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#FGWILSON_GENSET_IMAGE

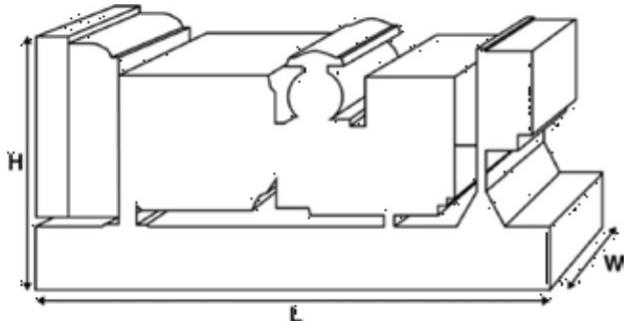
Output Ratings

Voltage, Frequency	Prime	Standby
400/230 V, 50 Hz	kVA 12.4	13.5
	kW 9.92	10.8
220/127 V, 60 Hz	kVA 15	16.4
	kW 12	13.12



Ratings at 0.8 power factor.

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



Canopied Dimensions

Length	mm	1683
Width	mm	845
Height	mm	1138

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



Ratings and Performance Data

Engine Make	Perkins		
Engine Model:	403A-15G2		
Alternator Make	FG Wilson		
Alternator Model:	FGL10020		

Base Frame:	Heavy Duty Fabricated Steel		
Circuit Breaker Type:	3 Pole MCB		
Frequency:	50 HZ	60 HZ	
Engine Speed: RPM	rpm	1500	1800
Fuel Tank Capacity:	litres	51	
Fuel Consumption Prime	litres (US gal)/hr	3.6 (1)	4.3 (1.1)
Fuel Consumption Standby	litres (US gal)/hr	4 (1.1)	4.8 (1.3)

Engine Technical Data

No. of Cylinders	3				
Alignment	IN LINE				
Cycle	4 STROKE				
Bore	mm (in)	84(3.3)			
Stroke	mm (in)	90(3.5)			
Induction	NATURALLY				
Cooling Method	ASPIRATED WATER				
Governing Type	MECHANICAL				
Governing Class	ISO 8528				
Compression Ratio	22.5:1				
Displacement	L (cu. in)	1.5 (91.3)			
Moment of Inertia:	kg m ² (lb/in ²)	2.17 (7415)			
Voltage	12				
Ground	Negative				
Battery Charger Amps	40				
Engine Weight Dry	kg (lb)	197(434)			
Engine Weight Wet	kg (lb)	202(445)			

Engine Performance Data

		50 Hz	60 Hz
Engine Speed	rpm	1500	1800
Gross Engine Power Prime	kW (hp)	12.2 (16)	14.7 (20)
Gross Engine Power Standby	kW (hp)	13.5 (18)	16.2 (22)
BMEP Prime	kPa (psi)	652(94.6)	655(95)
BMEP Standby	kPa (psi)	722 (104.7)	722 (104.7)

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Fuel System

Fuel Filter Type:	Replaceable Element			
Recommended Fuel:	Class A2 Diesel			
Fuel Consumption at	110 % Load	100 % Load	75 % Load	50 % Load
50 Hz Prime:	l/hr (US gal/hr)	1 (1.1)	3.6 (1)	2.7 (0.7)
50 Hz Standby	l/hr (US gal/hr)	-	4 (1.1)	3 (0.8)
60 Hz Prime	l/hr (US gal/hr)	4.8 (1.3)	4.3 (1.1)	3.2 (0.8)
60 Hz Standby	l/hr (US gal/hr)	-	4.8 (1.3)	3.5 (0.9)
				2.5 (0.7)

Air System

50 Hz

Replaceable Element

Combustion Air Flow Prime	m³/min (cfm)	1.1 (38)	1.2 (43)
Combustion Air Flow Standby	m³/min (cfm)	1.1 (38)	1.2 (43)
Max. Combustion Air Intake Restriction	kPa	6.4 (25.7)	6.4 (25.7)

