

# P16-1 (skid)

Output Ratings		
Voltage, Frequency	Prime	Standby
400/230V, 50 Hz	14.5 kVA / 11.6 kW	16.0 kVA / 12.8 kW
	- / -	- / -

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.

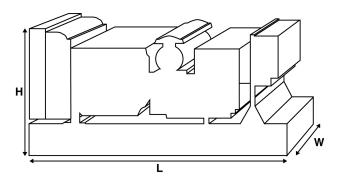
### **Standby Rating**

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 Data			
Engine Make & Model:		Perkins 403A-	15G2
Alternator manufactured for FG Wilson by:		Leroy Somer	
Alternator Model:		LL1114M	
Control Panel:		DSE4520	
Base Frame:		Heavy Duty Fo	ıbricated Steel
Circuit Breaker Type:		3 Pole MCB	
Frequency:		50 Hz	60 Hz
Engine Speed: rpm		1500	-
Fuel Tank Capacity: litres (US gal)			N/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 and 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	e 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	l	
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)	(cu. in) 1.5 (91.3	
Moment of Inertia: kg m <sup>2</sup> (lb/in <sup>2</sup> )		2.46 (8406)
Engine Electrical Syste	m:	
- Voltage	/ Ground	12/Negative
- Battery Charg	ger Amps	40
Weight: kg (lb)	- Dry	197 (434)
	- Wet	215 (474)

Performance		50 Hz	60 Hz
Engine Speed: rpm	ı	1500	-
Gross Engine Pow	Ver: 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	Fuel Filter Type: Replaceable Element			nent	
F	Recommend	ed Fuel:	C	lass A2 Diesel o	or BSEN590
F	uel Consum	ption: I/hr (US g	jal/hr)		
		110%	100%	75%	50%
	Prime	Load	Load	Load	Load
	50 Hz	4.7 (1.3)	4.1 (1.1)	3.0 (0.8)	2.3 (0.6)
	60 Hz	-	-	-	-
			100%	75%	50%
	Standby		Load	Load	Load
	50 Hz		4.7 (1.2)	3.3 (0.9)	2.4 (0.6)

(Based on diesel fuel with a specific gravity of 0.85 and conforming to BS2869, Class A2)

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60 Hz

Air Systems	50 Hz	60 Hz
Air Filter Type:	Replaceabl	e Element
Combustion Air Flow: m <sup>3</sup> /min (cfm)		
- Prime	1.0 (35)	-
- Standby		-
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:		Centrif	ugal
Heat Rejected to Water & Lube O	il:		
kW (Btu/min) -	Prime	13.3 (756)	-
- Sta	andby	14.6 (830)	-
Heat Radiation to Room: Heat radiat	engine and alternator		
kW (Btu/min) -	Prime	5.1 (290)	
- Sta	andby	5.8 (330)	
Radiator Fan Load: kW (hp)		0.2 (0.3)	-
Radiator Cooling Airflow: m <sup>3</sup> /min (cf	m)	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: m <sup>3</sup> /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			
Data Item	415/240V	400/230V	380/220V		
Motor Starting	55	52	48		
Capability* kVA					
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					Output Ratings Technical Data 60 Hz						
Voltage	Prime:		Standby:		Voltage	Prime:		Standby:			
	kVA	kW	kVA	kW		kVA	kW	kVA			
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							

## 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:



01953 454540 www.stuartgroup.ltd.uk enquiries@stuartgroup.info

# 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.

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