



Image shown may not reflect actual package.

## STANDBY

**400 ekW 500 kVA  
60 Hz 1800 rpm 480 Volts**

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

## FEATURES

### ENCLOSURES (optional)

- Weather protective and sound attenuated

### WORLDWIDE PRODUCT SUPPORT

- Caterpillar® dealers provide extensive post sale support including maintenance and repair agreements
- Caterpillar dealers fill 99.7% of parts orders within 24 hours
- Caterpillar dealers have over 1,798 dealer branch stores operating in 200 countries
- The Cat® S•O•S<sup>SM</sup> program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

### FULL RANGE OF ATTACHMENTS

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

### CAT® 3406C TA DIESEL ENGINE

- High efficiency, four-stroke-cycle engine designed for thousands of trouble-free hours of operation
- Field-proven in thousands of applications
- UL 2200 Listed packages are available. Certain restrictions may apply. Consult with your Caterpillar dealer

### CAT SR4B GENERATOR

- Matched to the performance and output characteristics of Caterpillar engines
- Optimum winding pitch for minimum total harmonic distortion and maximum efficiency
- Segregated low voltage, AC/DC accessory box provides single point access to accessory connections
- UL 1446 Recognized Class H insulation

### CATERPILLAR GENERATOR

- Designed to match performance and output characteristics of Caterpillar diesel engines
- Two-thirds pitch minimizes harmonic distortion and facilitates parallel operation
- UL 1446 Recognized Class H Insulation System
- Load adjustment module provides engine relief upon load impact and improves load acceptance and recovery time

### SINGLE SOURCE SUPPLIER

- Factory-designed systems built at Caterpillar ISO 9001:2000 certified facilities
- Fully prototype tested with certified torsional vibration analysis available

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## FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	<ul style="list-style-type: none"><li>• Service Indicator</li><li>• Regular-duty panel type air cleaner</li></ul>	<ul style="list-style-type: none"><li>• Dual element air cleaner</li><li>• Light-duty air cleaner</li><li>• Heavy-duty air cleaner &amp; muffler</li><li>• Precleaner</li></ul>
Cooling	<ul style="list-style-type: none"><li>• Coolant drain line with valve</li><li>• Fan and belt guards</li><li>• Radiator with guard and duct flange</li></ul>	<ul style="list-style-type: none"><li>• Low coolant level alarm or shutdown</li><li>• Heat exchanger and expansion tank</li><li>• Jacket water heater</li><li>• Oversize radiator</li><li>• Caterpillar Extended Life Coolant</li></ul>
Exhaust	<ul style="list-style-type: none"><li>• Dry exhaust manifold</li><li>• Flanged outlet</li></ul>	<ul style="list-style-type: none"><li>• Industrial muffler</li><li>• Residential muffler</li><li>• Critical muffler</li><li>• Muffler mounting kit</li><li>• Flexible fitting</li></ul>
Fuel	<ul style="list-style-type: none"><li>• Fuel priming pump</li></ul>	<ul style="list-style-type: none"><li>• Water separator</li><li>• Day tanks</li><li>• Flexible fuel lines</li><li>• Fuel pressure gauge</li></ul>
Generator	<ul style="list-style-type: none"><li>• Self excited</li><li>• Class H insulation</li><li>• Class F temperature rise (105°C prime/130°C standby)</li><li>• VR3F Voltage Regulator, 3-phase sensing, 2:1 Volts/Hz</li></ul>	<ul style="list-style-type: none"><li>• Permanent magnet excited</li><li>• Anti-condensation space heater</li><li>• Terminal strip connection</li><li>• Extension box</li><li>• Oversize generator</li><li>• Circuit breaker, UL Listed, 3 &amp; 4-pole with shunt trip</li><li>• Multiple breaker capability</li></ul>
Governor	<ul style="list-style-type: none"><li>• Hydra-mechanical</li></ul>	<ul style="list-style-type: none"><li>• Woodward 1724</li><li>• Woodward 2301A</li><li>• Woodward 2301A Load Sharing</li><li>• Load sharing module</li></ul>
Control Panels	<ul style="list-style-type: none"><li>• EMCP II</li></ul>	<ul style="list-style-type: none"><li>• EMCP II+</li><li>• Customer Communication Module</li><li>• Local alarm and remote annunciator modules</li></ul>
Lube	<ul style="list-style-type: none"><li>• Lubricating oil and filter</li><li>• Oil drain line with valves</li><li>• Fumes disposal</li></ul>	<ul style="list-style-type: none"><li>• Manual sump pump</li></ul>
Mounting	<ul style="list-style-type: none"><li>• Formed steel base</li><li>• Linear vibration isolators between base and engine-generator</li></ul>	<ul style="list-style-type: none"><li>• Sub base fuel tanks(single and dual walls)</li><li>• Heavy-duty skidable base</li><li>• Heavy-duty skidable base w/fuel tank</li><li>• Narrow base</li><li>• Lifting arch</li></ul>
Starting/Charging	<ul style="list-style-type: none"><li>• Energized to run (ETR) fuel shutoff solenoid</li><li>• 24 volt starting motor</li></ul>	<ul style="list-style-type: none"><li>• Ether starting aid</li><li>• 5 or 10 amp battery charger</li><li>• 35 amp charging alternator</li><li>• Energized to Shutoff (ETS) fuel shutoff solenoid</li><li>• Battery sets</li></ul>
General		<ul style="list-style-type: none"><li>• Automatic transfer switches (ATS)</li><li>• CSA Certification</li><li>• Enclosures - weather protective</li></ul>

