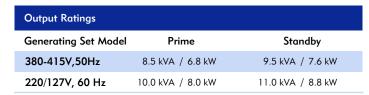


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P9.5-4



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.

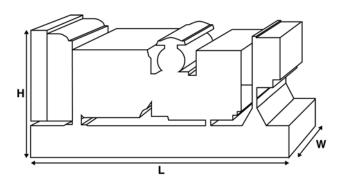




Image for illustration purposes only.

Ratings and Performance Dat	ta		
Engine Make & Model:		Perkins 403D-1	IG
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL1114D	
Control Panel:		DCP-10	
Base Frame:		Heavy Duty Fabi	ricated Steel
Circuit Breaker Type:		3 Pole MCB	
Frequency:		50 Hz	60 Hz
Engine Speed: RPM		1500	1800
Fuel Tank Capacity: litres (US gal)		62 (16.4)	
Fuel Consumption: I/hr (US gal/hr	r)		
(100% Load)	- Prime	2.5 (0.7)	2.9 (0.8)
	- Standby	2.8 (0.7)	3.3 (0.9)

## **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 panels
- Additional alarms and shutdowns

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			
Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	<b>Dry</b> kg (lb)	<b>Wet</b> kg (lb)
1400 (55.1)	552 (21.7)	996 (39.2)	303 (668)	308 (679)
Dry = With Lube	Oil	Wet = With Lube	e 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.

Engine Technical Data	
No. of Cylinders / Alignment:	3 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	77.0 (3.0)/81.0 (3.2)
Induction:	Naturally Aspirated
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528
Compression Ratio:	23:1
Displacement: I (cu. in)	1.1 (69.0)
Moment of Inertia: kg m² (lb/in²)	1.63 (5570)
Engine Electrical System:	
- Voltage / Ground	d 12/Negative
- Battery Charger Amp	s 40
Weight: kg (lb) - Dr	y 129 (284)
- We	et 139 (306)

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	1800
Gross Engine Power: k	W (hp)		
	- Prime	8.6 (12.0)	10.7 (14.0)
	- Standby	9.5 (13.0)	11.8 (16.0)
BMEP: kPa (psi)			
	- Prime	610.0 (88.5)	630.0 (91.4)
	- Standby	672.0 (97.4)	695.0 (100.8)

# Fuel System

Fuel Filter Type:Replaceable ElementRecommended Fuel:Class A2 Diesel

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

	110%	100%	75%	50%
Prime	Load	Load	Load	Load
50 Hz	2.8 (0.7)	2.5 (0.7)	2.0 (0.5)	1.5 (0.4)
60 Hz	3.3 (0.9)	2.9 (0.8)	2.2 (0.6)	1.8 (0.5)

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	2.8 (0.7)	2.2 (0.6)	1.6 (0.4)
60 Hz	3.3 (0.9)	2.4 (0.6)	1.8 (0.5)

(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: m <sup>3</sup> /min (cfm)		
- Prime	0.7 (25)	0.9 (32)
- Standby	0.7 (25)	0.9 (32)
Max. Combustion Air Intake Restriction: $kPa$ (in $H_2O$ )	6.4 (25.7)	6.4 (25.7)

Cooling System	50 Hz	60 Hz	
Cooling System Capacity: I (US gal)	5.2 (1.4)	5.2 (1.4)	
Water Pump Type:	Cer	Centrifugal	
Heat Rejected to Water & Lube Oil:			
kW (Btu/min) - Prir	me 8.3 (472)	10.0 (569)	
- Stand	lby 9.5 (540)	12.0 (682)	
Heat Radiation to Room: Heat radiated from engine and alternator			
kW (Btu/min) - Prin	me 3.3 (188)	4.4 (250)	
- Stand	lby 4.4 (250)	5.1 (290)	
Radiator Fan Load: kW (hp)	0.2 (0.3)	0.4 (0.5)	
Radiator Cooling Airflow: m³/min (cfm)	24.0 (848)	32.7 (1155)	
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  $50^{\circ}$ 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)	4.9 (1.3)
Oil Pan: I (US gal)	4.4 (1.2)
Oil Type:	API CH4 15W-40
Oil Cooling Method:	N/A

Exhaust System	50 Hz	60 Hz
Silencer Type:	Indu	strial
Silencer Model & Quantity:	IND	(1)
Pressure Drop Across Silencer System: kPa (in Hg)	0.44 (0.130)	0.80 (0.236)
Silencer Noise Reduction Level: dB	28	14.6
Maximum Allowable Back Pressure: kPa (in Hg)	10.2 (3.0)	10.2 (3.0)
Exhaust Gas Flow: m³/min (cfm)		
- Prime	1.7 (59)	2.2 (78)
- Standby	1.8 (64)	2.4 (85)
Exhaust Gas Temperature: °C (°F)		
- Prime	368 (694)	437 (819)
- Standby	420 (788)	515 (959)

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL1114D
No. of Bearings:	1
Insulation Class:	Н
Winding Pitch Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R220

2250
+/- 1.0%
50
2.0%
4.0%
Suppression is in line with European Standard EN61000-6
1.9 (108)
2.0 (114)

Alternator Performance Data:	50 Hz			60 Hz
Data Item	415/240V	400/230V	380/220V	220/127V
Motor Starting Capability* kVA	28	27	25	27
Short Circuit Capacity %	-	-	-	- -
Reactances: Per Unit				
Xd	1.320	1.420	1.570	1.650
X'd	0.140	0.150	0.160	0.170
X"d	0.068	0.073	0.081	0.086

Reactances shown are applicable to prime ratings. \*Based on 30% voltage dip at 0.6 power factor.

Voltage Technical Data 50 Hz								
Voltage	Pri	me:	Standby:					
	kVA	kW	kVA	kW				
415/240V	8.5	6.8	9.5	7.6				
400/230V	8.5	6.8	9.5	7.6				
380/220V	8.5	6.8	9.5	7.6				

Voltage Technical Data 60 Hz							
Voltage	Pri	me:	Standby:				
	kVA	kW	kVA	kW			
220/127V	10.0	8.0	11.0	8.8			

# **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 IIIA 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. 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**