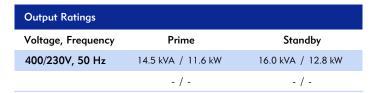


## www.FGWilson.com

# P16-1 (skid)



Ratings at 0.8 power factor.

Please refer to the output ratings technical data section for specific generator set outputs per voltage.

#### **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.

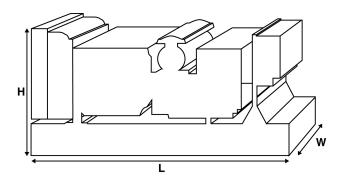




Image for illustration purposes only.

Ratings and Performance Do	ata		
Engine Make & Model:		Perkins 403A-1	5G2
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL1114M	
Control Panel:		DSE4520	
Base Frame:		Heavy Duty Fal	oricated Steel
Circuit Breaker Type:		3 Pole MCB	
Frequency:		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Fuel Tank Capacity: litres (US gal)		١	I/A
Fuel Consumption: I/hr (US gal/	/hr)		
(100% Load)	- Prime	4.1 (1.1)	-
	- Standby	4.7 (1.2)	-

#### **Available Options**

FG Wilson offer a range of optional features to tailor our generator sets to meet your power needs. Options include:

- Upgrade to CE Certification
- A wide range of Sound Attenuated Enclosures
- A variety of generator 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 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)
1500 (59.1)	860 (33.9)	895 (35.2)	333 (734.1)	339 (747.4)
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. Generator set pictured may include optional accessories.

Engine Technical Data		
No. of Cylinders / Alignment:	3 / In Line	
Cycle:	4 Stroke	
Bore / Stroke: mm (in)	84.0 (3.3)/90.0 (3.5)	
Induction:	Naturally Aspirated	
Cooling Method:	Water	
Governing Type:	Mechanical	
Governing Class:	ISO 8528	
Compression Ratio:	22.5:1	
Displacement: I (cu. in)	1.5 (91.3)	
Moment of Inertia: kg m² (lb/in²)	2.46 (8406)	
Engine Electrical System:		
- Voltage / Ground	12/Negative	
- Battery Charger Amps	40	
Weight: kg (lb) - Dry	197 (434)	
- Wet	215 (474)	

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Gross Engine Pow	er: kW (hp)		
	- Prime	13.7 (18.0)	-
	- Standby	15.1 (20.0)	-
BMEP: kPa (psi)			
	- Prime	734.0 (106.5)	-
	- Standby	807.0 (117.1)	-

F	uel System				
F	uel Filter T	ype:		Replaceable Eler	ment
R	ecommend	led Fuel:		Class A2 Diesel o	or BSEN590
F	uel Consun	nption: I/hr (US (	gal/hr)		
		110%	100%	75%	50%
	Prime	Load	Load	Load	Load

4.1 (1.1)

3.0 (0.8)

2.3 (0.6)

50 Hz

60 Hz

4.7 (1.3)

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	4.7 (1.2)	3.3 (0.9)	2.4 (0.6)
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:		Replaceabl	e Element
Combustion Air Flow: m³/min (cfm)			
	- Prime	1.0 (35)	-
- S	tandby		-
Max. Combustion Air Intake Restriction: kPa (in H <sub>2</sub> O)		6.4 (25.7)	-

Cooling System	50 Hz	60 Hz
Cooling System Capacity: I (US gal)	6.0 (1.6)	-
Water Pump Type:	Cen	trifugal
Heat Rejected to Water & Lube Oil:		
kW (Btu/min) - Prir	ne 13.3 (756)	-
- Stand	by 14.6 (830)	-
Heat Radiation to Room: Heat radiated fr	om engine and alternate	or
kW (Btu/min) - Prin	ne 5.1 (290)	
- Stand	by 5.8 (330)	
Radiator Fan Load: kW (hp)	0.2 (0.3)	-
Radiator Cooling Airflow: m³/min (cfm)	28.8 (1017)	-
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> 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)	6.0 (1.6)
Oil Pan: I (US gal)	4.5 (1.2)
Oil Type:	API CH4 15W-40
Oil Cooling Method:	N/A

Exhaust System	50 Hz	60 Hz
Maximum Allowable Back Pressure: kPa (in Hg)	10.2 (3.0)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	2.2 (78)	-
- Standby		-
Exhaust Gas Temperature: °C (°F)		
- Prime	470 (878)	-
- Standby	580 (1076)	-

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL1114M
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

Alternator Operating Data	
Overspeed: rpm	2250
Voltage Regulation: (Steady state)	+/- 1.0%
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	1.8 (102)
- 60 Hz	-

Alternator Performance Data:	50 Hz			6	o0 Hz	
Data Item	415/240V	400/230V	380/220V			
Motor Starting Capability* kVA	55	52	48			
Short Circuit Capacity %	-	-	-			
Reactances: Per Unit						
Xd	1.300	1.399	1.550			
X'd	0.104	0.112	0.124			
X"d	0.052	0.056	0.062			

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

Output Ratings Technical Data 50 Hz								
Voltage	Pri	me:	Standby:					
	kVA	kW	kVA	kW				
415/240V	14.5	11.6	16.0	12.8				
400/230V	14.5	11.6	16.0	12.8				
380/220V	14.5	11.6	16.0	12.8				

Output Ratings Technical Data 60 Hz							
Voltage	Pr	ime:	Standby:				
	kVA	kW	kVA	kW			

# Documentation A full set of operation and maintenance manuals and circuit wiring diagrams. **Generator 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.

**General Information**