60 Hz

Cooling System

50 Hz

60 Hz

Cooling System Capacity	l (US gal)	6 (1.6)	6 (1.6)
Water Pump Type:	Centrifugal		
Heat Rejected to Water & Lube Oil: Prime	kW (Btu/min)	11.6 (660)	13.6 (773)
Heat Rejected to Water & Lube Oil: Standby	kW (Btu/min)	12.9 (734)	15.2 (864)
Heat Radiation to Room*: Prime	kW (Btu/min)	5.4 (307)	6.9 (392)
Heat Radiation to Room*: Standby	kW (Btu/min)	5.9 (336)	7.1 (427)
Radiator Fan Load:	kW (hp)	0.2 (0.2)	0.31 (0.4)
Radiator Cooling Airflow:	m³/min (cfm)	28.8 (1017)	37.2 (1314)
External Restriction to Cooling Airflow:	Pa (in H2O)	125 (0.5)	125 (0.5)

*: 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:	6 (1.6)		
Oil Pan Capacity:	4.5 (1.2)		
Oil Type:	API CH4 15W-40		
Oil Cooling Method:	N/A		

Exhaust System

50 Hz

60 Hz

Maximum Allowable Back Pressure:	kPa (in l lg)	10.2 (3)	10.2 (3)
Exhaust Gas Flow: Prime	m³/min (cfm)	2.7 (95)	3.1 (111)
Exhaust Gas Flow: Standby	m³/min (cfm)	2.9 (102)	3.4 (119)
Exhaust Gas Temperature: Prime	°C (°F)	445 (833)	455 (851)
Exhaust Gas Temperature: Standby	°C (°F)	490 (914)	505 (941)

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Alternator Physical Data

No. of Bearings:	1
Insulation Class:	H
Winding Pitch:	2/3
Winding Code	6S/6P
Wires:	4
Ingress Protection Rating:	IP23
Excitation System:	SHUNT
AVR Model:	R120

* dependant on voltage code selected

Alternator Operating Data

Overspeed: rpm	2250
Voltage Regulation: (Steady state) %	+/- 0.5
Wave Form NEMA = TIF:	50
Wave Form IEC = TI IF: %	2
Total Harmonic content LL/LN: %	3.5
Radio Interference:	EN61000-6
Radiant Heat: 50 Hz kW (Btu/min)	2.4 (136)
Radiant Heat: 60 Hz kW (Btu/min)	2.8 (159)

Alternator Performance Data 50 Hz:

	415/240 V	400/230 V	380/220 V
Voltage Code			
Motor Starting Capability* kVA	19	18	16
Short Circuit Capacity** %	0	0	0
Reactances	X _d	1.914	2.077
	X' _d	0.197	0.214
	X'' _d	0.107	0.107
			0.118

Alternator Performance Data 60 Hz

	220/127 V
Motor Starting Capability* kVA	18
Short Circuit Capacity** %	0
Reactances	X _d
	X' _d
	X'' _d

Reactances shown are applicable to prime ratings.

*Based on 30% voltage dip at 0.6 power factor.

** With optional independant excitation system (PMG / AUX winding)

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Output Ratings 50 Hz

Voltage Code	kVA	Prime	kVA	Standby
415/240V	12.3	9.84	13.5	10.8
400/230V	12.4	9.92	13.5	10.8
380/220V	12.3	9.84	13.5	10.8
230/115V				
220/127V				
220/110V				
200/115V				
240V				
230V				
220V				

Output Ratings 60 Hz

Voltage Code	kVA	Prime	kVA	Standby
480/277V				
440/254V				
416/240V				
400/230V				
380/220V				
240/139V				
240/120V				
230/115V				
220/127V	15	12	16.4	13.1
220/110V				
208/120V				
240/120				
220/110				



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Dealer Contact Details

Documentation

Operation and maintenance manual including circuit wiring diagrams.

Generator Set Standards

Warranty

FG Wilson manufactures product in the following locations:
Northern Ireland • Brazil • China • India

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.