

# GVP SERIES

**DIESEL**  
Volvo Penta



# GENPOWER®

GENERATOR



## GVP 110 - 50 Hz / GVP 118 - 60 Hz

### Output Ratings

Voltage, Frequency	Prime	Standby
<b>GVP 110</b> - 400 Volt, 50 Hz	100 kVA / 80.0 kW	110 kVA / 88.0 kW
<b>GVP 118</b> - 480 Volt, 60 Hz	106 kVA / 84.8 kW	118 kVA / 94.4 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 110	GVP 118
Engine Brand & Model:		Volvo Penta / TAD 531 GE	
Alternator Brand & Model:		Stamford / UCI274C	
		Genpower / GNP 270 S W12/4	
Control Panel Make & Model:		ComAp / AMF25	
Base Frame		Heavy Duty Fabricated Steel	
Engine Speed	rpm	1500	1800
Frequency	Hz	50	60
Fuel Tank Capacity	Litres	196	
Fuel Consumption	50%	11,7	12,8
	75%	17,0	18,2
	100%	22,7	24,0

### 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	4	
Alignment	In Line	
Cycle	4 Stroke	
Induction	Turbocharged AAC*	
Bore / Stroke	108 / 130	
Compression Ratio	18.0:1	
Displacement	Lt	4,76
Cooling Method	Water	
Governing Type	Mechanical	
Governing Class	ISO 8528-G2	
Moment of Inertia	kg m <sup>2</sup> ( lb/in <sup>2</sup> )	1,43 (39,9)
Electrical System	Voltage / Ground	12 V / Negative
Charger Amps	Amps.	55

\* AAC : Air to air charge cooled

## Performance

	GVP 110	GVP 118
Engine Speed rpm	1500	1800
Net Engine Power kW (Hp)		
Prime	88 (119)	93 (126)
Standby	98 (133)	104 (141)
BMEP kPa ( Psi)		
Prime	1545,0 (225,3)	1454,0 (204,5)
Standby	1700,0 (248,0)	1600,0 (225,0)

## Air Systems

	GVP 110	GVP 118
Air Filter Type	Replaceable Element	
Combustion Air Flow	m <sup>3</sup> /min (cfm)	
	Prime	7,24 (256,0)
	Standby	7,75 (274,0)
Max. Combustion Air Intake Restriction: kPa (in H2O)		
	4,0 (1,0)	4,0 (1,0)

## Lubrication System

Oil Filter Type	Spin-On, Full Flow	
Total Oil Capacity:	Lt.	13,0
Oil Pan	Lt.	11,0
Oil Type	API CH4 15W-40	
Oil Cooler	Ok.	
Oil Cooling Method	Water	

## Alternator

	GVP 110	GVP 118
Brand & Model	Stamford UCI274C1	
Cont. Power	400 V - 100 kVA	480 V - 125 kVA
Efficiency %	90,3	91,1
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, AS1359.

## Fuel System

Fuel Filter Type	Replaceable Element				
Recommended Fuel	Class A2 Diesel				
<b>Fuel Consumption</b>	Lt/h				
	Prime	110%	100%	75%	50%
<b>GVP 110</b>	26,2	23,6	17,6	12,1	
<b>GVP 118</b>	28,4	25,6	19,5	13,6	
	Standby	100%	75%	50%	
<b>GVP 110</b>	26,2	19,5	13,2		
<b>GVP 118</b>	28,4	21,4	14,7		

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

## Cooling System

	GVP 110	GVP 118
Cooling System Capacity	Lt.	19,7
Water Pump Type	Centrifugal	

## Heat Rejected to Water & Lube Oil

	kW ( BTU/min)		
	Prime	56,4 (3219)	58,0 (3299)
	Standby	62,5 (3566)	64,3 (3662)

## Heat Radiation to Room

	kW ( BTU/min)		
	Prime	14,2 (807)	17,5 (995)
	Standby	16,5 (938)	19,6 (1115)

## Radiator Fan Load

Radiator Fan Load	kW ( Hp)	5,9 (8)	10,2 (14)
Radiator Cooling Airflow )	m <sup>3</sup> /sn	1,2	1,7
Air On Temp.	°C	44	51

External Restriction to Cooling Airflow kPa 150

Note: Designed to operate in ambient conditions up to 50°C .

