# **TECHNICAL DATA**

## **KEY FEATURES:**

Generator made by OEM-Perkins

Every generating set carries a comprehensive test program & report thereon

## Certifications

ISO 8528/1, ISO 3046/1:1986, BS5514/1, NEMA MG 1-22, NEMA MG 1.32-33, IEC 60034, BS 5000 PART 99, VDE 0530, ISO 8528/3,

UL 1446, UL 1004, ISO 9001, ISO 14001, AS 1359, IEC 34

Complete protection functions & safety labels

Easy & Economical availability of Spares

Advanced digital control system, long service life, easy to operate, low fuel consumption & anti-vibrating isolators

After Sales support all over Pakistan

High quality, reliable & complete generating set

Easy for operation & maintenance

#### **POWERED BY:**



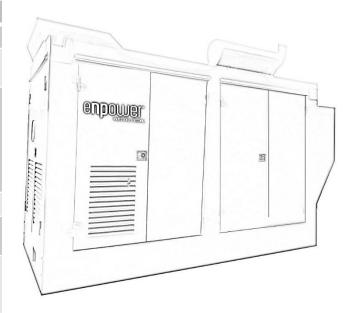
CENEDATOR SET







GENERATOR SET:				
Generator Mode	r Model EPG:		385	
Prime Power		350-KVA	280-KW	
Standby Power		385-KVA	308-KW	
Configuration 380-415 V, 3 1500 RPM a				
FUEL CONSUMPTION				
Consumption @ 100% load		71 Ltrs		
Consumption @ 75% load			54 Ltrs	
Consumption @ 50% load		37 Ltrs		
DIMENSIONS, WEIGHT & FUEL TANK (Approx.)				
Particulars	Open	Canopy-R	Canopy-S	
Length (Inches)	134	152	-	
Width (Inches)	44	68	-	
Height (Inches)	81	96	-	
Net Weight (Kg)	3192	4395	-	





**ALTERNATOR DATA:** 

**CONTROLLER DATA:** 









Manufacturer	Z regoner	STAMFORD	Equivalent
Model /Series	TAL Series	ТВА	TBA
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		R150	
Voltage Regulation		± 1%	
Insulation Class		Н	
Ingress Protection		IP 23	
Excitation		Shunt	
Winding Pitch		2/3 (wdg n°6)	

Make	Deep Sea-UK
Model	DSE 6020

Fuel Tank (L)

#### **ENGINE DATA:**

ENGINE DATA.		
Manufacturer	Perkins	
Model	2206A-E13TAG2	
Cylinders	6	
Cylinders Arrangement	Vertical In-Line	
Displacement	12.5 L	
Aspiration System	Turbocharged	
Combustion System	Direct Injection	
Governor	Electronic	
Bore	130 mm	
Stroke	157 mm	
Speed	50 Hz & 1500 RPM	
Cooling System	Water Cooled	
Cycle	4-Stroke	
Gross Power PRP (KWm)	324-KWm /434-HP	
Gross Power STP (KWm)	368-KWm /493-HP	
Gross Power PRP	434 HP	
Compression Ratio	16.3:1	
Rotation	Anti-Clockwise	
Lubricating Capacity	40 L	
Coolant Capacity	51.4 L	
Radiator Cooling air flow m <sup>3/</sup> s	6.16 Min	
Thermostat Operation Range	87-98° C	
Coolant & water Ratio	50:50	
Exhaust Gas Temperature	630° C	
Combustion Air flow m <sup>3/</sup> min	21.1	
Exhaust Gas Flow m <sup>3/</sup> min	56.6	
Allowable Back Pressure	10 kPa	
Exhaust Outlet Size	-	
Battery Charging Alternator	70 Amps	
Starter Motor	5.3 or 6 KW, 24V	
Oil Pressure	250 kPa Min.	
Dry Weight (Kg)	1478	
Recommended Oil Grade	API-CH4-SAE15W-40	
Battery Voltage	24 V	
Fuel Type	Diesel	
Recommended Fuel	Grade # 2	

## OTHER INFORMATION:

Optional	
Optional	
Optional	
Optional	
Up to 50° C	
Available	
Optional	
- dBs (Approx.)	
Optional	
Optional	
Optional	

#### **STANDARD SPECIFICATIONS:**

- **1.ENGINE** Perkins 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** On Generating Sets up to 500 KVA, the base frame design is incorporated with an integral fuel tank with capacity of approx. 5-8 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 ±0.5%. 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 12 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:	Deep Sea DSE 4520	Deep Sea DSE 6020
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**













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