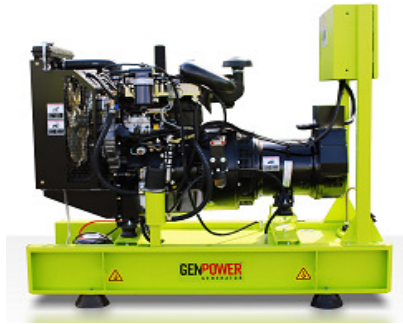


GPR SERIES



GENPOWER
GENERATOR



GPR 23 - 50 Hz / GPR 27 - 60 Hz

Output Ratings (3 Phases, GF 0.8)

	GPR 23	GPR 27
Voltage, Frequency	Prime	Standby
GPR 23 400/230 Volt, 50 Hz	20.0 kVA / 16.0 kW	23.0 kVA / 18.4 kW
GPR 27 220/127 Volt, 60 Hz	24.0 kVA / 19.2 kW	27.0 kVA / 21.6 kW

Standard Reference Conditions:

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

- Air Inlet Temperature: 25°C
- Altitude: 100 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

	GPR 23	GPR 27
Engine Brand & Model:	Perkins / 404D-22G1	
Alternator Brand & Model:	Stamford / PI144D	
	Genpower / GNP 180M 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	58
Fuel Consumption	50%	2,9 3,3
	75%	3,9 4,5
	100%	5,3 5,8

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
- Alarm and Long range tracking system

Engine Technical Data

No. of Cylinders	4	
Alignment	In Line	
Cycle	4 Stroke	
Induction	Naturally Aspirated	
Bore / Stroke	84 X 100	
Compression Ratio	23.3:1	
Displacement	Lt	2,2
Cooling Method	Water	
Governing Type	Mechanical	
Governing Class	ISO 8528	
Moment of Inertia	kg m ² (lb/in ²)	2,72 (9378)
Electrical System	Voltage / Ground	12 V / Negative
Charger Amps	Amps.	65

Performance	GPR 23	GPR 27
Engine Speed rpm	1500	1800
Gross Engine Power kW (Hp)		
Prime	18,7 (25,0)	22,0 (30,0)
Standby	20,6 (28,0)	24,3 (33,0)
BMEP kPa (Psi)		
Prime	675,0 (97,2)	662,0 (96,0)
Standby	743,0 (107,8)	731,0 (106,0)

Air Systems	GPR 23	GPR 27
Air Filter Type	Replaceable Element	
Combustion Air Flow	m ³ /min (cfm)	
	Prime	1,5 (51,0)
	Standby	1,5 (51,0)
Max. Combustion Air Intake Restriction: kPa (in H2O)		
		3,0 (12,0)

Lubrication System

Oil Filter Type	Replaceable Element	
Total Oil Capacity:	10,6	
Oil Pan	8,9	
Oil Type	API CH4 15W-40	
Oil Cooler	-	
Oil Cooling Method	-	

Alternator	GPR 23	GPR 27
Brand and Model	Stamford / PI144D	
Cont. Power	400 V - 12,5 kVA	220 V - 15,6 kVA
Efficiency %	85,1	85,2
AVR Model	AS480	

Alternator	General Information	
No. of Bearings	Single bearing	
Insulation Class:	H	
Winding Pitch Code:	2/3	
Wires	12	
Ingress Protection Rating	IP-23	IP 23
Excitation System	Self - Excited Shunt type	
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				
Fuel Consumption	Lt/h				
	Prime	110%	100%	75%	50%
GPR 23	5,9	5,3	3,9	2,9	
GPR 27	6,5	5,8	4,5	3,3	
	Standby	110%	100%	75%	50%
GPR 23	-	5,9	4,3	3,1	
GPR 27	-	6,5	4,9	3,6	

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

Cooling System	GPR 23	GPR 27
Cooling System Capacity	Lt.	6,5
Water Pump Type	Centrifugal	

Heat Rejected to Water & Lube Oil	GPR 23	GPR 27
	kW (BTU/min)	
	Prime	17,0 (967)
	Standby	19,6 (1115)

