

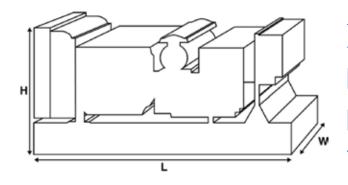
Leroy Somer Alternator

Output Ratings						
Voltage, Frequency		Prime	Standby			
230 V, 50 Hz	kVA kW	24 24	26 26			
	kVA					
	kW					



Ratings at 1 power factor.

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



Dimensions and Weights						
Length	mm	1570 (61.8)				
Width	mm	760 (29.9)				
Height	mm	1229 (48.4)				
Weight (Dry)	kg	686 (1512)				
Weight (Wet)	kg	699 (1541)				

Ratings in accordance with ISO 8528, ISO 3046, IEC 60034,
BS5000 and NEMA MG-1.22.

Generator set pictured may include optional accessories.

### **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.

FG Wilson offer a range of optional features to allow you to tailor our generator sets to meet your power needs. Options available 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

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Ratings and Perfor	mance Data					
Engine Make		Perkins				
Engine Model:		1103D-33G3				
Alternator Make		Leroy Somer				
Alternator Model:		LLB1514J				
Control Panel:		FG100				
Base Frame:		Heavy Duty Fabricated S	teel			
Circuit Breaker Type:		3 Pole MCCB				
Frequency:		50 HZ	60 HZ			
Engine Speed: RPM	rpm	1500				
Fuel Tank Capacity:	litres (US gal)	71 (18.76)				
Fuel Consumption Prime	litres (US gal)/hr	7.4 (2)				
Fuel Consumption Standb	y litres (US gal)/hr	7.9 (2.1)				
Engine Technical D	ata					
No. of Cylinders		3				
Alignment		IN LINE				
Cycle		4 STROKE				
Bore	mm (in)	105 (4.1)				
Stroke	mm (in)	127 (5)				
Induction		NATURALLY ASPIRATED				
Cooling Method		WATER				
Governing Type		MECHANICAL				
Governing Class		ISO 8528 G2				
Compression Ratio		19.25:1				
Displacement	L (cu. in)	3.3 (201.4)				
Moment of Inertia:	kg m² (lb/in²)	1.14 (3896)				
Voltage		12				
Ground		Negative				
Battery Charger Amps		65				
Engine Weight Dry	kg (lb)	329 (725)				
Engine Weight Wet	kg (lb)	348 (767)				
Engine Performan	ce Data	50 Hz	60 Hz			
Engine Speed	rpm	1500				
Gross Engine Power Prime	•	29.7 (40)				
Gross Engine Power Stand		33 (44)				
BMEP Prime	kPa (psi)	1023 (104.5)				
BMEP Standby	kPa (psi)	1128 (116.1)				

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<b>Fuel System</b>					
Fuel Filter Type:			Replaceable Eler	ment	
Recommended Fuel:			Class A2 Diesel		
Fuel Consumption at		110 % Load	100 % Load	75 % Load	50 % Load
50 Hz Prime:	l/hr (US gal/hr)	7.9 (2.1)	7.4 (2)	5.7 (1.5)	4 (1.1)
50 Hz Standby	l/hr (US gal/hr)	-	7.9 (2.1)	6.1 (1.6)	4.3 (1.1)
60 Hz Prime	I/hr (US gal/hr)				
60 Hz Standby	I/br (LIS gal/br)	<u>-</u>			

(Based on diesel fuel with a specific gravity of 0.84 and conforming to BS2869 classA2,EN590  $\,$ 

Air System				
	,	Replaceable Element		
m³/min (cfm)	2.1 (75)			
m³/min (cfm)	2.2 (76)			
kPa	6.6 (26.5)			
	m³/min (cfm)	m³/min (cfm) 2.2 (76)	Replaceable Elemen         m³/min (cfm)       2.1 (75)         m³/min (cfm)       2.2 (76)	

