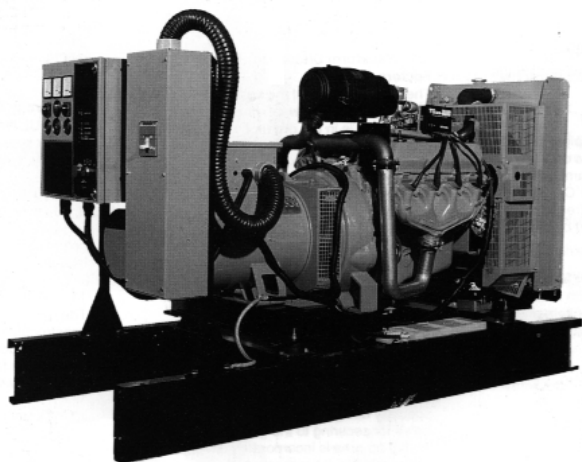


Exclusively from your Caterpillar® dealer



STANDBY 100 kW
PRIME 90 kW
60 Hz

Model	Standby — kW (kVA)		Prime — kW (kVA)	
	LP	Natural	LP	Natural
G100F1	N/A	100 (125)	N/A	90 (112.5)

FEATURES

GENERATOR SET

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

ENGINE

- Governor, 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 alternator air intake (NEMA 2, IP23)
- Electrical design in accordance with BS5000 Part 99, IEC34-1, VDE0530, UTE51100, NEMA MG-1.22

AUTOMATIC VOLTAGE REGULATOR

- Voltage within $\pm 0.5\%$ 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 110° F (43° 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
- DC and AC 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, IEC34, BS800, VDE 0530, NEMA MG1-22, UTE51100, NFPA 110 (with optional equipment)

DOCUMENTATION

- Operation and maintenance manuals provided
- Wiring diagrams included

WARRANTY

- 12 months from date of initial start-up or 18 months from shipping, whichever occurs first

Materials and specifications are subject to change without notice.

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OPTIONAL EQUIPMENT*

ENCLOSURE

- B Series weatherproof enclosure (includes internal silencer system)
- Panel viewing window
- External emergency stop pushbutton

SILENCER SYSTEM — OPEN UNIT

- Level 1 “residential”
- Level 2 “critical”
- Level 3 “super critical”
- Mounting kit
- Through-wall installation kits

ENGINE

- Battery heater
- Lube oil drain pump
- High lube oil temperature shutdown
- Lube oil sump heater

CIRCUIT BREAKER

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

GENERATOR

- Anti-condensation heater
- AREP excitation system
- Permanent magnet generator
- Generator upgrade 1 size

COOLING SYSTEM

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

MOUNTING ACCESSORIES

- Seismic (Zone 4) vibration isolators

CONTROL SYSTEM

- No control system
- 4001 Autostart control panel
- 4001E Autostart control panel
- Access 4000 digital control panel

FUEL SYSTEM

- G100 F1 (natural gas only)
- 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
- French language labels
- CSA certification

EXTENDED WARRANTY

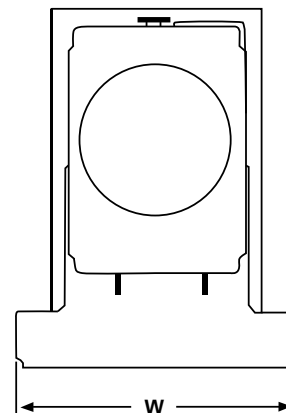
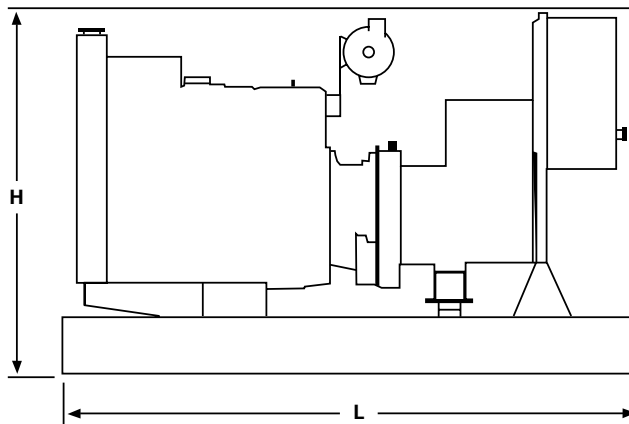
- 24 months
 - 36 months
 - 48 months
 - 60 months
- (See warranty policy for details of coverage)

TESTING

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

*Some options may not be available on all models. Not all options are listed.

