

GVP SERIES

DIESEL
Volvo Penta



GENPOWER

GENERATOR



GVP 220 - 50 Hz /GVP 251 - 60 Hz

Output Ratings

Voltage, Frequency	Prime	Standby
GVP 220 - 400 Volt, 50 Hz	200 kVA / 160 kW	220 kVA / 176 kW
GVP 251 - 480 Volt, 60 Hz	228 kVA / 182.4 kW	251 kVA / 201 kW

Standard Reference Conditions:

The output power ratings that are given above are achieved at standard reference conditions.

-Air Inlet Temperature: 40°C

-Altitude: 1000 meters

-Relative Humidity: 60%

Genpower Generator Sets have the compliance against the reference standards that are given below:

TS ISO 8528, ISO 8528, BS5000, ISO 3046, IEC 60034, NEMA MG-1.22.

The options for voltage rates at 50 Hz and 60 Hz are given below. The desired alternative output voltage rate could be achieved by using the matching connection types for the desired voltage with the related alternator output connection terminals

For 50 Hz:

200/115V - 220/110V - 220/127V - 230/115V - 380/220 V 400/230V - 415/240V

For 60 Hz:

208/120V - 220/127V - 240/139V - 380/220V - 440/254V-480/277V

Prime Power

It is the continuous operation mode of the generator under variable load where there is no main power. The average of the variable load should not exceed %80 of the prime power rating of the generator.

The generator should be not operated more than maximum one hour under %10 overload of the prime power rating in a 12-hours of operation.

Standby:

It is the variable work load mode of the generator as a back-up power supply to the main power. The stand-by power is the maximum allowable power. The operation under overload is not permitted.

The maximum annual operation period is limited with 500 working hours

Canopy

- Easy lifting and moving
- Metal parts are coated with electrostatic polyester coated, powder painted
- 25-30 dbA series, Heat-insulated exhaust system.
- Acoustic insulation with rot*proof, moisture-repellent and non-flammable material (per DIN 4102 A2)
- Double swinging doors for ease of service

Ratings and Performance Data

	GVP 220	GVP 251		
Engine Brand & Model:	Volvo Penta / TAD 733 GE			
Alternator Brand & Model:	Stamford / UCI274H Genpower / GNP 270L W12/4			
Control Panel Make & Model:	Deepsea 6120 Can			
Base Frame	Heavy Duty Fabricated Steel			
Engine Speed	rpm	1500	1800	
Frequency	Hz	50	60	
Fuel Tank Capacity	Litres	473		
Fuel Consumption	50%	23,1	26,3	
	75%	Lt/h	34,1	39,2
	100%		46,0	52,7

General Features

- Tropical type radiator, fan, belt and enclosures.
- Vibration dampers.
- Open type gensets industrial type exhaust silencer.
- AMF control panel.
- Built-in type fuel tank chassis.
- Mechanical fuel level indicator
- Battery pack and cable set.
- The original engine oil, fuel, dry type air filter.

Options

Contact your supplier for non-standard requests.

- The generator output breaker (MCCB)
- External type transfer switch (ATS)
- Dual operating systems
- Low water level switch
- Fuel tank heating and insulation systems
- Single-and double-axle trailer
- Synchronous systems
- Private quiet cabins (cabins SSC)
- Private hospital type and juicy exhaust systems
- Mobile vehicle applications
- Arep or PMG alternator application

Engine Technical Data

No. of Cylinders	6	
Alignment	In Line	
Cycle	4 Stroke	
Induction	Turbocharged AAC*	
Bore / Stroke	108 / 130	
Compression Ratio	18.0:1	
Displacement	Lt	7,15
Cooling Method	Water	
Governing Type	Electronic EDC4	
Governing Class	ISO 8528-G3	
Moment of Inertia	kg m ² (lb/in ²)	3,09 (73,3)
Electrical System	Voltage / Ground	24 V / Negative
Charger Amps	Amps.	55

* AAC : Air to air charge cooled

Performance

	GVP 220	GVP 251
Engine Speed rpm	1500	1800
Net Engine Power kW (Hp)		
Prime	175 (238)	192 (260)
Standby	195 (265)	214 (292)
BMEP kPa (Psi)		
Prime	2000 (294)	1900 (273)
Standby	2300 (326)	2100 (304)

Air Systems

	GVP 220	GVP 251
Air Filter Type	Single stage paper cartridge	
Combustion Air Flow	m ³ /min (cfm)	
	Prime	11,5 (406)
	Standby	12,4 (439)

Max. Combustion Air Intake Restriction: kPa (in H2O)	6,0 (1,5)	6,0 (1,5)
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Lubrication System

