



www.FGWilson.com

# P200H2/P220HE2



Image for illustration purposes only.

## Output Ratings

Generating Set Model	Prime*	Standby*
380-415V, 50Hz	200.0 kVA / 160.0 kW	220.0 kVA / 176.0 kW
480V, 60 Hz	225.0 kVA / 180.0 kW	250.0 kVA / 200.0 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.

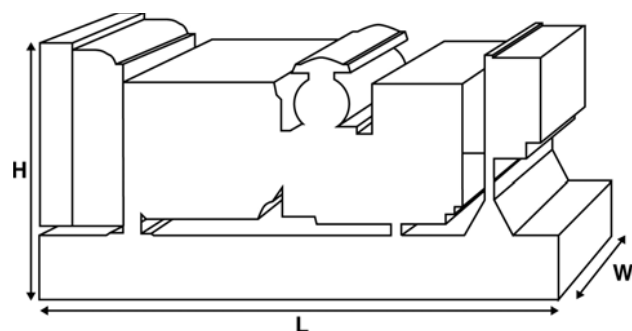
## Standby Rating

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 1306C-E87TAG4	
Alternator manufactured for FG Wilson by:	Leroy Somer	
Alternator Model:	LL5014F	
Control Panel:	PowerWizard 1.1	
Base Frame:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole MCCB	
Frequency:	50 Hz	60 Hz
Engine Speed: RPM	1500	1800
Fuel Tank Capacity: litres (US gal)	350 (92.5)	
Fuel Consumption: l/hr (US gal/hr)		
(100% Load)	- Prime	49.4 (13.1) 56.6 (15.0)
	- Standby	54.3 (14.3) 61.1 (16.1)

## 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)
2960 (116.5)	1003 (39.5)	1718 (67.6)	2015 (4442)	2052 (4524)
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.

**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](http://www.FGWilson.com)

Engine Technical Data		
No. of Cylinders / Alignment:		6 / In Line
Cycle:		4 Stroke
Bore / Stroke: mm (in)		116.6 (4.6)/135.9 (5.4)
Induction:		Turbocharged Air To Air Charge Cooled
Cooling Method:		Water
Governing Type:		Electronic
Governing Class:		ISO 8528 G2
Compression Ratio:		16.9:1
Displacement: l (cu. in)		8.7 (530.9)
Moment of Inertia: kg m² (lb/in²)		1.54 (5266)
Engine Electrical System:		
- Voltage / Ground		24/Negative
- Battery Charger Amps		45
Weight: kg (lb)	- Dry	671 (1479)
	- Wet	698 (1539)

Performance	50 Hz	60 Hz
Engine Speed: rpm	1500	1800
Gross Engine Power: kW (hp)		
- Prime	209.1 (280.0)	224.4 (301.0)
- Standby	228.5 (306.0)	246.8 (331.0)
BMEP: kPa (psi)		
- Prime	1922.0 (278.7)	1718.0 (249.2)
- Standby	2099.0 (304.5)	1890.0 (274.1)

Fuel System				
Fuel Filter Type:		Replaceable Element		
Recommended Fuel:		Class A2 Diesel		
Fuel Consumption: l/hr (US gal/hr)				
	110%	100%	75%	50%
Prime	Load	Load	Load	Load
50 Hz	54.3 (14.3)	49.4 (13.1)	37.4 (9.9)	25.6 (6.8)
60 Hz	61.1 (16.1)	56.6 (15.0)	44.6 (11.8)	30.7 (8.1)
	110%	100%	75%	50%
Standby	Load	Load	Load	Load
50 Hz		54.3 (14.3)	41.0 (10.8)	28.0 (7.4)
60 Hz		61.1 (16.1)	48.7 (12.9)	33.8 (8.9)

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

Air Systems	50 Hz	60 Hz
Air Filter Type: Paper Element		
Combustion Air Flow: m³/min (cfm)		
- Prime	14.9 (526)	20.2 (713)
- Standby	14.9 (526)	20.2 (713)
Max. Combustion Air Intake Restriction: kPa (in H <sub>2</sub> O)	6.2 (25.0)	6.2 (25.0)