Cooling System		50 Hz	60 Hz	
Cooling System Capacity	l (US gal)	10.2 (2.7)	'	
Water Pump Type:			Centrifugal	
Heat Rejected to Water & Lube Oil: Prime	kW (Btu/min)	21.3 (1211)		
Heat Rejected to Water & Lube Oil: Standby	kW (Btu/min)	23.9 (1359)		
Heat Radiation to Room*: Prime	kW (Btu/min)	7 (398)		
Heat Radiation to Room*: Standby	kW (Btu/min)	7.8 (444)		
Radiator Fan Load:	kW (hp)	0.3 (0.4)		
Radiator Cooling Airflow:	m³/min (cfm)	58.2 (2055)		
External Restriction to Cooling Airflow:	Pa (in H2O)	125 (0.5)		

<sup>\*:</sup> Heat radiated from engine and alternator

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)	8.3 (2.2)				
Oil Pan Capacity:	I (US gal)	7.8 (2.1)				
Oil Type:		API CG4 / CH4 15W-40				
Oil Cooling Method:		WATER				

Exhaust System		50 Hz	60 Hz
Maximum Allowable Back Pressure:	kPa (in Hg)		
Exhaust Gas Flow: Prime	m³/min (cfm)		
Exhaust Gas Flow: Standby	m³/min (cfm)		
Exhaust Gas Temperature: Prime	°C (°F)		
Exhaust Gas Temperature: Standby	°C (°F)		

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<b>Alternator Physical</b>	Data						
No. of Bearings:					1		
Insulation Class:					Н		
Winding Pitch:					2/3		
Winding Code					М		
Wires:					4		
Ingress Protection Rating:					IP23		
Excitation System:					SHUNT		
AVR Model:					R220		
dependant on voltage code selected	d						
Alternator Operatir	ng Data	1					
Overspeed: rpm					2250		
Voltage Regulation: (Steady	state)	%			+/- 1.0		
Wave Form NEMA = TIF:					50		
Wave Form IEC = THF:		%			2		
Total Harmonic content LL/I	LN:	%	%			4	
Radio Interference:					EN61000-6	EN61000-6	
Radiant Heat: 50 Hz		kW (Btu/min)			2.8 (159)		
Radiant Heat: 60 Hz		kW (Btu/min)					
Alternator Perform	ance D	ata 50 Hz:					
Voltage Code			240 V	230 V	220 V		
Motor Starting Capability*	kVA		59	57	54		
Short Circuit Capacity**	%		0	0	0	0	
Reactances	Xd		1.496	1.629	1.781		
	X'd		0.165	0.18	0.196		
	X"d		0.09	0.09	0.098		
Alternator Perform	ance D	ata 60 Hz					
Voltage Code							
Motor Starting Capability*	kVA		0	0	0		
Short Circuit Capacity**	%	0	0	0	0	0	
. ,							

0

0

0

0

0

0

0

Reactances shown are applicable to prime ratings.

Reactances

Xd

Χ'd

X"d

<sup>\*</sup>Based on 30% voltage dip at 0.9 power factor.

<sup>\*\*</sup> With optional independant excitation system (PMG / AUX winding)





Output Ratings	50 Hz					
		Prime		Standby		
Voltage Code	kVA	kW	kVA	kW		
415/240V						
400/230V						
380/220V						
230/115V						
220/127V						
220/110V						
200/115V						
240V	24	24	26	26		
230V	24	24	26	26		
220V	24	24	26	26		
Output Ratings	60 Hz					
		Prime	Standby			
Voltage Code	kVA	kW	kVA	kW		
480/277V						
440/254V						
416/240V						
400/230V						
380/220V						
240/139V						
240/120V						
230/115V						
220/127V						
220/110V						
208/120V						
240/120						
220/110						





Leroy Somer Alternator

L	Dealer Co	ontact D	etails			

#### **Documentation**

Operation and maintenance manual including circuit wiring diagrams.

### **Generator Set Standards**

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, NEMA MG-1.22.

### Warranty

6.8 – 750 kVA electric power generation products in prime applications the warranty period is 12 months from date of start-up, unlimited hours (8760). For standby applications the warranty period is 24 months from date of start-up, limited to 500 hours per year.

730 – 2500 kVA electric power generation products in prime applications the warranty period is 12 months from date of start-up, unlimited hours (8760 hours) or 24 months from date of start-up, limited to 6000 hours. For standby applications the warranty period is 36 months from date of start-up, limited to 500 hours per year.

### FG Wilson manufactures product in the following locations:

Northern Ireland • Brazil • China • India

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.