Oil Filter Type	Spin-On, Full Flow	
Total Oil Capacity:	Lt.	34,0
Oil Pan	Lt.	31,0
Oil Type	API CH4 15W-40	
Oil Cooler	Ok.	
Oil Cooling Method	Water	

Alternator

	GVP 220	GVP 251
Brand & Model	Stamford / UCI274H1	
Cont. Power	400 V - 200 kVA	480 V - 255 kVA
Efficiency %	93,3	93,6
AVR Model	AS440	

Alternator

General Information	
No. of Bearings	Single bearing
Insulation Class:	H
Winding Pitch Code:	2/3
Wires	12
Ingress Protection Rating	IP-23
Excitation System	Self Excited
Voltage Regulation	±%1

Standartlar:
BS EN 60034, BS5000, VDE 0530, NEMA MG1-32, IEC34, CSA C22.2-100,

Fuel System

Fuel Filter Type	Replaceable Element			
Recommended Fuel	Class A2 Diesel			

Fuel Consumption

	Lt/h				
Prime	110%	100%	75%	50%	
GVP 220	51,7	46,0	34,1	23,1	
GVP 251	59,8	52,7	39,2	26,3	
Standby	100%		75%	50%	
GVP 220	51,7		38,1	25,5	
GVP 251	59,8		43,8	29,5	

Note: Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2

Cooling System

	GVP 220	GVP 251
Cooling System Capacity	Lt.	38,4
Water Pump Type	Centrifugal	

Heat Rejected to Water & Lube Oil

	kW (BTU/min)		
Prime	106 (6000)	121 (6858)	
Standby	116 (6602)	133 (7552)	

Heat Radiation to Room

	kW (BTU/min)		
Prime	25 (1421)	30,5 (1734)	
Standby	36,5 (2075)	46,5 (2643)	

Radiator Fan Load	kW (Hp)	6,1 (8)	10,5 (14)
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Radiator Cooling Airflow)	m ³ /sn	3,3	4,3
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Air On Temp.	°C	55	62
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External Restriction to Cooling Airflow	kPa	150	
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Note: Designed to operate in ambient conditions up to 50°C .

Exhaust System

	GVP 220	GVP 251	
Silencer Type	Industrial		
Pressure Drop Across Silencer system	kPa	1,8	2,5
Silencer Noise Reduction Level	db/A	16	14
Maximum Allowable Back Pressure	kPa	3,0	5,0
Gas Flow m ³ /min (Cfm)	Prime	31,8 (1123)	40,4 (1427)
	Standby	37,2 (1314)	44,4 (1568)
Gas Temperature °C	Prime	510	509
	Standby	530	530

Alternator

	GVP 220	GVP 251
Brand & Model	Genpower / GNP 270L W12/4	
Cont. Power	400 V - 210 kVA	480 V - 255 kVA
Efficiency %	93,4	93,6
AVR Model	SX460	

Performance Data

	GVP 220	GVP 251	
Overspeed	rpm	2250	
Short Circuit	-		
Total Harmonic content	No Load <=1,5		
Wave Form NEMA = TIF	50%		
R.F.I Radio Interference	VDE 875		
Cooling Air m ³ /sec.	0,514	0,617	
Radiant Heat kW (BTU min)	12,8 (728)	13,8 (785)	
Reaktans	Xd	1,91	2,02
	X'd	0,16	0,17
	X''d	0,11	0,11
Motor Starting Capability kVA*	460	740	

* Based on 30% voltage dip at 0 power factor.

Control Panel

Automatic Type Control Panel, Standard Equipment



- Deepsea 6120 Can AMF control panel
- Battery charger 12V/5A
- Isıtıcı tüp sürmek için 9 A kontaktör.
- 9A contactor to drive the heater tube
- Control relay
- System protection insurance
- Emergency stop button
- 2 pieces suitable for the power generator contactor (ATS), optional
- The load output terminal (canopy types)

Manual Type Control Panel, Standard Equipment

- Deepsea 6120 Can AMF control panel
- Control relay
- System protection insurance
- Emergency stop button
- Suitable for the power generator output breaker (TMS), optional
- The load output terminal (canopy types)

