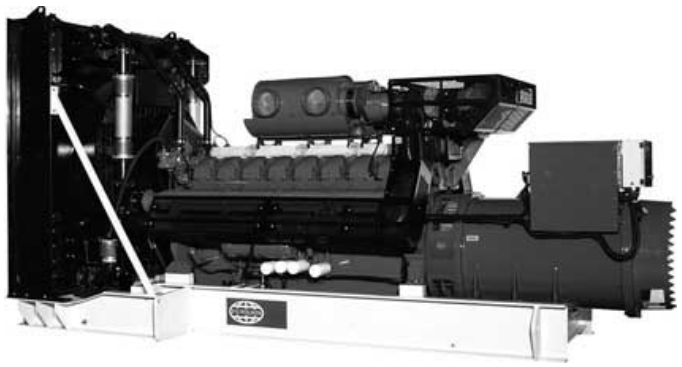
P2000 / P2200E



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Output Ratings		
Generating Set Model	**P2000 Prime***	**P2200E Standby***
380-415V, 50 Hz	2000.0 kVA 1600.0 kW	2200.0 kVA 1760.0 kW
220/127V, 60 Hz	- -	- -

* Refer to ratings definitions on page 4.
Ratings at 0.8 power factor.

Technical Data		
Engine Make & Model:	Perkins 4016TAG2A	
Alternator Model:	LL9124H	
Base Frame Type:	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: P2000 l/hr (US gal/hr)	423.5 (111.9)	-
Fuel Consumption: P2200E l/hr (US gal/hr)	474.1 (125.2)	-

FG Wilson has manufacturing facilities 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

Engine Technical Data

Physical Data

Manufacturer:	Perkins
Model:	4016TAG2A
No. of Cylinders/Alignment:	16 / Vee
Cycle:	4 Stroke
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	13.6:1
Displacement: l (cu.in)	61.1 (3730.0)
Bore/Stroke: mm (in)	160.0 (6.3)/190.0 (7.5)
Moment of Inertia: kg m² (lb. in²)	20.72 (70803)
Engine Electrical System:	
-Voltage/Ground:	24/Negative
-Battery Charger Amps:	40
Weight: kg (lb) - Dry:	5570 (12280)
- Wet:	5847 (12890)

Performance

	50 Hz	60 Hz
Engine Speed: RPM	1500	-
Gross Engine Power: kW (hp)		
-Standby:	1937.0 (2597.6)	-
-Prime:	1766.0 (2368.2)	-
BMEP: kPa (psi)		
-Standby:	2535.2 (367.7)	-
-Prime:	2311.1 (335.2)	-
Regenerative Power: kW	160.0	-

Fuel System

Fuel Filter Type:	Replaceable Element
Recommended Fuel:	Class A2 Diesel

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

	110% Load	100% Load	75% Load	50% Load
P2000				
50 Hz	474.1 (125.2)	423.5 (111.9)	312.9 (82.7)	212.9 (56.2)
60 Hz	-	-	-	-
P2200E				
50 Hz		474.1 (125.2)	344.9 (91.1)	232.1 (61.3)
60 Hz		-	-	-

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

Air System

	50 Hz	60 Hz
Air Filter Type:	Replaceable Element	
Combustion Air Flow:		
m³/min (cfm) -Standby:	145.0 (5121)	-
-Prime:	137.0 (4838)	-
Max. Combustion Air Intake Restriction: kPa (in H_2O)	3.7 (14.9)	-
Radiator Cooling Air Flow: m³/min (cfm)	2058.0 (72678)	-
External Restriction to Cooling Air Flow: Pa (in H_2O)	250 (1.0)	-

Cooling System

	50 Hz	60 Hz
Cooling System Capacity: l (US gal)	355.0 (93.8)	-
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil: kW (Btu/min)		
-Standby:	721.0 (41003)	-
-Prime:	660.0 (37534)	-
Heat Radiation to Room:		
kW (Btu/min) -Standby:	231.0 (13137)	-
-Prime:	200.0 (11374)	-
Radiator Fan Load: kW (hp)	63.5 (85.2)	-

Cooling system 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 l (US gal):	238.0 (62.9)
Oil Pan l (US gal):	214.0 (56.5)
Oil Type:	API CG4 15W-40
Cooling Method:	Water

