

MODEL: VG1650-IICS



Genset Model	VG1650-IICS
Prime Power(50HZ)	1200KW /1500KVA
Standby Power(50HZ)	1320KW /1650KVA
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.
- ◆ 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.

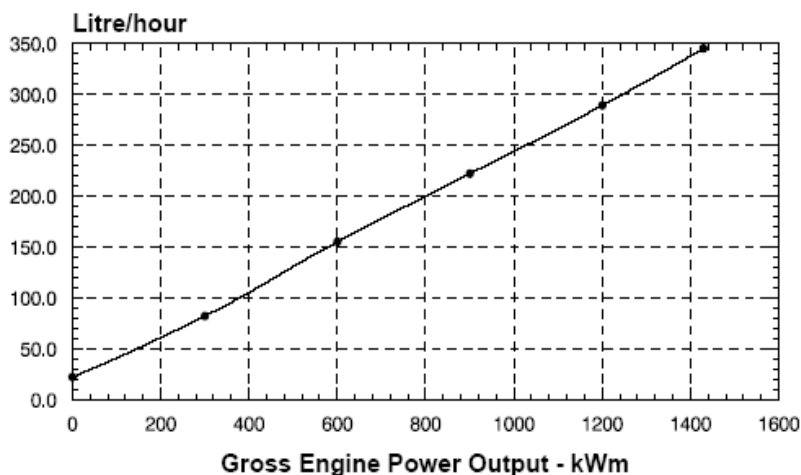
Engine Data:

Manufacturer	Chongqing Cummins Engine Co. Ltd.
Model	KTA50-GS8
Engine speed	1500rpm
Engine power	
-----Prime power	1287kw /1725HP
-----Standby power	1429kw /1915HP
Type	4 cycle, 60°Vee, 16-cylinder
Aspiration	Turbocharged and aftercooled
Bore * Stroke	159*159 mm
Displacement	50.3 L
Compression ratio	14.9:1
Idle speed	725 – 775 r/min
Brake mean effective pressure under prime power	2062kpa
Piston speed	7.9 m/s
Friction horsepower	116kw(155BHP)

Fuel Consumption:

Engine Performance Data @ 1500 RPM

OUTPUT POWER			FUEL CONSUMPTION			
%	kWm	BHP	kg/ kWm·h	lb/ BHP·h	litre/ hour	U.S. Gal/ hour
OVERLOAD POWER						
100	1429	1915	0.206	0.338	345	91.2
PRIME POWER						
100	1287	1725	0.204	0.336	309	81.6
75	965	1294	0.210	0.345	238	62.8
50	644	863	0.221	0.363	167	44.1
25	322	431	0.232	0.383	88	23.3



Exhaust system

Max. back pressure @standby power rating	51 mm Hg
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Air induction system

Maximum allowable intake air restriction	
-----with clean filter element	381 mmH ₂ O
-----with dirty filter element	635 mmH ₂ O

Cooling system

Coolant capacity	
-----Engine only	165 L
Standard thermostat(modulating) range	82-93 °C
Max. allowable top tank temerature for standby/prime power	104/100 °C

Lubrication system

Oil Pressure	
-----Idle speed	138 kPa
-----Governed speed	345-483 kPa
Max. allowable oil temperature	121°C
Oil Pan capacity - Low/High	148 /178L
Total system capacity(excluding by-pass filter)	204L
Angularity of oil pan-Front Down	30°

Fuel System

Type Injection system	Direct injection Cummins PT
Max fuel flow to injection pump	625 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	1800
-----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

Cold start capability

Unaided cold start	
Min. ambient temerature for Aided cold start within 10s	10°C
Min. ambient temerature for unaided cold start	7°C

Performance data

Steady state stability band at any constant load	+/- 0.25%
Estimated free field sound pressure level of a typical genset	10°C
---excludes exhaust noise: at rated load and 7.5m	94.6 dBA
---exhaust noise at 1m horizontally	126 dBA

	Standby power	Prime power
Governed Engine Speed.....RPM	1500RPM	1500RPM
Engine Idle Speed.....RPM	725-775	725-775
Gross Engine Power Output.....KW	1429	1286
Friction Horsepower.....KW	116	116
Intake Air Flow.....Litre/sec	1655	1581
Exhaust Gas Flow.....Litre/sec	4350	4038
Exhaust Gas Temperature...°C	510	499
Heat Rejection to Ambient/min(KW)	210	299
Heat Rejection to Coolant.....KW	275	221

