

MODEL: VG550-IIICS



Genset Model	VG550-IIICS
Prime Power(50HZ)	400KW / 500KVA
Standby Power(50HZ)	440KW / 550KVA
Frequency/Speed	50Hz/1500rpm
Standard Voltage	230V/400V
Phases	Three phases, four wires
Manufacturer	Vega Power International PTE.LTD

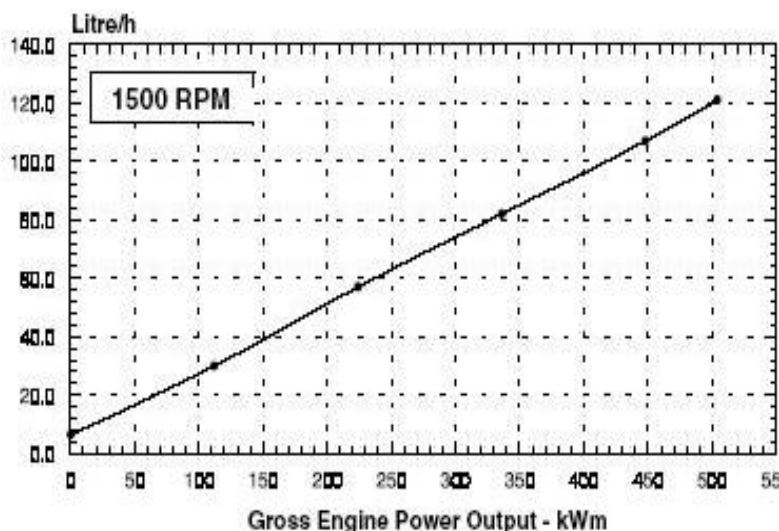
- ◆ Assembled by Cummins diesel engine and Stamford alternator.
- ◆ Three filters as standard, fuel and water separator as optional.
- ◆ Radiator and fan with safety guard.
- ◆ Single bearing alternator IP 23, Insulation Class H.
- ◆ Heavy duty steel as base frame and 8hrs operation base fuel tank.
- ◆ Automatic control panel and 3 poles circuit breaker, internal cable.
- ◆ 12V or 24V battery, battery wires.
- ◆ Battery charger and float battery charger as standard supply scope.
- ◆ Optional soundproof canopy, ATS, synchronization panel, movable trailers.

Engine Data:

Manufacturer	Chongqing Cummins Engine Co. Ltd.
Model	KTA19-G4
Engine speed	1500rpm
Engine power	
-----Standby power	504kw /675HP
-----Prime power	448kw /600HP
Type	4 cycle, In-line, 6-cylinder
Aspiration	Turbocharged and Aftercooled
Governor	electrical
Bore * Stroke	159*159 mm
Displacement	18.9 L
Compression ratio	13.9:1
Idle speed	675 – 775 r/min
Brake mean effective pressure(rated_ Max condition)	1896- 2137kPa
Piston speed	7.9 m/s
Friction horsepower	45kw(60HP)

Fuel Consumption:

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	kg/ kWm-h	lb/ BHP-h	litre/ hour	U.S. Gal/ hour
STANDBY POWER						
100	504	675	0.204	0.336	121	31.9
PRIME POWER						
100	448	600	0.203	0.336	107	28.4
75	336	450	0.207	0.341	82	21.6
50	224	300	0.216	0.353	57	14.9
25	112	150	0.228	0.383	30	8.1
CONTINUOUS POWER						
100	355	475	0.207	0.340	86	22.8



Exhaust system

Max. allowable back pressure	10 kPa
Standard exhaust pipe diameter	127 mm

Air induction

Maximum allowable intake air restriction	
-----with clean filter element	3.73 kPa
-----with dirty filter element	6.23 kPa
Intake Air alarm temperature	82 °C

Cooling system

Coolant capacity	
-----After-cooler Only	23
-----With heat exchanger HX 6076(With out Explantion tank)	199 L
-----With explantion tank & LTA	112 L
Standard thermostat(modulating) range	82-93 °C
Max. coolant temerature	96.1 °C
Max. allowable top tank temerature for standby/prime power	104/100 °C

Lubrication system

Oil Pressure	
-----Idle speed	138 kPa
-----Rated speed	345-483 kPa
Max. allowable oil temperature	121°C
Oil Pan capacity - Low/High	32.2 /37.9L
Total system capacity(excluding by-pass filter)	84.4 L
Angularity of oil pan-Front Down	30 °

Fuel System

Type Injection system	Direct injection Cummins PT
Min. Allowable fuel tank vent capability	425 L/h