Heat Radiation to Room	GPR 23	GPR 27
	kW (BTU/min)	
	Prime	5,7 (324)
	Standby	7,1 (404)
Radiator Fan Load	kW (Hp)	
		0,2 (0,3)
Radiator Cooling Airflow m ³ /dak. (Cfm)	33,0 (1165)	
External Restriction to Cooling Airflow kPa (inH2O)	125 (0,5)	

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

Exhaust System	GPR 23	GPR 27
Silencer Type	Industrial	
Pressure Drop Across Silencer system	0,7	1,6
Silencer Noise Reduction Level db/A	22	20
Maximum Allowable Back Pressure	10,0	10,0
Exhaust Gas Flow m ³ /min (Cfm)		
	Prime	3,6 (129)
	Standby	3,9 (139)
Exhaust Gas Temperature °C		
	Prime	445
	Standby	500

Alternator	GPR 23	GPR 27
Brand and Model	Genpower GNP 180M W12/4	
Cont. Power	400 V - 22,5 kVA	220 V - 18,8 kVA
Efficiency %	85	85
AVR Model	SX460	

Alternator Performance Data	GPR 23	GPR 27
Overspeed	2250	
Voltage regulation	±%1	
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.	0,1	0,122
Radiant Heat kW (BTU min)	2,7 (154)	2,8 (159)
Reaktans	Xd	1,5
	X'd	1,15
	X''d	0,1
Motor Starting Capability kVA*	32	28

* 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



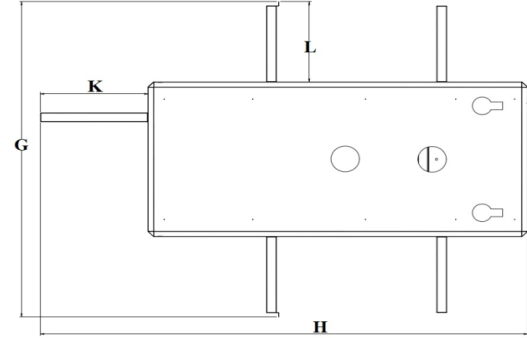
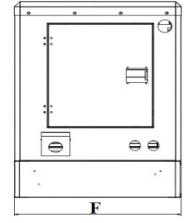
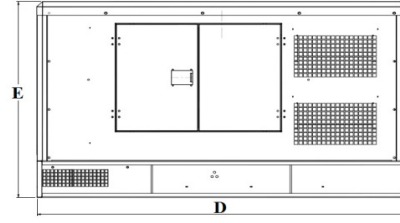
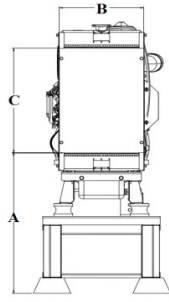
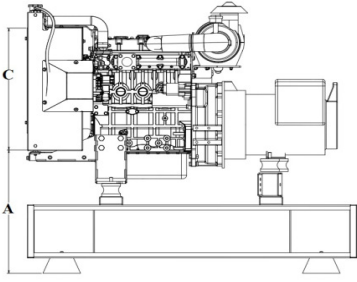
- Configurable analog inputs
- Selectable protections alarm / shutdown
- Battery voltage, engine speed (pick-up) measurement
- Configurable programmable binary inputs and outputs
- Warm-up and cooling functions
- Generator and Mains control with feedback and return timer
- Modem communication support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

- 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

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
 - kW meter kVAr meter

Dimensions and Weights



- A: 660 mm
- B: 360 mm
- C: 490 mm
- D: 2000 mm
- E: 1170 mm
- F: 900 mm
- G: 1845 mm
- H: 2570 mm
- K: 570 mm
- L: 472,5 mm

Recommended concrete foundation base

	Open Type	Canopy Type
WidthxLengthxHeight. (mm)	600x1460x1410	960x2000x1400
Dry weight (kg)	536	806

Width x Length: 1600 x 2500 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



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