Cooling System	50 Hz	60 Hz
Cooling System Capacity: l (US gal)	45.3 (12.0)	45.3 (12.0)
Water Pump Type: Centrifugal		
Heat Rejected to Water & Lube Oil:		
kW (Btu/min)	- Prime	79.0 (4493)
	- Standby	86.0 (4891)
		88.0 (5004)
Heat Radiation to Room: Heat radiated from engine and alternator		
kW (Btu/min)	- Prime	44.2 (2514)
	- Standby	49.1 (2792)
		50.9 (2895)
Radiator Fan Load: kW (hp)	10.3 (13.8)	17.4 (23.3)
Radiator Cooling Airflow: m³/min (cfm)	424.2 (14980)	560.4 (19790)
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)	125 (0.5)	125 (0.5)

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)	26.4 (7.0)
Oil Pan: l (US gal)	22.7 (6.0)
Oil Type:	API CI-4
Oil Cooling Method:	Water

Exhaust System	50 Hz	60 Hz
Silencer Type: Industrial		
Silencer Model & Quantity: SD100 (1)		
Pressure Drop Across Silencer System: kPa (in Hg)	8.70 (2.569)	8.70 (2.569)
Silencer Noise Reduction Level: dB	12	10
Maximum Allowable Back Pressure: kPa (in Hg)	10.7 (3.2)	10.7 (3.2)
Exhaust Gas Flow: m³/min (cfm)		
- Prime	27.9 (985)	47.7 (1685)
- Standby	29.7 (1049)	49.2 (1737)
Exhaust Gas Temperature: °C (°F)		
- Prime	545 (1013)	473 (884)
- Standby	573 (1064)	487 (908)

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL5014F
No. of Bearings:	1
Insulation Class:	H
Winding Pitch Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R450M

Alternator Operating Data		
Overspeed:	rpm	2250
Voltage Reguation:	(Steady state)	+/- 0.5
Wave Form NEMA = TIF:		50
Wave Form IEC = THF:		2.0%
Total Harmonic content LL/LN:		4.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6	
Radiant Heat:	kW (Btu/min)	
	- 50 Hz	15.1 (859)
	- 60 Hz	16.9 (961)

Alternator Performance Data:		50 Hz				60 Hz				
Data Item		415/240V	400/230V	380/220V	220/127V	480/277V	380/220V	240/120V	230/115V	440/254V
			230/115V	220/110V		240/139V	220/110V	208/120V		220/127V
			200/115V							
		414	389	356	457	454	303	355	332	392
Motor Starting Capability* kVA										
Short Circuit Capacity** %		300	300	300	300	300	300	300	300	300
Reactances: Per Unit										
	Xd	2.794	3.008	3.332	2.486	2.820	4.200	3.754	3.970	3.355
	X'd	0.137	0.148	0.163	0.122	0.140	0.206	0.180	0.195	0.160
	X''d	0.082	0.089	0.098	0.073	0.083	0.124	0.111	0.117	0.099

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

Voltage Technical Data 50 Hz				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
415/240V	200.0	160.0	220.0	176.0
400/230V	200.0	160.0	220.0	176.0
380/220V	200.0	160.0	220.0	176.0
230/115V	200.0	160.0	220.0	176.0
220/127V	200.0	160.0	220.0	176.0
220/110V	200.0	160.0	220.0	176.0
200/115V	200.0	160.0	220.0	176.0

Voltage Technical Data 60 Hz				
Voltage	Prime:		Standby:	
	kVA	kW	kVA	kW
480/277V	225.0	180.0	250.0	200.0
220/127V	225.0	180.0	250.0	200.0
380/220V	210.0	168.0	231.0	184.8
240/120V	225.0	180.0	249.0	199.2
230/115V	220.0	176.0	242.0	193.6
440/254V	225.0	180.0	250.0	200.0
220/110V	210.0	168.0	231.0	184.8
208/120V	225.0	180.0	249.0	199.2
240/139V	225.0	180.0	250.0	200.0

### 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.

EU Stage II Emissions Compliant.

### 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](http://FGWilson.com).

### Dealer contact details:



### 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](http://www.FGWilson.com)