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# P65-2



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.

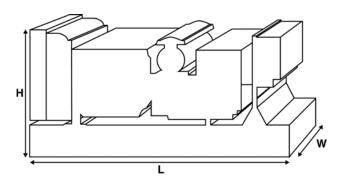




Image for illustration purposes only.

Ratings and Performance Date	1		
Engine Make & Model:	ı	Perkins 1104C-4	4TG2/3
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:	1	LL2014H	
Control Panel:		1002T	
Base Frame:	i	Fbc2 - (08Hr)	
Circuit Breaker Type:	;	3 Pole MCB	
Frequency:		50 Hz	60 Hz
Engine Speed: RPM		1500	-
Fuel Tank Capacity: litres (US gal)		219 (	57.9)
Fuel Consumption: I/hr (US gal/hr)			
(100% Load)	Prime	14.3 (3.8)	-
	Standby	16.0 (4.2)	-

#### **Available Options**

- CE Certification
- Sound Attenuated EC Enclosures
- Control Panel Upgrades
- Range of Silencers
- Range of Alarms and Shutdowns

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)
1925 (75.8)	1120 (44.1)	1361 (53.6)	1007 (2220)	1020 (2249)
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.

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Engine Technical D	ata		
No. of Cylinders / A	lignment:	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		18.2:1	
Displacement: I (cu.	in)	4.4 (268.5)	
Moment of Inertia:	kg m2 (lb/in2)	1.14 (3896)	
Engine Electrical Sy	stem:		
- Volta	ige / Ground	12/Negative	
- Battery Ch	narger Amps	65	
Weight: kg (lb)	- Dry	463 (1021)	
	- Wet	485 (1069)	

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Gross Engine Power:	kW (hp)		
	- Prime	56.2 (75.0)	-
	- Standby	62.5 (84.0)	-
BMEP: kPa (psi)			
	- Prime	1022.0 (148.2)	-
	- Standby	1137.0 (164.9)	-

# 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	16.0 (4.2)	14.3 (3.8)	9.8 (2.6)	5.9 (1.6)
60 Hz	-	-	-	-

Standby	110% Load	100% Load	75% Load	50% Load
50 Hz	Loud	16.0 (4.2)	10.9 (2.9)	6.5 (1.7)
60 Hz		-	-	-

(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:		Replaceable	e Element
Combustion Air Flow: m3/min (	cfm)		
	- Prime	4.3 (153)	-
	- Standby	4.4 (156)	-
Max. Combustion Air Intate Restriction: $kPa$ (in $H_2O$ )		8.0 (32.1)	-

Cooling System		50 Hz	60 Hz
Cooling System Capacity: I (US gal)		13.0 (3.4)	-
Water Pump Type:		Centrifugal	
Heat Rejected to Water & Lube C	Dil:		
kW (Btu/min)	Prime	38.0 (2161)	-
- St	andby	42.0 (2388)	-
Heat Radiation to Room: Heat radio	ated from e	engine and alternator	
kW (Btu/min)	Prime	9.6 (546)	-
- St	tandby	13.0 (739)	-
Radiator Fan Load: kW (hp)		1.0 (1.3)	-
Radiator Cooling Airflow: m3/min (c	fm)	97.8 (3454)	-
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)		125 (0.5)	-

Cooling system designed to operate in ambient conditions up to  $50^{\circ}$ C ( $122^{\circ}$ 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)	8.0 (2.1)
Oil Pan: I (US gal)	7.0 (1.8)
Oil Type:	API CC/SE
Oil Cooling Method:	Water

Exhaust System	50 Hz	60 Hz
Silencer Type:	Indust	rial
Silencer Model & Quantity:	SD50	(1)
Pressure Drop Across Silencer System: kPa (in Hg)	3.30 (0.974)	-
Silencer Noise Reduction Level: dB	19	-
Maximum Allowable Back Pressure: kPa (in Hg)	12.0 (3.5)	-
Exhaust Gas Flow: m3/min (cfm)		
- Prime	10.9 (385)	-
- Standby	11.8 (417)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	535 (995)	-
- Standby	583 (1081)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL2014H
No. of Bearings:	1
Insulation Class:	Н
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 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	5.8 (330)
- 60 Hz	-

Alternator Performance Data:	50 Hz			
Data Item	415/240V	400/230V	380/220V	
Motor Starting				
Capability* kVA	148	139	128	
Short Circuit	300	300	300	
Capacity** %				
Reactances: Per Unit				
Xd	2.460	2.650	2.940	
X'd	0.090	0.100	0.110	
X"d	0.046	0.049	0.054	

Reactances shown are applicable to prime ratings.

\*Based on 30% voltage dip at 0.6 power factor.

\*\*With optional permanent magnet generator or AREP excitation.

Voltage Technical Data 50 Hz							
Voltage	Pri	me:	Standby:				
	kVA	kW	kVA	kW			
415/240V	60.0	48.0	65.0	52.0			
400/230V	60.0	48.0	65.0	52.0			
380/220V	60.0	48.0	65.0	52.0			

Voltage 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.
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.
Dealer contact details:

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