TECHNICAL DATA

HDG100

KEY FEATURES:

- Product Licensed by Hyundai Corporation-Korea
- Genuine product having unique serial number that easily verifiable online.
- Hyundai Generator carries a comprehensive test program & report thereon
- **Quality Standards:**
  ISO 8528/1, NEMA MG 1-22, NEMA MG 1.32-33, IEC 60034, BS 5000 PART 99, VDE 0530, ISO 8528/3, ISO TS16949, OHSAS 18001, UL 1446, UL 1004, ISO 9001, ISO 14001, AS 1359, IEC 34, ISO 3046, DIN 6271
- Load test report @110% Load
- Warranty: 18 Months or 1000 Hours
- Turbocharged engine
- After Sales support all over Pakistan with Easy & Economical availability of Spares.
- Electronic Governor
- Complete protection functions & safety labels.

GENERATOR SET:

Generator Model	HDG100	
Prime Power	100-KVA	80-KW
Standby Power	110-KVA	88-KW
Configuration	380-415 V, 3Ph, 50 Hz, 1500 RPM at 0.8 PF	

FUEL CONSUMPTION (Approx.)

Consumption @ 100% load	23.3 Ltrs
Consumption @ 75% load	17.4 Ltrs
Consumption @ 50% load	11.9 Ltrs

DIMENSIONS, WEIGHT & FUEL TANK (Approx.)

Particulars	Sound Proof Canopy
Length (Inches)	105
Width (Inches)	45
Height (Inches)	60
Weight (Kg)	1300 KG
Fuel Tank (L)	165

ALTERNATOR DATA:

Frequency /Speed	50 Hz / 1500 RPM
Coupling	Direct
No. of Bearings	Single Bearing
Phase / Poles	3-Phase/4-Pole
Over speed	2250 mn-1
AVR Model	AS440
Voltage Regulation	± 2%
Insulation Class	H
Ingress Protection	IP 23
Excitation	Self Excited
Winding Pitch	2/3 (wdg 3)
Efficiency	> 91%

CONTROLLER DATA:

Make	Deep Sea
Model	DSE-4520/6020

ENGINE DATA:

Brand	Hyundai -Korea
Model	6HDETG2100
Cylinders	6
Cylinders Arrangement	Vertical In-Line
Displacement	4.5 L
Aspiration System	Turbocharged
Combustion System	Direct Injection
Governor	Electronic/Mechanical
Bore	105 mm
Stroke	130 mm
Speed	50 Hz & 1500 RPM
Cooling System	Water Cooled
Cycle	4-Stroke
Gross Power PRP (KWm)	80-KWm
Gross Power STP (KWm)	88-KWm
Gross Power PRP	134 HP
Compression Ratio	18:1
Rotation	Anti-Clockwise
Lubricating Capacity	10 L
Coolant Capacity	5 L
Thermostat Operation Range	82-95° C
Coolant & water Ratio	50:50
Exhaust Gas Temperature	<500° C
Exhaust Flow (kg/h) Rated Power	400
Exhaust Flow (kg/h) Standby Power	490
Air Intake Resistance (KPA)	3.5
Allowable Back Pressure	8 kPa
Oil flow (L/min)	22
Battery Charging Alternator	63 Amps
Starter Motor	3 KW, 12V
Oil Pressure	200-500 kPa
Net Weight (Kg)	580
Recommended Oil Grade	API-CH4-SAE15W-40
Battery Voltage	12 V
Fuel Type	Diesel
Recommended Fuel	Grade # 2

OTHER INFORMATION:

ATS /AMF Panel	Optional
External Fuel Tank	Optional
Trailor/Trolley	Optional
Remote Monitoring	Optional
Operating Temperature	Up to 50° C
Low Fuel Level Sensor	Available
4-Pole Breaker	Optional
Sound Level @ 7M	74 dBs (Approx.)
Synchronizing System	Optional
Customized Color	Optional
Customized Sound Level	Optional

STANDARD SPECIFICATIONS:

1.ENGINE 4 stroke heavy duty high performance industrial type diesel engine.

2.ENGINE FILTRATION SYSTEM • Air filter. • Fuel filter. • Full flow lube oil filter. All filters have replaceable elements.