Electric system

Min. recommended battery capacity (24V)	
-----Cold soak at 10°C or above-----CCA	600
-----Cold soak at 0-10°C or above-----CCA	640
-----Cold soak at -18-0°C or above-----CCA	900
Max. allowable resistance of Starting circuit	0.002 ohm
Starter(heave,Anode)	24 Volt
Battery recharge system, negative ground	35 ampere

Performance data

	Standby power	Prime power
Governed Engine Speed.....RPM	1500RPM	1500RPM
Engine Idle Speed.....RPM	675-775	675-775
Gross Engine Power Output.....KW	504	448
Friction Horsepower.....KW	40	40
Engine Water Flow to Engine.....Litre/sec	5	
Intake Air Flow.....Litre/sec	579	531
Exhaust Gas Flow.....Litre/sec	1604	1434
Exhaust Gas Temperature...°C	557	538
Heat Rejection to Ambient/min(KW)	72	64
Heat Rejection to Coolant.....KW	361	319
Heat Radiation.....KW		

Alternator Specifications:

Manufacturer	Cummins Generator Technologies(China) Co. Ltd
Model	HCI544D
Frequency	50HZ
Voltage	400V
Output power-----Continuous duty/40°C	550kVA / 440kW
-----Stand-by/27°C	590kVA / 472kW
Phase	3 ph.
Power factor	P.F.=0.8
Insulation class	H
Winding pitch	2/3 (N ° 6)
Number of wires	12
Protection	IP23
Altitude	≤ 1000 m
Overspeed	2250 min ⁻¹
Excitation system	SELF EXCITED
AVR type	AS440
Voltage regulation	±1%
Waveform distortion	no load < 1.5% non-distorting balanced linear load < 5.0%
Telephone interference	THF< 2%
Air follow	1.1 m ³ /s
Relative humidity	≤ 95%
Bearing	Single
Coupling	Direct

Alternator general data:

- ◆ Operate either 50Hz or 60Hz.
- ◆ Standard enclosure IP23, but IP44, IP55 for option
- ◆ Insulation class H.
- ◆ Shunt excitataion systems.
- ◆ PMG system for options.
- ◆ Automatic voltage regulator
- ◆ Single bearing alternator
- ◆ Stator grease insulation covered
- ◆ Rotator and excitation high polymer
- ◆ Resist the corruption oil and acid
- ◆ Rotator balance is in accordance with BS5625 standard 12.5
- ◆ High-quality lubrication sealed long-time bearing
- ◆ Rotator silicon steel close tight

Control System



The **DSE6120** is made by DEEPSEA and is a new control module for single gen-set applications, and it is an Automatic Start Control Module and is simple to operate, and the module includes USB, RS232 and RS485

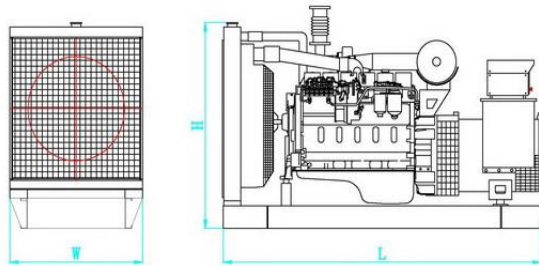
for expansion device connectivity.

Specifications: Frequency meter, Ammeter, Voltmeter
Alarms and faults Oil pressure, water temperature, No start-up, Overspeed, Min/max alternator, Min/max battery voltage, Low fuel level, Emergency stop.

Engine parameters: Hours counter, Oil pressure, Water, temperature, Engine speed, Battery voltage, Fuel level.

Weight and Dimensions

1. Open Version:

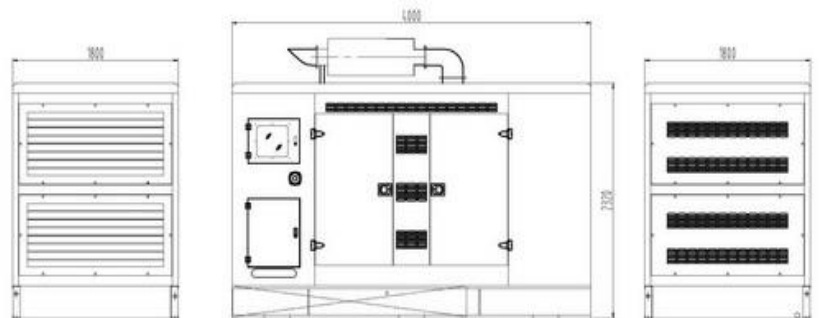


Open Type (Standard Configuration)

Overall Size: 3250 × 1310 × 2130mm(L*W*H)

Weight: 4300kg

2. Soundproof Version:



Soundproof Type

Overall size: 3900 × 1600 × 2230mm(L*W*H)

Weight: 5250kg