



## FEATURES

### FULL RANGE OF ATTACHMENTS

- Wide range of bolt-on system expansion attachments, factory designed and tested

### SINGLE-SOURCE SUPPLIER

- **Fully Prototype Tested** with certified torsional vibration analysis available

### WORLDWIDE PRODUCT SUPPORT

- Worldwide parts availability through the Caterpillar dealer network
- With over 1,200 dealer outlets operating in 166 countries, you're never far from the Caterpillar part you need.
- 99.5% of parts orders filled within 48 hours. The best product support record in the industry.
- Caterpillar dealer service technicians are trained to service every aspect of your electric power generation system.
- Preventive maintenance agreements
- The Cat Scheduled Oil Sampling (S•O•S<sup>SM</sup>) program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

# STANDBY 150 ekW CONTINUOUS 150 ekW

60 Hz

Caterpillar is leading the power generation marketplace with Power Solutions engineered to deliver unmatched flexibility, expandability, reliability, and cost-effectiveness.



### CAT® G3406 NA GAS ENGINE

- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Low pressure gas



### CAT SR4B GENERATOR

- Designed to match performance and output characteristics of Caterpillar engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Segregated AC/DC, low voltage accessory box provides single point access to accessory connections



### CAT CONTROL PANELS

- Two levels of controls, designed to meet individual customer needs:
  - EMCP II provides digital monitoring, metering, and protection
  - EMCP II+ provides EMCP II features along with full-featured power metering and protective relaying



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## FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
<b>Air Inlet</b>	Single element canister type air cleaner Service indicator	
<b>Cooling</b>	Radiator with guard Coolant drain lines with valves Fan and belt guards Caterpillar Coolant Low coolant level sensors	Jacket water coolant heater with shutoff valves Radiator removal
<b>Exhaust</b>	Stainless steel exhaust flex with weld outlet flange	15 dBA muffler
<b>Fuel</b>	Gas pressure regulator Low pressure fuel system Energize To Run (ETR) gas shutoff valve	
<b>Generator</b>	Self excited Class H insulation Class F temperature rise (105° C continuous/130° C standby) VR6 Voltage Regulator, 3-phase sensing, with reactive droop 2:1 Volts/Hz or 1:1 Volts/Hz Bus bar termination Extension box	Permanent magnet excited Digital Voltage Regulator Digital Voltage Regulator with KVAR/PF control Anti-condensation space heater Oversize & premium generators Circuit breakers, UL, 3 pole with shunt trip Multiple breaker capability
<b>Governor</b>	Flo-Tech actuator and speed control	Electronic load sharing
<b>Ignition</b>	Digital ignition system	
<b>Control Panels</b>	EMCP II	EMCP II+ Customer Communication Module Local alarm & remote annunciator modules
<b>Lube</b>	Lubricating oil and filter Oil drain line with valve Fumes disposal	Manual sump pump
<b>Mounting</b>	Narrow base Linear vibration isolators between base and engine-generator	
<b>Starting/Charging</b>	35 amp charging alternator 24 volt starting motor Batteries with rack and cables Battery disconnect switch	Battery chargers, 5 & 10 amp Oversize batteries
<b>General</b>		Automatic Transfer Switches (ATS) Floor standing circuit breakers

## SPECIFICATIONS



### CAT SR4B GENERATOR

Frame.....	447
Type .....	Self excited, static regulated, brushless
Construction.....	Single bearing, close coupled
Three phase .....	12 lead reconnectable
Insulation .....	Class H with tropicalization and antiabrasion
IP rating .....	Drip proof 22
Alignment.....	Pilot shaft
Overspeed capability	
Prototype tested.....	150%
Production tested.....	125%
Wave form.....	Less than 5% deviation
Paralleling capability.....	Standard
Voltage regulator .....	3-phasing sensing with Volts-per-Hertz
Voltage regulation .....	Less than $\pm 1/2\%$ (steady state)
	Less than $\pm 1\%$ (no load to full load)
Voltage gain .....	Automatic
Telephone Influence Factor (TIF).....	Less than 50
Harmonic Distortion (THD) .....	Less than 5%



### CAT ENGINE

G3406 NA, 4-stroke-cycle	
Bore - mm (in).....	137 (5.4)
Stroke - mm (in).....	164 (6.5)
Displacement - L (cu in).....	14.6 (891)
Compression ratio.....	10.3:1
Aspiration .....	Naturally aspirated
Ignition system .....	Digital ignition
Governor type .....	Woodward Flo-Tech



### CAT CONTROL PANEL

24 Volt DC Control	
NEMA 1, IP22 enclosure	
Electrically dead front	
Lockable hinged door	
Generator instruments meet ANSI C-39-1	
Terminal box mounted	
Single location customer connector point	

Consult your Caterpillar dealer for available voltages.

