



**P500P2-IND**

**FG Wilson Diesel Generating Set**

# P500P2-IND



## Output Ratings

500 kVA, 415 V, 50Hz, 1500RPM - Prime at 0.8 power factor

## Prime Rating

These ratings are applicable at standard reference conditions for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

## Ratings and Performance Data

Engine Make / Model	Perkins / 2506C-E15TAG2
Alternator manufactured for FG Wilson by / Model	Leroy Somer / LL6114F
Control Panel	Power Wizard 1.0
Base Frame	Heavy Duty Fabricated Steel
Engine Speed	1500 RPM
Fuel Tank Capacity	928 Litres

## Engine Technical Data

No. of Cylinders / Alignment	6 / In Line
Cycle	4 Stroke
Bore / Stroke	135.0 /167.0 mm
Induction	Turbocharged Air to Air Charge Cooled
Cooling Method	Water
Governing Type / Class	Electronic / ISO 8528 G2
Gross Engine Power kW (hp)	443 (594)
Compression Ratio	16.0 : 1
Displacement	15.2 Litres
BMEP KPA	2471
Engine Electrical System Voltage / Ground	24 / Negative
Battery charger Amps	70

## Fuel System

Fuel Filter Type	Replaceable element
Recommended Fuel	Class A2 Diesel

## Fuel consumption: litre / hr

Load	110%	100%	75%	50%
	111.8	102.4	78.4	53.4

(Based on diesel fuel with specific gravity of 0.85 & conforming to BS2869, Class A2)

### Cooling System

Cooling System Capacity	38.3 Litres
Water Pump Type	Centrifugal
Heat Rejection to Water & Lube Oil	157.0 kW
Heat Rejection to Room	47.0 kW
Radiator Fan Load	16.0 kW

### Air System

Air Filter type	Paper Element 18"
Combustion Air Flow	30.5 m <sup>3</sup> / min
Max. Combustion Air Intake Restriction	6.2 kPa
Radiator Cooling Airflow	660.0 m <sup>3</sup> / min
External Restriction to Cooling Airflow	125 Pa

### Exhaust System

Silencer Make & Quantity	FGW / 1
Pressure Drop Across Silencer	2 kPa
Maximum Allowable Back Pressure	6.8 kPa
Exhaust Gas Flow	81.0 m <sup>3</sup> / min
Exhaust Gas Temperature	514 °C

### Lubricating System

Oil Filter Type	Eco, Full Flow
Total Oil Capacity	62.0 Litres
Oil Pan	53.0 Litres
Oil Type	API CI4 15W-40
Oil Cooling Method	Water

### Alternator Physical Data

No. of Bearings	1
Insulation Class	H
Winding Pitch Code	2/3 – 6
Wires	12
Ingress Protection Rating	IP 23
Excitation System	Shunt
AVR Model	R450M

### Alternator Performance Data

Motor starting Capability (At 30% voltage dip & 0.6 power factor)	1296 kVA
Short Circuit Capability (With optional PMG or AREP winding)	300%
Reactances: Per unit	
X <sub>d</sub>	2.850
X' <sub>d</sub>	0.150
X'' <sub>d</sub>	0.103

### Alternator Operating Data

Overspeed	2250 RPM
Voltage Regulation	+/- 0.5% (Steady State)
Wave Form NEMA = TIF	50
Wave Form IEC = THF	2.0%
Total Harmonic Content LL/ LN	2.0%
Radio Interference	Suppression in line with EN 61000-6
Radiant Heat	26.7 kW

### Acoustic Enclosure

Noise limit compliance	<75dBA @ 1 Meter
Enclosure material	CR Steel
Thickness	1.6 mm
Number of Doors	4
Fresh Air Inlet	Rear
Hot Air Outlet	Front
Acoustic Material	Rockwool
Thickness	100 mm
Density	96/64 kg/m <sup>3</sup>

### Available Options

FG Wilson offer a range of optional features to tailor our generating sets to meet your power needs, options include;

- Circuit Breaker Panel
- Power Wizard 2.0 with RS485 communication port
- Additional alarms and shutdowns

For further information on all of the standard and optional features accompanying this product please contact your local Dealer.

\* Generating Set complies with Govt. of India, Ministry of Environment & Forests notification GSR 371 For Noise and Exhaust Pollution.

\* The equipment meets with the following standards BS5514, BS5000, IS4722, ISO8528, ISO 3046, IEC 60034, NEMA MG.1-22.

### Dimensions and Weights (with Enclosure)

Length mm	Width mm	Height mm	Height mm ( With Silencer )	Dry Weight Kgs
6000	2115	2485	3345	6000

In line with our policy of prime product development, we reserve the right to change specifications without notice

## Power Wizard Control Panel 1.0

Features:	Display:
Auto Start / Stop	AC Volts (L-L & L-N)
Feather Touch Buttons	AC Amps (per phase & average)
LCD Display with adjustable contrast & back light	AC Frequency (Hz)
Easily Configurable thru Front Pad / Laptop	DG Hours Run (Hrs)
Integrated Metering & Controls	Engine Oil Pressure (in psi / bar / kPa)
20 Event Log to aid fault finding	Engine Jacket Water Temperature (in °C /°F)
Shortcut keys for quick access to Engine or AC Metering	Engine Speed (RPM)
	Battery Volts
Protection:	Controls:
Fail to Start	Auto / Run / Stop with LED Indicators
Low Lube Oil pressure	2 LED Status Indicators
High Jacket Water Temperature	Lamp Test key
Under Speed / Over Speed	Alarm Acknowledge key
Low / High Battery Voltage	Emergency Stop Button
Loss of Engine Speed detection	Menu Navigation keys
2 Spare Fault Channels	

### FG Wilson is a world leader in manufacturing of generating sets with:

- ◆ Over 45 years experience in supplying power throughout the world
- ◆ Capacity to produce over 130,000 generating sets annually
- ◆ Global coverage with over 370 Authorised Dealers in more than 150 countries
- ◆ A One-Stop-Shop: Providing professional Installation and Commissioning services
- ◆ Comprehensive 24x7 After Sales Support
- ◆ ISO 9001 / 14001 certification

Authorised Dealer :



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