

MODEL: VG138-ICS



Genset Model	VG138-ICS
Prime Power	100KW / 125KVA
Standby Power	110KW / 138KVA
Frequency/Speed	50Hz/1500rpm
Standard Voltage	230V/400V
Phases	Three phases, four wires
Manufacturer	Vega Power International PTE.LTD

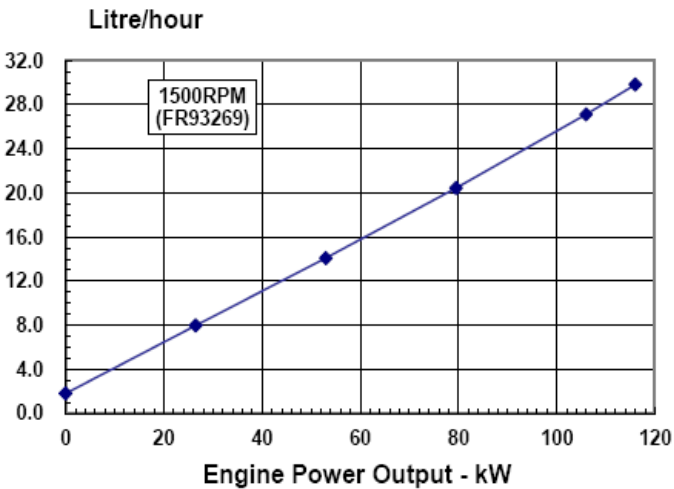
- ◆ Assembled by Cummins diesel engine and Stamford alternator.
- ◆ Three filters as standard, fuel and water separator as optional.
- ◆ Radiator and fan with safety guard.
- ◆ Single bearing alternator IP 23, Insulation Class H.
- ◆ Heavy duty steel as base frame and 8hrs operation base fuel tank.
- ◆ 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	Dongfeng Cummins Engine Co., Ltd.
Model	6BTA5.9-G2
Engine speed	1500rpm
Engine power	
-----Standby power	116kw / 155HP
-----prime power	106kw / 142HP
Aspiration	Turbocharged & Aftercooled
Cylinder quantity	6 line
Bore * Stroke	102*120mm
Displacement	5.9L
Fuel system	BYC PB/ Electronic Governor
Speed-droop	≤5%
Low idle	750-850 rpm
Piston speed	6.0 m/s
Friction energy output	12.7 kw

Fuel Consumption:

output power			fuel consumption	
%	KW	HP	g/KW.h	L/h
standby power				
100	116	155	212	30,0
base output power				
100	106	142	211	27
75	80	107	212	20
50	53	71	219	14
25	27	36	248	8
continuse power				
N/A	N/A	N/A	N/A	N/A



Exhaust system:

Max. exhaust back pressure	10kPa
Exhaust Pipe Size Normally Acceptable	75mm
Maximum Static Supported Weight at the Turbocharger Outlet Flange	13.5 N.m
Exhaust gas flow (prime power - standby power)	305-334 L/sec
Exhaust temperature (prime power - standby power)	540-570 °C

Air intake system:

Max. air intake resistance	
Dirty Element	6kPa
Clean Element	3.7kPa
Minimum Dirt Holding Capacity with Heavy Duty Air Cleaner	53g/cfm
Maximum Temperature Rise from Ambient to the Inlet of the Turbocharger	17 °C
Recommended intake piping size (inner diameter)	76mm
Air intake flow (prime power - standby power)	112-118 L/sec

Lubrication system:

Normal oil pressure range	
-----idle speed	207 kPa
-----governor speed	345 kpa
Max. oil temperature permitted in oil pan	121 °C
Oil Capacity with OP 9006 Oil Pan : High - Low	14.2-12.3L
Minimum required lube system capacity-sump plus filters	16.4L
Angularity of Standard Oil Pan: (Values stated are for intermittent operation only): (any direction)	40 °

Fuel system:

Type Injection System	BYC PB direct injection
Maximum Restriction at Lift Pump	13.6 kPa
Maximum Allowable Head on Injector Return Line (Consisting of Friction Head and Static Head)	67.7 kPa
Total Drain Flow	30 L/h

Cooling system:

Coolant capacity – engine only	10L
Max. coolant cycling resistance exterior engine	28 kPa
Maximum Static Head of Coolant Above Engine Crank Centerline	14m
Thermostat adjusting temperature (range)	82-95 °C
Min. opening pressure of radiator cap	69 kPa
Maximum Top Tank Temperature for Standby/Prime Power	104 / 100 °C
Engine coolant flow (prime power - standby power)	2.0 L/s

Electric system:

Cranking Motor (Heavy Duty, Positive Engagement)	12V	24V
Battery Charging System, Negative Ground	63A	40A
Maximum Allowable Resistance of Cranking Circuit	0.00075 Ω	0.002 Ω
Minimum Recommended Battery Capacity • Cold Soak @ 10 °F (-12 °C) and Above	800 0°F CCA	400 0°F CCA

Alternator Specifications:

Manufacturer	Cummins Generator Technologies(China) Co. Ltd
Model	UC274ES
Output power	100KW
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.
 - ◆ 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



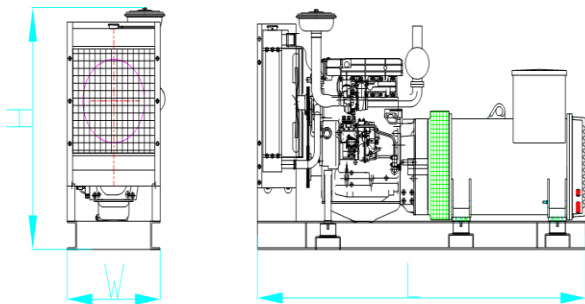
The **DSE6120** is made by DEEPSEA and is a new control module for single gen-set applications, and it is an Automatic Start Control Module and is simple to operate, and the module includes USB, RS232 and RS485 for expansion device connectivity.

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.

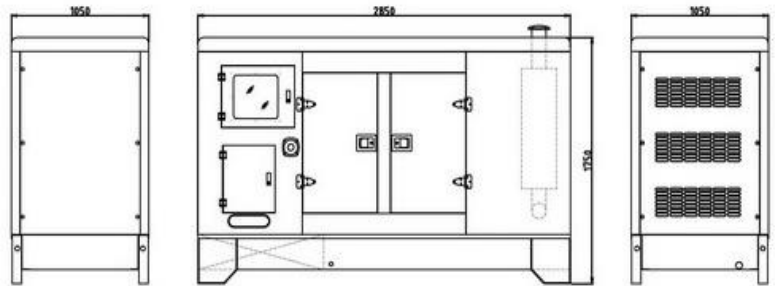
Weight and Dimensions

1.Open Version:



Open Type (Standard Configuration)
Overall Size: 2150×785 ×1440mm(L*W*H)
Weight: 1300kg

2. Soundproof Version:



Soundproof Type
Overall size: 2950× 1100×1800mm(L*W*H)
Weight: 1850kg

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