Diesel Generator Set Specification Sheet - 82.5 kVA

Generator Specifications	
Genset manufacturer	Greaves Power
Genset rating	Prime
Genset output (kVA/Kwe)	82.5/66
Genset Model	GPWII-PII-82.5
Engine rating (Max power @ rated RPM in KW(BHP)	74.5(101.3)
Engine model	3G11TAG26
Aspiration/Cooling	TCAC/Radiator
No. of cylinders/Cylinder arrangement	3/Inline
Displacement (L)	3.655
Bore x Stroke (mm)	108 x 133
Compression ratio	16.8
Rated RPM	1500
Governor: Type/Class of governing	Mech. / G2
Frequency regulation: No load to full load	Isochronous
Overspeed trip (RPM)	1650
Air cleaner type/Qty	Dry/01

Exhaust System	
Maximum allowable backpressure (Kpa)	4.5

Engine Electrical System	
Charging alternator voltage/current (DC)	12V/35A
Starter motor rated voltage (DC)	12
Battery voltage (DC)/Capacity (AH)/Qty	12/88/1

Fuel System	
Recommended fuel	HSD
Fuel tank capacity (L)	150

Fuel Consumption - LPH @ % Load	
100%	19.1
75%	14
50%	
25%	

Lubricating Oil System	
Lube oil sump capacity	10
Lube oil change period (Hours)	500
Lube oil consumption (% of SFC)	<0.2
Lube oil filter type/Qty	Spin on/01
Recommended lube oil grade	15W40 Greaves Maxtherm API CI4
Oil cooler	Water cooled

Cooling System	
Max ambient capability (Deg C)	50
Coolant capacity (Engine+Radiator) (L)	20
Water pump type	Centrifugal, gear driven

Alternator Specifications	
Voltage (V)	380 - 440
Frequency (Hz)	50
Current @ 0.8 PF (Amps)	115
Type	4P, rotating field
Exciter type	Brushless (PMG optional)
Leads: Qty/Type	6 fixed Optional 12 reconnectable
Voltage regulator	Solid state
Insulation	Class H
Temperature rise (Deg C)	125
Bearing: Qty/Type	1, sealed
Coupling	Flex disc
Voltage regulation: No load to full load	2P sensing, ±1%
One step load acceptance	100% of rating
Unbalanced load capability	25% of rated current

Standard scope of supply:

Engine: Direct injection, water cooled , 3 cylinder, inline, 4 stroke, rated at 1500 RPM, conforming to ISO 3046 / BS 5514 has the following specifications:
- Mechanical FIP
- Electronic governor
- Turbocharger, pulse tuned exhaust manifold, stainless steel exhaust flexible connection
- Radiator Cooling, with turbocharged after cooling
- Plate type lube oil cooler
- Filter –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 of lube oil and coolant

Alternator: Crompton Greaves (optional-Stamford/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 AV mounts with silencer and S.S exhaust bellow suitably optimized to meet stringent noise emission standards as laid down by MOEF/CPCB
- Base rail with draw-out type fuel tank provided with drain plug, air Vent, inlet and outlet connections, level indicator, manhole etc
- Sub-base fuel tank with 11 hours capacity at 75% load
- 24 V dry batteries with connecting leads and terminals
- 90% gloss RAL9003 white pure polyester powder coated, base in black colour
- Water and lube oil drain outlets located on the outer surface- Leading to ease of maintenance and cleanliness.

Control panel: RAL 9003 White Powder coated control panel manufactured with CRCA sheet provided with
- MCCB of suitable rating with short circuit protection
- Controller with voltage, current, KW, PF, Frequency, KWh display
- Indicating lamps for "Load On" and "Set Running"
- Current transformers of suitable ratings
- Aluminum busbars 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 Guidelines
- Foundation Drawing
- Parts manual

Generator Controller (GADC 321)

Controller Type	Features	Display Parameters	Audio Visual Warning	Shutdown with Audio Visual Annunciation
GADC 321 Genset Controller 	Compact and micro processor based fully configurable control unit	Engine oil pressure	Low oil pressure	Low oil pressure
	4 line LCD display	Coolant temperature	High coolant temperature	High coolant temperature
	Unique integrated DG set controller	Fuel level indicator (%)	Low battery voltage	Engine overspeed
	Incorporates both, engine and alternator parameters in a single console	Battery voltage	Low fuel level	Engine underspeed
	Fully configurable digital output	Engine rpm		High canopy temperature
	All configurable parameters with password protection	DG set running hours		Low fuel level
	AMF ready	Generator volts - Phase to neutral & Phase to phase		Over voltage
	Remote start	Generator current (amps)		Under 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 C

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

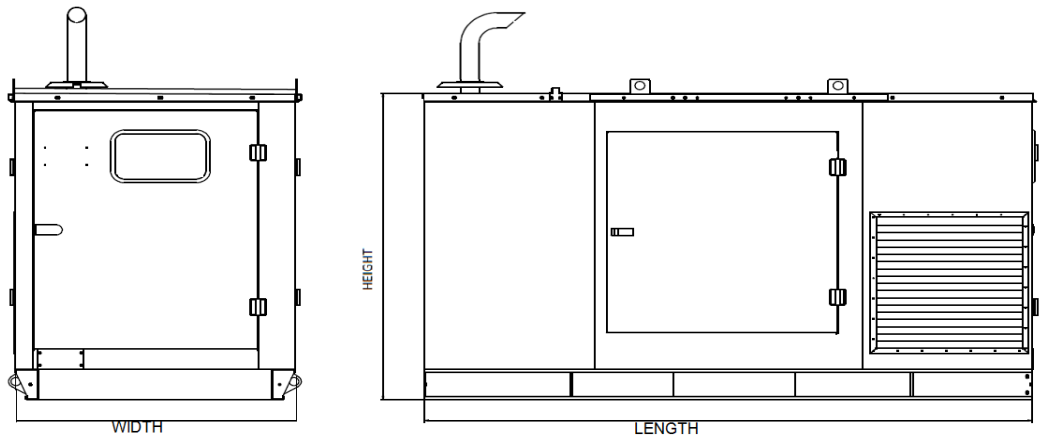
AMF & Synchronizing System: AMF panel / AMF with Auto-synchronization (Deep Sea / Woodward)

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: Acoustic Enclosure – Super silent / External 990 L Fuel Tank

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



Typical enclosed genset dimensions and weight

Model	Rating (kVA)	Length (mm)	Width (mm)	Height (mm)	Dry Weight (kg)
GPWII-PII-82.5	82.5	2800	1150	1540	1270