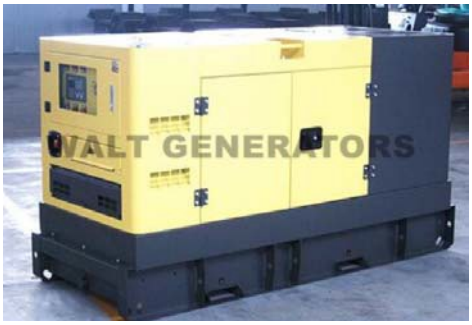
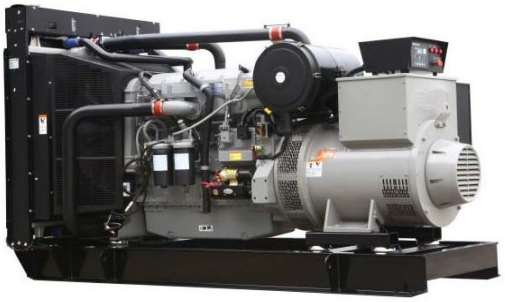
WGP-P80/S

Perkins Series

Features:

- Rotate speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: SX460
- Emergency stop switch
- ATS (automatic transfer switch) receptacle
- 12V sealed for life maintenance free battery
- Lockable battery isolator switch
- Powder coated canopy (Only for Soundproofed sets)
- 50℃radiator
- Oil pump on the engine
- Steel base frame with fork holes
- Vibration isolators between the engine/alternator and base frame
- Dry type air filter
- Base fuel tank for daily running
- Drain points for fuel tank
- Operation Manual / Specifications





Dimensions and Weights

Model	L	W	H
WGP-P80	2050	800	1350
WGP-P80S	2750	1100	1680

Output Ratings

Genset Model	Prime Power	Standby Power
WGP-P80	80kVA/64kW	88kVA/70.4kW
WGP-P80S	80kVA/64kW	88kVA/70.4kW

Ratings at 0.8 power factor

Notes:

***Prime Power**

Continuous duty operation,under variable load 24/24h-10% over load

****Standby Power**

Standby duty, operation under variable load, without over load;

Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m(328 ft) A.S.L. 30% relative humidity. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998,

Ratings and Performance Data	
Engine Model:	Perkins 1104A-44TG2
Alternator Brand:	Stamford
Alternator Model:	UCI 224G
Control System:	Auto Genset / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L	
WGP-P80	10 hrs
WGP-P80S	10 hrs
Fuel Consumption: l/hr (100% Load)	
- Prime Power	18.7
-Standby Power	20.5

Engine Model: 1104A-44TG2 / 79.1kw@1500rpm

Cooling system

Radiator	
face area	0.276 m²
rows and materials	2 rows, Aluminium
matrix density and material	12.5 fins/inch Alum
width of matrix	526 mm
height of matrix	524.2 mm
pressure cap setting	107 kPa
Estimated cooling air flow reserve	/

Fan	
diameter	457 mm
drive ratio	1.25:1
number of blades	7
material	Composite
type	pusher

Coolant	
Total system capacity	
with radiator	13.1 litres
without radiator	7.1 litres
Maximum top tank temperature	110°C
Max static pressure head on pump	30.4 kPa
Temperature rise across engine	7.5°C
Max permissible external system resistance	TBA kPa
Thermostat operation range	82 - 93°C
Recommended coolant:	50% anti freeze/ 50% water

Duct allowance

Maximum additional restriction (duct allowance) to cooling airflow and resultant minimum airflow

Ambient clearance 50% Glycol	Duct allowance Pa	m³/sec
/	/	/
/	/	/

Electrical system

alternator	65 amps, 12 V
starter motor	3KW,12 V
Minimum cranking speed	105 rev/min

Cold start recommendations

Minimum starting temperature	Grade of engine lubricating oil	Battery specifications	
°C			
-10	15W	810	1
-15	10W	810	1
-20	5W	810	1

Exhaust system

Maximum back pressure	10 kPa
Exhaust outlet size	
horizontal	/
vertical	64 mm

Fuel system

Type of injection	Direct injection
Fuel injection pump	Rotary
Fuel injector	Multi-hole
Nozzle opening pressure	29.0 Mpa
Maximum particle size	25 microns

Fuel lift pump

type	Mechnical
flow/hour	120-150 litres/hr
pressure	30-75 kPa
Maximum suction head	0.8 m
Maximum static pressure head	17 kPa
Governor type	Electronic

