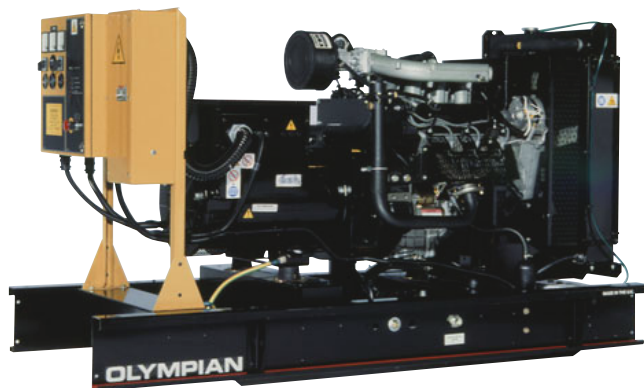


Exclusively from your Caterpillar® dealer



**STANDBY 30-50 kW**  
**PRIME 27-42.5 kW**  
**60 Hz**

Model	Standby — kW (kVA)		Prime — kW (kVA)	
	LP	Natural	LP	Natural
G30F3	30 (37.5)	30 (37.5)	27 (33.8)	27 (33.8)
G40F3	40 (50)	40 (50)	36 (45)	36 (45)
G50F3	50 (62.5)	45 (56.3)	42.5 (53.1)	37.5 (46.9)
G30F3S	30 (30)	30 (30)	27 (27)	27 (27)
G35F3S	35 (35)	35 (35)	31.5 (31.5)	31.5 (31.5)
G45F3S	45 (45)	42.5 (42.5)	40 (40)	36 (36)

## 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  $\pm 0.5\%$  3 Phase and  $\pm 1.0\%$  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 131° F (55° 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
- Weather protective enclosures are available
- 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, 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

**STANDBY 30 - 50 kW**  
**PRIME 27 - 42.5 kW**  
**60 Hz**

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**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)
- Generator upgrade 1 size (3-Phase only)
- Permanent magnet generator (except G30F3)

**COOLING SYSTEM**

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

**MOUNTING ACCESSORIES**

- Seismic (Zone 4) vibration isolators

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

**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

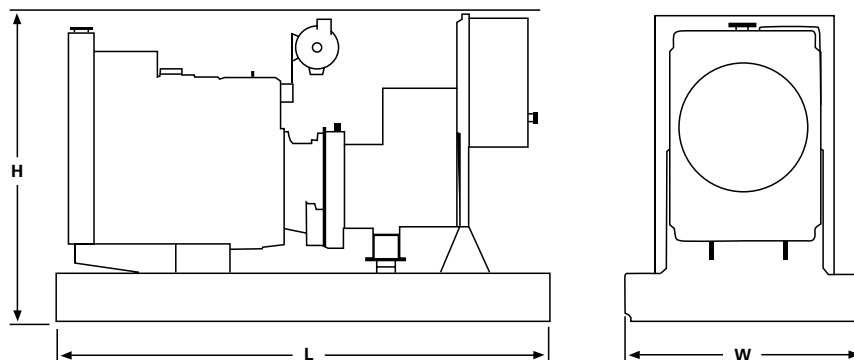
**EXTENDED SERVICE CONTRACTS**

- 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)**
<b>G30F3</b>	86.6 (2200)	39.4 (1000)	47.5 (1206)	1422 (645)
<b>G40F3</b>	86.6 (2200)	39.4 (1000)	47.5 (1206)	1543 (700)
<b>G50F3</b>	86.6 (2200)	39.4 (1000)	47.5 (1206)	1698 (770)
<b>G30F3S</b>	86.6 (2200)	39.4 (1000)	47.5 (1206)	1543 (700)
<b>G35F3S</b>	86.6 (2200)	39.4 (1000)	47.5 (1206)	1587 (720)
<b>G45F3S</b>	86.6 (2200)	39.4 (1000)	47.5 (1206)	1698 (770)

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

\*\* Includes oil and coolant

**STANDBY 30 - 50 kW**  
**PRIME 27 - 42.5 kW**  
**60 Hz**

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**SPECIFICATIONS**



**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 ..... THD less than 4%,  
 Radio Interference ..... Compliance with BS800 and  
 VDE Class G&N  
 Telephone Influence Factor ..... TIF <50  
 per NEMA MG 1-32.11  
 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 MG1-1.66  
 Temperature Rise ..... Within Class H limits  
 Overspeed Capability ..... 125%  
 Available Voltages ..... 1-Phase — 120/240,  
 110/220  
 3-Phase — 277/480, 120/240,  
 120/208,  
 Deration ..... Please consult factory  
 for available outputs  
 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 ..... ESG642  
 Type ..... 4-Cycle  
 Aspiration ..... Natural  
 Cylinder Configuration ..... V6

Displacement — cu in (L) ..... 256 (4.2)  
 Bore — in (mm) ..... 3.81 (96.8)  
 Stroke — in (mm) ..... 3.74 (95.0)  
 Compression Ratio ..... 9.3:1  
 Governor  
 Type ..... Electronic  
 Class ..... A1