GENERATOR SET DIMENSIONS AND WEIGHTS



Model	Length in (mm)	Width in (mm)	Height in (mm)	Weight lbs (kg)**
G100F1	94.5 (2400)	36.1 (918)	53.8 (1367)	2772 (1257)

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

**Includes oil and coolant

STANDBY 100 kW
PRIME 90 kW
60 Hz

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SPECIFICATIONS



GENERATOR

Voltage Regulation ±0.5% at steady state from no load to full load
 Frequency ±0.25% for constant load, no load to full load
 Waveform Distortion THD less than 1.8%, no load to full load
 Radio Interference Compliance with BS800 and VDE Class G&N
 Telephone Influence Factor..... TIF <50 per NEMA MG 1-22.43
 Telephone Harmonic Factor THF <2%
 Stator..... 2/3 pitch
 Type Brushless, self excited, self-regulated, drip proof, 4-pole, sealed bearings, direct coupled by flexible disk, 12 reconnectable leads
 Insulation Class H per NEMA MG1-1.65
 Temperature Rise Within Class H limits
 Overspeed Capability 125%
 Available Voltages..... 3-Phase — 277/480, 266/460, 120/240, 127/220, 120/208, 347/600
 Deration..... Please consult factory for available outputs
 Ratings At 86° F (30° C), 500 ft. (152.4 m), 60% humidity, 0.8 pf



ENGINE

Manufacturer Ford Motor Co.
 Model..... LSG875 Turbo
 Type 4-Cycle
 Aspiration Turbocharged
 Cylinder Configuration..... V-8
 Displacement — cu in (L) 460 (7.5)

Bore — in (mm) 4.36 (111)
 Stroke — in (mm) 3.85 (98)
 Compression Ratio 8.0:1
 Governor
 Type Electronic
 Class..... A1
 Piston Speed — ft/sec (m/sec) 19.3 (5.9)
 Air Cleaner Type Dry, replaceable paper element type with restriction indicator

LP Gas

Engine Speed — rpm N/A
 Max Power at Rated rpm — hp (kW)
 Standby..... N/A
 Prime N/A
 BMEP — psi (kPa)
 Standby..... N/A
 Prime N/A

Natural Gas

Engine Speed — rpm 1800
 Max Power at Rated rpm — hp (kW)
 Standby..... 173 (129)
 Prime 157 (117)
 BMEP — psi (kPa)
 Standby..... 166 (115)
 Prime 151 (104)



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) at 86° F.

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

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PRIME 90 kW
60 Hz

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G100F1 (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)	N/A	N/A	100 (125)	90 (112.5)
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)	N/A N/A	N/A N/A	2.3 (8.5) 2.0 (7.6)	2.3 (8.5) 2.0 (7.6)
Fuel System Generator Set Fuel Consumption 100% Load 75% Load 50% Load	cfh (m³/hr) cfh (m³/hr) cfh (m³/hr)	N/A N/A N/A	N/A N/A N/A	1580 (44.8) 1290 (36.5) 900 (25.5)	1460 (41.3) 1150 (32.5) 840 (23.7)
Engine Electrical System Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Alternator Ampere Rating	amps	N/A	N/A	37	37
Cooling System Water Pump Type: Centrifugal Radiator System Capacity Incl. Engine Maximum Coolant Static Head Coolant Flow Rate Minimum Temperature to Engine Temperature Rise Across Engine Heat Rejected to Coolant at Rated Power Total Heat Radiated to Room at Rated Power Radiator Fan Load	U.S. gal (L) ft H ₂ O (m H ₂ O) U.S. gal/hr (L/hr) °F (°C) °F (°C) Btu/min (kW) Btu/min (kW) hp (kW)	N/A N/A — N/A N/A N/A N/A N/A	N/A N/A — N/A N/A N/A N/A N/A	8.2 (31.1) 10 (3.1) 33.8 (128) 169 (76) 15 (8) 7400 (130) 3500 (61.5) 13.4 (10.0)	8.2 (31.1) 10 (3.1) 33.8 (128) 169 (76) 15 (8) 6730 (118) 3180 (55.9) 13.4 (10.0)
Air Requirements Combustion Air Flow Maximum Air Cleaner Restriction Radiator Cooling Air Alternator Cooling Air	cfm (m³/min) in H ₂ O (kPa) cfm (m³/min) cfm (m³/min)	N/A N/A N/A N/A	N/A N/A N/A N/A	315 (8.9) 15 (3.7) 12 708 (360) 985 (27.9)	286 (8.1) 15 (3.7) 12 708 (360) 985 (27.9)
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)	N/A N/A N/A	N/A N/A N/A	2.0 (6.8) 840 (23.8) 1171 (633)	2.0 (6.8) 765 (21.7) 1152 (622)
Generator Set Noise Rating* (Without Attenuation) at 3 ft (1 m)	dB(A)	N/A	N/A	100	—

Alternator Technical Data	347/600V	277/480V	266/460V	120/240V 120/208V	127/220V
Motor Starting Capability: (kVA) (30% Voltage Dip)					
Self Excited	190	190	175	140	167
PM Excited**	215	215	195	160	180
AREP Excited	TBA	TBA	TBA	TBA	TBA
Full Load Efficiencies:					
Standby	90.5	90.5	90.3	89.3	89.9
Prime	90.8	90.8	90.6	89.6	90.2
Reactances (per unit):					
X _d	3.94	3.94	4.28	5.23	4.68
Reactances shown are applicable to the standby rating.					
X' _d	0.155	0.155	0.166	0.199	0.177
X ^u _d	0.092	0.092	0.100	0.122	0.110
X _q	2.36	2.36	2.57	3.14	2.81
X ^u _q	0.114	0.114	2.124	0.152	0.135
X ₂	0.103	0.103	0.112	0.137	0.122
X ₀	0.006	0.006	0.006	0.006	0.006
Time Constants:	t' _d 0.100 sec	t" _d 0.010 sec	t' _{do} 2.576 sec	t _a 0.015 sec	

* dB(A) levels are for guidance only
 ** With PMG Excited Option AR12