Fuel specification

USA Fed Off Highway - EPA2D 89.330-96
Europe Off Highway - CEC RF-06-99

Note: For further information on fuel specifications and restrictions estrictions.
refer to the OMM Fuels section for this engine model

Fuel consumption

Power rating		
g/kWh (litres/hr)		
110%	100%	75%
20.5	18.7	14.03

Induction system

Maximum air intake restriction	
clean filter	5 kPa
dirty filter	8 kPa
air filter type	Dry element type

Lubrication system

Lubricating oil capacity	
Maximum sump capacity	7.01 litres
Total system	8.01 liters
Minimum sump capacity	5.51 litres

Lubricating oil pressure

Minimum sump capacity	120 kPa
relief valve opens	415 - 470 kPa
at maximum no-load speed	276 - 414 kPa
Normal oil temperature	125°C
oil flow at rated speed	13 litres/min.

Alternator Model: UCI 224G

Alternator Physical Data

Manufactured by:	Stamford
Model:	UCI 224G
No. of Bearings:	Single
Insulation Class:	H
Winding Pitch Code:	2/3
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	Self excited,shunt
AVR Model:	AS480

Alternator Operating Data

Overspeed: rpm	2250rpm
Voltage Regulation: (Steady state)	±1.0%
Wave Form NEMA = TIF:	＜50
Wave Form IEC = THF:	＜2%
Air Flow: m3/s	0.1
Altitude: m	⩽1000

Alternator Performance Data:	**WGP-P80**	**WGP-P80S**
Time constants/400V:Ms		
T'd	30	30
T''d	8	8
T'do	750	750
Ta	7	7
Short Circuit Capacity** %	1/Xd	1/Xd
Reactances: Per Unit		
Xd	2.2	2.2
X'd	0.17	0.17
X"d	0.12	0.12

Voltage Technical Data WGP-P80

Voltage	Prime	Standby
	kVA	kVA
380/220	80	88
400/230	80	88
415/240	80	88
440/254	80	88

Voltage Technical Data WGP-80S

Voltage	Prime	Standby
	kVA	kVA
380/220	80	88
400/230	80	88
415/240	80	88
440/254	80	88

Control System DSE4620

Features:

- Large back-lit icon LCD display.
- 3-phase generator sensing.
- 3-phase generator and mains (utility) sensing.
- 600 V ph-ph nominal system compatibility.
- Generator & load power monitoring (kW, kV A, kV Ar, pf).
- Generator overload protection (kW).
- Configurable inputs & outputs.
- Fuel & crank outputs.
- Magnetic pick-up speed sensing.
- Battery voltage monitoring.
- Configurable event log (50).
- DSE Configuration Suite PC Software.
- Engine speed protection, engine hours counter, engine pre-heat, engine run-time scheduler, engine idle control for start/stop.

Control System DSE7420

Features:

- Microprocessor control, with high stability and credibility .
- Mains supply and generator operation monitoring.
- Indicating operation status and fault conditions.
- Multiple protections; multiple parameters display such as pressure, temperature.
- Manual and automatic work mode selectable.
- Real time clock for time and date display, overall runtime display, 99 log entries
- Overall power output display.
- Integral speed/frequency detecting, telling status of start, rated operation, overspeed.
- Communication with PC via RS485 or RS232 interface, using MODBUS protocol.
- Engine ECU is available.
- Common USB cable is usable for parameter configuration.
- Multi-language is available

Optional

Engine	Alternator	Generator Set
• Water Jacket Preheater • Fuel-water separator • Oil pump • Oil preheater • Battery preheater	• PMG excitation • Alternator heater • Winding Temperature Measuring • Anti-damp and anti-corrosion treatment • Anti-condensation heater	•Tools with the machine •Coolant (-30°C)

Canopy	Fuel System	Control System
• Hired type • Trailer	• Low fuel level alarm • Automatic fuel feeding system • Fuel T-valves • Dual Wall Integral Fuel Tanks • Dual Wall Sub-base Fuel Tanks • Automatic Fuel Fill Options • Fuel level shut down sensor	• AMF function • ATS control cabinet • Double HZ & Volt • ABB & MCCB

Air Inlet system	Lube system	Starting /Charging system
• Air pre-heater	• Manual sump pump • Lubricant oil pre-heater	• Jacket water heater

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