P7.5-2S

EU Stage II Emissions Compliant

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Output Ratings		
Generating Set Model	**Prime***	**Standby***
220-240V, 50 Hz	6.8 kVA 6.8 kW	7.5 kVA 7.5 kW
240/120V, 60 Hz	8.0 kVA 8.0 kW	8.8 kVA 8.8 kW

* Refer to ratings definitions on page 4.
Ratings at 1.0 power factor.

Technical Data		
Engine Make & Model:	Perkins 403D-11G	
Alternator Model:	LLB1014H	
Base Frame Type:	Heavy Duty Fabricated Steel	
Circuit Breaker Type:	3 Pole MCB	
Frequency:	**50 Hz**	**60 Hz**
Engine Speed: RPM	1500	1800
Fuel Tank Capacity: litres (US gal)	45 (11.9)	
Fuel Consumption: Prime l/hr (US gal/hr)	2.5 (0.7)	2.9 (0.8)
Fuel Consumption: Standby l/hr (US gal/hr)	2.7 (0.7)	3.3 (0.9)

FG Wilson has manufacturing facilities 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

Engine Technical Data

Physical Data

Manufacturer:	Perkins
Model:	403D-11G
No. of Cylinders/Alignment:	3 / In Line
Cycle:	4 Stroke
Induction:	Naturally Aspirated
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528 G1
Compression Ratio:	23:1
Displacement: l (cu.in)	1.1 (69.0)
Bore/Stroke: mm (in)	77.0 (3.0)/81.0 (3.2)
Moment of Inertia: kg m² (lb. in²)	1.63 (5570)
Engine Electrical System:	
-Voltage/Ground:	12/Negative
-Battery Charger Amps:	40
Weight: kg (lb) - Dry:	129 (284)
- Wet:	139 (306)

Performance

	50 Hz	60 Hz
Engine Speed: RPM	1500	1800
Gross Engine Power: kW (hp)		
-Standby:	9.5 (13.0)	11.8 (16.0)
-Prime:	8.6 (12.0)	10.7 (14.0)
BMEP: kPa (psi)		
-Standby:	672.0 (97.4)	695.0 (100.8)
-Prime:	610.0 (88.5)	630.0 (91.4)
Regenerative Power: kW	3.5	3.9

Fuel System

Fuel Filter Type:	Replaceable Element
Recommended Fuel:	Class A2 Diesel

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

	110% Load	100% Load	75% Load	50% Load
Prime				
50 Hz	2.7 (0.7)	2.5 (0.7)	1.9 (0.5)	1.5 (0.4)
60 Hz	3.3 (0.9)	2.9 (0.8)	2.2 (0.6)	1.7 (0.4)
Standby				
50 Hz		2.7 (0.7)	2.1 (0.6)	1.6 (0.4)
60 Hz		3.3 (0.9)	2.4 (0.6)	1.8 (0.5)

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

Air System

		50 Hz	60 Hz
Air Filter Type:		Replaceable Element	
Combustion Air Flow:			
m³/min (cfm)	-Standby:	0.7 (25)	0.9 (32)
	-Prime:	0.7 (25)	0.9 (32)
Max. Combustion Air Intake Restriction: kPa (in H_2O)		6.4 (25.7)	6.4 (25.7)
Radiator Cooling Air Flow: m³/min (cfm)		24.0 (848)	32.7 (1155)
External Restriction to Cooling Air Flow: Pa (in H_2O)		125 (0.5)	125 (0.5)

Cooling System

		50 Hz	60 Hz
Cooling System Capacity: l (US gal)		5.2 (1.4)	5.2 (1.4)
Water Pump Type:		Centrifugal	
Heat Rejected to Water & Lube Oil: kW (Btu/min)			
	-Standby:	9.5 (540)	12.1 (688)
	-Prime:	8.3 (472)	10.2 (580)
Heat Radiation to Room:			
kW (Btu/min)	-Standby:	2.5 (142)	3.1 (176)
	-Prime:	1.7 (97)	2.6 (148)
Radiator Fan Load: kW (hp)		0.2 (0.3)	0.4 (0.5)

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):	4.9 (1.3)
Oil Pan l (US gal):	4.4 (1.2)
Oil Type:	API CH4 15W-40
Cooling Method:	N/A

