Engine Technical Data	
No. of Cylinders / Alignment:	4 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	84.0 (3.3)/100.0 (3.9)
Induction:	Naturally Aspirated
Cooling Method:	Water
Governing Type:	Mechanical
Governing Class:	ISO 8528
Compression Ratio:	23.3:1
Displacement: l (cu. in)	2.2 (135.2)
Moment of Inertia: kg m² (lb/in²)	2.72 (9308)
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger Amps	65
Weight: kg (lb) **- Dry**	242 (534)
- Wet	251 (554)

Performance	50 Hz	60 Hz
Engine Speed: rpm	1500	1800
Gross Engine Power: kW (hp)		
- Prime	18.7 (25.0)	22.0 (30.0)
- Standby	20.6 (28.0)	24.3 (33.0)
BMEP: kPa (psi)		
- Prime	675.0 (97.9)	662.0 (96.0)
- Standby	743.0 (107.8)	731.0 (106.0)

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

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

Prime	110% Load	100% Load	75% Load	50% Load
50 Hz	5.5 (1.5)	4.9 (1.3)	3.7 (1.0)	2.7 (0.7)
60 Hz	6.3 (1.7)	5.7 (1.5)	4.4 (1.2)	3.3 (0.9)

Standby	110% Load	100% Load	75% Load	50% Load
50 Hz		5.5 (1.5)	4.0 (1.1)	2.9 (0.8)
60 Hz		6.3 (1.7)	4.8 (1.3)	3.5 (0.9)

(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:	Replaceable Element	
Combustion Air Flow: m³/min (cfm)		
- Prime	1.5 (51)	1.7 (61)
- Standby	1.5 (51)	1.7 (61)
Max. Combustion Air Intate Restriction: kPa (in H_2O)	3.0 (12.0)	3.0 (12.0)

Cooling System	50 Hz	60 Hz
Cooling System Capacity: l (US gal)	6.5 (1.7)	6.5 (1.7)
Water Pump Type:	Centrifugal	
Heat Rejected to Water & Lube Oil:		
kW (Btu/min) **- Prime**	17.0 (967)	19.9 (1132)
- Standby	19.6 (1115)	22.2 (1262)
Heat Radiation to Room: Heat radiated from engine and alternator		
kW (Btu/min) **- Prime**	5.4 (307)	6.4 (364)
- Standby	6.9 (392)	7.7 (438)
Radiator Fan Load: kW (hp)	0.2 (0.3)	0.4 (0.5)
Radiator Cooling Airflow: m³/min (cfm)	33.0 (1165)	41.4 (1462)
External Restriction to Cooling Airflow: Pa (in H_2O)	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: l (US gal)	10.6 (2.8)
Oil Pan: l (US gal)	8.9 (2.4)
Oil Type:	API CH4 15W-40
Oil Cooling Method:	N/A

Exhaust System	50 Hz	60 Hz
Silencer Type:	Industrial	
Silencer Model & Quantity:	263-0765 (1)	
Pressure Drop Across Silencer System: kPa (in Hg)	0.70 (0.207)	1.60 (0.472)
Silencer Noise Reduction Level: dB	29	21.5
Maximum Allowable Back Pressure: kPa (in Hg)	10.2 (3.0)	10.2 (3.0)
Exhaust Gas Flow: m³/min (cfm)		
- Prime	3.6 (129)	4.3 (153)
- Standby	3.9 (139)	4.8 (168)
Exhaust Gas Temperature: °C (°F)		
- Prime	445 (833)	440 (824)
- Standby	505 (941)	510 (950)

Alternator Physical Data	
Manufactured for FG Wilson by:	Leroy Somer
Model:	LLB1114M
No. of Bearings:	1
Insulation Class:	H
Winding Pitch Code:	2/3 - M
Wires:	4
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R220

Alternator Operating Data	
Overspeed: rpm	2250
Voltage Reguation: (Steady state)	+/- 1.0%
Wave Form NEMA = TIF:	100
Wave Form IEC = THF:	3.0%
Total Harmonic content LL/LN:	5.0%
Radiant Heat: kW (Btu/min)	
- 50 Hz	2.5 (142)
- 60 Hz	3.1 (176)

Alternator Performance Data:	50 Hz			60 Hz	
Data Item	240V	230V	220V	220V/110V	240V/120V
Motor Starting Capability* kVA	41	39	37	32	37
Short Circuit Capacity %	-	-	-	-	-
Reactances: Per Unit					
Xd	1.460	1.590	1.740	2.440	2.050
X'd	0.210	0.230	0.250	0.360	0.300
X"d	0.107	0.116	0.127	0.179	0.150

Reactances shown are applicable to prime ratings.
*Based on 30% voltage dip at 0.9 power factor.

Voltage Technical Data 50 Hz				
Voltage	**Prime:**		**Standby:**	
	kVA	**kW**	**kVA**	**kW**
240V	15.0	15.0	16.5	16.5
230V	15.0	15.0	16.5	16.5
220V	15.0	15.0	16.5	16.5

Voltage Technical Data 60 Hz				
Voltage	**Prime:**		**Standby:**	
	kVA	**kW**	**kVA**	**kW**
220V/110V	16.5	16.5	18.2	18.2
240V/120V	17.6	17.6	19.4	19.4

General Information

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:

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.

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