

MODEL: VG700CS



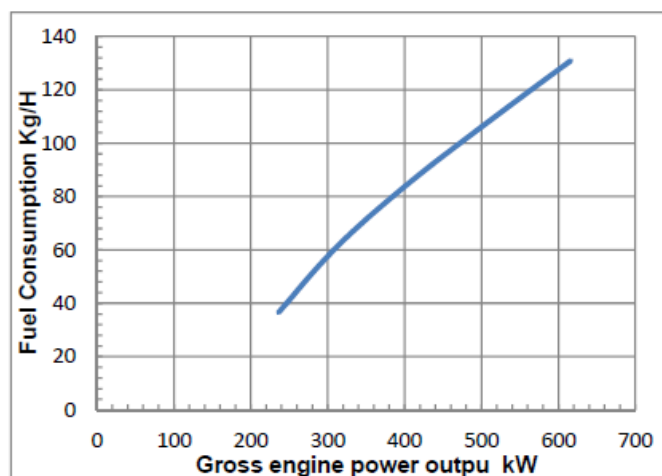
Genset Model	VG700CS
Prime Power(50HZ)	500KW / 625KVA
Standby Power(50HZ)	560KW / 700KVA
Frequency/Speed	50Hz/1500rpm
Standard Voltage	230V/400V
Phases	Three phases, four wires
Manufacturer	Vega Power International PTE.LTD

- ◆ 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	KT38-G
Engine speed	1500rpm
Engine power	
-----Standby power	610KW /825HP
-----Prime power	560KW /750HP
Type	4-Cycle; 60° Vee; 12-Cylinder
Aspiration	Turbocharged
Bore * Stroke	159*159 mm
Displacement	37.8 L
Compression ratio	15.5:1
Idle speed	725 – 775 r/min
Brake mean effective pressure	1303_1186 kPa
Piston speed	7.9 m/s
Friction horsepower	86kw(60HP)

Fuel Consumption:



OUTPUT POWER			CONSUMPTION		BFSC	
%	BHP	kW	Lb/h	Kg/h	g/kW.h	Lb/BHP.h
STANDBY						
100	825	616	289	131	213	0.350
PRIME						
100	750	560	262	119	213	0.350
75	563	420	195	88	210	0.346
50	422	315	137	62	197	0.324
25	317	236	81	37	155	0.254

Exhaust system

Max. allowable back pressure	10 kPa
Standard exhaust pipe diameter	152 mm

Air induction system

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	
-----Engine only	28 L
-----With heat exchanger	66L
-----With explanation tank & LTA	112L
Standard thermostat(modulating) range	82-93 °C
Max. coolant temperature	96.1 °C
Max. allowable top tank temperature for standby/prime power	104/100 °C

Lubrication system

Oil Pressure	
-----Idle speed	138 kPa
-----Rated speed	310-448 kPa
Max. allowable oil temperature	121°C
Oil Pan capacity - Low/High	87.1 /113.6L
Total system capacity(excluding by-pass filter)	135.1 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	1200
-----Cold soak at 0-10°C or above-----CCA	1280
-----Cold soak at -18-0°C or above-----CCA	1800
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	
Engine Idle Speed.....RPM	725-775	
Gross Engine Power Output.....KW	616	
Friction Horsepower.....KW	86	
Intake Air Flow.....Litre/sec	873	
Exhaust Gas Flow.....Litre/sec	2525	
Exhaust Gas Temperature...°C	547	
Heat Rejection to Ambient/min(KW)	105	
Heat Rejection to Coolant.....KW	430	

Alternator Specifications:

Manufacturer	Cummins Generator Technologies(China) Co. Ltd
Model	HCI544FS
Frequency	50HZ
Voltage	400V
Output power-----Continuous duty/40°C	625kVA / 500kW
-----Stand-by/27°C	688kVA / 550kW
Phase	3 ph.
Power factor	P.F.=0.8
Insulation class	H
Winding pitch	2/3 (N° 6S)
Number of wires	6
Protection	IP23
Altitude	≤ 1000 m
Overspeed	2250 min ⁻¹
Excitation system	SELF EXCITED
AVR type	AS440
Voltage regulation	±1%
Short-circuit current	300% (3IN) 0s
Total harmonics (THD)	no load < 4%
Wave form : NEMA = TIF	< 50
Air follow	1.1 m ³ /s
Relative humidity	≤ 95%
Bearing	Single

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

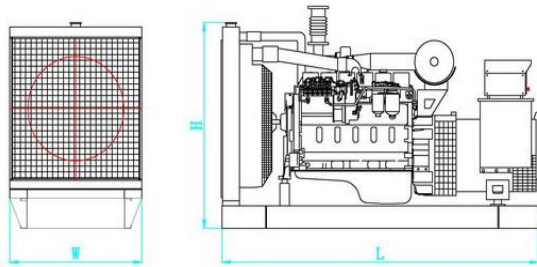
for expansion device connectivity.

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:

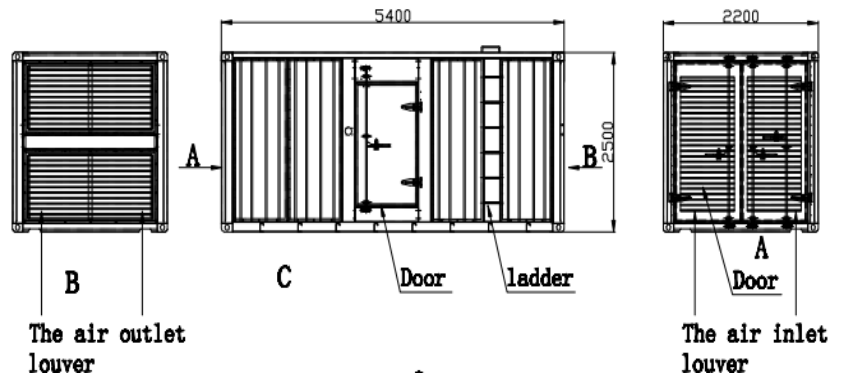


Open Type (Standard Configuration)

Overall Size: 4050 × 1700 × 2200mm(L*W*H)

Weight: 6763kg

2. Soundproof Version:



Soundproof Type

Overall size: 5800 × 2280 × 2500mm(L*W*H)

Weight: 7863kg