Exhaust System

		50 Hz	60 Hz
Silencer Type:		Level 1	
Silencer Model & Qty:		263-0765 (1)	
Max. Allowable Back Pressure: kPa (in. Hg)		10.2 (3.0)	10.2 (3.0)
Exhaust Gas Flow: m³/min (cfm)	-Standby:	1.8 (64)	2.4 (85)
	-Prime:	1.7 (59)	2.2 (78)
Exhaust Gas Temperature: °C (°F)			
	-Standby:	420 (788)	515 (959)
	-Prime:	368 (694)	437 (819)

Alternator Performance Data

Data Item	50 Hz					60 Hz			
	240V	230V	220V			220V/110V	240V/120V		
Motor Starting Capability* kVA	15	14	14			12	14		
Short Circuit Capacity %	-	-	-			-	-		
Reactances: Per Unit									
Xd	0.830	0.900	0.980			1.390	1.170		
X'd	0.150	0.170	0.180			0.260	0.220		
X"d	0.074	0.081	0.089			0.125	0.105		

Reactances shown are applicable to prime ratings
*** Based on 30% voltage dip.**

Alternator Technical Data

Physical Data		Operating Data	
Manufacturer:	FG WILSON	**Overspeed:** RPM	2250
Model:	LLB1014H	**Voltage Regulation (steady state) (%):**	+/- 1.0
No. of Bearings:	1	**Wave Form NEMA = TIF:**	50
Insulation Class:	H	**Wave Form IEC = THF:**	2.0%
Winding Pitch Code:	2/3 - M	**Total Harmonic Content LL/LN:**	4.0%
Wires:	4	**Radio Interference:**	Supression is in line with European Standard EN61000-6
Ingress Protection Rating:	IP23	**Radiant Heat:** kW (Btu/min)	
Excitation System:	SHUNT	**-50 Hz:**	1.3 (74)
AVR Model:	R250	**-60 Hz:**	1.5 (85)

Technical Data

1 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Prime		Standby	
	kVA	kW	kVA	kW
240V	6.8	6.8	7.5	7.5
230V	6.8	6.8	7.5	7.5
220V	6.8	6.8	7.5	7.5

1 Phase Ratings and Performance at 60 Hz, 1800 RPM

Voltage	Prime		Standby	
	kVA	kW	kVA	kW
220V/110V	8.0	8.0	8.8	8.8
240V/120V	8.0	8.0	8.8	8.8

Definitions

Standby Rating

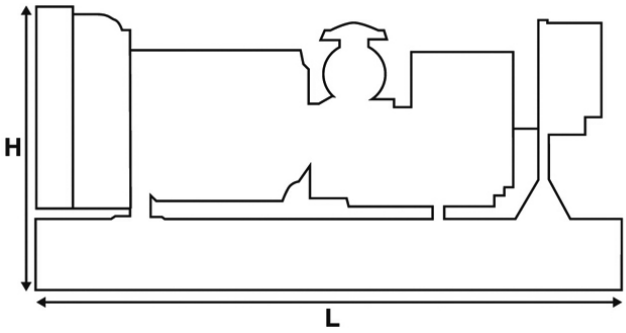
These ratings are applicable for supplying continuous electrical power (at variable load) in the event of a utility power failure. No overload is permitted on these ratings. The alternator on this model is peak continuous rated (as defined in ISO 8528-3).

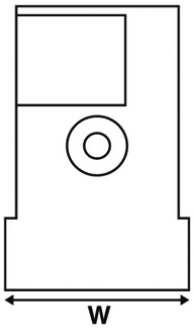
Prime Rating

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.

Standard Reference Conditions

Note: Standard reference conditions 25°C (77°F) Air Inlet Temp, 100m (328ft) 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.





Weights and Dimensions

Weights: kg (lb)		Dimensions: mm (in)	
Net (+ lube oil)	329 (725)	**Length**	1320 (52.0)
Wet (+ lube oil & coolant)	334 (736)	**Width**	552 (21.7)
Fuel, lube oil & coolant	372 (820)	**Height**	1179 (46.4)

General Data

Documents

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 equipment carries full manufacturer's warranty. Extended warranty terms available. For details on warranty cover please contact your local dealer, or visit our website: www.FGWilson.com