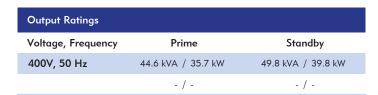


#### www.FGWilson.com

## F50-1



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.

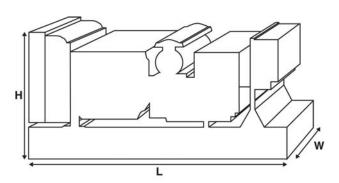




Image for illustration purposes only.

Ratings and Performance Data		
Engine Make & Model:	FG Wilson FD4	-5.0A1
Alternator manufactured for FG Wilson by:	Marelli	
Alternator Model:	MJB 200 SB4	
Control Panel:	DCP-10	
Base Frame:	Heavy Duty Fal	oricated Steel
Circuit Breaker Type:	3 Pole MCB	
Frequency:	50 Hz	60 Hz
Engine Speed: rpm	1500	-
Fuel Tank Capacity: litres (US gal)	180	(47.6)
Fuel Consumption: I/hr (US gal/hr)		
(100% Load) - Prii	me 11.0 (2.9)	-
- Stand	lby 12.0 (3.2)	-

#### **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
- Additional alarms and shutdowns
- Industrial silencer

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 ar	nd Weights			
Length (L) mm (in)	Width (W) mm (in)	Height (H) mm (in)	<b>Dry</b> kg (lb)	<b>Wet</b> kg (lb)
1870 (73.6)	840 (33.1)	1482 (59.1)	888 (1958)	938 (2067)
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:	4 / In Line
Cycle:	4 Stroke
Bore / Stroke: mm (in)	108.0 (4.3) / 135.0 (5.3)
Induction:	Naturally Aspirated
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	TBC
Compression Ratio:	17:1
Displacement: I (cu. in)	5.0 (302.1)
Moment of Inertia: kg m² (lb/in²)	-
Engine Electrical System:	
- Voltage / Ground	12/Negative
- Battery Charger Amps	65
Weight: kg (lb) - Dry	490 (1080)
- Wet	510 (1124)

Performance		50 Hz	60 Hz
Engine Speed: rpm	·	1500	-
Gross Engine Powe	er: kW (hp)		
	- Prime	43.0 (58.0)	-
	- Standby	48.0 (64.0)	-
BMEP: kPa (psi)			
	- Prime	696.0 (100.9)	-
	- Standby	776.0 (112.6)	-

### Fuel System

Fuel Filter Type: Spin On

**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	12.0 (3.2)	11.0 (2.9)	8.0 (2.1)	5.8 (1.5)
60 Hz	-	-	-	-

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	12.0 (3.2)	9.0 (2.4)	6.8 (1.8)
60 Hz	-	-	-

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

	50 Hz	60 Hz
	Replaceable	e Element
m)		
- Prime	-	-
- Standby	3.0 (106)	-
	5.0 (20.1)	-
	- Prime	Replaceable n) - Prime - Standby 3.0 (106)

Cooling System	50 Hz	60 Hz
Cooling System Capacity: I (US gal)	13.0 (3.4)	-
Water Pump Type:	Cent	rifugal
Heat Rejected to Water & Lube Oil	:	
kW (Btu/min) - P	Prime -	-
- Sta	ndby -	-
Heat Radiation to Room: Heat radiate	d from engine and alternate	or
kW (Btu/min)	Prime -	-
- Sta	ndby -	-
Radiator Fan Load: kW (hp)	3.1 (4.2)	-
Radiator Cooling Airflow: m³/min (cfm	132.0 (4662)	-
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)	125 (0.5)	-

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.

Lubrication System	
Oil Filter Type:	Spin-On, Full Flow
Total Oil Capacity: I (US gal)	14.0 (3.7)
Oil Pan: I (US gal)	-
Oil Type:	15W-40 CD
Oil Cooling Method:	Water

50 Hz	60 Hz
6.0 (1.8)	-
-	-
7.0 (246)	-
-	-
-	-
	6.0 (1.8)

Alternator Physical Data	
Manufactured for FG Wilson by:	Marelli
Model:	MJB 200 SB4
No. of Bearings:	1
Insulation Class:	Н
Winding Pitch Code:	2/3 - M0
Wires:	12
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	Mark V

Alternator Operating Data	
Overspeed: rpm	2250
Voltage Regulation: (Steady state)	+/- 1.0%
Wave Form NEMA = TIF:	50
Wave Form IEC = THF:	2.0%
Total Harmonic content LL/LN:	2.0%
Radio Interference:	Suppression is in line with European Standard EN55011
Radiant Heat: kW (Btu/min)	
- 50 Hz	5.3 (301)
- 60 Hz	-

Alternator Performance Data:		50	Hz		60 Hz
Data Item	415/240V	400/230V	380/220V		
Motor Starting Capability* kVA	59	55	50		
Short Circuit Capacity %	-	-	-		
Reactances: Per Unit					
Xd	3.134	3.381	3.712		
X'd	0.283	0.305	0.335		
X"d	0.120	0.129	0.142		

Reactances shown are applicable to prime ratings. \*Based on 30% voltage dip at 0.0 power factor and SHUNT excitation.

Voltage	Pri	ne:	Standby:		
	kVA	kW	kVA	kW	
415/240V	44.5	35.6	49.8	39.8	
400/230V	44.6	35.7	49.8	39.8	
380/220V	44.2	35.4	49.3	39.4	

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

FG Wilson is a trading name of Caterpillar (NI) Limited.

General Information