

MODEL: VG475-IICS



Genset Model	VG475-IICS
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

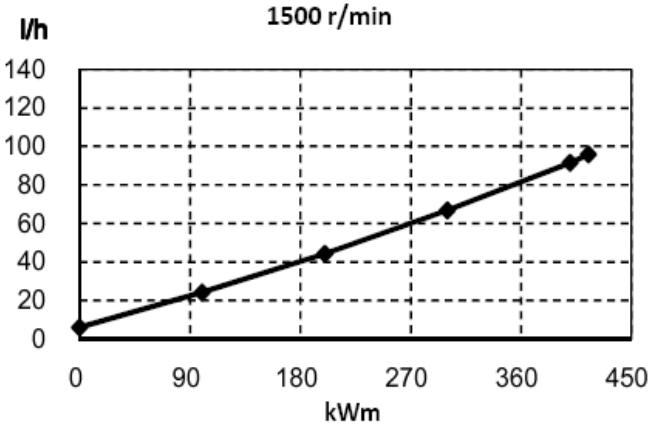
- ◆ Assembled by Cummins diesel engine and Stamford alternator.
- ◆ Three filters as standard, fuel and water separator as optional.
- ◆ Radiator and fan with safety guard.
- ◆ Single bearing alternator IP 23, Insulation Class H.
- ◆ Heavy duty steel as base frame and 8hrs operation base fuel tank.
-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

Engine Data:

Manufacturer	Dongfeng Cummins Engine Co., Ltd.
Model	6ZTAA13-G4
Engine speed	1500rpm
Engine power	
-----Standby power	415kw / 557bhp
-----prime power	400kw / 537bhp
Air intake way	Turbocharged and Charge Air Cooled
Cylinder quantity	6
Bore * Stroke	130*163 mm
Displacement	13.0L
Fuel system	electrical governor controller fuel pump
Speed-droop	≤3%
Low idle	800-1000 rpm
Piston speed	8.15 m/s
Friction energy output	31 kw

Fuel Consumption:

output power			fuel consumption			
%	bhp	kWm	lb/bhp.h	g/KWm.h	gal/h	L/h
standby power						
100	557	415	0,319	194	363	95,8
base output power						
100	537	400	0,316	192	347	91,4
75	403	300	0,308	187	253	66,8
50	268	200	0,306	186	168	44,3
25	134	100	0,334	203	92	24,2
continuse power						
100%	470	350	0,311	189	298	78,8



Exhaust system:

Max. back pressure imposed by complete exhaust system	13 kPa
Max. allowable static bending moment at exhaust outlet flange	27N.m
Exhaust pipe size normally acceptable (recommendatory)	130mm
Exhaust gas flow (prime power - standby power)	30.1-30.6kg/min
Exhaust gas temperature (prime power - standby power)	653-668 °C

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 inlet	11.1°C
Maximum Intake Manifold Temperature	85°C
Air intake flow (base output - standby power)	28.8-29.2 m3/min

Lubrication system:

Normal oil pressure range	
-----Low idle	82.7 kPa
-----Rated speed	207-276 kpa
Max. oil flow to all accessories	7.57L/min
Lubrication system Min. capacity (oil pan + oil filter)	45.42L

Fuel system:

Fuel injection pump model	BYC PD pump with GAC
Max. allowable restriction @ OEM point with max.fuel flow	20.3 kPa
Max. fuel drain restriction (total head) before(or without)check valve	33.9 kPa
Maximum design fuel flow	162kg/h
Maximum fuel inlet temperature	71 °C

Cooling system:

Coolant capacity – engine only	23.1 L
Maximum Coolant Friction Head External to Engine	75 kPa
Thermostat adjusting temperature (range)	82-94 °C
Minimum pressure cap rating at sea level	103 kPa
Max. coolant temperature permitted (standby power_ Base output power)	102 °C

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	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

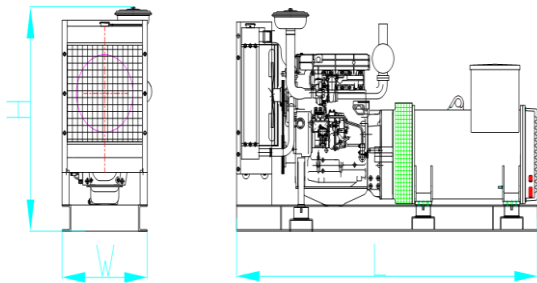
for expansion device connectivity.

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.

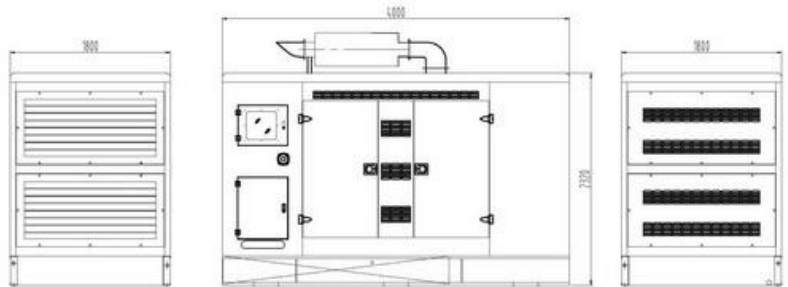
Weight and Dimensions

1. Open Version:



Open Type (Standard Configuration)
Overall Size: 2950×1360 ×2100mm(L*W*H)
Weight: 3200kg

2. Soundproof Version:



Soundproof Type
Overall size: 3650× 1650×2350mm(L*W*H)
Weight: 4000kg