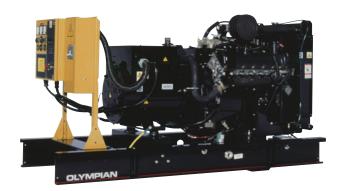
## Exclusively from your Caterpillar® dealer



# STANDBY 55-80 kW PRIME 50-68 kW

60 Hz

Model	Standby –	- kW (kVA)	Prime — kW (kVA)		
Wiodei	LP	Natural	LP	Natural	
G60F3	60 (75)	60 (75)	55 (68.8)	55 (68.8)	
G80F3	80 (100)	75 (93.8)	68 (85)	63.5 (79.4)	
G55F3S	55 (55)	55 (55)	50 (50)	50 (50)	
G75F3S	75 (75)	70 (70)	64 (64)	60 (60)	

## **FEATURES**

#### **GENERATOR SET**

- Complete system designed and built at ISO 9001 certified facilities
- Factory tested to design specifications at full load conditions

#### **ENGINE**

- · Governor, Isochronous Woodward electronic
- · Electrical system, 12 VDC
- · Cartridge type filters
- · Battery, rack, and cables
- Coolant and lube oil drains piped to edge of base

#### **GENERATOR**

- · Insulation system, class H
- Drip proof generator air intake (NEMA 2, IP23)
- Electrical design in accordance with BS5000 Part 99, IEC60034-1, EN61000-6, NEMA MG-1.33

#### **AUTOMATIC VOLTAGE REGULATOR**

- Voltage within ± 0.5% 3 Phase and ± 1.0% Single Phase at steady state from no load to full load
- · Provides fast recovery from transient load changes

#### **COOLING SYSTEM**

- Radiator and cooling fan complete with protective guards
- Standard ambient temperatures up to 125° F (52° C)

## **MOUNTING ARRANGEMENT**

- · Heavy-duty fabricated steel base with lifting points
- · Anti-vibration pads to ensure vibration isolation
- · Complete OSHA guarding
- Stub-up pipe ready for connection to silencer pipework
- · Flexible fuel lines to base with NPT connections

#### **CIRCUIT BREAKER**

- UL/CSA listed
- · 3-pole with solid neutral
- · NEMA 1 steel enclosure, vibration isolated
- · Electrical stub-up area directly below circuit breaker

## CONTROL SYSTEM

- 2001 Autostart control panel
- Vibration isolated NEMA 1 enclosure with lockable hinged door
- · AC and DC wiring looms

## **EQUIPMENT FINISH**

- · All electroplated hardware
- · Anticorrosive protection prior to painting
- High gloss polyurethane paint for durability and scuff resistance

## QUALITY STANDARDS

 BS4999, BS5000, BS5514, IEC60034, EN61000-6, NEMA MG1-33, NFPA 110 (with optional equipment)

#### **DOCUMENTATION**

- · Operation and maintenance manuals provided
- · Wiring diagrams included

#### **WARRANTY**

All equipment carries full manufacturer's warranty

LEHF1098-08 (02-05)

Materials and specifications are subject to change without notice.

## Exclusively from your Caterpillar® dealer

## **OPTIONAL EQUIPMENT\***

#### **ENCLOSURE**

- Weatherproof enclosure (includes internal silencer system)
- Sound attenuated enclosure (includes internal silencer system)
- · Panel viewing window
- · External emergency stop pushbutton

#### SILENCER SYSTEM — OPEN UNIT

- · Level 1 silencer
- · Level 2 silencer
- · Level 3 silencer
- Mounting kit
- · Through-wall installation kits

#### **ENGINE**

- · Battery heater
- · Lube oil drain pump
- · Lube oil sump heater

#### CIRCUIT BREAKER

- · Auxiliary voltfree contacts
- · Shunt trip (100+ amp breakers)

#### **GENERATOR**

- · Anti-condensation heater
- AREP excitation system (3-Phase only)
- · Permanent magnet generator
- Generator upgrade 1 size (3-Phase only)

#### **COOLING SYSTEM**

- · Coolant heater
- Low coolant temperature alarm
- · Low coolant level shutdown
- · Radiator transition flange

#### **MOUNTING ACCESSORIES**

· Seismic (Zone 4) vibration isolators

#### **CONTROL SYSTEM**

- Control Panel Removal, AC and DC wiring looms terminated in sockets
- · 4001 Autostart control panel
- · 4001E Autostart control panel

