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Image for illustration purposes only.

Output Ratings

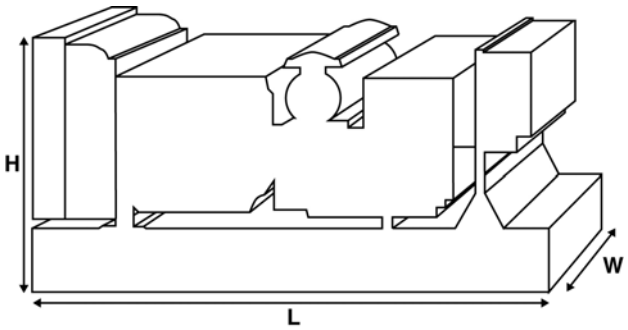
Generating Set Model	Prime	Standby
380-415V,50Hz	80.0 kVA / 64.0 kW	88.0 kVA / 70.4 kW
480V, 60 Hz	90.0 kVA / 72.0 kW	100.0 kVA / 80.0 kW

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 1104A-44TG2	
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL2014J	
Control Panel:		DCP-10	
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)		219 (57.9)	
Fuel Consumption: l/hr (US gal/hr)			
(100% Load)	**- Prime**	18.2 (4.8)	21.4 (5.7)
	- Standby	20.1 (5.3)	23.9 (6.3)

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 and Weights

Length (L) mm (in)	**Width** (W) mm (in)	**Height** (H) mm (in)	**Dry** kg (lb)	**Wet** kg (lb)
1925 (75.8)	1120 (44.1)	1361 (53.6)	1083 (2387)	1096 (2416)

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.

Engine Technical Data	
No. of Cylinders / Alignment:	4 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	105.0 (4.1)/127.0 (5.0)
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G2
Compression Ratio:	17.25:1
Displacement: l (cu. in)	4.4 (268.5)
Moment of Inertia: kg m² (lb/in²)	1.14 (3896)
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger Amps	65
Weight: kg (lb) **- Dry**	463 (1021)
- Wet	485 (1069)

Performance	50 Hz	60 Hz
Engine Speed: rpm	1500	1800
Gross Engine Power: kW (hp)		
- Prime	73.4 (98.0)	84.2 (113.0)
- Standby	80.7 (108.0)	92.6 (124.0)
BMEP: kPa (psi)		
- Prime	1335.0 (193.6)	1276.0 (185.1)
- Standby	1468.0 (212.9)	1403.0 (203.5)

Fuel System

Fuel Filter Type: Replaceable Element

Recommended Fuel: Class A2 Diesel or BSEN590

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

Prime	110% Load	100% Load	75% Load	50% Load
50 Hz	20.1 (5.3)	18.2 (4.8)	13.6 (3.6)	9.5 (2.5)
60 Hz	23.9 (6.3)	21.4 (5.7)	16.3 (4.3)	11.6 (3.1)

Standby	100% Load	75% Load	50% Load
50 Hz	20.1 (5.3)	15.0 (4.0)	10.3 (2.7)
60 Hz	23.9 (6.3)	18.0 (4.8)	12.6 (3.3)

(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	4.8 (170)	6.2 (219)
	- Standby	5.1 (180)	6.5 (230)
Max. Combustion Air Intake Restriction: kPa (in H_2O)		8.0 (32.1)	8.0 (32.1)

Cooling System		50 Hz	60 Hz
Cooling System Capacity: l (US gal)		13.0 (3.4)	13.0 (3.4)
Water Pump Type:		Centrifugal	
Heat Rejected to Water & Lube Oil:			
kW (Btu/min)	**- Prime**	46.0 (2616)	53.0 (3014)
	- Standby	51.0 (2900)	57.0 (3242)
Heat Radiation to Room: Heat radiated from engine and alternator			
kW (Btu/min)	**- Prime**	19.6 (1115)	21.4 (1217)
	- Standby	21.7 (1234)	23.6 (1342)
Radiator Fan Load: kW (hp)		1.0 (1.3)	1.7 (2.3)
Radiator Cooling Airflow: m³/min (cfm)		121.2 (4280)	140.4 (4958)
External Restriction to Cooling Airflow: Pa (in H_2O)		120 (0.5)	120 (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)	8.0 (2.1)
Oil Pan: l (US gal)	7.0 (1.8)
Oil Type:	API CG4 / CH4 15W-40
Oil Cooling Method:	Water

Exhaust System		50 Hz	60 Hz
Silencer Type:		Industrial	
Silencer Model & Quantity:		SD80 (1)	
Pressure Drop Across Silencer System: kPa (in Hg)		1.17 (0.345)	1.97 (0.581)
Silencer Noise Reduction Level: dB		16	16
Maximum Allowable Back Pressure: kPa (in Hg)		10.0 (3.0)	15.0 (4.4)
Exhaust Gas Flow: m³/min (cfm)			
	- Prime	12.5 (441)	15.0 (530)
	- Standby	13.3 (470)	15.9 (560)
Exhaust Gas Temperature: °C (°F)			
	- Prime	555 (1031)	535 (995)
	- Standby	580 (1076)	560 (1040)

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL2014J
No. of Bearings:	1
Insulation Class:	H
Winding Pitch Code:	2/3 - 6
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R250

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:	4.0%
Radio Interference:	Suppression is in line with European Standard EN61000-6
Radiant Heat: kW (Btu/min)	
- 50 Hz	7.7 (438)
- 60 Hz	8.6 (489)

Alternator Performance Data:	50 Hz				60 Hz				
Data Item	415/240V	400/230V 230/115V 200/115V	380/220V 220/110V	220/127V	480/277V 240/139V	380/220V 220/110V	240/120V 208/120V	230/115V	440/254V 220/127V
Motor Starting Capability* kVA	189	177	163	208	206	139	162	152	179
Short Circuit Capacity %**	300	300	300	300	300	300	300	300	300
Reactances: Per Unit									
Xd	2.685	2.890	3.202	2.388	2.709	4.227	3.607	3.902	3.224
X'd	0.094	0.101	0.112	0.083	0.095	0.148	0.126	0.136	0.113
X"d	0.047	0.051	0.057	0.042	0.048	0.075	0.064	0.069	0.057

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

Voltage Technical Data 50 Hz				
Voltage	**Prime:**		**Standby:**	
	kVA	**kW**	**kVA**	**kW**
415/240V	78.0	62.4	86.0	68.8
400/230V	80.0	64.0	88.0	70.4
380/220V	78.0	62.4	86.0	68.8
230/115V	80.0	64.0	88.0	70.4
220/127V	76.0	60.8	84.0	67.2
220/110V	78.0	62.4	86.0	68.8
200/115V	80.0	64.0	88.0	70.4

Voltage Technical Data 60 Hz				
Voltage	**Prime:**		**Standby:**	
	kVA	**kW**	**kVA**	**kW**
480/277V	90.0	72.0	100.0	80.0
220/127V	90.0	72.0	100.0	80.0
380/220V	82.0	65.6	90.2	72.2
240/120V	88.0	70.4	97.0	77.6
230/115V	85.0	68.0	94.0	75.2
440/254V	90.0	72.0	100.0	80.0
220/110V	82.0	65.6	90.2	72.2
208/120V	88.0	70.4	97.0	77.6
240/139V	90.0	72.0	100.0	80.0

General Information

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

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