

DATA SHEET

The power for the better life

DIESEL GENERATOR SET 50Hz/1500 rpm

MODEL: VG313CS





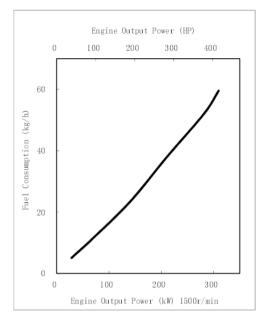
| Genset Model | VG313CS | |
|---------------------|----------------------------------|--|
| Prime Power(50HZ) | 240KW / 300KVA | |
| Standby Power(50HZ) | 264KW / 330KVA | |
| Frequency/Speed | 50Hz/1500rpm | |
| Standard Voltage | 220V/380V | |
| Phases | Three phases, four wires | |
| Manufacturer | 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 | NTA855-G1A |
| Engine speed | 1500rpm |
| Engine power | |
| Standby power | 310KW |
| Prime power | 282KW |
| Туре | 4 cycle, In-line, 6-cylinder |
| Aspiration | Turbocharged, after cooled |
| Governor | electrical |
| Bore * Stroke | 125*147 mm |
| Displacement | 10.8L |
| Compression ratio | 15:01 |

Fuel Consumption:



| | Output Power | | Fuel Consumption |
|-------------|--------------|-----|---------------------|
| | HP | kW | kg/h |
| Standby100% | 415 | 310 | 59.6 |
| Prime100% | 378 | 282 | 52.1 |
| 75% | 284 | 212 | 38.2 |
| 50% | 189 | 141 | 23.5 |
| 25% | 95 | 71 | 11.7 |
| 10% | 37 | 28 | 5.0 |
| Cont.100% | 282 | 210 | 40 |

Exhaust system

| Max. allowable back pressure | 10 kPa |
|--------------------------------|--------|
| Standard exhaust pipe diameter | |

Air induction system

| Maximum allowable intake air restriction | |
|---|---------|
| | |
| with dirty filter element | 6.2 kPa |
| with Normal Duty Air Cleaner and Clean Filter Element | 2.5kpa |
| with Heavy Duty Air Cleaner and Clean Filter Element | 3,7 |

Cooling system

| Coolant capacity | |
|--|------------|
| Engine only | 9.5 L |
| With radiator | N/A |
| With heat exchanger | 34 |
| Standard thermostat(modulating) range | 82-94 °C |
| Max. coolant temerature | |
| Max. allowable top tank temerature for standby/prime power | 104/100 °C |
| Min. recommended top tank temperature | |

Lubrication system

| Oil Pressure | |
|--|---|
| Idle speed | 69 kPa |
| Governed speed | 207-345 kPa |
| Max. allowable oil temperature | 121°C |
| Oil Pan capacity - Low/High | 26.5 / 34 L |
| Total system capacity | 36.7 L |
| Angularity of oil pan-Front Down/Front Up/Side to Side | 45 [°] /42 [°] /45 [°] |

Fuel System

| Type Injection system | Direct injection Cummins PT | |
|--|-----------------------------|--|
| Maximum Allowable Restriction to Fuel Pump | | |
| With Clean Fuel Filter - in.Hg (kPa) | 13,5 | |
| With Dirty Fuel Filter - in.Hg (kPa) | 27,1 | |
| Fuel rail pressure | | |
| Max. Fuel temperature | | |

Electric system

| Min. recommended battery capacity (24V) | |
|---|-----|
| 50°F(10°C) and Above-CCA | 600 |
| 32°F-50°F (0-10°C) and Above-CCA | 640 |
| 0°F-32°F (-18°C- 0°C) and Above-CCA | 900 |

Performance data

| | Standby power | Prime power |
|--------------------------------------|---------------|-------------|
| Governed Engine SpeedRPM | 1500RPM | 1500RPM |
| Engine Idle SpeedRPM | 675-700 | 675-700 |
| Gross Engine Power OutputKW | 310 | 282 |
| Friction HorsepowerKW | 22 | 22 |
| Engine Water Flow to EngineLitre/sec | 3,8 | 3,8 |
| Intake Air FlowLitre/sec | 395 | 365 |
| Exhaust Gas FlowLitre/sec | 950 | 850 |
| Exhaust Gas Temperature°C | 595 | 580 |
| Radiated Heat to AmbientKW | 43 | 40 |
| Heat Rejection to CoolantKW | 95 | 83 |
| Heat Rejection to ExhaustKW | 270 | 234 |

Alternator Specifications:

| Manufacturer | Cummins Generator Technologies(China) Co. Ltd |
|----------------------------------|---|
| Model | HCI444D |
| Frequency | 50HZ |
| Voltage | 380V |
| Output powerContinuous duty/40°C | 300kVA / 240kW |
| Stand-by/27°C | 330kVA / 264kW |
| Phase | 3 ph. |
| Power factor | P.F.=0.8 |
| Insulation class | Н |
| Winding pitch | 2/3 (N [°] 6) |
| Number of wires | 12 |
| Protection | IP23 |
| Altitude | ≤ 1000 m |
| Overspeed | 2250 min ⁻¹ |
| Excitation system | Shunt |
| AVR type | AS440 |
| Voltage regulation | ±1% |
| Waveform distortion | no load < 1.5% non-distorting balanced linear load < 5.0% |
| Telephone interference | THF< 2% |
| Air follow | 0.51 m ³ /s |
| Relative humidity | ≤ 95% |
| Bearing | Single |

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

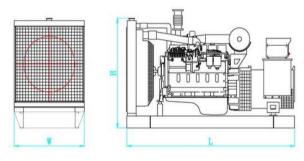
for expansion device connectivity.

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

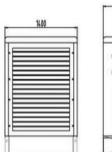
1.Open Version:

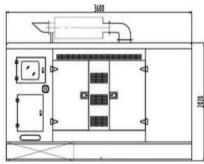


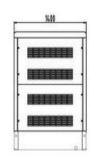
Open Type (Standard Configuration) Overall Size: $2950 \times 1010 \times 1710$ mm(L*W*H)

Weight: 2417kg

2. Soundproof Version:







Soundproof Type

Overall size: $3600 \times 1400 \times 2070$ mm(L*W*H)

Weight: 3097kg