



Image shown may not reflect actual package.

PRIME

220 e kW 275 kVA
50 Hz 1500 rpm 415 Volts

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

FEATURES

COMPLETE, READY-TO-RUN SYSTEM

- Fully configured generator set
- Full range of attachments and options available

ENCLOSURES (optional)

- Weather protective and sound attenuated

SINGLE-SOURCE SUPPLIER

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

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 1,844 dealer branch stores operating in 166 countries
- The Cat® S•O•SSM program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

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

CAT CONTROL PANELS

- Four levels of controls to meet individual customer needs:
 - Electromechanical panel offers analog monitoring and metering with basic protection
 - EMCP II offers digital monitoring, metering, and protection
 - EMCP II+ offers EMCP II features plus full-featured power metering and protective relaying
 - Switchgear conversion with easy interface for remote switchgear
- UL 508A Listed

Caterpillar Generator

- Designed to match performance and output characteristics of Caterpillar diesel engines
- Two-thirds pitch minimizes harmonic distortion and facilitates parallel operation

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FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	<ul style="list-style-type: none"> • Single element canister type air cleaner • Service indicator 	<ul style="list-style-type: none"> • Dual element air cleaner • Heavy-duty air cleaner • Air inlet shutoff
Cooling	<ul style="list-style-type: none"> • Radiator with guard • Coolant drain line with valve • Fan and belt guards • Caterpillar Extended Life Coolant 	<ul style="list-style-type: none"> • Radiator duct flange • Jacket water heater with shutoff valves • Low coolant level alarm or shutdown • Heat exchanger and expansion tank
Exhaust	<ul style="list-style-type: none"> • Stainless steel exhaust flex and ANSI outlet flange • 10 dBA muffler 	<ul style="list-style-type: none"> • 25 dBA muffler • 35 dBA muffler • Elbow kit and through-wall installation kit • Manifold and turbocharger guards
Fuel	<ul style="list-style-type: none"> • Primary and secondary fuel filters • Fuel priming pump • Flexible fuel lines • Fuel pressure gauge 	<ul style="list-style-type: none"> • Water separator • Manual transfer pump • (3) Automatic transfer systems to choose from • Low fuel level alarm
Generator	<ul style="list-style-type: none"> • Self excited • Class H insulation • Class F temperature rise (105°C prime/130°C standby) • VR3 Voltage Regulator, 3-phase sensing • Circuit breaker, IEC compliant, 3-pole with shunt trip 	<ul style="list-style-type: none"> • Permanent magnet excited • 2:1 Volts/Hz AVR • Digital Voltage Regulator • Digital Voltage Regulator with KVAR/PF control • Anti-condensation space heater • Reactive droop • Oversize and premium generators (except 292 kW Prime/320 kW Standby) • Circuit breaker, IEC Compliant, 4-pole with shunt trip
Governor	<ul style="list-style-type: none"> • Hydra-mechanical 	<ul style="list-style-type: none"> • Woodward 1724 • Electronic isochronous • Electronic load sharing • Governor control motor
Control Panels	<ul style="list-style-type: none"> • EMCP II 	<ul style="list-style-type: none"> • Electromechanical auto start/stop panel • EMCP II+ • Switchgear conversion • Customer Communication Module • Local alarm and remote annunciator modules
Lube	<ul style="list-style-type: none"> • Lubricating oil and filter • Oil drain line with valves • Fumes disposal 	<ul style="list-style-type: none"> • Manual sump pump
Mounting	<ul style="list-style-type: none"> • Formed steel base with integral fuel tank, 8 hour capacity minimum • Linear vibration isolators between base and engine-generator 	<ul style="list-style-type: none"> • Wide base with integral fuel tank • Extended capacity fuel tank base • Skid base
Starting/Charging	<ul style="list-style-type: none"> • 45 amp charging alternator • Energized to Run (ETR) fuel shutoff solenoid • 24 volt starting motor • Batteries with rack and cables 	<ul style="list-style-type: none"> • 5 amp battery charger • Oversize batteries • Ether starting aid • Battery disconnect switch
General		<ul style="list-style-type: none"> • Enclosures - sound attenuated, weather protective • Automatic transfer switches (ATS) • EU Certificate of Conformance (CE)

SPECIFICATIONS

CAT SR4B GENERATOR

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.....	150
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 T, 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 ³)
Compression ratio.....	16.5:1
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
- Terminal box mounted
- Single location customer connection point
- EU compliant - segregated AC/DC connections
- 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 - - 1500 rpm/50 Hz/415 Volts	DM7524	
Package Performance Genset Power rating @ 0.8 pf Genset Power rating with fan	275 kVA 220 ekW	
Fuel Consumption 100% load with fan 75% load with fan 50% load with fan	64.2 L/hr 49.9 L/hr 36.0 L/hr	17.0 Gal/hr 13.2 Gal/hr 9.5 Gal/hr
Cooling System 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	59 ° C 0.12 kPa 522 m ³ /min 20.8 L 40.0 L 60.8 L	138 ° F 0.48 in. water 18434 cfm 5.5 gal 10.6 gal 16.1 gal
Exhaust System Combustion air inlet flow rate Exhaust stack gas temperature Exhaust gas flow rate Exhaust flange size (internal diameter) Exhaust system backpressure (maximum allowable)	16.5 m ³ /min 564.7 ° C 48.5 m ³ /min 152.4 mm 6.7 kPa	582.7 cfm 1048.5 ° F 1712.8 cfm 6.0 in 26.9 in. water
Heat rejection Heat rejection to coolant (total) Heat rejection to exhaust (total) Heat rejection to atmosphere from engine Heat rejection to atmosphere from generator	0 kW 0 kW 0 kW 14.3 kW	0 Btu/min 0 Btu/min 0 Btu/min 813.2 Btu/min
Alternator Motor starting capability @ 30% voltage dip Frame Temperature Rise	623 skVA LC5014J 125 ° C	257 ° F
Lube System Sump refill with filter	38.0 L	10.0 gal

Ambient capability at 200 m (660 ft) above sea level. For ambient capability at other altitudes consult your Caterpillar dealer.
Generator temperature rise is based on a 40° C (104° F) ambient per NEMA MG1-32.

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RATING DEFINITIONS AND CONDITIONS

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

Prime - Output available with varying load for an unlimited time. Prime power in accordance with ISO8528. 10% overload power in accordance with ISO3046/1, AS2789, DIN6271, and BS5514 available on request. Prime power ambients shown indicate ambient at 100 percent load which results in a coolant top tank temperature just below the alarm 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

Package Dimensions		
Length	4182.0 mm	164.65 in
Width	1107.4 mm	43.6 in
Height	2150.3 mm	84.66 in
Weight	3120 kg	6,878 lb

Note: Do not use for installation design.
See general dimension drawings for
detail (Drawing #2433754).

Performance No.: DM7524

Feature Code:: 406DEE9

Source:: European Sourced

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Materials and specifications are subject to change without notice.
The International System of Units (SI) is used in this publication.