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P88-4



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.

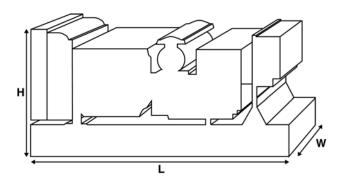




Image for illustration purposes only.

Ratings and Performance Data			
Engine Make & Model:		Perkins 1104D-E4	44TAG1
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL2014J	
Control Panel:		PowerWizard 1.1	
Base Frame:		Heavy Duty Fabric	cated Steel
Circuit Breaker Type:		3 Pole MCCB	
Frequency:		50 Hz	60 Hz
Engine Speed: RPM		1500	-
Fuel Tank Capacity: litres (US gal)		250 (66.0)	
Fuel Consumption: I/hr (US gal/hr)			
(100% Load)	- Prime	20.2 (5.3)	-
н	Standby	21.7 (5.7)	-

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)
2089 (82,2)	1120 (44,1)	1367 (53,8)	1200 (2646)	1217 (2683)
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:	4 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	105.0 (4.1)/127.0 (5.0)
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G3
Compression Ratio:	16.2:1
Displacement: I (cu. in)	4.4 (268.5)
Moment of Inertia: kg m² (lb/in²)	1.31 (4476)
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger Amps	65
Weight: kg (lb) - Dry	465 (1025)
- Wet	474 (1045)

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Gross Engine Pow	er: kW (hp)		
	- Prime	77.5 (104.0)	-
	- Standby	84.2 (113.0)	-
BMEP: kPa (psi)			
	- Prime	1409.0 (204.4)	-
	- Standby	1531.0 (222.1)	-

Fuel System

Fuel Filter Type: Replaceable Element

Recommended Fuel: Class A2 Diesel or BSEN590

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

	110%	100%	75%	50%
Prime	Load	Load	Load	Load
50 Hz	21.7 (5.7)	20.2 (5.3)	15.9 (4.2)	11.0 (2.9)
60 Hz	-	-	-	-

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	21.7 (5.7)	17.3 (4.6)	12.1 (3.2)
60 Hz	-	-	-

(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:		Paper Element	
Combustion Air Flow: m³/min (cfm)			
- P	rime	5.7 (201)	-
- Sta	ndby	6.0 (213)	-
Max. Combustion Air Intake Restriction: kPa (in H_2O)		8.0 (32.1)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity: I (US gal)	17.5 (4.6)	-
Water Pump Type:	Centri	fugal
Heat Rejected to Water & Lube Oil:		
kW (Btu/min) - Prime	e 50.3 (2861)	-
- Standby	y 55.4 (3151)	-
Heat Radiation to Room: Heat radiated from	n engine and alternator	
kW (Btu/min) - Prime	e 21.3 (1211)	
- Standby	y 23.8 (1353)	
Radiator Fan Load: kW (hp)	2.8 (3.8)	-
Radiator Cooling Airflow: m³/min (cfm)	197.4 (6971)	-
External Restriction to Cooling Airflow: Pa (in H ₂ O)	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: I (US gal)	8.0 (2.1)
Oil Pan: I (US gal)	7.0 (1.8)
Oil Type:	API CC/SE 15W-40
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)	1.60 (0.472)	-
Silencer Noise Reduction Level: dB	21	-
Maximum Allowable Back Pressure: kPa (in Hg)	15.0 (4.4)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	13.8 (487)	-
- Standby	14.8 (523)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	470 (878)	-
- Standby	492 (918)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL2014J
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	7.7 (438)
- 60 Hz	-

Alternator Performance Data:		50	Hz		60 H:
Data Item	415/240V	400/230V	380/220V		
Motor Starting	189	177	163		
Capability* kVA					
Short Circuit	300	300	300		
Capacity** %	300	300	300		
Reactances: Per Unit					
Xd	2.685	2.890	3.202		
X'd	0.094	0.101	0.112		
X"d	0.047	0.051	0.057		

Voltage Technical Data 50 Hz							
Voltage	Pri	me:	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			

Voltage Technical Data 60 Hz								
Voltage	Pri	ime:	Standby:					
	kVA	kW	kVA	kW				

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.

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