Exhaust System

	50 Hz	60 Hz
Silencer Type:	Level 1	
Silencer Model & Qty:	SD350 (1)	
Pressure Drop Across Silencer System: kPa (in Hg)	0.50 (0.148)	-
Silencer Noise Reduction Level: dB	17	-
Max. Allowable Back Pressure: kPa (in. Hg)	6.6 (1.9)	-
Exhaust Gas Flow:		
m³/min (cfm) -Standby:	387.0 (13667)	-
-Prime:	387.0 (13667)	-
Exhaust Gas Temperature: °C (°F)		
m³/min (cfm) -Standby:	493 (919)	-
-Prime:	493 (919)	-

Alternator Performance Data

Data Item	50 Hz				60 Hz				
	415/240V	400/230V	380/220V						
Motor Starting Capability* kVA	6986	6509	5897						
Short Circuit Capacity % **	300	300	300						
Reactances: Per Unit									
Xd	3.230	3.480	3.850						
X'd	0.240	0.260	0.290						
X"d	0.126	0.136	0.151						

Reactances shown are applicable to prime ratings
*** Based on 30% voltage dip. Improved motor starting capability is available with optional Permanent Magnet generator or AREP excitation.**
**** With optional Permanent Magnet generator or AREP excitation.**

Alternator Technical Data

Physical Data		Operating Data	
Manufacturer:	FG WILSON	**Overspeed:** RPM	2250
Model:	LL9124H	**Voltage Regulation (steady state) (%):**	+/- 0.5
No. of Bearings:	1	**Wave Form NEMA = TIF:**	50
Insulation Class:	H	**Wave Form IEC = THF:**	2.0%
Winding Pitch Code:	2/3 - 6S	**Total Harmonic Content LL/LN:**	2.5%
Wires:	6	**Radio Interference:**	Supression is in line with European Standard EN61000-6
Ingress Protection Rating:	IP23	**Radiant Heat:** kW (Btu/min)	
Excitation System:	AREP	**-50 Hz:**	81.0 (4606)
AVR Model:	R449	**-60 Hz:**	-

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Prime Model P2000		Standby Model P2200E	
	kVA	kW	kVA	kW
415/240V	2000.0	1600.0	2200.0	1760.0
400/230V	2000.0	1600.0	2200.0	1760.0
380/220V	2000.0	1600.0	2200.0	1760.0

3 Phase Ratings and Performance at 60 Hz, - RPM

Voltage	Prime Model -		Standby Model -	
	kVA	kW	kVA	kW

Definitions

Standby Rating

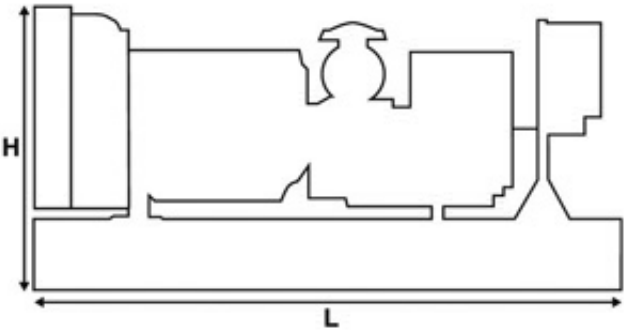
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

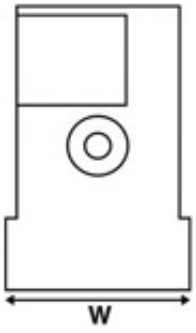
Prime Rating

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.

Standard Reference Conditions

Note: Standard reference conditions 27°C (80°F) Air Inlet Temp, 152.4m (500ft) A.S.L. 60% relative humidity. Fuel consumption data at full load with diesel fuel with specific gravity of 0.85 and conforming to BS2869: 1998, Class A2.





Weights and Dimensions

Weights: kg (lb)		Dimensions: mm (in)	
Net (+ lube oil)	15500 (34172)	**Length**	5725 (225.4)
Wet (+ lube oil & coolant)	15700 (34613)	**Width**	2300 (90.6)
Fuel, lube oil & coolant	-	**Height**	3020 (118.9)

General Data

Documents

A full set of operation and maintenance manuals, circuit wiring diagrams, and commissioning/fault finding instruction leaflets.

Generating Set Standards

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, VDE 0530, NEMA MG-1.22.

FG Wilson is a fully accredited ISO 9001 company.

Warranty

All equipment carries full manufacturer's warranty. Extended warranty terms available. For details on warranty cover please contact your local dealer, or visit our website: www.FGWilson.com