

MODEL: VG1100CS



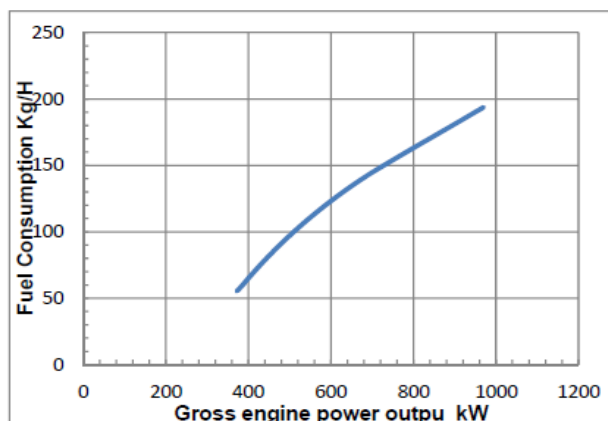
| Genset Model | VG1100CS |
|---------------------|----------------------------------|
| Prime Power(50HZ) | 800KW / 1000KVA |
| Standby Power(50HZ) | 880KW / 1100KVA |
| Frequency/Speed | 50Hz/1500rpm |
| Standard Voltage | 230V/400V |
| Phases | Three phases, four wires |
| Manufacturer | Vega Power 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 | KTA38-G5 |
| Engine speed | 1500rpm |
| Engine power | |
| -----Standby power | 880kw /1180HP |
| -----Prime power | 970kw /1300HP |
| Type | 4 cycle, 60°Vee; 12-cylinder |
| Aspiration | Turbocharged and Aftercooled |
| Governor | electrical |
| Bore * Stroke | 159*159 mm |
| Displacement | 37.8 L |
| Compression ratio | 13.9:1 |
| Idle speed | 725 – 775 r/min |
| Brake mean effective pressure | 1868kpa |
| Piston speed | 7.9 m/s |
| Friction horsepower | 86kw(115HP) |

Fuel Consumption:



| OUTPUT POWER | | | CONSUMPTION | | BFSC | |
|--------------|------|-----|-------------|------|--------|----------|
| % | BHP | kW | Lb/h | Kg/h | g/kW.h | Lb/BHP.h |
| 1500RPM | | | | | | |
| STANDBY | | | | | | |
| 100 | 1300 | 970 | 427 | 194 | 200 | 0.329 |
| PRIME | | | | | | |
| 100 | 1180 | 881 | 392 | 178 | 202 | 0.332 |
| 75 | 885 | 661 | 302 | 137 | 207 | 0.341 |
| 50 | 664 | 496 | 212 | 96 | 194 | 0.319 |
| 25 | 498 | 372 | 122 | 55 | 149 | 0.245 |

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 | |
| -----With heat exchanger | 53L |
| -----With explanation tank & LTA | 112L |
| 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 | 310-448 kPa |
| Max. allowable oil temperature | 121°C |
| Oil Pan capacity - Low/High | 121.1 /151.4L |
| Total system capacity(excluding by-pass filter) | 151.4 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 | 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 |

Performance data

| | Standby power | Prime power |
|-----------------------------------|---------------|-------------|
| Governed Engine Speed.....RPM | 1500RPM | 1500RPM |
| Engine Idle Speed.....RPM | 725-775 | 725-775 |
| Gross Engine Power Output.....KW | 970 | 881 |
| Friction Horsepower.....KW | 86 | 86 |
| Intake Air Flow.....Litre/sec | 1213 | 1140 |
| Exhaust Gas Flow.....Litre/sec | 3306 | 3051 |
| Exhaust Gas Temperature...°C | 513 | 499 |
| Heat Rejection to Ambient/min(KW) | 138 | 125 |
| Heat Rejection to Coolant.....KW | 594 | 539 |

Alternator Specifications:

| | |
|---------------------------------------|---|
| Manufacturer | Cummins Generator Technologies(China) Co. Ltd |
| Model | HCI634J |
| Frequency | 50HZ |
| Voltage | 400V |
| Output power-----Continuous duty/40°C | 1000kVA / 800kW |
| -----Stand-by/27°C | 1100kVA / 880kW |
| 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 | Shunt |
| AVR type | MX321 |
| Voltage regulation | ±0.5% |
| Short-circuit current | 300% (3IN) 0s |
| 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

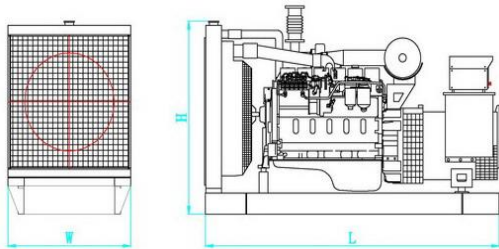
for expansion device connectivity.

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.

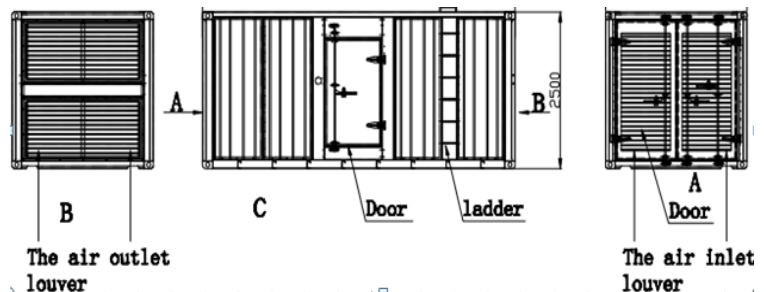
Weight and Dimensions

1. Open Version:



Open Type (Standard Configuration)
Overall Size: 4250 × 2060 × 2200mm(L*W*H)
Weight: 7213kg

2. Soundproof Version:



Soundproof Type
Overall size: 5800 × 2280 × 2500mm(L*W*H)
Weight: 8263kg