Diesel Generator Set Specifications Sheet- 50 kVA

Generator Specifications:	
Genset Manufacturer	Greaves Power
Genset Rating	Prime Power
Genset Output (KVA / KW)	50 / 50
Genset Model	GPWII-PII-50
Engine rating or Max. Power at rated RPM, in KW (BHP)	59 (80.1)
Engine Model	3G11TAG25
Engine Type	TCAC
No. of Cylinders / Cylinder arrangement	3 / Inline
Displacement (L)	3.66
Bore & Stroke (mm)	108 X 133
Compression ratio	16.8
Rated RPM	1500
Governor: Type /Class of Governing	Mechanical/G2
Over speed trip (rpm)	1650
Air cleaner type / Qty	Dry / 01
Exhaust system	
Maximum allowable back pressure, kPa	4.5

Engine Electrical system:	
Charging alternator Voltage / Current (DC)	12V / 35Amps
Starter Motor rated voltage (DC)	12
Battery Voltage (DC) / Capacity (AH)	12V, 88 AH

Fuel System:	
Recommended Fuel	HSD
Fuel tank capacity (Ltr)	150
Fuel consumption - LPH at % load	
100%	12.35
75%	9.97
50%	7.2
25%	4.7

Lubricating Oil system :	
Lub oil sump capacity	8.5
Oil change period (Hrs)	500
Oil consumption (%of SEC)	≤0.2
Oil filter quantity (Nos) /type	01 / spin on type
Recommended Oil Grade	15W40 Greaves Maxtherm API CI4
Oil Cooler	Water cooled

Cooling System :	
Cooling system is designed for max ambient temp, Deg. C at rated load	50
Radiator System capacity, including engine, (L)	20 Ltr
Water pump type	Centrifugal, Gear Driven

Alternator Specification:	
Voltage	380-440V
Frequency	50Hz
Current @ 0.8PF (Amps)	69.6
Type	4 Pole , Rotating field
Exciter Type	Brushless (Permanent magnet optional)
Leads: Quantity , type	6, fixed. 12, re connectable (Optional)
Voltage regulator	Solid State
Insulation	Class H ,
Temperature rise	125 Deg. C (Class H)
Bearing: Quantity , type	1,Sealed
Coupling	Flexible disc Close coupled
Voltage regulation : No load to full load	2 Phase sensing,±1%
One step load acceptance	100% of rating
Unbalance load capability	25% of rated current

Standard scope of supply:

Engine with direct injection, water cooled engine, 3 cylinder, in-line, 4 stroke, rated at 1500 RPM, conforming to **ISO 3046 / BS 5514** has the following specifications:
- Mechanical FIP
- Mechanical governor /Electronic Governor (Optional)
- Turbocharger, pulse tuned exhaust manifold, stainless steel exhaust flexible connection
- Radiator Cooled, turbo charged after cooled
-Plate type, lube oil, cooler
-Filters-fuel, lube oil
- Dry type replaceable paper element air cleaner
- Flywheel housing and flywheel to suit single bearing alternator
- Starting motor – Electric, battery charging alternator
- First fill lube oil and coolant

Alternator: Meccalte / (Optional -Stamford/ Crompton Greaves /equivalent)
-brushless alternator
- Self-excited, self-regulated
- Class 'H' insulation limited to temperature rise of class H
- Salient pole revolving field
- Single bearing
- Automatic voltage regulator

Acoustic enclosure – Engine alternator assembly mounted on AVM with Silencer and S.S exhaust bellow suitably optimized to meet stringent sound & emission standards as laid down by MOEF / CPCB
- Base rail with draw-out type fuel tank is provided with a drain plug, air Vent, inlet and outlet connections, level indicator, manhole etc.
- Sub-base fuel tank with 14 hours capacity at 75% load.
- 12V dry, batteries with connecting leads and terminals
-90% gloss RAL9003 white pure polyester powder coated, base in black colour.

Control panel: RAL 9003 White Powder coated control panel manufactured with CRCA sheet , Control Panel is having following features:
-Water and lube oil drain outlets located on the outer surface- Leading to ease of maintenance and cleanliness.
- MCCB of suitable rating with **short circuit** protection
- Controller which displays **voltage, current, KW, PF, Frequency, KWh**.
- Indicating lamps for "**Load On**" and "**Set Running**"
- **Current transformers** of suitable ratings
- **Copper Cables** of suitable capacity with incoming and Outgoing terminations
- Control fuses duly wired and ferruled

Power cables: Uninyvin **copper** conductor cables between Alternator & Control panel inside the canopy.

