mm. thickness , is designed to grant the protection and to be waterproof from external agents of all its internal parts both engine and electrical . The GPU is designed to work with its canopy completely closed , granting the lowest noise level thanks to its internal coating of noise reduction material suitable for this use.

## 5.7 GPU Main Dimension

