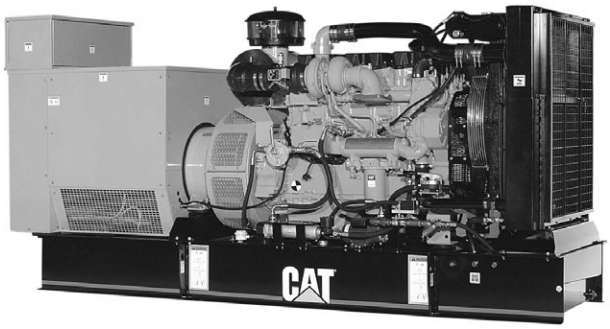

Image shown may not reflect actual package.

STANDBY
400 ekW 500 kVA
50 Hz 1500 rpm 400 Volts

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

FEATURES

FUEL/EMISSIONS STRATEGY
- Low emissions

UL 2200
- UL 2200 Listed configuration available

ENCLOSURES (optional)
- Weather protective and sound attenuated

SINGLE-SOURCE SUPPLIER
- 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 1844 dealer branch stores operating in 166 countries
- The Cat Scheduled Oil Sampling (S•O•S℠) program cost effectively detects internal engine component condition, even the presence of unwanted fluids and combustion by-products

CAT® 3456 ATAAC DIESEL ENGINE
- Reliable, rugged, durable design
- Field-proven in thousands of applications worldwide
- Four-stroke-cycle diesel engine combines consistent performance and excellent fuel economy with minimum weight

CAT® SR4B GENERATOR
- Designed to match performance and output characteristics of Caterpillar diesel 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 system

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

FACTORY INSTALLED STANDARD & OPTIONAL EQUIPMENT

System	Standard	Optional
Air Inlet	• Modular air cleaner, single element • Service indicator	• Dual element air cleaner • Heavy-duty air cleaner • Heavy-duty air cleaner with muffler and dust ejector
Cooling	• Radiator with guard sized for 50° C • Coolant level sight gauge • Coolant drain line with valve • Fan and belt guards • Low coolant level alarm or shutdown • Caterpillar Extended Life Coolant	• Jacket water heater with shutoff valves • Block heater
Exhaust	• Stainless steel exhaust flex and ANSI weld flange • Turbo outlet elbow	• 20 dBA muffler • 30 dBA muffler • 15 dBA engine mounted muffler with HD air cleaner • Engine mounted muffler with HD air cleaner • Elbow mounting and through-wall installation kits • Manifold and turbocharger guards
Fuel	• Primary and secondary fuel filters • Water separator • Fuel priming pump • Fuel pressure gauge • Flexible fuel lines • Fuel cooler	• Manual transfer pump • Choice of three automatic transfer systems
Generator	• Self excited • Random wound • Class H insulation • AVR with adjustable 1:1 or 2:1 Volts/Hz • Bus bar termination • Extension box • Segregated low voltage wiring panel	• Permanent magnet • Digital Voltage Regulator • Digital Voltage Regulator with KVAR/PF control • Anti-condensation space heater • Oversize and premium generators (except 364 ekW Prime/400 ekW Standby) • Circuit breaker, IEC compiant, 3-pole and 4-pole with shunt trip (80% and 100% rated) • UL Listed multiple circuit breakers
Governor	• Electronic (ADEM II)	• Electronic load sharing
Control Panels	• EMCP II	• EMCP II+ • Local alarm and remote annunciator modules • Protective devices • Instrument package
Lube	• Lubricating oil and filter • Oil drain line with valves • Fumes disposal • Lube oil level indicator	• Manual sump pump
Mounting	• Formed steel narrow base • Linear vibration isolators between base and engine generator	• Wide base • Skid base • UL Listed integral and sub base fuel tanks
Starting/Charging	• 45 amp charging alternator • 24 volt starting motor • Batteries with rack and cables • Safety shutoff protection (ADEM II control)	• Integral 5 and 10 amp battery chargers • Oversize batteries • Ether starting aid • Battery disconnect switch • 10 amp dual rate battery charger
Other		• Enclosures - sound attenuated, weather protective • Automatic transfer switches • Floor standing and package mounted circuit breakers