Piston Speed — ft/sec (m/sec) ..... 18.7 (5.7)  
 Air Cleaner Type ..... Dry, light duty

**LP Gas**

Engine Speed — rpm ..... 1800  
 Max Power at Rated rpm — hp (kW)  
 Standby ..... 77.4 (57.8)  
 Prime ..... 66.2 (49.4)  
 BMEP — psi (kPa)  
 Standby ..... 133.2 (918)  
 Prime ..... 114 (786)

**Natural Gas**

Engine Speed — rpm ..... 1800  
 Max Power at Rated rpm — hp (kW)  
 Standby ..... 69.6 (51.9)  
 Prime ..... 59.4 (44.3)  
 BMEP — psi (kPa)  
 Standby ..... 119.8 (826)  
 Prime ..... 102.2 (705)



**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

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**STANDBY 45 / 42 . 5 kW**  
**PRIME 40 / 36 kW**  
**60 Hz**

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**G45F3S (1-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
<b>Power Rating</b>	kW (kVA)	45.0 (45.0)	40.0 (40.0)	42.5 (42.5)	36.0 (36.0)
<b>Lubricating System</b> Type: Full Pressure Oil Filter: Spin-On, Full Flow Oil Type Required: API CF-4 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)
<b>Fuel System</b> Generator Set Fuel Consumption 100% Load 75% Load 50% Load	Cfh (m <sup>3</sup> /hr) Cfh (m <sup>3</sup> /hr) Cfh (m <sup>3</sup> /hr)	243 (6.8) 183 (5.2) 124 (3.5)	216 (6.14) 161 (4.6) 106 (3.0)	635 (18.0) 481 (13.6) 327 (9.3)	541 (15.3) 404 (11.5) 271 (7.7)
<b>Engine Electrical System</b> Ignition System: Electronic, Distributorless Voltage/Ground: 12/Negative Battery Charging Generator Ampere Rating	Amps	95	95	95	95
<b>Cooling System</b> 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) 1236 (79.5) 169 (76) 9 (5) 1757 (30.9) 1382 (24.3) 1.88 (1.4)	5.3 (20) 32.4 (9.8) 1236 (79.5) 169 (76) 9 (5) 1564 (27.5) 1234 (21.7) 1.88 (1.4)	5.3 (20) 32.4 (9.8) 1236 (79.5) 169 (76) 9 (5) 1660 (29.2) 1308 (23) 1.88 (1.4)	5.3 (20) 32.4 (9.8) 1236 (79.5) 169 (76) 9 (5) 1416(24.9) 1115 (19.6) 1.88 (1.4)
<b>Air Requirements</b> 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 (m <sup>3</sup> /min) In H <sub>2</sub> O (kPa) Cfm (m <sup>3</sup> /min) Cfm (m <sup>3</sup> /min) In H <sub>2</sub> O (kPa) Cfm (m <sup>3</sup> /min)	81 (2.3) 10.1 (2.5) 6356 (180) 678 (19.2) 0.5 (0.125) 4238 (120)	71 (2) 10.1 (2.5) 6356 (180) 678 (19.2) 0.5 (0.125) 4238 (120)	74 (2.1) 10.1 (2.5) 6356 (180) 678 (19.2) 0.5 (0.125) 4238 (120)	64 (1.8) 10.1 (2.5) 6356 (180) 678 (19.2) 0.5 (0.125) 4238 (120)
<b>Exhaust System</b> Maximum Allowable Backpressure Exhaust Flow at Rated kW Exhaust Temperature at Rated kW — Dry Exhaust	In Hg (kPa) Cfm (m <sup>3</sup> /min) °F (°C)	4.5 (15.3) 212 (6) 1208 (653)	4.5 (15.3) 187 (5.3) 1165 (630)	4.5 (15.3) 198 (5.6) 1187 (642)	4.5 (15.3) 170 (4.8) 1132 (612)
<b>Generator Set Noise Rating*</b> (Without Attenuation) at 3 ft (1 m)	dB(A)	89	89	89	89

Generator Technical Data		120/240V	110/220V
<b>Motor Starting Capability:</b> (30% Voltage Dip)	(kVA) Self Excited PM Excited**	75 97	62 82
<b>Full Load Efficiencies (LPG):</b>	Standby Prime	86.1 86.8	84.5 85.4
<b>Reactances (per unit):</b>	X <sub>d</sub> X' <sub>d</sub> X'' <sub>d</sub> X <sub>q</sub> X'' <sub>q</sub>	2.53 0.16 0.080 1.51 0.100	2.98 0.19 0.094 1.79 0.118
<b>Time Constants:</b>	t' <sub>d</sub> 80 ms	t'' <sub>d</sub> 7 ms	t' <sub>do</sub> 1365 ms t <sub>a</sub> 12 ms

\* dB(A) levels are for guidance only