#### **FUEL SYSTEM**

- · LP gas (vapor)
- · LP gas (liquid)
- Natural gas/LP gas (vapor) automatic changeover
- Natural gas/LP gas (liquid) automatic changeover
- · Low gas pressure alarm

#### **REMOTE ANNUNCIATORS**

- 8- and 16-channel remote annunciator panel (supplied loose)
- Remote annunciator upgrade normal/run control switch
- Remote annunciator upgrade lockdown emergency stop button

#### **MISCELLANEOUS ACCESSORIES**

- Toolkit
- · Additional operator's manual pack
- · Special enclosure color
- UL listing / CSA certification
- · French Language labels

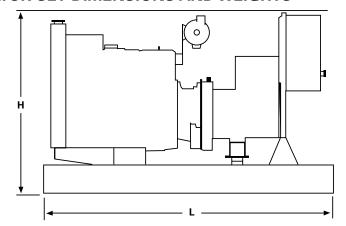
#### **EXTENDED SERVICE CONTRACTS**

· Extended Service Coverage available

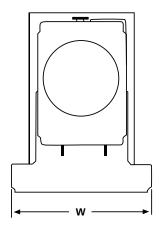
#### TESTING

 Factory witness test (restricted to 6 hours — full load, 1.0 pf)

## **GENERATOR SET DIMENSIONS AND WEIGHTS**



Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight lbs (kg)**
G60F3	102 (2600)	43.3 (1100)	57.1 (1449)	2187 (992)
G80F3	102 (2600)	43.3 (1100)	57.1 (1449)	2410 (1093)
G55F3S	102 (2600)	43.3 (1100)	57.1 (1449)	2410 (1093)
G75F3S	102 (2600)	43.3 (1100)	57.1 (1449)	2410 (1093)



**NOTE:** General configuration not to be used for installation. See specific dimensional drawings for detail.

<sup>\*</sup>Some options may not be available on all models. Not all options are listed.

<sup>\*\*</sup> Includes oil and coolant

## Exclusively from your Caterpillar® dealer

## **SPECIFICATIONS**



## **GENERATOR**

GENERATOR
Voltage Regulation ±0.5% 3 Phase and 1.0% Single Phase at steady state from no load to full load
Frequency±0.25% for constant load, no load to full load
Waveform Distortion
Radio Interference Compliance with EN61000-6 Telephone Influence Factor
per NEMA MG 1-32.11
Telephone Harmonic Factor
TypeBrushless, self excited, self-regulated,
drip proof, 4-pole, sealed bearings,
direct coupled by flexible disk Insulation Class H per NEMA MG1-1.66
Temperature Rise Within Class H limits
Overspeed Capability
Available Voltages 1-Phase — 120/240, 110/220
3-Phase — 277/480, 120/240,
120/208
Deration
Ratings At 77° F (25° C), 500 ft. (152.4 m),
60% humidity, 1.0 pf (1-Phase), 0.8 pf (3-Phase)



## **ENGINE**

Manufacturer	. Ford Motor Co.
Model	WSG1068
Type	4-Cycle
Aspiration	
Cylinder Configuration	

Displacement — cu in (L)       415 (6.8)         Bore — in (mm)       3.55 (90.2)         Stroke — in (mm)       4.16 (105.8)         Compression Ratio       9.0:1         Governor       Type       Electronic         Class       A1         Piston Speed — ft/sec (m/sec)       20.8 (6.3)         Air Cleaner Type       Dry, light duty
LP Gas         Engine Speed — rpm       1800         Max Power at Rated rpm — hp (kW)         Standby       121.7 (90.1)         Prime       106.6 (79.6)         BMEP — psi (kPa)         Standby       130 (897)         Prime       114 (786)
Natural Gas         Engine Speed — rpm       1800         Max Power at Rated rpm — hp (kW)       112.4 (83.9)         Standby       96.3 (71.9)         BMEP — psi (kPa)       120.2 (829)         Standby       120.2 (829)         Prime       103 (710)



## CONTROL PANEL

NEMA 1 steel enclosure with lockable hinged door Vibration isolated mounted Autostart control panel Single location customer connector point Electrical stub-up area directly below control panel

## **RATING DEFINITIONS**

**Standby** — 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 generator is peak rated (as defined in ISO8528-3).

**Prime** — 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 the generator set can supply 10 percent overload power for 1 hour in 12 hours.