Literature:
Operation Manual
General maintenance & installation Guideline
Foundation Drawing
Parts manual

Generator Controller (GADC-321)

CONTROLER TYPE	FEATURES	DISPLAY PARAMETER	AUDIO VISUAL WARNING	SHUT DOWN WITH AUDIO VISUAL ANNUNCIATION
Greaves Advance Digital Controller	Compact and microprocessor based fully configurable control Unit.	Engine Oil pressure	Low Oil pressure	Low Oil Pressure
	Graphic display	Coolant temperature	High Coolant temperature	High Coolant temperature
	The unique integrated DG set controller	Fuel level indication %	Low Battery Voltage	Engine Over speed
	Incorporate both engine and alternator parameter in one console	Battery voltage	Low fuel Level	Engine underspend
	Fully configurable digital out put	Engine rpm		Low Fuel
	All parameter are settable and password protected	DG set Running Hours		**Over load**
	Remote start	**Generator Volts – Phase – Neutral & Phase - Phase**		**Under voltage**
		Generator Current (Amps)		**Over voltage**
		Power factor		**Over frequency**
		KWHR		**Under frequency**
		KW		

Optional Items:

Cooling System: Heater Kit for -20 Deg. C Operation / Heater Kit for -30 deg.Cel

Electrical Systems: Alternator Space Heater / Higher Rating Battery / Battery Charger / Battery Heater / Copper Bus Bar / Sealable kWh / Earth Fault Relay / Remote Annunciator / Remote monitoring / RTD/BTD Temperature Scanner.

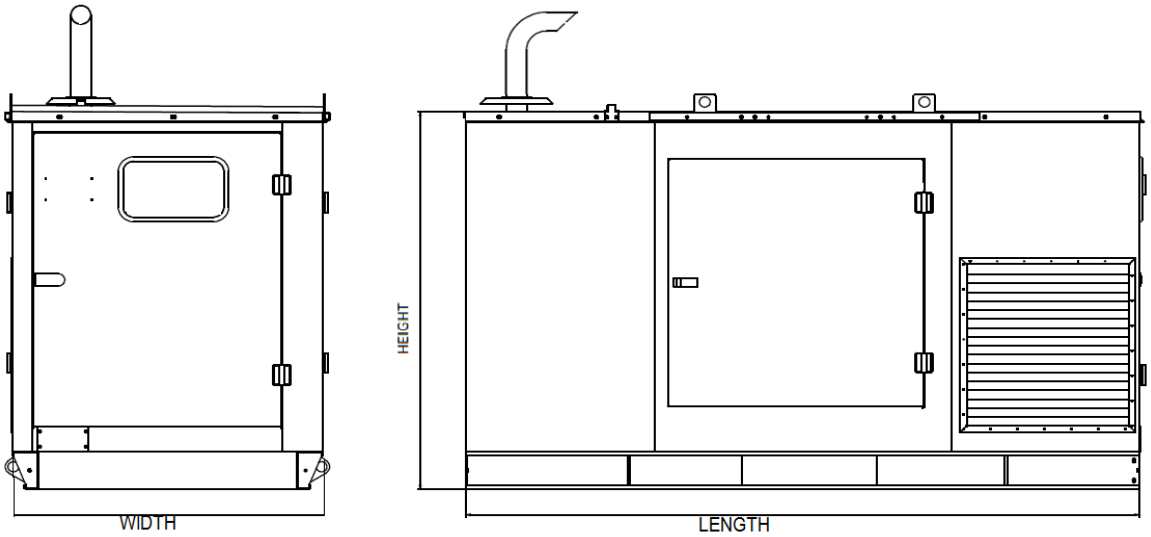
AMF &Synchronizing System: AMF panel / AMF with Auto-synchronization (Deep Sea / Woodward)

Open Unit (For Export) Exhaust Silencer- Hospital/ Residential grade, stainless steel, flexible pipe.

Fuel System: Flexible Fuel Lines / SS fuel lines / Fuel Pressure Gauge/ fuel flow meter

Enclosed Unit:-Sound Enclosure – Super silent / External 990 Lt. Fuel Tank

Miscellaneous: Air Cleaner (Heavy Duty)/Air Cleaner Restriction Indicator Digital / **Closed crankcase ventilation**



Typical Enclosed GENSET Dimensions & weight					
Model	Rating	Length(mm)	Width(mm)	Height(mm)	Dry Weight(kg)
GPWII-PII-50	50	2500	1150	1535	1210