

# WGP-P17.5S-6

## Perkins Series

### Features:

- Rotate speed governor: Mechanical governor
- Excitation system: Self excited, SHUNT
- A.V.R model: AS480
- 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-P17.5-6	1250	650	1050
WGP-P17.5S-6	1850	900	1350

### Output Ratings

Genset Model	Prime Power	Standby Power
WGP-P17.5-6	14.5kVA/11kW	17.5kVA/14kW
WGP-P17.5S-6	14.5kVA/11kW	17.5kVA/14kW

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 403D-15G
Alternator Brand:	Stamford
Alternator Model:	PI 044F
Control System:	Auto Genset / AMF
Circuit Breaker Type:	3 Pole MCCB
Frequency & Phase:	60Hz & 3PH
Engine Speed: RPM	1800
Fuel Tank Capacity: L	
WGP-P17.5-6	10 hrs
WGP-P17.5S-6	10 hrs
Fuel Consumption: l/hr (100% Load)	
- Prime Power	3.7
- Standby Power	4.1

**Engine Model: 403D-15G / 15.8kW @1800rpm****Cooling system**

Radiator	
face area	0.167 m <sup>2</sup>
rows and materials	2 rows, Aluminium
matrix density and material	14.5 fins/inch Alum
width of matrix	334 mm
height of matrix	500 mm
pressure cap setting	90 kPa
Estimated cooling air flow reserve	0.125 kPa

**Fan**

diameter	320 mm
drive ratio	1.15:1
number of blades	6
material	plastic
type	pusher

**Coolant**

Total system capacity	
with radiator	6.0 litres
without radiator	2.6 litres
Maximum top tank temperature	112°C
Max static pressure head on pump	30.4 kPa
Temperature rise across engine	51°C
Max permissible external system resistance	TBA kPa
Thermostat operation range	82 - 95°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 <sup>3</sup> /sec
53°C	0	0.61
46°C	125	0.42

**Electrical system**

alternator	15 amps, 12 V
starter motor	2.0 kW, 12 V
Minimum cranking speed	150 rev/min

**Cold start recommendations**

Minimum starting temperature	Grade of engine lubricating oil	Battery specifications	
		°C	
0	20W	420	1
-15	10W	420	1
-20	5W	540	1

**Exhaust system**

Maximum back pressure	10.2 kPa
Exhaust outlet size	
horizontal	/
vertical	42 mm

**Fuel system**

Type of injection	Indirect injection
Fuel injection pump	Cassette type
Fuel injector	Pintle nozzle
Nozzle opening pressure	14.7 Mpa
Maximum particle size	25 microns

**Fuel lift pump**

type	Mechanical
flow/hour	63 litres/hr
pressure	10 kPa
Maximum suction head	0.8 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 restrictions.**

**refer to the OMM Fuels section for this engine model**

**Fuel consumption**

	Power rating		
	g/kWh (litres/hr)		
	110%	100%	75%
	4.1	3.7	2.78

**Induction system**

Maximum air intake restriction	
clean filter	3.0 kPa
dirty filter	6.4 kPa
air filter type	Dry element type

**Lubrication system**

Lubricating oil capacity	
Maximum sump capacity	6.0 litres
Total system	/
Minimum sump capacity	4.5 litres

**Lubricating oil pressure**

Minimum sump capacity	120 kPa
relief valve opens	262 - 359 kPa
at maximum no-load speed	TBA
Normal oil temperature	125°C
oil flow at rated speed	10.9 litres/min.

**Alternator Model: PI 044F**

**Alternator Physical Data**

Manufactured by:	Stamford
Model:	PI 044F
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-P17.5-6	WGP-P17.5S-6
Time constants/480V:Ms		
T'd	19	19
T''d	5	5
T'do	450	450
Ta	7	7
Short Circuit Capacity** %	1/Xd	1/Xd
Reactances: Per Unit		
Xd	1.61	1.61
X'd	0.15	0.15
X''d	0.11	0.11

**Voltage Technical Data WGP-P17.5-6**

Voltage	Prime	Standby
	kVA	kVA
110/220	14.5	17.5
220/440	14.5	17.5
230/460	14.5	17.5
240/480	14.5	17.5

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240/480	14.5	17.5

**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**

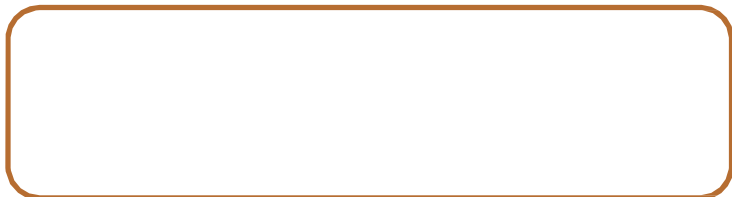


**Features:**

- 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
<ul style="list-style-type: none"> <li>• Water Jacket Preheater</li> <li>• Fuel-water separator</li> <li>• Oil pump</li> <li>• Oil preheater</li> <li>• Battery preheater</li> </ul>	<ul style="list-style-type: none"> <li>• PMG excitation</li> <li>• Alternator heater</li> <li>• Winding Temperature Measuring</li> <li>• Anti-damp and anti-corrosion treatment</li> <li>• Anti-condensation heater</li> </ul>	<ul style="list-style-type: none"> <li>•Tools with the machine</li> <li>•Coolant (-30°C)</li> </ul>
Canopy	Fuel System	Control System
<ul style="list-style-type: none"> <li>• Hired type</li> <li>• Trailer</li> </ul>	<ul style="list-style-type: none"> <li>• Low fuel level alarm</li> <li>• Automatic fuel feeding system</li> <li>• Fuel T-valves</li> <li>• Dual Wall Integral Fuel Tanks</li> <li>• Dual Wall Sub-base Fuel Tanks</li> <li>• Automatic Fuel Fill Options</li> <li>• Fuel level shut down sensor</li> </ul>	<ul style="list-style-type: none"> <li>• AMF function</li> <li>• ATS control cabinet</li> <li>• Double HZ &amp; Volt</li> <li>• ABB &amp; MCCB</li> </ul>
Air Inlet system	Lube system	Starting /Charging system
<ul style="list-style-type: none"> <li>• Air pre-heater</li> </ul>	<ul style="list-style-type: none"> <li>• Manual sump pump</li> <li>• Lubricant oil pre-heater</li> </ul>	<ul style="list-style-type: none"> <li>• Jacket water heater</li> </ul>



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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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