

# P1500P3/P1650E3



Image for illustration purposes only.

## Output Ratings

Generating Set Model	Prime*	Standby*
380-415V,50Hz	1500.0 kVA / 1200.0 kW	1650.0 kVA / 1320.0 kW
	- / -	- / -

Ratings at 0.8 power factor.

### Prime Rating

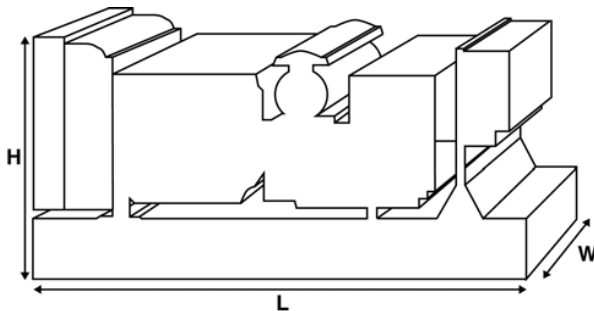
These ratings are applicable for supplying continuous electrical power (at variable load) in lieu of commercially purchased power. There is no limitation to the annual hours of operation and this model can supply 10% overload power for 1 hour in 12 hours.

### Standby Rating

These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

### 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, Class A2.



## Ratings and Performance Data

Engine Make & Model:	Perkins 4012-46TAG2A	
Alternator manufactured for FG Wilson by:	Leroy Somer	
Alternator Model:	LL8224N	
Control Panel:	PowerWizard 1.1+	
Base Frame:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole ACB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Fuel Tank Capacity: litres (US gal)	-	
Fuel Consumption: l/hr (US gal/hr)		
(100% Load)	- Prime	296.6 (78.4) -
	- Standby	326.3 (86.2) -

## Available Options

FG Wilson offer a range of optional features to tailor our generating sets to meet your power needs. Options include:

- Upgrade to CE Certification
- A wide range of Sound Attenuated Enclosures
- A variety of generating set control and synchronising panels
- Additional alarms and shutdowns
- A selection of exhaust silencer noise levels

For further information on all of the standard and optional features accompanying this product please contact your local Dealer or visit: [www.FGWilson.com](http://www.FGWilson.com)

## Dimensions and Weights

Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	Dry kg (lb)	Wet kg (lb)
5095 (200.6)	1900 (74.8)	2435 (95.9)	10178 (22435)	10385 (22895)
Dry = With Lube Oil			Wet = With Lube Oil and Coolant	

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000 and NEMA MG-1/22. Generating set pictured may include optional accessories.

Head Office

St Ivel Way, Warmley, Bristol BS30 8TY  
T. 0370 850 0858 F. 0370 850 0851

## Engine Technical Data

<b>No. of Cylinders / Alignment:</b>	12 / Vee	
<b>Cycle:</b>	4 Stroke	
<b>Bore / Stroke:</b> mm (in)	160.0 (6.3)/190.0 (7.5)	
<b>Induction:</b>	Turbocharged Air To Air Charge Cooled	
<b>Cooling Method:</b>	Water	
<b>Governing Type:</b>	Electronic	
<b>Governing Class:</b>	ISO 8528 G2	
<b>Compression Ratio:</b>	13.0:1	
<b>Displacement:</b> l (cu. in)	45.8 (2797.5)	
<b>Moment of Inertia:</b> kg m <sup>2</sup> (lb/in <sup>2</sup> )	19.30 (65951)	
<b>Engine Electrical System:</b>		
- Voltage / Ground	24/Negative	
- Battery Charger Amps	40	
<b>Weight:</b> kg (lb)		
- Dry	4400 (9700)	
- Wet	4604 (10150)	

## Performance

	50 Hz	60 Hz
<b>Engine Speed:</b> rpm	1500	-
<b>Gross Engine Power:</b> kW (hp)		
- Prime	1331.0 (1785.0)	-
- Standby	1459.0 (1957.0)	-
<b>BMEP:</b> kPa (psi)		
- Prime	2323.0 (336.9)	-
- Standby	2546.0 (369.3)	-

## Fuel System

<b>Fuel Filter Type:</b>	Replaceable Element			
<b>Recommended Fuel:</b>	Class A2 Diesel			
<b>Fuel Consumption:</b> l/hr (US gal/hr)				
	110%	100%	75%	50%
<b>Prime</b>	<b>Load</b>	<b>Load</b>	<b>Load</b>	<b>Load</b>
50 Hz	326.3 (86.2)	296.6 (78.4)	225.7 (59.6)	159.8 (42.2)
60 Hz	-	-	-	-
	110%	100%	75%	50%
<b>Standby</b>	<b>Load</b>	<b>Load</b>	<b>Load</b>	<b>Load</b>
50 Hz	326.3 (86.2)	246.4 (65.1)	172.6 (45.6)	-
60 Hz	-	-	-	-

(Based on diesel fuel with a specific gravity of 0.84 and conforming to BS2869, Class A2)