Consult your Olympian representative for more information.

www.CAT-ElectricPower.com

© 2005 Caterpillar All rights reserved. Printed in U.S.A.

## **OLYMPIAN**<sup>™</sup>

## Exclusively from your Caterpillar® dealer

## **G80F3 (3-Phase)**

Materials and specifications are subject to change without notice.

Generator Set Technical Data — 1800 rpm/60 Hz		LP Gas		Natural Gas	
		Standby	Prime	Standby	Prime
Power Rating	kW (kVA)	80.0 (100.0)	68.0 (85.0)	75.0 (93.8)	63.5 (79.4)
Lubricating System Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CD 15W-40 Total Oil Capacity Oil Pan	U.S. gal (L) U.S. gal (L)	1.5 (5.7) 1.2 (4.7)	1.5 (5.7) 1.2 (4.7)	1.5 (5.7) 1.2 (4.7)	1.5 (5.7) 1.2 (4.7)
Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load	Cfh (m³/hr) Cfh (m³/hr) Cfh (m³/hr)	344 (9.75) 260 (7.37) 176 (4.99)	293 (8.32) 222 (6.29) 150 (4.26)	894 (25.3) 675 (19.4) 457 (12.9)	760 (21.5) 582 (16.5) 385 (10.9)
Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating	Amps	110	110	110	110
Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Water Temperature to Engine Temperature Rise Across Engine (Air) Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load	U.S. gal (L) Ft H <sub>2</sub> O (m H <sub>2</sub> O) U.S. gal/hr (L/min) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) Hp (kW)	5.3 (20) 32.4 (9.8) 2268 (143) 169 (76) 8.1 (4.5) 3389 (59.6) 1941 (34.2) 2.8 (2.1)	5.3 (20) 32.4 (9.8) 2268 (143) 169 (76) 8.1 (4.5) 2883 (50.7) 1651 (29.1) 2.8 (2.1)	5.3 (20) 32.4 (9.8) 2268 (143) 169 (76) 8.1 (4.5) 3182 (56.0) 1822 (32.1) 2.8 (2.1)	5.3 (20) 32.4 (9.8) 2268 (143) 169 (76) 8.1 (4.5) 2698 (47.5) 1545 (27.2) 2.8 (2.1)
Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air (zero restriction) Generator Cooling Air Allowable Air Flow Restriction (After radiator) Cooling Airflow (@ rated speed) Rate with restriction	Cfm (m³/min) In H₂O (kPa) Cfm (m³/min) Cfm (m³/min) In H₂O (kPa) Cfm (m3/min)	152 (4.3) 10.1 (2.5) 8433 (239) 932 (26.4) 0.5 (0.125) 5721 (162)	135 (3.8) 10.1 (2.5) 8433 (239) 932 (26.4) 0.5 (0.125) 5721 (162)	140 (3.9) 10.1 (2.5) 843 (239) 932 (26.4) 0.5 (0.125) 5721 (162)	119 (3.4) 10.1 (2.5) 843 (239) 932 (26.4) 0.5 (0.125) 5721 (162)
Exhaust System  Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust	In Hg (kPa) Cfm (m³/min) °F (°C)	4.5 (15.3) 618 (17.5) 1228 (664)	4.5 (15.3) 547 (15.5) 1191 (644)	4.5 (15.3) 569 (16.1) 1203 (650)	4.5 (15.3) 484 (13.7) 1154 (624)
Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m)	dB(A)	95	95	95	95

Generator Technical Data		277/480V	120/240V		120/208V	
Motor Starting Capability: (30% Voltage Dip)	(kVA) Self Excited PM Excited AREP Excited	206 271 271	160 211 211		160 211 211	
Full Load Efficiencies (LPG):	Standby Prime	92.3 92.4	91.5 91.9		91.5 91.9	
Reactances (per unit):  Reactances shown are applicable to the standby rating.	X <sub>d</sub> X' <sub>d</sub> X" <sub>d</sub> X <sub>q</sub> X" <sub>q</sub> X <sub>2</sub> X <sub>0</sub>	2.90 0.10 0.064 1.74 0.081 0.072 0.005	3.86 0.14 0.085 2.32 0.108 0.096 0.006		3.86 0.14 0.085 2.32 0.108 0.096 0.006	
Time Constants:		t' <sub>d</sub> 100 ms		<sup>t'</sup> do 55 ms	<sup>t</sup> a 15 ms	

<sup>\*</sup> dB(A) levels are for guidance only