Alternator Specifications:

Manufacturer	Cummins Generator Technologies(China) Co. Ltd
Model	PI734C
Frequency	50HZ
Voltage	400V
Output power-----Continuous duty/40°C	1240KW/1550KVA
Phase	3 ph.
Power factor	P.F.=0.8
Insulation class	H
Winding pitch	2/3
Number of wires	6
Protection	IP23
Altitude	≤ 1000 m
Overspeed	2250 min ⁻¹
Excitation system	PMG
AVR type	MX341
Voltage regulation	±1%
Short-circuit current	300% (3IN) 10s
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
- ◆ 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:



DEEPSEA advanced model DSE7320 is an automatic start and stop single generator control module, it has AMF function, and the controller has USB, RS232, RS485 ports as well as dedicated DSENet terminals for expansion device connectivity. It is an intelligent generator monitoring control panel.

Parameters:

This controller can provide Generator power in kw and kva, Kvar, kwh, kvah and kvarh, frequency and speed, Under/over speed, Generator volts, Generator current, Engine oil pressure, Engine coolant temperature, Flexible fuel level, Hours run counter, Battery volts, Fail to start/stop, Emergency Stop, power factor, Failed to reach loading voltage/frequency, Charge fail, Loss of magnetic pick-up signal, Low DC voltage, CAN diagnostics and CAN fail/error, Mains volts 3 phase, Mains frequency, AMF indications.

Protection:

- ◆ Low Oil Pressure
- ◆ High water Temperature
- ◆ High voltage and low voltage
- ◆ Overspeed
- ◆ Low fuel level alarm.

- ◆ Overload and unbalanced load protection
- ◆ Volt trimmer and frequency trimmer
- ◆ Emergency stop
- ◆ Fail to start

Features:

- Backed up real time clock
- Configurable display languages
- Five-key menu navigation
- Engine exercise mode
- Configurable start & fuel outputs
- Automatic load transfer
- Eight configurable digital inputs
- Six configurable outputs
- Modbus RTU
- Selected front panel programming
- SMS messaging (additional external modem required)
- User selectable RS232 & RS485 communications
- Ethernet communications via DSE860/865
- Improved programmable event log (250) showing date and time
- 3 alternative configurations
- Multiple date and time scheduler
- Independent Earth fault trip
- Load switching (Load shedding and dummy load outputs)
- Operator configurable virtual LEDs visible in SCADA
- Remote control sources (10) can be accessed via SCADA

Deepsea 7320

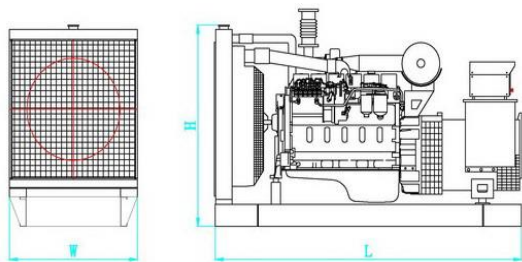
Auto start and stop control panel



- ① Power switch
- ② Lamp switch
- ③ Power indicator
- ④ Operation buttons
- ⑤ LCD display

Weight and Dimensions

1.Open Version:

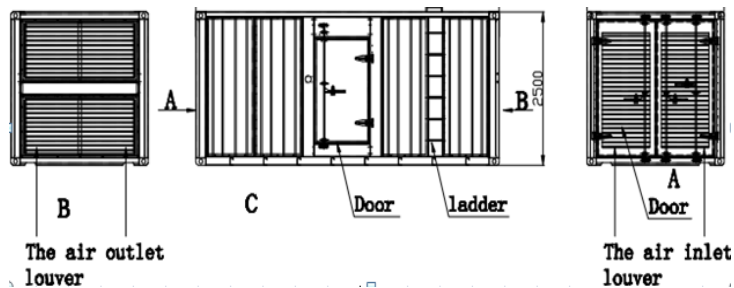


Open Type (Standard Configuration)

Overall Size: 5430 × 2120 × 2550mm(L*W*H)

Weight: 10600kg

Soundproof Version:



Soundproof Type

Overall size: 6700 × 2440 × 2800mm(L*W*H)

Weight: 13000kg