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# P605-3

### Optional Leroy Somer Alternator

Output Ratings		
Voltage, Frequency	Prime	Standby
400V, 50 Hz	550.0 kVA / 440.0 kW	605.0 kVA / 484.0 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°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.

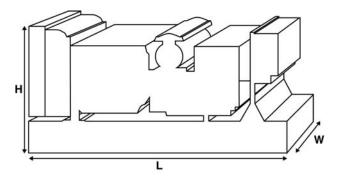




Image for illustration purposes only.

Ratings and Performance Data		
Engine Make & Model:	Perkins® 2806A	-E18TAG1
Alternator manufactured for FG Wilson by:	Leroy Somer	
Alternator Model:	LL6114G	
Control Panel:	PowerWizard 1.1	+
Base Frame:	Heavy Duty Fabr	icated Steel
Circuit Breaker Type:	3 Pole MCCB	
Frequency:	50 Hz	60 Hz
Engine Speed: rpm	1500	-
Fuel Tank Capacity: litres (US gal)	1132 (2	299.0)
Fuel Consumption: I/hr (US gal/hr)		
(100% Load) - <b>Pr</b>	ime 107.1 (28.3)	-
- Stan	dby 118.4 (31.3)	-

#### **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 an	nd Weights			
<b>Length</b> (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	<b>Dry</b> kg (lb)	<b>Wet</b> kg (lb)
3900 (153.5)	1461 (57.5)	2156 (84.9)	4149 (9147)	4217 (9297)
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:	6 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	145.0 (5.7)/183.0 (7.2)
Induction:	Turbocharged Air To Air Charge Cooled
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	14.5:1
Displacement: I (cu. in)	18.1 (1104.5)
Moment of Inertia: kg m² (lb/in²)	7.44 (25424)
Engine Electrical System:	
- Voltage / Ground	24/Negative
- Battery Charger Amps	70
Weight: kg (lb) - Dry	2050 (4519)
- Wet	2158 (4758)

Performance	50 Hz	60 Hz
Engine Speed: rpm	1500	-
Gross Engine Power: kW (hp)		
- Pri	me 495.0 (664.0)	-
- Stand	<b>Iby</b> 544.0 (730.0)	-
BMEP: kPa (psi)		
- Pri	me 2184.0 (316.8)	-
- Stand	<b>Iby</b> 2400.0 (348.1)	-

Fuel System	
Fuel Filter Type:	Eco 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	118.4 (31.3)	107.1 (28.3)	81.0 (21.4)	57.4 (15.2)
60 Hz	-	-	-	-

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	118.4 (31.3)	88.6 (23.4)	61.9 (16.4)
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:		Non Cai	nister
Combustion Air Flow: m³/min (c	efm)		
	- Prime	37.0 (1307)	-
	- Standby	40.0 (1413)	-
Max. Combustion Air Intake Restriction: $kPa$ (in $H_2O$ )		6.4 (25.7)	-

Cooling System	50 Hz	60 Hz	
Cooling System Capacity: I (US gal)	68.5 (18.1)	-	
Water Pump Type:	Centr	ifugal	
Heat Rejected to Water & Lube Oil:			
kW (Btu/min) - Pri	me 185.0 (10521)	-	
- Stand	<b>dby</b> 190.9 (10856)	-	
Heat Radiation to Room: Heat radiated from engine and alternator			
kW (Btu/min) - Pri	me 67.1 (3816)		
- Stand	dby 69.5 (3952)		
Radiator Fan Load: kW (hp)	9.0 (12.1)	-	
Radiator Cooling Airflow: m³/min (cfm)	373.2 (13179)	-	
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)	125 (0.5)	-	

Lubrication System	
Oil Filter Type:	Eco, Full Flow
Total Oil Capacity: I (US gal)	55.5 (14.7)
Oil Pan: I (US gal)	53.5 (14.1)
Oil Type:	API CH4 / CI4
Oil Cooling Method:	Water

Designed to operate in ambient conditions up to  $50^{\circ}$ C ( $122^{\circ}$ F). Contact your local FG Wilson Dealer for power ratings at specific site conditions.

Exhaust System	50 Hz	60 Hz
Maximum Allowable Back Pressure: kPa (in Hg)	6.9 (2.0)	-
Exhaust Gas Flow: m³/min (cfm)		
- Prime	88.0 (3108)	-
- Standby	95.3 (3365)	-
Exhaust Gas Temperature: °C (°F)		
- Prime	521 (969)	-
- Standby	523 (974)	-

Alternator Physical Data	
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Manufactured for FG Wilson by:	Leroy Somer
Model:	LL6114G
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 Regulation: (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	30.3 (1723)				
- 60 Hz	-				

Alternator Performance Data:	50 Hz			60 Hz	
Data Item	415/240V	400/230V	380/220V		
		230 V			
Motor Starting	1005	0/7	070		
Capability* kVA	1035	967	879		
Short Circuit	200	200	200		
Capacity** %	300	300	300		
Reactances: Per Unit					
Xd	3.344	3.599	3.988		
X'd	0.170	0.183	0.203		
X"d	0.120	0.129	0.143		

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

**With optional pe	ermanent magnet	generator or	AREP	excitation.
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Output Ratings Technical Data 50 Hz					
Voltage	Pri	me:	Standby:		
	kVA	kW	kVA	kW	
415/240V	550.0	440.0	605.0	484.0	
400/230V	550.0	440.0	605.0	484.0	
380/220V	550.0	440.0	605.0	484.0	
230 V	550.0	440.0	605.0	484.0	

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

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General Information