

WGP-P100/S

Perkins Series

Features:

- Rotate speed governor: Electrical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: SX440
- 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°C 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-P100	2200	800	1350
WGP-P100S	2850	1100	1880

Output Ratings

Genset Model	Prime Power	Standby Power
WGP-P100	100kVA/80kW	110kVA/88kW
WGP-P100S	100kVA/80kW	110kVA/88kW

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 1104C-44TAG2
Alternator Brand:	Stamford
Alternator Model:	UCI 274C
Control System:	Auto Genset / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	50Hz & 3PH
Engine Speed: RPM	1500
Fuel Tank Capacity: L	
WGP-P100	10 hrs
WGP-P100S	10 hrs
Fuel Consumption: l/hr (100% Load)	
- Prime Power	22.8
-Standby Power	24.3

Engine Model: 1104C-44TAG2 / 99.5kW@1500rpm

Cooling system

Radiator	
face area	0.39 m ²
rows and materials	4 brass
matrix density and material	/
width of matrix	559 mm
height of matrix	698 mm
pressure cap setting	75 kPa
Estimated cooling air flow reserve	0.15

Fan

diameter	559 mm
drive ratio	1.25:1
number of blades	7
material	Composite
type	pusher

Coolant

Total system capacity	
with radiator	/
without radiator	/
Maximum top tank temperature	110°C
Max static pressure head on pump	30.4 kPa
Temperature rise across engine	7.7°C
Max permissible external system resistance	35 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	m ³ /sec
/	/	/
/	/	/

Electrical system

alternator	12 V/24V
starter motor	12 V/24V
Minimum cranking speed	105 rev/min

Cold start recommendations

Minimum starting temperature	Grade of engine lubricating oil	Battery specifications	
°C			
-7	20W	520	1
-15	10W	520	1
-20	5W	315	1

Exhaust system

Maximum back pressure	/
Exhaust outlet size	
horizontal	/
vertical	/

Fuel system

Type of injection	Direct injection
Fuel injection pump	Rotary
Fuel injector	Multi-hole
Nozzle opening pressure	25.3 Mpa
Maximum particle size	/

Fuel lift pump

type	Electrical
flow/hour	122.4 litres/hr
pressure	30 kPa
Maximum suction head	1.8 m
Maximum static pressure head	3 m
Governor type	Mechanical

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%
24.3	22.8	17.1

Induction system

Maximum air intake restriction	
clean filter	3 kPa
dirty filter	5 kPa
air filter type	Dry element type

Lubrication system

Lubricating oil capacity	
Maximum sump capacity	13.1 litres
Total system	16.1 liters
Minimum sump capacity	/

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 274C

Alternator Physical Data

Manufactured by:	Stamford
Model:	UCI 274C
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:	SX440

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	0.514
Altitude: m	≤1000

Alternator Performance Data:	WGP-P100	WGP-P100S
Time constants/400V:Ms		
T'd	28	28
T''d	1	1
T'do	800	800
Ta	7	7
Short Circuit Capacity** %	1/Xd	1/Xd
Reactances: Per Unit		
Xd	2.21	2.21
X'd	0.18	0.18
X''d	0.13	0.13

Voltage Technical Data WGP-P100

Voltage	Prime kVA	Standby kVA
380/220	100	110
400/230	100	110
415/240	100	110
440/254	100	110

Voltage Technical Data WGP-100S

Voltage	Prime kVA	Standby kVA
380/220	100	110
400/230	100	110
415/240	100	110
440/254	100	110

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

<p>Engine</p> <ul style="list-style-type: none"> • Water Jacket Preheater • Fuel-water separator • Oil pump • Oil preheater • Battery preheater 	<p>Alternator</p> <ul style="list-style-type: none"> • PMG excitation • Alternator heater • Winding Temperature Measuring • Anti-damp and anti-corrosion treatment • Anti-condensation heater 	<p>Generator Set</p> <ul style="list-style-type: none"> • Tools with the machine • Coolant (-30°C)
<p>Canopy</p> <ul style="list-style-type: none"> • Hired type • Trailer 	<p>Fuel System</p> <ul style="list-style-type: none"> • 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 	<p>Control System</p> <ul style="list-style-type: none"> • AMF function • ATS control cabinet • Double HZ & Volt • ABB & MCCB
<p>Air Inlet system</p> <ul style="list-style-type: none"> • Air pre-heater 	<p>Lube system</p> <ul style="list-style-type: none"> • Manual sump pump • Lubricant oil pre-heater 	<p>Starting /Charging system</p> <ul style="list-style-type: none"> • Jacket water heater

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Walt reserves the right to make changes in model, technical specification, color, configuration and accessories without prior notice.

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