3.COOLING RADIATOR. Radiator and cooling fan, complete with safety guards, designed to cool the engine at high ambient temperatures

4.EXHAUST SYSTEM Heavy duty Industrial Exhaust Silencer.

5. CIRCUIT BREAKER TYPE 3 pole MCB. (4 pole is optional)

6. FUEL SYSTEM The base frame design is incorporated with an integral fuel tank with capacity of approx. 8 hours running at full load. The tank is supplied complete with fill cap breather, fuel feed and return lines to the Engine and drain plug.

7. ALTERNATOR 7.1 INSULATION SYSTEM • The insulation system is Class H. • All windings are impregnated in either a triple dip thermosetting liquid, oil and acid resisting polyester varnish or vacuum pressure impregnated with a special polyester resin. • Heavy coat of anti-tracking varnish additional protection against moisture or condensation. 7.2 AUTOMATIC VOLTAGE REGULATOR (AVR) The fully sealed Automatic Voltage Regulator maintains the Voltage Regulation at ±2%. Nominal adjustment by means of a trim pot incorporated on the AVR.

8. MOUNTING ARRANGEMENT 8.1 BASE FRAME The complete Generating Set is mounted as a whole on a heavy duty fabricated steel Base frame. 8.2 COUPLING The Engine and Alternator are directly coupled by means of an SAE flange. The Engine flywheel is flexibly coupled to the Alternator rotor. 8.3 ANTI-VIBRATION MOUNTING PADS Anti-Vibration pads are affixed between the Engine / Alternator feet and the Base frame thus ensuring complete vibration isolation of the rotating assembly. 8.4 SAFETY GUARDS The Fan & Fan Drive along with the Battery Charging Alternator are Safety Guard protected for personnel protection.

9. FACTORY TESTS • The Generating set is load tested before dispatch • All protective devices control functions and site load conditions are simulated. The generator and it's systems are checked before dispatch.

10. DOCUMENTATIONS Operation & Maintenance manual, Circuit wiring diagrams and Commissioning / Fault Finding instruction leaflets are accompanied with the Generator.

11. WARRANTY All of the Generating Sets are covered under a warranty policy for a period of 18 months or 1000 Hours Warranty of the equipment is in line with manufacturers warranty terms & conditions. (check warranty statement for more details, as it may vary for different countries)

Disclaimer: In-line with continuous product development, we reserve the right to change specifications without prior notice.

CONTROLLER LCD DISPLAY:	Model (To be decided)	Model (To be decided)
Voltage between Phases (L-L)	✔	✔
Voltage between Neutral and Phase (L-N)	✔	✔
Frequency	✔	✔
3 Phase Current	✔	✔
Real Power (KW) and Apparent Power (KVA)	✔	✔
Power Factor	✔	✔
Engine Speed	✔	✔
Running Hours	✔	✔
Coolant Temperature	✔	✔
Oil Pressure	✔	✔
Battery Voltage	✔	✔
LCD Alarm Indication	✔	✔
3 Phase Mains (Utility) Sensing	✔	✔
PROTECTING FUNCTIONS:		
Emergency Stop Button	✔	✔
High coolant Temperature	✔	✔
Low Oil Pressure	✔	✔
Over Current / Load	✔	✔
Under/Over Speed, Frequency & Voltages	✔	✔
Low / High Battery Voltages	✔	✔
Low Fuel Level Warning at 20%	✔	✔
Low Fuel Level Shutdown at 10%	✔	✔

RATINGS DEFINITIONS:

Prime Power: These ratings are applicable for supplying continuous electrical power at variable load in lieu of commercially purchased power. 10% overload power is available for 1 hour in 12 hours continuous operation.

Standby Power: These ratings are applicable for supplying continuous electrical power at variable load in the event of a utility power failure. No overload is permitted.

STANDARD REFERENCE CONDITIONS:

Output ratings are presented at 25° C air inlet temperature, barometric pressure 100 kPa relative humidity 30%. This rating set is designed to operate at high ambient temperate up to 50° C, humidity up to 99% and higher altitude. De-ration may apply. (Some of the specifications are not standard on all Genset models)

OPTIONAL ITEMS