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# P2250-1/P2250-1E



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.

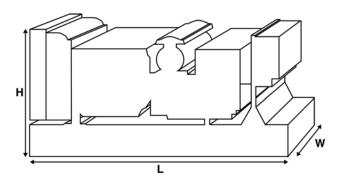




Image for illustration purposes only.

Ratings and Performance Do	ıta
Engine Make & Model:	Perkins® 4016-61TRG2
Alternator manufactured for FG Wilson by:	Leroy Somer
Alternator Model:	LL9224H
Control Panel:	PowerWizard 1.1+
Base Frame:	Heavy Duty Fabricated Steel
Circuit Breaker Type:	4000A – Option
Frequency:	50 Hz 60 Hz
Engine Speed: RPM	1500 -
Fuel Tank Capacity: litres (US gal)	-
Fuel Consumption: I/hr (US gal/	nr)
(100% Load)	- Prime 420.6 (111.1) -
	- Standby 473.8 (125.2) -

### **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

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)
5772 (227.2)	2176 (85.7)	2605 (102.6)	12412 (27364)	12727 (28058)
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 / Alignment:		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 (lk	o/in²)	20.72 (70803)	
Engine Electrical System:			
- Voltage / G	round	24/Negative	
- Battery Charger	Amps	55	
Weight: kg (lb)	- Dry	5570 (12280)	
	- Wet	5847 (12890)	

Performance	50 Hz	60 Hz
Engine Speed: rpm	1500	-
Gross Engine Power: kW (hp)		
- Prin	me 1774.0 (2379.0)	-
- Stand	lby 1985.0 (2662.0)	-
BMEP: kPa (psi)		
- Prin	me 2322.0 (336.8)	-
- Stand	<b>1by</b> 2598.0 (376.8)	-

## 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	473.8 (125.2)	420.6 (111.1)	319.2 (84.3)	224.2 (59.2)
60 Hz	-	-	-	-

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	473.8 (125.2)	356.5 (94.2)	247.3 (65.3)
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 (c	fm)		
	- Prime	158.0 (5580)	-
	- Standby	175.0 (6180)	-
		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) - Prir	me 670.0 (38102)	-
- Stand	lby 750.0 (42652)	-
Heat Radiation to Room: Heat radiated from engine and alternator		
kW (Btu/min) - Prin	me 202.9 (11539)	
- Stand	lby 225.6 (12830)	
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)	-
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	
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

Exhaust System	50 Hz	60 Hz
Silencer Type:	Indust	rial
Silencer Model & Quantity:	IND-Opti	ion (1)
Pressure Drop Across Silencer System: kPa (in Hg)	1.56 (0.461)	-
Silencer Noise Reduction Level: dB	14.9	-
Maximum Allowable Back Pressure: kPa (in Hg)	4.0 (1.2)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	475.0 (16774)	-
- Standby	475.0 (16774)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	457 (855)	-
- Standby	489 (912)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL9224H
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	86.6 (4925)
- 60 Hz	-

Alternator Performance Data:	50 Hz			60 Hz	
Data Item	415/240V	400/230V	380/220V		
Motor Starting	6986	6509	5897		
Capability* kVA	0700	0307	3077		
Short Circuit					
Capacity** %	300	300	300		
Reactances: Per Unit					
Xd	3.174	3.416	3.785		
X'd	0.243	0.261	0.289		
X"d	0.126	0.136	0.151		

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	2000.0	1600.0	2250.0	1800.0				
400/230V	2000.0	1600.0	2250.0	1800.0				
380/220V	2000.0	1600.0	2250.0	1800.0				

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.
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.
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**