



DATA SHEET

The power for the better life

DIESEL GENERATOR SET
50Hz/1500 rpm

MODEL: VG500CS



Genset Model	VG500CS
Prime Power	360KW / 450KVA
Standby Power	400KW / 500KVA
Frequency/Speed	50Hz/1500rpm
Standard Voltage	230V/400V
Phases	Three phases, four wires
Manufacturer	Vega Power International PTE.LTD

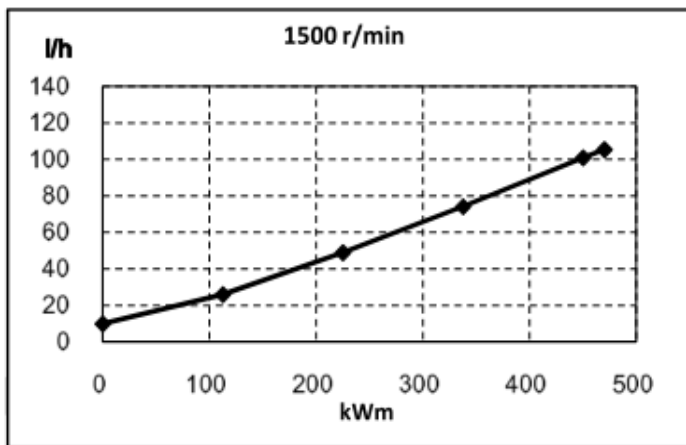
- ◆ Assembled by Cummins diesel engine and Stamford alternator.
- ◆ Three filters as standard, fuel and water separator as optional.
- ◆ Radiator and fan with safety guard.
- ◆ Single bearing alternator IP 23, Insulation Class H.
- ◆ Heavy duty steel as base frame and 8hrs operation base fuel tank.
- ◆ 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.

Cummins Engine Data:

Manufacturer	Dongfeng Cummins Engine Co., Ltd.
Model	QSZ13-G5
Engine speed	1500rpm
Engine power	
-----Continuous power	395kw / 529 HP
-----prime power	450kw / 603HP
-----standby power	470kw / 629HP
Air intake way	Turbocharged & Charge Air Cooled
Cylinder quantity	6
Bore * Stroke	130*163 mm
Displacement	13.0L
Fuel system	HPCR
Governor Regulation	≤1%
Low idle	700 rpm
Piston speed	8.15
Friction energy output	31

Fuel Consumption:

Engine Fuel Consumption @1500 r/min						
OUTPUT POWER			FUEL CONSUMPTION			
%	bhp	kWm	lb/bhp.h	g/kWm.h	gal/h	l/h
Standby Power						
100	629	470	0.317	193	400	105.5
Prime Power						
100	603	450	0.317	193	383	101.0
75	452	338	0.311	189	281	74.2
50	301	225	0.308	187	185	48.9
25	151	113	0.327	199	99	26.0
Continuous Power						
100	529	395	0.314	191	332	87.7



Exhaust system:

Max. back pressure imposed by complete exhaust system	13 kPa
Maximum allowable static bending moment at exhaust outlet flange	27 N-m
Exhaust pipe size normally acceptable	130 mm

Air intake system:

Max. air intake resistance	
-----Heavy duty dirty air filter	6.2 kPa
-----Heavy duty clean air filter	3.2 kPa
Max.allowable pressure drop across charge air cooler and OEM CAC pipe	13 kPa
Max.temperature rise between ambient air and engine air	11.1°C
Maximum Intake Manifold Temperature	85°C
Air intake flow (base output - standby power)	28.3-29.7 m3/min

Lubrication system:

Oil pressure @ idle - minimum	82.7 kPa
Total system capacity (standard pan)	45.42 L
Maximum lube oil flow to all accessories	7.57 L/min
Typical oil pressure range - warm engine	207 - 276 kPa

Fuel system:

Maximum allowable restriction @ OEM point with maximum fuel flow	13.5 kPa
Maximum fuel drain restriction (total head) before (or without) check valve	27 kPa
Minimum fuel tank venting requirement	0.2 L/s
Maximum fuel inlet temperature	71 °C
Maximum heat rejection to return fuel	5.36kw
Maximum design fuel flow	204kg/h

Cooling system:

Coolant capacity – engine only	23.1L
Engine coolant circuit thermostat opening temperature	82 °C
Engine coolant circuit thermostat fully open temperature	94 °C
Maximum coolant pressure(exclusive of pressure cap; closed thermostat at maximum no load speed)	407 kPa
Maximum coolant temperature - engine out	102 °C
Maximum deaeration time	25min
Minimum operating block coolant temperature	71 °C

Exhaust Emissions Data

Weight-Specific Nox	5.023 g/kwh
Weight-Specific HC	0.112 g/kwh
Weight-Specific CO	0.379 g/kwh
Weight-Specific Particulates	0.020 g/kwh
Emission certificate	MEP stage II

Electric system:

Starter	24V
engine only reserve capacity	270min
Min. battery capacity_ -12°C(CCA: cold cranking Ampere)	900 CCA

Alternator Specifications:

Manufacturer	Cummins Generator Technologies(China) Co. Ltd
Model	HCI544C
Output power	Prime power 455KVA, Standby power 500KVA
AVR model	AS440
Number of phase	3
Power factor (Cos Phi)	0,8
Altitude	≤ 1000 m
Overspeed	2250RPM
Number of Pole	4
Exciter type	SELF EXCITED
Insulation class	H
Voltage regulation	±1%
Protection	IP23
Waveform distortion	no load < 1.5% non-distorting balanced linear load < 5.0%
Telephone interference	THF< 2%
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.
 - ◆ AREP or 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



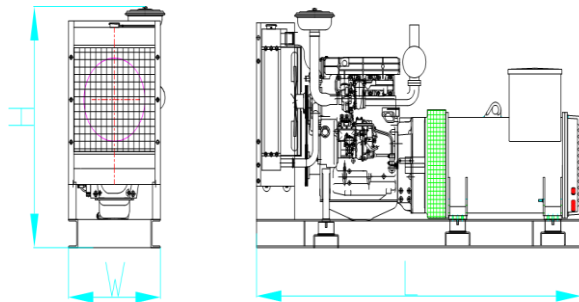
The **DSE6120** is made by DEEPSEA and is a new control module for single gen-set applications, and it is an Automatic Start Control Module and is simple to operate, and the module includes USB, RS232 and RS485 for expansion device connectivity.

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.

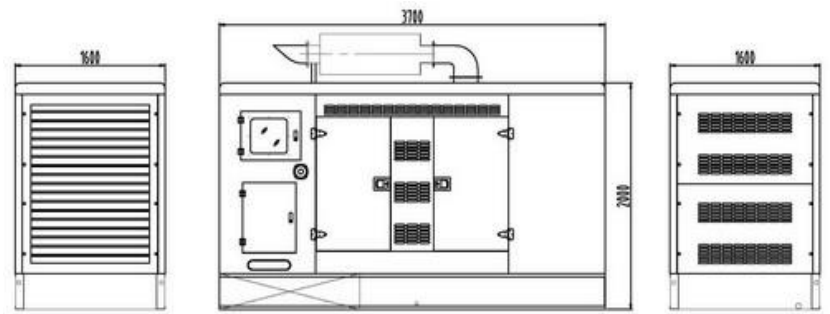
Weight and Dimensions

1. Open Version:



Open Type (Standard Configuration)
Overall Size: 2970×1360 ×2100mm(L*W*H)
Weight: 3200kg

2. Soundproof Version:



Soundproof Type
Overall size: 3700× 1600×2180mm(L*W*H)
Weight: 4000kg