SPECIFICATIONS

CAT SR4B GENERATOR

Frame size 499
Excitation . . . . . .Self Excited
Pitch 0.6667
Number of poles 4
Number of bearings . . . . . .Single Bearing
Number of leads 12
Insulation .UL 1446 Recognized Class H with tropicalization and antiabrasion
IP rating . . . . . .Drip Proof IP22
Alignment . . . . . .Pilot Shaft
Overspeed capability . . . . . .125% of rated
Wave form . . . . . .Less than 5% deviation
Paralleling kit droop transformer . . . . . .Standard
Voltage regulator . . . . .3 Phase sensing with selectible 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 ENGINE

3456 ATAAC, 4-stroke-cycle watercooled diesel
Bore - mm 139.70
Stroke - mm 171.50
Displacement - L 15.83
Compression ratio 16.1
Aspiration . . . . . .Air-to-Air Aftercooled
Fuel system . . . . . .Direct unit injection
Governor type . . . . . .Caterpillar ADEM control system

CAT CONTROL PANEL

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

Consult your Caterpillar dealer for available voltages.

TECHNICAL DATA

Open Generator Set - — 1500 rpm/50 Hz/400 Volts	STANDBY DM6335	
Low Emissions		
Package Performance		
Power rating @ 0.8 pf	500 kVA	
Power rating	400 ekW	
Fuel Consumption		
100% load with fan	112.9 L/hr	29.8 Gal/hr
75% load with fan	81.0 L/hr	21.4 Gal/hr
50% load with fan	54.7 L/hr	14.5 Gal/hr
Cooling System*		
Ambient air temperature	50 Deg C	122 Deg F
Air flow restriction (system)	.12 kPa	0.48 in. water
Air flow (max @ rated speed for radiator arrangement)	469 m^3/min	16,563 cfm
Engine coolant capacity with radiator	72.8 L	19.2 Gal
Exhaust System		
Combustion air inlet flow rate	34.5 m^3/min	1,218.4 cfm
Exhaust stack gas temperature	518.8 Deg C	966 Deg F
Exhaust gas flow rate	96.5 m^3/min	3,407.9 cfm
Exhaust flange size (internal diameter)	152.4 mm	6.0 in
Exhaust system backpressure (maximum allowable)	6.7 kPa	26.9 in. water
Heat Rejection		
Heat rejection to coolant (total)	160 kW	9,099 Btu/min
Heat rejection to exhaust (total)	427 kW	24,283 Btu/min
Heat rejection to atmosphere from engine	63 kW	3,583 Btu/min
Heat rejection to atmosphere from generator	32.74 kW	1,861.92 Btu/min
Alternator**		
Motor starting capability @ 30% voltage dip	667 skVA	
Frame	499	
Temperature Rise	130 Deg C	
Lube System		
Lube oil refill volume with filter change for standard sump	38.0 L	10.0 Gal
Emissions (Nominal)***		
NOx mg/nm3	1533.7 mg/nm3	
CO mg/nm3	215.7 mg/nm3	
HC mg/nm3	8.2 mg/nm3	
PM mg/nm3	19.5 mg/nm3	

*Ambient capability at 200 m (660 ft) above sea level. For ambient capability at other altitudes, consult your Caterpillar dealer. Air flow restriction (system) is added to existing restriction from factory.

**Generator temperature rise is based on a 40 degree C ambient per NEMA MG1-32.

***Emissions data measurements are consistent with those described in EPA CFR 40 Part 89, Subpart D & E and ISO8178-1 for measuring HC, CO, PM, NOx. This engine's exhaust emissions are in compliance with the US EPA and California nonroad regulations as identified above. Data shown is based on steady state operating conditions of 77° F, 28.42 in HG and number 2 diesel fuel with 35° API and LHV of 18,390 btu/lb. The nominal emissions data shown is subject to instrumentation, measurement, facility and engine to engine variations.

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

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 shut-down temperature.

Ratings are based on SAE J1349 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 (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.

Package Dimensions		
Length	4189.0 mm	164.92 in
Width	1239.7 mm	48.81 in
Height	1948.7 mm	76.72 in
Weight	4741 kg	10,452 lb

Note: Do not use for installation design.
See general dimension drawings
for detail (Drawing #2018620).

TMI Reference No.: DM6335

PL Reference No.: 456DE49

U.S. Sourced

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