## SPECIFICATIONS

### CAT GENERATOR

Frame Size.....LC6134D  
Excitation.....Permanent Magnet  
Pitch.....0.6667  
Number of poles.....4  
Number of bearings.....Single Bearing  
Insulation.....UL 1446 Recognized Class H with tropicalization and antiabrasion  
IP Rating.....Drip Proof IP22  
Alignment.....Pilot Shaft  
Overspeed capability - % of rated.....125  
Wave form.....002.00  
Paralleling kit/Droop transformer.....Optional  
Voltage regulator.....3 Phase sensing with volts/Hz  
Voltage regulation..Less than +/- 1/2% (steady state) Less than +/- 1% (no load to full load)  
Telephone Influence Factor.....Less than 50  
Harmonic distortion.....Less than 5%

### CAT DIESEL ENGINE

3406C TA, I-6, 4-Stroke-Cycle Watercooled Diesel  
Bore - mm.....137.20 mm (5.4 in)  
Stroke - mm.....165.10 mm (6.5 in)  
Displacement - L.....14.64 L (893.39 in<sup>3</sup>)  
Compression ratio.....14.6:1  
Aspiration.....TA  
Governor type.....Hydra-mechanical

### CAT CONTROL PANELS

- EMCP II
- 24 Volt DC Control
- NEMA 1, IP22 enclosure
- Electronically dead front
- Lockable hinged door
- Generator instruments meet ANSI C-39-1
- Single location customer connection point
- Panel illuminating lights
- Auto start/stop control
- Voltage adjust potentiometer
- True RMS AC metering
- Digital indications for:
  - RPM
  - Operating hours
  - Oil pressure
  - Coolant temperature
  - System DC volts
  - AC volts, phase amps, Hz
- Shutdowns with indicating lights for:
  - Low oil pressure
  - High coolant temperature
  - Overspeed
  - Emergency stop
  - Failure to start (overcrank)

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## TECHNICAL DATA

Open Generator Set - - 1800 rpm/60 Hz/480 Volts	DM2275	
<b>Package Performance</b> Genset Power rating with fan Genset Power rating @ 0.8 pf	400 ekW 500 kVA	
<b>Fuel Consumption</b> 100% load with fan 75% load with fan 50% load with fan	110.6 L/hr 79.3 L/hr 54.6 L/hr	29.2 Gal/hr 20.9 Gal/hr 14.4 Gal/hr
<b>Cooling System<sup>1</sup></b> Ambient air temperature Air flow restriction (system) Air flow (max @ rated speed for radiator arrangement) Engine coolant capacity Radiator coolant capacity Engine Coolant capacity with radiator/exp. tank	49 ° C 0.12 kPa 684 m <sup>3</sup> /min 20.8 L 3.7 L 24.5 L	120 ° F 0.48 in. water 24155 cfm 5.5 gal 1.0 gal 6.5 gal
<b>Exhaust System</b> Combustion air inlet flow rate Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	32.1 m <sup>3</sup> /min 572.8 ° C 96.4 m <sup>3</sup> /min 152.4 mm 6.7 kPa	1133.6 cfm 1063.0 ° F 3404.3 cfm 6.0 in 26.9 in. water
<b>Heat rejection</b> Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	251 kW 396 kW 99 kW 25.1 kW	14274 Btu/min 22520 Btu/min 5630 Btu/min 1427.4 Btu/min
<b>Alternator<sup>2</sup></b> Motor starting capability @ 30% voltage dip Frame Temperature Rise	1309 skVA LC6134D 105 ° C	221 ° F
<b>Lube System</b> Sump refill with filter	38.0 L	10.0 gal

<sup>1</sup> Ambient capability at 200 m (660 ft) above sea level. For ambient capability at other altitudes consult your Caterpillar dealer.

<sup>2</sup> Generator temperature rise is based on a 40° C (104° F) ambient per NEMA MG1-32.

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## RATING DEFINITIONS AND CONDITIONS

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**Meets or Exceeds International Specifications:** ABGSM TM3, AS1359, AS2789, BS4999, BS5000, BS5514, DIN6271, DIN6280, EGSA101P, IEC34/1, ISO3046/1, ISO8528, JEM1359, NEMA MG 1-22, VDE0530, 89/392/EEC, 89/336/EEC

**Standby** - Output available with varying load for the duration of the interruption of the normal source power. Standby power in accordance with ISO8528. Fuel stop power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514. Standby ambients shown indicate ambient temperature at 100 percent load which results in a coolant top tank temperature just below the shutdown temperature.

**Ratings** are based on SAE J1995 standard conditions. These ratings also apply at ISO3046/1, DIN6271, and BS5514 standard conditions.

**Fuel Rates** are based on fuel oil of 35° API (16° C or 60° F) gravity having an LHV of 42 780 kJ/kg (18,390 Btu/lb) when used at 29° C (85° F) and weighing 838.9 g/liter (7.001 lbs/U.S. gal.).

**Additional Ratings** may be available for specific customer requirements. Consult your Caterpillar representative for details.

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## DIMENSIONS

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### ENGINE PACKAGE ONLY

Package Dimensions		
Length	4182.0 mm	164.65 in
Width	1110.0 mm	43.7 in
Height	2100.1 mm	82.68 in
Weight	3180 kg	7,011 lb

Note: Do not use for installation design.  
See general dimension drawings for  
detail (Drawing #2433756).

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Performance No.: DM2275

Feature Code:: 406DEG4

Source:: U.S. Sourced

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