## Exhaust System

	GVP 110	GVP 118	
Silencer Type	Industrial		
Pressure Drop Across Silencer system	2,1	3,5	
Silencer Noise Reduction Level db/A	20	18	
Maximum Allowable Back Pressure	5,0	7,0	
Gas Flow m <sup>3</sup> /min (Cfm)	Prime	16,7 (589)	19,9 (704)
	Standby	18,4 (650)	22,1 (781)
Gas Temperature °C	Prime	544	518
	Standby	557	516

## Alternator

	GVP 110	GVP 118
Brand & Model	Genpower GNP 270 S W12/4	
Cont. Power	400 V - 109 kVA	480 V - 130 kVA
Efficiency %	90,5	91,4
AVR Model	SX 440	

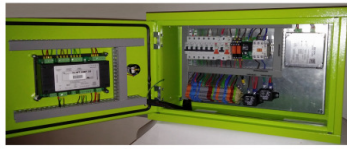
## Performance Data

	GVP 110	GVP 118	
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 <sup>3</sup> /sec.	0,514	0,617	
Radiant Heat kW (BTU min)	8,7 (495)	9,9 (563)	
Reaktans	Xd	2,05	2,30
	X'd	0,17	0,2
	X''d	0,12	0,13
Motor Starting Capability kVA*	225	340	

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

## Control Panel

### Automatic Type Control Panel, Standard Equipment



- ComAp AMF 25 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



- ComAp AMF 25 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)

## ComAp AMF 25 Control Panel

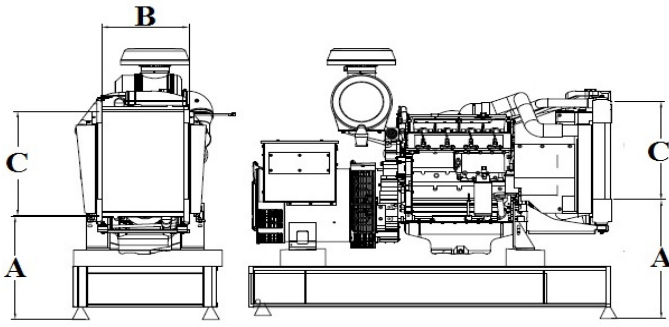


- Support of engines equipped with ECU (J1939 interface)
- Comprehensive diagnostic messages; SPN/FMI codes; KWP2000 support
- Automatic or manual start/stop of the genset
- Push buttons for simple control, lamp test
- Graphic back-lit LCD display 128x64 pixels
- 6 LED indicators
- Parameters adjustable via keyboard or PC
- Mains measurements 50/60 Hz, V ( 3 phase)
- Generator measurements 50/60 Hz, V , A ( 3 phase), kW , kVAr , kWh
- 3 phase Generator protections
  - Over-/under voltage
  - Over-/under frequency
  - Current/voltage asymmetry
  - Overcurrent/overload
- 3 phase AMF function
  - Over-/under frequency
  - Over-/under voltage
  - Voltage asymmetry
- 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
- Modem communication support
- Sealed to IP65

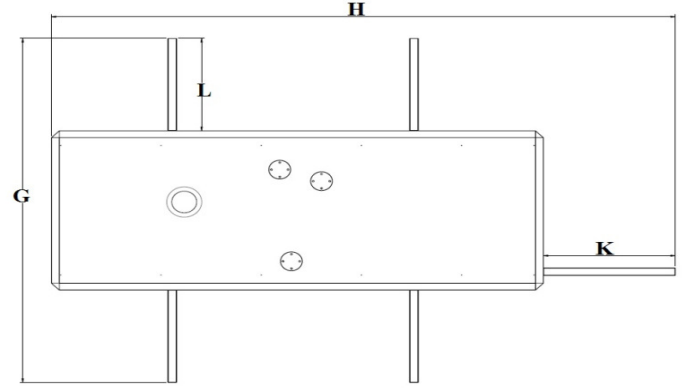
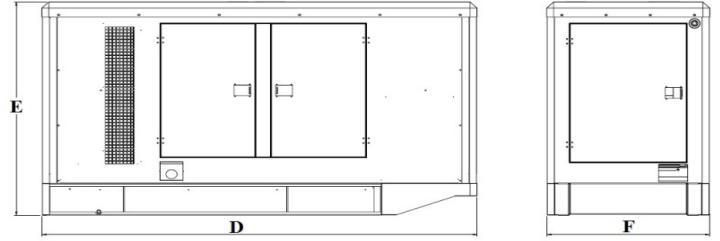
### The control panel via the LCD display the following measures are followed.

- 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
- Alternator monitoring:
  - 3 phase Voltmeter (3 phase + neutral)
  - 3 Phase ammeter
  - Frequency
  - kW meter, kVAr meter
  - kWh and kVArh energy meter
- Network monitoring:
  - 3 phase Voltmeter (3 phase + neutral)
  - Frequency

## Dimensions and Weights



A:625 mm  
 B:454 mm  
 C:636 mm  
 D:2950 mm  
 E:1670 mm  
 F:1100 mm  
 G:2390 mm  
 H:3745 mm  
 K:795 mm  
 L:645 mm



WidthxLengthxHeight. (mm)	760x1960x1640	1100x2950x2250
Dry weight (kg)	1090	1570

Width x Length: 1800 x 4000 mm

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

Iron: 1 row Q8-12 mm thin ribbed mesh, grid iron.



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



[www.genpower.com.tr](http://www.genpower.com.tr)