



# P13.5-6

## Output Ratings

Voltage, Frequency	Prime	Standby
400V, 50 Hz	12.5 kVA / 10.0 kW	13.5 kVA / 10.8 kW
480V, 60 Hz	15.0 kVA / 12.0 kW	16.5 kVA / 13.2 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.

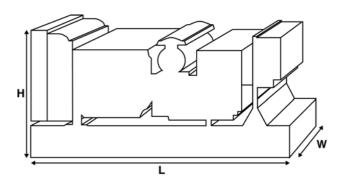
## Standby Rating

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  $^{\circ}C$  (77  $^{\circ}F)$  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.





#### Ratings and Performance Data Engine Make & Model: Perkins® 403D-15G Alternator manufactured for Lerov Somer FG Wilson by: LL1114D Alternator Model: **Control Panel:** DCP-10 Base Frame: Heavy Duty Fabricated Steel Circuit Breaker Type: 3 Pole MCB Frequency: 50 Hz 60 Hz 1500 1800 Engine Speed: RPM Fuel Tank Capacity: 62 (16.4) litres (US gal) Fuel Consumption: I/hr (US gal/hr) (100% Load) - Prime 3.7 (1.0) 4.3 (1.1) 4.0 (1.1) 4.9 (1.3) - Standby

## 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

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 an	d Weights			
Length (L) mm(in)	Width (W) mm (in)	Height (H) mm(in)	Dry kg (lb)	Wet kg (lb)
1400 (55.1)	620 (24.4)	1054 (41.5)	371 (818)	377 (831)
Dry = With Lube Oil		Wet = With Lube	OilandCoolant	

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 m <sup>2</sup> (lb/in <sup>2</sup> )	2.17 (7415)		
Engine Electrical System:			
- Voltage / Ground	12/Negative		
- Battery Charger Amps	65		
Weight: kg (lb) - Dry	197 (434)		
- Wet	202 (445)		

Air Systems		50 Hz	60 Hz
Air Filter Type:		Replaceable Element	
Combustion Air Flow: m³/min (	cfm)		
	- Prime	1.1 (38)	1.2 (43)
	- Standby	1.1 (38)	1.2 (43)
Max. Combustion Air Intake Restriction: kPa (in H <sub>2</sub> O)		6.4 (25.7)	6.4 (25.7)

Cooling System	50 Hz	60 Hz	
Cooling System Capacity: I (US g	gal)	6.0 (1.6)	6.0 (1.6)
Water Pump Type:		Centr	ifugal
Heat Rejected to Water & Lube	Oil:		
kW (Btu/min)	- Prime	11.6 (660)	13.6 (773)
	- Standby	12.9 (734)	15.2 (864)
Heat Radiation to Room: Heat ra	adiated from e	engine and alternator	
kW (Btu/min)	- Prime	5.4 (307)	6.3 (358)
	- Standby	6.0 (341)	7.1 (404)
Radiator Fan Load: kw (hp)		0.2 (0.2)	0.3 (0.4)
Radiator Cooling Airflow: m <sup>3</sup> /min	(cfm)	28.8 (1017)	37.2 (1314)
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)		125 (0.5)	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	
Silencer Type:	Indu	Industrial	
Silencer Model & Quantity:	INE	D (1)	
Pressure Drop Across Silencer System: kPa (in Hg)	0.56 (0.165)	0.80 (0.236)	
Silencer Noise Reduction Level: dB	30	18.6	
Maximum Allowable Back Pressure: <sup>kPa</sup> (in Hg)	10.2 (3.0)	10.2 (3.0)	
Exhaust Gas Flow: m <sup>3</sup> /min (cfm)			
- Prime	2.7 (95)	3.1 (111)	
- Standby	2.9 (102)	3.4 (119)	
Exhaust Gas Temperature: °C(°F)			
- Prime	445 (833)	455 (851)	
- Standby	490 (914)	505 (941)	

Performance 50 Hz 60 Hz Engine Speed: rpm 1500 1800 Gross Engine Power: kW (hp) - Prime 12.2 (16.0) 14.7 (20.0) - Standby 13.5 (18.0) 16.2 (22.0) BMEP: kPa (psi) - Prime 652.0 (94.6) 655.0 (95.0) 722.0 (104.7) 722.0 (104.7) - Standby

F	Fuel System				
Fuel Filter Type:		I	Replaceable Eler	nent	
Recommended Fuel:		(	Class A2 Diesel o	or BSEN590	
Fuel Consumption: I/hr (US gal/hr)			al/hr)		
		110%	100%	75%	50%
	Prime	Load	Load	Load	Load
	50 Hz	4.0 (1.1)	3.7 (1.0)	2.8 (0.7)	2.0 (0.5)
	60 Hz	4.9 (1.3)	4.3 (1.1)	3.2 (0.8)	2.4 (0.6)

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	4.0 (1.1)	3.0 (0.8)	2.1 (0.6)
60 Hz	4.9 (1.3)	3.5 (0.9)	2.5 (0.7)

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

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LL1114D
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 D	ata	
Overspeed: rpm		2250
Voltage Regulation: (Ste	eady state)	+/- 1.0%
Wave Form NEMA =	TIF:	50
Wave Form IEC = THF:		2.0%
Total Harmonic conter	nt LL/LN:	4.0%
Radio Interference:		Suppression is in line with European Standard EN61000-6
Radiant Heat: kw (Btu/min)		
	- 50 Hz	2.5 (142)
	- 60 Hz	2.8 (159)

Alternator Performance Data:	50 Hz		Hz	60 Hz
Data Item	415/240V	400/230V	380/220V	220/127V
Motor Starting Capability* kVA	28	27	25	27
Short Circuit Capacity %	-	-	-	-
Reactances: Per Unit				
Xd	1.938	2.086	2.311	2.482
X'd	0.200	0.216	0.239	0.257
X"d	0.100	0.108	0.119	0.128

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

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	k۷
415/240V	12.5	10.0	13.5	10.8					
400/230V	12.5	10.0	13.5	10.8	220/127V	15.0	12.0	16.5	13
380/220V	12.5	10.0	13.5	10.8					

## 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:

## **DPX Power**

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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

In line with our policy of continuous product development, we reserve the right to change specification without notice

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