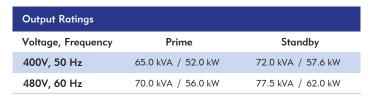


# www.FGWilson.com

# F72-1



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.

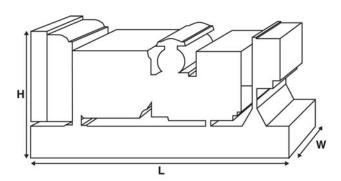




Image for illustration purposes only.

Ratings and Performance De	ata		
Engine Make & Model:		FG Wilson FD4-	4.6A1
Alternator manufactured for FG Wilson by:	,	Marelli	
Alternator Model:		MJB 200 MB4	
Control Panel:	I	DCP-10	
Base Frame:	I	Heavy Duty Fab	ricated Steel
Circuit Breaker Type:	;	3 Pole MCB	
Frequency:		50 Hz	60 Hz
Engine Speed: rpm		1500	1800
Fuel Tank Capacity: litres (US gal)		180 (	47.6)
Fuel Consumption: I/hr (US gal/	/hr)		
(100% Load)	- Prime	13.9 (3.7)	15.0 (4.0)
	- Standby	15.1 (4.0)	16.3 (4.3)

#### **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
- 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 an	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 (58.3)	953 (2101)	968 (2134)
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)/125.0 (4.9)
Induction:	Turbocharged
Cooling Method:	Water
Governing Type:	Electronic
Governing Class:	ISO 8528 G2
Compression Ratio:	17:1
Displacement: I (cu. in)	4.6 (279.5)
Moment of Inertia: kg m² (lb/in²)	-
Engine Electrical System:	
- Voltage / Grou	nd 12/Negative
- Battery Charger Am	<b>ps</b> 65
Weight: kg (lb)	Ory 490 (1080)
- W	<b>/et</b> 510 (1124)

Performance		50 Hz	60 Hz
Engine Speed: rpm		1500	1800
Gross Engine Power:	kW (hp)		
	- Prime	62.0 (83.0)	68.0 (91.0)
	- Standby	68.0 (91.0)	72.0 (97.0)
BMEP: kPa (psi)			
	- Prime	1083.0 (157.1)	989.0 (143.5)
	- Standby	1188.0 (172.3)	1048.0 (152.0)

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	15.1 (4.0)	13.9 (3.7)	12.3 (3.2)	7.3 (1.9)
60 Hz	16.3 (4.3)	15.0 (4.0)	11.6 (3.1)	8.7 (2.3)

	100%	75%	50%
Standby	Load	Load	Load
50 Hz	15.1 (4.0)	14.3 (3.8)	9.3 (2.5)
60 Hz	16.3 (4.3)	14.8 (3.9)	9.9 (2.6)

(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	-	-
	Standby	5.5 (195)	5.9 (210)
Max. Combustion Air Intake Restriction: $kPa$ (in $H_2O$ )		5.0 (20.1)	5.0 (20.1)

Cooling System		50 Hz	60 Hz
Cooling System Capacity: I (US ga	l)	13.0 (3.4)	13.0 (3.4)
Water Pump Type:		Centr	ifugal
Heat Rejected to Water & Lube	Oil:		
kW (Btu/min)	- Prime	-	-
- 5	Standby	-	-
Heat Radiation to Room: Heat radiated from engine and alternator			
kW (Btu/min)	- Prime	-	-
- 5	Standby	-	-
Radiator Fan Load: kW (hp)		3.1 (4.2)	3.7 (5.0)
Radiator Cooling Airflow: m³/min (	(cfm)	156.0 (5509)	132.0 (4662)
External Restriction to Cooling Airflow: Pa (in H <sub>2</sub> O)		125 (0.5)	125 (0.5)

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 CF4
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)	6.0 (1.8)	6.0 (1.8)
Exhaust Gas Flow: m³/min (cfm)		
- Prime	-	-
- Standby	14.3 (504)	15.0 (530)
Exhaust Gas Temperature: °C (°F)		
- Prime	-	-
- Standby	-	583 (1081)

Alternator Physical Data	
Manufactured for FG Wilson by:	Marelli
Model:	MJB 200 MB4
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)	+/- 0.5%					
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	6.4 (364)					
- 60 Hz	6.9 (392)					

Alternator Performance Data:	50 Hz			60 Hz				
Data Item	415/240V	400/230V	380/220V		480/277V 240/139V	380/220V		440/254V 220/127V
Motor Starting  Capability* kVA	104	97	87		116	73		97
Short Circuit  Capacity %	-	-	-		-	-		-
Reactances: Per Unit								
Xd	2.778	2.990	3.313		2.683	3.264		3.193
X'd	0.234	0.252	0.279		0.226	0.361		0.270
X"d	0.090	0.097	0.108		0.087	0.139		0.104

Output Ratings Technical Data 50 Hz					
Voltage	Pri	me:	Standby:		
	kVA	kW	kVA	kW	
415/240V	65.0	52.0	72.0	57.6	
400/230V	65.0	52.0	72.0	57.6	
380/220V	65.0	52.0	72.0	57.6	

Output Ratings Technical Data 60 Hz						
Voltage	Pri	me:	Standby:			
	kVA	kW	kVA	kW		
480/277V	70.0	56.0	77.5	62.0		
220/127V	70.0	56.0	77.5	62.0		
380/220V	70.0	56.0	77.5	62.0		
440/254V	70.0	56.0	77.5	62.0		
240/139V	70.0	56.0	77.5	62.0		

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

# **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, limited to 2,000 running hours per year, has 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