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# P2000-1/P2000-1E



Ratings at 0.8 power factor.

Please refer to the output ratings technical data section for specific generator set outputs per voltage.

#### **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.

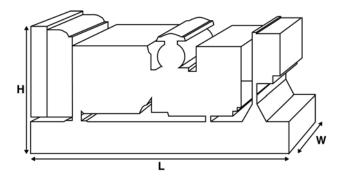




Image for illustration purposes only.

Ratings and Performance D	ata
Engine Make & Model:	Perkins® 4016-61TRG1
Alternator manufactured for FG Wilson by:	Leroy Somer
Alternator Model:	LL9224F
Control Panel:	PowerWizard 1.1+
Base Frame:	Heavy Duty Fabricated Steel
Circuit Breaker Type:	3 Pole ACB – Option
Frequency:	50 Hz 60 Hz
Engine Speed: RPM	1500 -
Fuel Tank Capacity: litres (US gal)	-
Fuel Consumption: I/hr (US gal,	hr)
(100% Load)	- Prime 385.4 (101.8) -
	- Standby 410.8 (108.5) -

#### **Available Options**

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

- Upgrade to CE Certification
- A wide range of Sound Attenuated Enclosures
- A variety of generator 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

Dimensions ar	nd Weights			
<b>Length</b> (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	<b>Dry</b> kg (lb)	<b>Wet</b> kg (lb)
5672 (223.3)	2176 (85.7)	2605 (102.6)	12187 (26868)	12502 (27562)
Dry = With Lube	· Oil	Wet = With Lub	e Oil and Coolant	

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034, BS5000 and NEMA MG-1.22. Generator set pictured may include optional accessories.

Engine Technical Data	
No. of Cylinders / Alignmen	nt: 16 / 60Deg Vee
Cycle:	4 Stroke
Bore / Stroke: mm (in)	160.0 (6.3)/190.0 (7.5)
Induction:	Turbocharged Air To Water Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	13.0:1
Displacement: I (cu. in)	61.1 (3730.0)
Moment of Inertia: kg m² (lb/i	in²) 20.72 (70803)
Engine Electrical System:	
- Voltage / Gro	ound 24/Negative
- Battery Charger A	Amps 55
Weight: kg (lb)	- <b>Dry</b> 5570 (12280)
-	- <b>Wet</b> 5847 (12890)

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Gross Engine Power:	kW (hp)		
	- Prime	1648.0 (2210.0)	-
	- Standby	1774.0 (2379.0)	-
BMEP: kPa (psi)			
	- Prime	2157.0 (312.8)	-
	- Standby	2322.0 (336.8)	-

# Fuel System

Fuel Filter Type: Replaceable Element

**Recommended Fuel:** Class A2 Diesel or BSEN590

Fuel Consumption: I/hr (US gal/hr)

	110%	100%	75%	50%
Prime	Load	Load	Load	Load
50 Hz	410.8 (108.5)	385.4 (101.8)	300.9 (79.5)	207.6 (54.8)
60 Hz	-	-	-	-

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	410.8 (108.5)	322.3 (85.1)	223.3 (59.0)
60 Hz	-	-	-

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)  $\,$ 

Air Systems	50 Hz	60 Hz
Air Filter Type:	Replaceable	Element
Combustion Air Flow: m³/min (cfm)		
- Prime	155.0 (5474)	-
- Standby	165.0 (5827)	-
Max. Combustion Air Intake Restriction: kPa (in H <sub>2</sub> O)	3.7 (14.9)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity: I (US gal)	315.0 (83.2)	-
Water Pump Type:	Centrifu	ugal
Heat Rejected to Water & Lube Oil:		
kW (Btu/min) - Pr	ime 620.0 (35259)	-
- Stan	ndby 666.0 (37875)	-
Heat Radiation to Room: Heat radiated	from engine and alternator	
kW (Btu/min) - Pr	ime 186.6 (10612)	
- Stan	ndby 209.0 (11886)	
Radiator Fan Load: kW (hp)	78.0 (104.6)	-
Radiator Cooling Airflow: m³/min (cfm)	2081.4 (73504)	-
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)	250 (1.0)	-

Lubrication System	
Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity: I (US gal)	238.0 (62.9)
Oil Pan: I (US gal)	213.0 (56.3)
Oil Type:	API CG 15W-40 CH4
Oil Cooling Method:	Water

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

Exhaust System	50 Hz	60 Hz
Silencer Type:	Indust	rial
Silencer Model & Quantity:	IND-Opti	on (1)
Pressure Drop Across Silencer System: kPa (in Hg)	1.32 (0.390)	-
Silencer Noise Reduction Level: dB	13.7	-
Maximum Allowable Back Pressure: kPa (in Hg)	4.0 (1.2)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	e 400.0 (14126)	-
- Standby	y 400.0 (14126)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	400 (752)	-
- Standby	y 425 (797)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL9224F
No. of Bearings:	1
Insulation Class:	Н
Winding Pitch Code:	2/3 - 6S
Wires:	6
Ingress Protection Rating:	IP23
Excitation System:	AREP
AVR Model:	D510

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	78.0 (4436)
- 60 Hz	-

Alternator Performance Data:	50 Hz			60	
Data Item	415/240V	400/230V	380/220V		
Motor Starting Capability* kVA	4683	4364	3955		
Short Circuit Capacity** %	300	300	300		
Reactances: Per Unit					
Xd	3.394	3.654	4.048		
X'd	0.262	0.282	0.312		
X"d	0.135	0.146	0.161		

Reactances shown are applicable to prime ratings. \*Based on 30% voltage dip at 0.4 power factor. \*\*With optional permanent magnet generator.

Output Ratings Technical Data 50 Hz							
Voltage	Pri	me:	Standby:				
	kVA	kW	kVA	kW			
415/240V	1850.0	1480.0	2000.0	1600.0			
400/230V	1850.0	1480.0	2000.0	1600.0			
380/220V	1850.0	1480.0	2000.0	1600.0			

Output Ratings Technical Data 60 Hz					
Voltage	Pri	ime:	Standby:		
	kVA	kW	kVA	kW	

Documentation  A full set of operation and maintenance manuals and circuit wiring diagrams.
Generator 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.
Warranty  All prime equipment carries a one year manufacturer's warranty. Standby equipment, limited to 500 running hours per year, has a two year manufacturer's warranty. For details on warranty cover please contact your local Dealer, or visit our website: FGWilson.com.
Dealer contact details:

## FG Wilson manufactures product in the following locations:

Northern Ireland • Brazil • China • India • USA

With headquarters in Northern Ireland, FG Wilson operates through a Global Dealer Network. To contact your local Sales Office please visit the FG Wilson website at www.FGWilson.com.

FG Wilson is a trading name of Caterpillar (NI) Limited.

**General Information**