## Air Systems

	50 Hz	60 Hz
<b>Air Filter Type:</b>	Replaceable Element	
<b>Combustion Air Flow:</b> m <sup>3</sup> /min (cfm)		
- Prime	120.0 (4238)	-
- Standby	128.0 (4520)	-
<b>Max. Combustion Air Intake Restriction:</b> kPa (in H <sub>2</sub> O)	4.0 (16.1)	-

## Cooling System

	50 Hz	60 Hz
<b>Cooling System Capacity:</b> l (US gal)	207.0 (54.7)	-
<b>Water Pump Type:</b> Centrifugal		
<b>Heat Rejected to Water &amp; Lube Oil:</b>		
kW (Btu/min)	- Prime 428.0 (24340)	-
	- Standby 485.0 (27581)	-
<b>Heat Radiation to Room:</b> Heat radiated from engine and alternator		
kW (Btu/min)	- Prime 147.9 (8411)	-
	- Standby 171.6 (9759)	-
<b>Radiator Fan Load:</b> kW (hp)	42.0 (56.3)	-
<b>Radiator Cooling Airflow:</b> m <sup>3</sup> /min (cfm)	1212.0 (42801)	-
<b>External Restriction to Cooling Airflow:</b> Pa (in H <sub>2</sub> O)		
	250 (1.0)	-

Designed to operate in ambient conditions up to 50°C (122°F). Contact your local FG Wilson Dealer for power ratings at specific site conditions.

## Lubrication System

<b>Oil Filter Type:</b>	Spin-On, Full Flow	
<b>Total Oil Capacity:</b> l (US gal)	177.0 (46.8)	
<b>Oil Pan:</b> l (US gal)	159.0 (42.0)	
<b>Oil Type:</b>	API CG4 15W-40	
<b>Oil Cooling Method:</b>	Water	

## Exhaust System

	50 Hz	60 Hz
<b>Silencer Type:</b>	Optional	
<b>Silencer Model &amp; Quantity:</b>	- (-)	
<b>Pressure Drop Across Silencer System:</b> kPa (in Hg)		
	-	-
<b>Silencer Noise Reduction Level:</b> dB	10	-
<b>Maximum Allowable Back Pressure:</b> kPa (in Hg)		
	5.0 (1.5)	-
<b>Exhaust Gas Flow:</b> m <sup>3</sup> /min (cfm)		
- Prime	315.0 (11124)	-
- Standby	315.0 (11124)	-
<b>Exhaust Gas Temperature:</b> °C (°F)		
- Prime	450 (842)	-
- Standby	450 (842)	-



Head Office

St Ivel Way, Warmley, Bristol BS30 8TY  
T. 0370 850 0858 F. 0370 850 0851



HIRE | SALES | SERVICE | PARTS | FABRICATION

www.powerelectronics.com  
enquiries@powerelectronics.com



Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL8224N
No. of Bearings:	1
Insulation Class:	H
Winding Pitch Code:	2/3 - 6S
Wires:	6
Ingress Protection Rating:	IP23
Excitation System:	AREP
AVR Model:	R450M

Alternator Operating Data	
Overspeed: rpm	2250
Voltage Regulation: (Steady state)	+/- 0.5
Wave Form NEMA = TIF:	50
Wave Form IEC = THF:	2.0%
Total Harmonic content LL/LN:	3.5%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
- 50 Hz	66.6 (3787)
- 60 Hz	-

Alternator Performance Data:	50 Hz			60 Hz	
	415/240V	400/230V	380/220V		
Data Item					
Motor Starting Capability* kVA	3924	3658	3316		
Short Circuit Capacity** %	300	300	300		
Reactances: Per Unit					
Xd	3.510	3.778	4.186		
X'd	0.226	0.244	0.270		
X''d	0.126	0.136	0.151		

Reactances shown are applicable to prime ratings.  
 \*Based on 30% voltage dip at 0.6 power factor.  
 \*\*With optional permanent magnet generator or AREP excitation.

Voltage Technical Data 50 Hz				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
415/240V	1500.0	1200.0	1650.0	1320.0
400/230V	1500.0	1200.0	1650.0	1320.0
380/220V	1500.0	1200.0	1650.0	1320.0

Voltage Technical Data 60 Hz				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW

**Documentation**

A full set of operation and maintenance manuals and circuit wiring diagrams.

**Generating Set Standards**

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.

FG Wilson is a fully accredited ISO 9001 company.



Head Office

St Ivel Way, Warmley, Bristol BS30 8TY  
T. 0370 850 0858 F. 0370 850 0851

HIRE | SALES | SERVICE | PARTS | FABRICATION

[www.powerelectrics.com](http://www.powerelectrics.com)  
[enquiries@powerelectrics.com](mailto:enquiries@powerelectrics.com)



AUTHORISED DEALER



UKAS is a member of Registrar of Standards (Holdings) Ltd.

UKAS is a member of Registrar of Standards (Holdings) Ltd.

UKAS is a member of Registrar of Standards (Holdings) Ltd.