Deepsea DSE 6120 Can AMF Control Panel



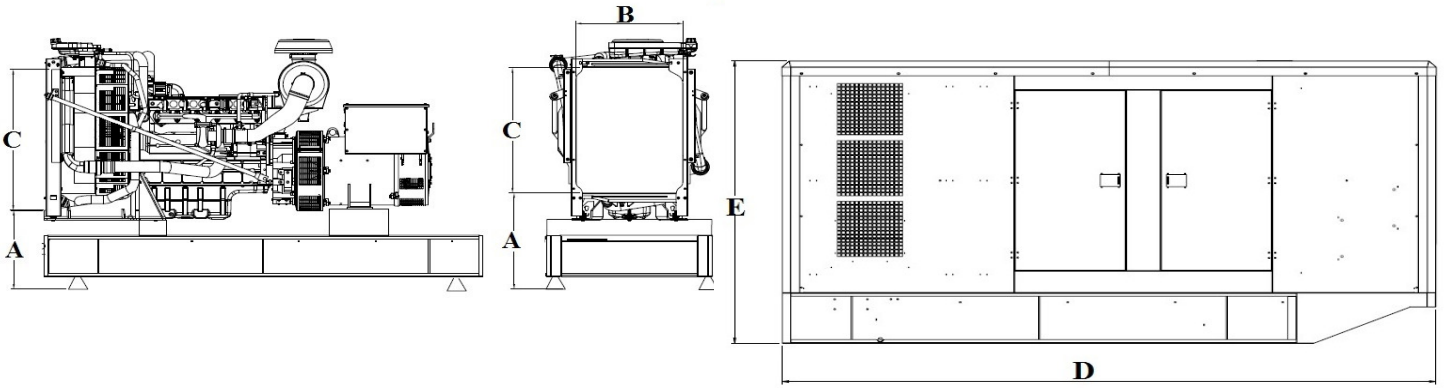
- Configurable analog inputs
- Selectable protections alarm / shutdown
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator and Mains control with feedback and return timer
- Sealed to IP65

- Support of engines equipped with ECU (J1939 interface)
- Comprehensive diagnostic messages; SPN/FMI codes; KWP2000 support
- Automatic or manual start/stop of the genset
- Push buttons for simple control, lamp test
- Text LCD display
- LED indicators
- Parameters adjustable via keyboard or PC
- Mains measurements 50/60 Hz, V (3 phase)
- Generator measurements 50/60 Hz, V , A (3 phase)
- 3 phase Generator protections
 - Over-/under voltage
 - Over-/under frequency
 - Current/voltage asymmetry
 - Overcurrent
- 3 phase AMF function
 - Over-/under frequency
 - Over-/under voltage
 - Voltage asymmetry

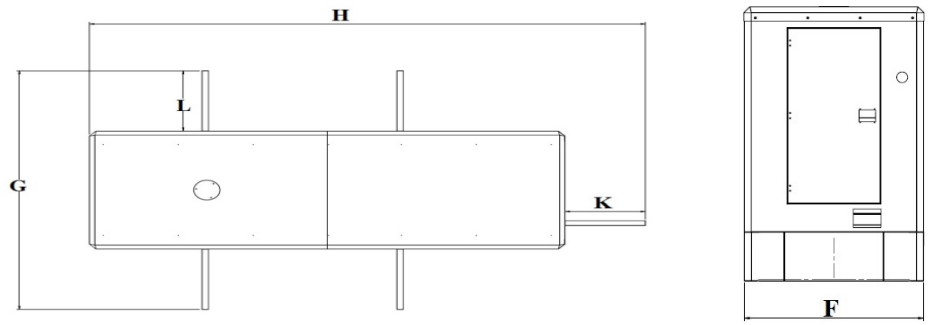
The control panel via the LCD display the following measures are followed.

- Engine Monitoring:
 - Oil pressure gauge
 - Cooling water temperature indicator (Temperature gauge)
 - Fuel level indicator (Electronic float if applicable)
 - Battery voltage indicator
 - J1939 engine parameters (EC, electronic motors)
- Statistics
 - Working Hours
 - The number-starter
 - Emergency stop number
 - Maintenance time
 - Event records retention
 - Acil durdurma sayısı
 - Bakım saati
 - Olay kayıtları tutma
- Alternator monitoring:
 - 3 phase Voltmeter (3 phase + neutral)
 - 3 Phase ammeter
 - Frequency
- Network monitoring:
 - 3 phase Voltmeter (3 phase + neutral)
 - Frequency

Dimensions and Weights



A=570mm
 B=707mm
 C=975mm
 D=3800
 E=1950
 F=1250
 G=2544
 H=4450
 K=644
 L=644



WidthxLengthxHeight. (mm	1100x2800x1870	1250x3800x2300
Dry weight (kg)	2020	2850

Width x Length: 2200 x 3800 mm

Concrete: © Class B. A. 300 doses of concrete

Iron: 2 row Q8-12 mm thin ribbed mesh, grid iron.



ISO 9001:2008
 OHSAS 18001:2007
 ISO 14001:2004



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