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## TECHNICAL DATA

Open Generator Set — 1800 rpm/60 Hz/480 Volts		Standby DM5437	Continuous DM5438			
<b>Package Performance</b> Power rating Power rating @ 0.8 PF	ekW kVA	150 188	150 188			
<b>Fuel Consumption</b> 100% load with fan 75% load with fan 50% load with fan	N·m³/hr N·m³/hr N·m³/hr	scf/hr scf/hr scf/hr	52 42 32	1954 1584 1213	51 42 32	1912 1575 1204
<b>Cooling System</b> Ambient air temperature* Air flow restriction (system) Air flow (maximum @ rated speed for standard radiator arrangement) Engine coolant capacity with radiator Jacket water outlet temperature	Deg C kPa	Deg F in water	40 0.12	105 0.5	40 0.12	105 0.5
	m³/min L	cfm Gal	393 53	13,887 14	393 53	13,887 14
	Deg C	Deg F	99	210	99	210
<b>Exhaust System</b> Combustion air inlet flow rate Exhaust gas stack temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	N·m³/min Deg C	scfm Deg F	8 639	310 1182	8 627	321 1161
	N·m³/min mm	cfm in	9 127	1080 5	9 127	1102 5
	kPa	in water	6.7	27	6.7	27
<b>Heat Rejection</b> Low Heat Value (LHV) fuel input Heat rejection to jacket water (includes oil cooler) Total heat rejection to exhaust (LHV to 25° C) Heat rejection to exhaust (LHV to 120° C) Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	kW	Btu/min	527	29,953	515	29,306
	kW	Btu/min	193	10,994	178	10,146
	kW	Btu/min	140	7965	144	8192
	kW	Btu/min	117	5932	117	5926
	kW	Btu/min	21	1198	21	1172
	kW	Btu/min	16	897	16	897
<b>Generator</b> Motor starting capability @ 30% voltage dip** Frame Temperature rise		kVA	649		649	
		Deg C	447 130		447 105	
<b>Emissions***</b> NOx CO HC (total) HC (non-methane) Exhaust O <sub>2</sub> (dry)		g/bhp-hr g/bhp-hr g/bhp-hr g/bhp-hr %	11.3 12.5 1.4 0.21 0.5		21.6 1.6 2.8 0.42 2.0	

\*Ambient capability at 200 m (660 ft) above sea level. For ambient capability at other altitudes, consult your Caterpillar dealer.

\*\*Assumes synchronous driver

\*\*\*Emissions data measurement is consistent with those described in EPA CFR 40 PART 89 SUBPART D and ISO 8178-1 for measuring HC, CO, CO<sub>2</sub> and NOx. Data shown is based on steady state engine operating conditions of 77° F, 28.43 inches HG and fuel having a LHV of 920 BTU per cubic foot at 30.00 inches HG absolute and 32° F. Not to exceed emission data shown is subject to instrumentation, measurement, facility and engine fuel system adjustments.

## RATING DEFINITIONS AND CONDITIONS

**Standby** — Output available with varying load for the duration of the interruption of the normal source power.

**Continuous** — Output available without varying load for an unlimited time.

**Ratings** are based on ISO3046/1 standard reference conditions of 25° C (77° F) and 100 kPa (29.61 in HG).

**Ratings** are based on pipeline natural gas having a LHV (low heat value) of 36.2 mJ/N·m<sup>3</sup> (920 Btu/cu ft). Variations in altitude, temperature, and gas composition from standard conditions or the use of a three way catalyst may require a reduction in engine horsepower.

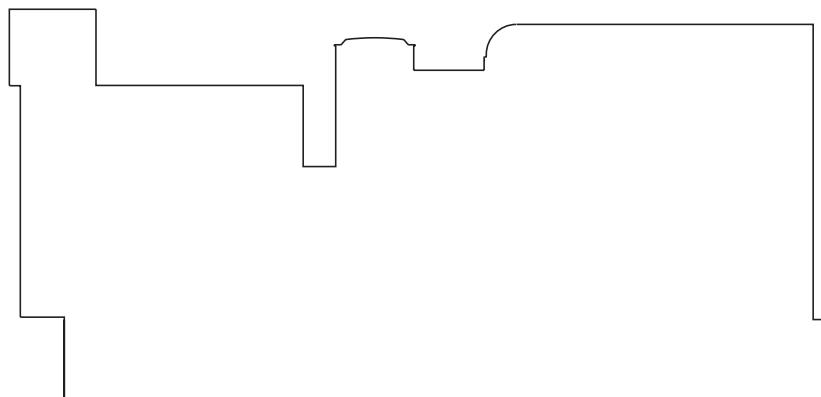
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### **STANDBY/CONTINUOUS POWER GENERATOR SET PACKAGE — TOP VIEW**



### **STANDBY/CONTINUOUS POWER GENERATOR SET PACKAGE — SIDE VIEW**



Package Dimensions		
<b>Length</b>	4074 mm	160.39 in
<b>Width</b>	1306.7 mm	51.45 in
<b>Height</b>	2131.9 mm	83.93 in
<b>Shipping Weight</b>	4091 kg	9000 lb

Note: Do not use for installation design.  
See general dimension drawings  
for detail (Drawing #207-4500).

[www.CAT-ElectricPower.com](http://www.CAT-ElectricPower.com)

TMI Reference No.: DM5437, DM5438

U.S. sourced

LEHE1429-01 (03-02)

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The International System of Units (SI) is used in this publication.