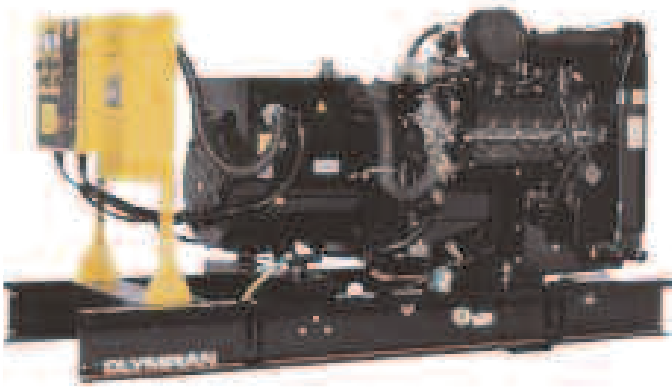


Exclusively from your Caterpillar® dealer



STANDBY 75 kVA
PRIME 65 kVA
50Hz

Output Ratings

Generating Set Model	G80F3					
	Prime*	LPG	Standby*	Prime*	Nat Gas	Standby*
380-415V, 50Hz	65.0 kVA 52.0 kW		75 kVA 60.0 kW	65.0 kVA 52.0 kW		75.0 kVA 60.0 kW

* Refer to ratings definitions on page 5. Ratings at 0.8 pf

Overview

Engine Make & Model	Ford WSG 1068
Alternator Model	LL2014J
Base Frame Type	Heavy Duty Fabricated Steel
Circuit Breaker Type / Rating	3 Pole MCCB
Frequency	50 Hz
Engine Speed	1500
Fuel Consumption m ³ /hr (cfh) LPG	7.3 (257)
Fuel Consumption m ³ /hr (cfh) NG	19.1 (671)

Weight kg (lbs)

Dimensions mm (in)

Wet (+ lube oil and coolant)	938 (2064)	Length	2400 (96.0)
		Width	918 (36.7)
		Height	1364 (54.6)

Engine Technical Data

Physical Data		Air System	50 Hz
Manufacturer:	Ford	Air filter Type:	Replaceable Element
Model:	WSG 1068	Combustion Air Flow LPG:	
No. of Cylinders/Alignment:	V10	m ³ /min (cfm)	
Cycle:	4 Stroke	- Standby:	3.5 (124)
Induction:	Natural	- Prime:	3.1 (111)
Cooling Method:	Water	Combustion Air Flow Natural Gas:	
Governing Type:	Electronic	m ³ /min (cfm)	
Class:	ISO 8528 G2	- Standby:	3.2 (115)
Compression Ratio:	9.0:1	- Prime:	2.9 (102)
Displacement: L (cu.in):	6.8 (415)	Max. Combustion Air Intake Restriction:	
Bore/Stroke: mm (in)	90.2 (3.55) / 105.8 (4.16)	kPa (in H ₂ O)	2.5 (10.1)
Engine Electrical System:		Radiator Cooling Airflow:	
-Voltage/Ground	12/Negative	m ³ /min (cfm)	196 (6916)
-Battery Charger Amps	110	External Restriction to Cooling Airflow:	
Weight: kg (lbs) - (incl. lube oil)	938 (2064)	Pa (in Wg)	125 (0.5)
Performance	50 Hz	Cooling System	50Hz
Engine Speed: rpm	1500	Cooling System Capacity:	
Gross Engine Power: kW (hp)		L (US Gal)	20 (5.3)
- Standby:	67.2 (90.1)	Water Pump Type:	Centrifugal
- Prime:	59.8 (80.2)	Heat Rejected to Water & Lube Oil: kW (Btu/min)	
BMEP: kPa (psi)		- Standby:	46.0 (2614)
- Standby:	791 (115)	- Prime:	41.0 (2327)
- Prime:	704 (102)	Heat Radiation to Room kW (Btu/min)	
		- Standby:	27.0 (1531)
		- Prime:	24.0 (1362)
		Radiator Fan Load: kW (hp)	
			1.22 (1.65)
Lubrication System			
Oil Filter Type:	Spin-On, Full Flow		
Total Oil Capacity L (US Gal)	5.7 (1.5)		
Oil Pan L (US Gal):	4.7 (1.2)		
Oil Type:	API CF-4		
Cooling Method	Water		

Exhaust System		50 Hz
Max. Allowable Back Pressure: kPa (in H ₂ O)		15.3 (61.6)
Exhaust Gas Flow:		
LPG: m ³ /min (cfm)	- Standby:	14.4 (507)
	- Prime:	12.8 (451)
Natural Gas: m ³ /min (cfm)	- Standby:	13.2 (467)
	- Prime:	11.7 (416)
Exhaust Gas Temperature: °C (°F)		
LPG: °C (°F)	- Standby:	625 (1157)
	- Prime:	610 (1130)
Natural Gas: °C (°F)	- Standby:	610 (1130)
	- Prime:	580 (1076)
Fuel System		
Fuel Filter Type: Replaceable Element		
Recommended Fuel: Natural Gas with lower calorific value of 34.71MJ/m ³ and minimum methane number of 70		
LPG		
Fuel Consumption LPG: m ³ /hr (cfh)		
	Prime	100% Load
	50 Hz	7.3 (257)
	Standby	
	50 Hz	8.4 (296)
Fuel Consumption Natural Gas: m ³ /hr (cfh)		
	Prime	100% Load
	50 Hz	19.1 (671)
	Standby	
	50 Hz	21.9 (770)

Alternator Performance Data

50 Hz				
Data Item	415/240	400/230 230/115 200/115	380/220 220/110	220/127
Motor Starting Capability* kVA	190	175	160	210
Short Circuit Capacity** %	300	300	300	300
Reactances: Per Unit				
Xd	2.51	2.73	3.02	2.26
X'd	0.09	0.10	0.11	0.08
X''d	0.044	0.047	0.053	0.039
<p>Reactances shown are applicable to prime ratings</p> <p>* Based on 30% voltage dip at 0.6 power factor</p> <p>** With optional AREP excitation</p>				

Alternator Technical Data

Physical Data		Operating Data	
Manufacturer:	Leroy Somer	Overspeed: RPM	2250
Model:	LL2014J	Voltage Regulation (steady state)	+/- 5%
No. of Bearings:	1	Wave Form NEMA =TIF	<50
Insulation Class:	H	Wave Form IEC=THF	<2%
Winding Pitch Code:	2/3 (No. 6)	Total Harmonic Content LL/LN	<4%
Wires:	12	Radio Interference	Suppression is in line with European Standard EN61000
Ingress Protection Rating:	IP23	Radiant Heat: kW (Btu/min)	7.3 (415)
Excitation System:	SHUNT		
AVR Model:	R230		

Technical Data

3 Phase Ratings and Performance at 50 Hz, 1500 RPM

Voltage	Model: G80F3 Prime		Model: G80F3 Standby	
	kVA	kW	kVA	kW
415/240	65.0	52.0	75.0	60.0
400/230	65.0	52.0	75.0	60.0
380/220	65.0	52.0	75.0	60.0
230/115	65.0	52.0	75.0	60.0
220/127	65.0	52.0	75.0	60.0
220/110	65.0	52.0	75.0	60.0
200/115	65.0	52.0	75.0	60.0

Definitions

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 ISO8528-3).

Standby 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.

Standard Reference Conditions

Ratings in accordance with ISO8528. All engine performance data based on the above mentioned maximum continuous ratings.

Fuel Consumption data assumes complete combustion of LPG fuel with a calorific value of 95MJ/m³ and of Natural gas with a calorific value of 34.4MJ/m³.

General Data

Documents

A full set of operation and maintenance manuals, circuit wiring diagrams, and commissioning/fault finding instruction leaflets.

Generating Set Standards

The equipment meets the following standards: BS5000, ISO 8528, ISO 3046, IEC 60034, VDE 0530.

Warranty

All equipment carries full manufacturer's warranty. Extended warranty terms available. For details on warranty cover please contact your local dealer.

Energy Power Systems Australia Pty Ltd
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